The University of Texas at Austin

WHAT STARTS HERE CHANGES THE WORLD

The University of Texas at Austin

General Information 2026-2027

The University of Texas at Austin
Office of the Registrar

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General Information, 2026-2027

Introduction

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

Sam Houston

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

Mirabeau B. Lamar

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

Lyndon B. Johnson

Mission of the University

The mission of The University of Texas at Austin *is to achieve excellence in the interrelated areas of undergraduate education, graduate education, research, and public service. The university provides superior and comprehensive educational opportunities at the baccalaureate through doctoral and special professional educational levels.*

The university contributes to the advancement of society through research, creative activity, scholarly inquiry, and the development and dissemination of new knowledge, including the commercialization of University discoveries. The university preserves and promotes the arts, benefits the state's economy, serves the citizens through public programs, and provides other public service.

Officers of Administration

The University of Texas at Austin

James Davis, President
William Inboden, Executive Vice President and Provost
Nancy Brazzil, Deputy to the President
Kathleen Brock, Vice President and Chief Operating Officer
Cole Camplese, Vice President for Technology and Chief Information Officer
Amanda Cochran-McCall, Vice President for Legal Affairs and General Counsel
Christopher Del Conte, Vice President and Athletics Director
Jeffery Graves, Chief Compliance Officer
Sandy Jansen, Chief Audit Executive
Fernanda Leite, Vice President for Research
David Livingston, Vice President for Development
Claudia Lucchinetti, Senior Vice President for Medical Affairs and Dean of the Dell Medical School
Andrea Sheridan, Deputy to the President for Governmental Affairs and Initiatives
Brian Smith, Senior Vice President and Chief Financial Officer
Miguel Wasielewski, Vice President for Student Experience
Patrick Wiseman, Vice President for Communications and Brand Strategy

Administrative Officers of the Colleges and Schools

Michael Drew, Senior Vice Provost, Academic Affairs
Roger Bonnecaze, Dean, Cockrell School of Engineering
Robert Chesney, Dean, School of Law
Allan Cole, Jr., Dean, School of Social Work
J. Paul Pope, Interim Dean, Lyndon B. Johnson School of Public Affairs
Justin Dyer, Dean, School of Civic Leadership
Kavita Radhakrishnan, Dean, School of Nursing
Claudia Lucchinetti, Senior Vice President for Medical Affairs and Dean of the Dell Medical School
Daniel Hamlin, Dean, College of Education
Bradley Staats, Dean, Red McCombs School of Business
Danny Stockli, Dean, John A. and Katherine G. Jackson School of Geosciences
Samuel Poloyac, Dean, College of Pharmacy
Ramón Rivera-Servera, Dean, College of Fine Arts
David Sosa, Interim Dean, College of Liberal Arts
David Vanden Bout, Dean, College of Natural Sciences
Anita Vangelisti, Interim Dean, Moody College of Communication
Heather Woofter, Dean, School of Architecture

The University of Texas System

John Zerwas, Chancellor
Archie Holmes Jr., Executive Vice Chancellor for Academic Affairs
David Lakey, Vice Chancellor for Health Affairs and Chief Medical Officer
Jonathan Pruitt, Executive Vice Chancellor and Chief Operating Officer (effective until August 31, 2026)
Julia Jeffrey Rathgeber, Deputy Chancellor and Senior Policy Advisor
Daniel Sharphorn, Vice Chancellor and General Counsel
Randa Safady, Vice Chancellor for External Affairs, Communications and Advancement Services
Melissa Villarreal Garcia, Deputy Vice Chancellor and Chief of Staff

Board of Regents

Officers

Kevin P. Eltife, *Chairman*
Janiece M. Longoria, *Vice Chairman*
James C. "Rad" Weaver, *Vice Chairman*
Stacey Napier, *General Counsel to the Board of Regents*

Members

Terms scheduled to expire February 1, 2027

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

Terms scheduled to expire February 1, 2029

Janiece M. Longoria, Houston
James C. "Rad" Weaver, San Antonio
Robert P. Gauntt, Austin

Terms scheduled to expire February 1, 2031

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

Student Regent with term to expire May 31, 2027

Jeremiah S. Clarke, San Antonio

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

Academic Calendar

Overview

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

Set by the University's Faculty Council according to the Principles for the Development of the Academic Calendar, the academic calendar is typically divided into the fall, spring, and summer semesters.

The academic calendar is based on a semester model that contains terms within each semester:

- Fall Semester has two designated terms:
  - Fall Term (formerly known as the "Fall Long Semester") is the primary term for Fall Semester classes
  - Winter Term is an optional period to offer education abroad courses, internships, etc.
- Spring Semester has two designated terms:
  - Spring Term (formerly known as "Spring Long Semester") is the primary term for Spring Semester classes
  - May Term is an optional four-week period for education abroad courses, internships, etc.
- Summer Semester has four designated terms:
  - First Term
  - Second Term
  - Nine-Week Term
  - Summer Term

All classes associated with a semester will start and end within that semester. Tuition calculations, financial aid, and registration processes are based on classes taken during the assigned semester.

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

2026-2027 Academic Dates and Deadlines

Fall semester

August 18, 2026 - January 9, 2027, includes Fall and Winter Terms

Fall Term 2026

August 24 - December 14, 2026

Date	Event
July 28	Tuition bills for the fall semester distributed to students electronically
August 13	Tuition payment deadline is 5:00 p.m. for undergraduate students who registered for the fall semester on or before August 7
August 14	Orientation for new international students
August 19	Fall registration for new undergraduate and all graduate students who have not yet registered (check your registration information sheet for access times)
August 20 - 27	Fall registration for all students
August 21	Last day a graduate student may register in absentia
August 21	University residence halls open
August 24	First day of classes
August 24 - 27	Fall registration for graduate and law students
August 24 - 31	Fall registration for all students (will require either department and/or dean's approval)
August 27	4th class day
	Last day for graduate and law students to add a class
	Tuition payment deadline is 5:00 p.m. CST for graduate and law students
August 31	6th class day
	Last day for undergraduate students to add a class
September 7	Labor Day holiday; no classes held
September 9	12th class day
	Last day to drop a class without permission
	Tuition payment deadline is 5:00 p.m. CST for anyone who registered after July 18
	Payment for added classes ("Add Bill") due 11:59 p.m. Any owed balance after this will be automatically placed on an installment plan.
	Official Pell Recalculation Date (PRD). Any courses added after this date are not included to determine Pell Grant eligibility.
October 16	Payment for remaining tuition balances due by 11:59 p.m. CST
October 27	Last day to apply for an undergraduate degree
November 2 - 13	Spring 2027 registration
November 13	Last day to apply for a graduate degree
November 17	Spring 2027 tuition bills distributed to students
November 18	Last day an undergraduate may: Q-drop a class; withdraw; change a class to pass/fail
November 20	Last day a doctoral candidate may hold a dissertation defense for the Fall 2026 semester
November 23	Last day a graduate student may change registration in a class to or from the credit/no credit basis
November 23 - 28	Fall break/Thanksgiving; no classes held

December 4	Last day to submit master's report, recital, thesis, doctoral dissertation, or treatise to the vice provost for graduate and postdoctoral studies
December 7	Last class day
	Last day an undergraduate may, with the required approvals, request a non-academic Q-drop
	Last day an undergraduate may register in absentia
	Last day a graduate student may, with the required approvals, drop a class or withdraw from the university
December 8 - 9	Study days
December 10 - 12 & 14	Final exams
December 14 - 18	Spring 2027 registration period for continuing and readmitted students
December 15	University residence halls close
December 19	Official graduation date (No public exercises)

Winter Term 2026

Date	Event
December 15, 2026 - January 9, 2027	Winter Term (optional; may be used for courses such as study abroad, etc.)

Spring semester

January 11 - June 2, 2027, and includes Spring and May Terms

Spring Term 2027

January 11 - May 3, 2027

Date	Event
January 5	Tuition payment deadline is 5:00 p.m. for undergraduate students
	Orientation for new international students
January 7	Spring 2027 registration for new undergraduate and all graduate students who have not yet registered (check your registration information sheet for access times)
January 7 - 10	Spring 2027 registration for all students
January 8	University residence halls open
January 11	First day of classes
January 11 - 14	Spring 2027 registration for graduate and law students
January 11 - 19	Spring 2027 registration for undergraduate students
January 14	4th class day
	Last day for graduate and law students to add a class
	Tuition payment deadline is 5:00 p.m. CST for graduate and law students
January 18	Martin Luther King, Jr. Day; no classes held
January 19	6th class day
	Last day for undergraduate students to add a class
January 27	12th class day
	Last day to drop a class without permission
	Tuition payment deadline is 5:00 p.m. CST for undergraduate, graduate, and law students
	Payment for added classes ("Add Bill") due 11:59 p.m. Any owed balance after this will be automatically placed on an installment plan.
March 15 - 20	Spring Break
March 16	Payment for remaining tuition balances due by 11:59 p.m. CST
March 24	Last day to apply for an undergraduate degree
April 5 - 16	Summer 2027 and Fall 2027 registration for continuing and readmitted students
April 9	Last day to apply for a graduate degree
	Last day a doctoral candidate may hold a dissertation defense for the Spring 2027 semester
April 12	Last day a graduate student may change registration in a class to or from the credit/no credit basis
April 14	Last day an undergraduate may: Q-drop a class; withdraw; change a class to pass/fail
April 23	Last day to submit a master's report, recital, thesis, doctoral dissertation, or treatise to the vice provost for graduate and postdoctoral studies
April 26	Last class day
	Last day a graduate student may, with the required approvals, drop a class or withdraw from the university
	Last day an undergraduate may, with the required approvals, request a non-academic Q-drop
	Last day an undergraduate may register in absentia
April 27 & 28	Study days
April 29 - 30, May 1 & 3	Final exams
May 4	Summer 2027 tuition bills distributed to students
	University residence halls close
May 8	University commencement (official graduation date)

May Term 2027

Date	Event
May 4 - June 2	May Term (optional; may be used for courses such as study abroad, etc.)
May 31	Memorial Day; no classes held

Summer Semester

June 3 - August 16, 2027, includes First Term, Second Term, Nine-week Term, and Summer Term

Date	Event
May 19	Tuition payment deadline is 5:00 p.m. CST for undergraduate students
June 3	First day of classes for First Term, Nine-week Term, and Summer Term
June 8	Last day to drop a class without permission for First Term, Nine-week Term, and Summer Term
	2nd payment deadline is 5:00 p.m. CST for undergraduate students
	Payment deadline is 5:00 p.m. CST for graduate and law students
	Payment for added classes ("Add Bill") due for First Term, Nine-week Term, and Summer Term
June 19	Juneteenth holiday; no classes held
June 23	Last day to change a class to pass/fail for First Term, Nine-week Term, and Summer Term
July 8	Last class day for First Term
	Last day an undergraduate or graduate student may, with the required approvals, drop a First Term class
July 9 - 10	Final exams for First Term
July 12	First day of classes for Second Term
July 15	4th class day for Second Term
	Last day to drop a class without permission for Second Term
	3rd and final tuition payment deadline is 5:00 p.m. CST for undergraduate, graduate, and law students
	Payment for added classes ("Add Bill") due for Second Term
July 16	Last day to apply for undergraduate or law degree
July 27	Last class day for Nine-week Term
	Last day an undergraduate or graduate student may, with the required approvals, drop a Nine-week Term class
July 28	Tuition bills for the fall semester distributed to students electronically
July 28 - 29	Final exams for Nine-week Term
July 30	Last day to change a class to pass/fail for Second Term
	Last day to apply for a graduate degree
August 13	Last day a doctoral candidate may hold a dissertation defense for the Summer 2025 semester
	Last class day for Second Term and Summer Term
	Last day an undergraduate or graduate student may, with the required approvals, drop a Second or Summer Term class or withdraw
	Last day to submit a master's report, recital, thesis, doctoral dissertation, or treatise to the vice provost for graduate and postdoctoral studies
August 14 & 16	Final exams for Second Term and Summer Term
August 16	Official graduation date (no public exercises)

The University

The University Catalog

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

The catalog of the University is the document of authority for all students. Any academic unit may issue additional or more specific information that is consistent with approved policy. However, the information in the catalog supersedes that issued by any other unit if there is a conflict between the two. The University reserves the right to change the requirements given in the catalog at any time.

The catalog consists of five issues: the Undergraduate Catalog, the Graduate Catalog, the Law School Catalog, the *Medical School Catalog*, and the *General Information Catalog*.

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

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

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

Assistance in obtaining information about the University—including costs, refund policies, withdrawal, academic programs, the faculty, accreditation, and facilities and services for disabled persons—is available from Brenda Schumann, Assistant Vice Provost for Enrollment Services and University Registrar, at (512) 475-7510 and at The University of Texas at Austin, Office of the Registrar, PO Box 302666, Austin TX 78703.

Statement on Equal Education Opportunity

The University of Texas at Austin is committed to an educational and working environment that provides equal opportunity to all members of the University community. In accordance with federal and state law, the University prohibits unlawful discrimination, including harassment, on the basis of race; color; religion; national origin; gender, including sexual harassment; age; disability; citizenship; and veteran status. Discrimination on the basis of sexual orientation, gender identity, and gender expression is also prohibited pursuant to University policy. Any member of the University community who believes they have been subject to discrimination, harassment, or retaliation should contact the Department of Investigation and Adjudication (DIA) via e-mail at dia@austin.utexas.edu; or by phone at (512) 471-3701.

Accreditation

The University of Texas at Austin is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award baccalaureate, masters, professional, and doctorate degrees. The University of Texas at Austin also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of The University of Texas at Austin may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).

Affiliations

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

Student Honor Code

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

University Code of Conduct

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

Organization of the University's Academic Units

Through the following academic units, the University offers hundreds of undergraduate, graduate, and professional degree programs.

School of Architecture

Red McCombs School of Business

- Jonathan K. Shulkin Department of Accounting
- Department of Business, Government, and Society
- Department of Finance
- Department of Information, Risk and Operations Management
- Rozanne and Billy Rosenthal Department of Management
- Department of Marketing

School of Civic Leadership

Moody College of Communication

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

College of Education

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

Cockrell School of Engineering

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

College of Fine Arts

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

John A. and Katherine G. Jackson School of Geosciences

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

Graduate and Postdoctoral Studies

School of Law

College of Liberal Arts

- Department of Air Force Science
- Department of Anthropology
- Center for Asian American Studies
- Department of Asian Studies
- Edward A. Clark Center for Australian and New Zealand Studies

- Department of Classics
- Program in Comparative Literature
- Thomas Jefferson Center for the Study of Core Texts and Ideas
- Américo Paredes Center for Cultural Studies
- Department of Economics
- Department of English
- Department of European and Eurasian Studies
- Department of Geography and the Environment
- Department of Government
- Department of History
- Department of Human Dimensions of Organization
- Humanities Institute
- Schusterman Center for Jewish Studies
- Teresa Lozano Long Institute of Latin American Studies
- Department of Linguistics
- Center for Middle Eastern Studies
- Department of Middle Eastern Studies
- Department of Military Science
- Department of Naval Science
- Department of Philosophy
- Plan II Honors Program
- The Population Research Center
- Department of Psychology
- Department of Religious Studies
- Department of Rhetoric and Writing
- Department of Social and Cultural Analysis
- Department of Sociology
- South Asia Institute
- Department of Spanish and Portuguese
- UTeach- Liberal Arts

Dell Medical School

- Department of Cardiovascular and Thoracic Surgery
- Department of Diagnostic Medicine
- Department of Medical Education
- Department of Internal Medicine
- Department of Medical Education
- Department of Neurology
- Department of Neurosurgery
- Department of Ophthalmology
- Department of Pediatrics
- Department of Population Health
- Department of Psychiatry and Behavioral Sciences
- Department of Surgery and Perioperative Care
- Department of Women's Health

College of Natural Sciences

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

School of Nursing

College of Pharmacy

Lyndon B. Johnson School of Public Affairs

School of Social Work

University-level undergraduate education

- Bridging Disciplines Program

Historical Sketch

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

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

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

As the University grew, work in other fields was added to that offered by the academic and law departments. The College of Engineering was added in 1894; in 1906, the School of Education; in 1909, the Division of Extension; in 1910, the Graduate School; in 1922, the School of Business Administration; in 1924, the College of Physical Activities; in 1938, the

College of Fine Arts; in 1948, the Graduate School of Library Science; in 1950, the Graduate School of Social Work; in 1951, the School of Architecture; in 1965, the School of Communication; in 1970, the Lyndon B. Johnson School of Public Affairs; in 1976, the School of Nursing; and in 2016, the Dell Medical School. The current organization of the University is described in Organization of the University's Academic Units (p. 10).

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

Leslie Waggener, MA, LLD (ad interim)	1895–1896
George Tayloe Winston, MA, LLD	1896–1899
William Lambdin Prather, BL, LLD	1899–1905
David Franklin Houston, MA, LLD	1905–1908
Sidney Edward Mezes, PhD, LLD	1908–1914
William James Battle, PhD, DCL, LLD (ad interim)	1914–1916
Robert Ernest Vinson, DD, LLD	1916–1923
William Seneca Sutton, MA, LLD (ad interim)	1923–1924
Walter Marshall William Splawn, PhD, LLD	1924–1927
Harry Yandell Benedict, PhD, LLD	1927–1937
John William Calhoun, MA, LLD (ad interim)	1937–1939
Homer Price Rainey, PhD, LLD	1939–1944
Theophilus Shickel Painter, PhD, DSc, LLD, MNAS (Acting President)	1944–1946
Theophilus Shickel Painter, PhD, DSc, LLD, MNAS	1946–1952
James Clay Dolley, PhD (Acting President)	1952
Logan Wilson, PhD, LLD	1953–1960
Harry Huntt Ransom, PhD, LittD, LLD, LHD	1960–1961
Harry Huntt Ransom, PhD, LittD, LLD, LHD (Acting President)	1961
Joseph Royall Smiley, PhD	1961–1963[1]
Norman Hackerman, PhD	1967–1970
Bryce Jordan, PhD (ad interim)	1970–1971
Stephen H. Spurr, MF, PhD, DSc	1971–1974
Lorene Lane Rogers, PhD, DSc, FAIC (ad interim)	1974–1975
Lorene Lane Rogers, PhD, DSc, FAIC	1975–1979
Peter Tyrrell Flawn, PhD	1979–1985
William H. Cunningham, PhD	1985–1992
William S. Livingston, PhD (Acting President)	1992–1993
Robert M. Berdahl, PhD	1993–1997
Peter Tyrrell Flawn, PhD (ad interim)	1997–1998
Larry R. Faulkner, PhD	1998–2006
William Powers Jr., JD	2006–2015
Gregory L. Fenves, PhD	2015–2020
Jay C. Hartzell, PhD	2020–2025
James E. Davis, JD	2025-

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

Government

The University of Texas System is governed by a board of nine regents, selected from different areas of the state, nominated by the governor, and appointed with the advice and consent of the Senate. Additionally, the board includes a nonvoting student regent appointed by the governor upon recommendation of the chancellor of The University of Texas System. A complete statement of the duties of the officers and a description of the organization and authority of the General Faculty, the faculties of the colleges and schools, divisions, and departments, is published in the *Rules and Regulations* of the Board of Regents.

Support

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

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

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

Buildings and Grounds

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

Major buildings and other facilities are listed below.

For Teaching, Research, and Administration

Aerospace Engineering Building	Formerly the North Office Building A; houses the Department of Aerospace Engineering and the Center for Aeromechanics Research
Animal Resources Center	
Art Building and Museum	Houses the Department of Art and Art History
AT&T Executive Education and Conference Center	Houses classrooms and meeting facilities
Battle Hall	Formerly the Old Library Building; renamed for William James Battle, former professor of classical languages and president ad interim of the University; houses part of the School of Architecture
Batts Hall	Named for Judge R. L. Batts, former chair of the Board of Regents; houses the Department of Government
Beauford H. Jester Center	Named for former governor of Texas and former member of the Board of Regents; houses classrooms, the John L. Warfield Center for African and African American Studies, and the Sanger Learning and Career Center
Bellmont Hall	Named for L. Theo Bellmont, former professor and director, Physical Training for Men; houses Intercollegiate Athletics for Men and Women, the Department of Kinesiology and Health Education, and the Department of Social and Cultural Analysis
Belo Center for New Media	An expansion of the Moody College of Communication, named for gifts from the Belo Foundation and the Dealey, Decherd, and Moroney families; houses the dean's office, Student Advising and Career Services, the Stan Richards School of Advertising and Public Relations, the School of Journalism and Media, and the KUT Public Media Studios
Benedict Hall	Named for former University president H. Y. Benedict; houses the Department of Spanish and Portuguese
Bernard and Audre Rapoport Building	Formerly the Petroleum Engineering Building, then the Economics Building; renamed in 1998 for alumnus and benefactor Bernard Rapoport and his wife; houses the Department of Economics
Biological Laboratories	Houses part of the School of Biological Sciences
Biomedical Engineering Building	Houses the Department of Biomedical Engineering; provides research space for the Colleges of Natural Sciences and Pharmacy, and teaching labs for the School of Biological Sciences
Blanton Museum of Art	Named for Jack S. Blanton, former chairman of Houston Endowment Inc.; houses more than 17,000 works of art and is comprised of the Mari and James A. Michner Gallery Building and the Edgar A. Smith Building.
Burdine Hall	Named for John Alton Burdine, former dean of the College of Arts and Sciences and first vice president of the University; houses the Departments of Sociology and Germanic Studies
Calhoun Hall	Named for former University president John William Calhoun; houses the Department of Linguistics, the Department of Slavic and Eurasian Studies, and the comparative literature program
Chemical and Petroleum Engineering Building	Houses the John J. McKetta Jr. Department of Chemical Engineering and the Hildebrand Department of Petroleum and Geosystems Engineering
College of Business Administration Building	Formerly the Business Administration–Economics Building; renamed in 1984
Continuing Engineering Education	Houses the Center for Lifelong Engineering Education
Health Learning Building	Houses the Dell Medical School
Development Office Building	Houses the Development Office and the Charles A. Dana Center
Dorothy L. Gebauer Building	Formerly the Engineering Building; renamed the Journalism Building, then the Speech Building; renamed in 1984 for former dean of women; houses the Office of the Dean of the College of Liberal Arts and the Department of Social and Cultural Analysis
E. P. Schoch Building	Formerly the Chemical Engineering Building; renamed for former professor of chemical engineering; houses part of the John A. and Katherine G. Jackson School of Geosciences
E. William Doty Fine Arts Building	Formerly the Fine Arts Library and Administration Building; renamed in 1998 for first dean of the College of Fine Arts; houses the Office of the Dean of the College of Fine Arts
Edgar A. Smith Building	Named for University alumnus and benefactor; houses the administrative, educational, and outreach activities of the Blanton Museum of Art
Engineering Education and Research Center	
Engineering Teaching Center II	Houses the J. Mike Walker Department of Mechanical Engineering and the Texas Materials Institute
Ernest Cockrell Jr. Hall	Named for an alumnus and benefactor of the College of Engineering; houses the Department of Civil, Architectural, and Environmental Engineering and the Office of the Dean of the Cockrell School of Engineering
F. Loren Winship Drama Building	Formerly the Drama Building; renamed in 1979 for former chair of the Department of Theatre and Dance
Garrison Hall	Named for George P. Garrison, former professor of history
Gates Dell Complex	Named for gifts from the Bill and Melinda Gates Foundation and the Michael and Susan Dell Foundation; houses the Artificial Intelligence Lab and the Department of Computer Science

George I. Sánchez Building	Formerly the College of Education Building; renamed in 1994 for former professor of education; houses part of the College of Education and the College of Liberal Arts Departments of Air Force Science, Military Science, and Naval Science
Goldsmith Hall	Formerly the Architecture Building; renamed in 1978 for former professor of architecture Goldwin Goldsmith; houses part of the School of Architecture
Gordon-White Building	Formerly the Black and Latino Studies Building; renamed in 2015; before that formerly the Geography Building; renamed in 2014; and before that the Journalism Building; renamed in 1974; houses the African and African Diaspora Studies Department and the Department of Social and Cultural Analysis
Graduate School of Business Building	
Harry Ransom Center	Formerly the Humanities Research Center; renamed in 1974 for University chancellor emeritus
Hogg Memorial Auditorium	Named for former governor James S. Hogg and his son Will C. Hogg; houses facilities for Texas Performing Arts
Homer Rainey Hall	Formerly the Music Building; renamed in 1995 for former University president; houses the Department of French and Italian
J. T. Patterson Laboratories Building	Named for former professor of zoology; houses part of the School of Biological Sciences
Jesse H. Jones Communication Center	Formerly the Communication Building; renamed in 1981 for Houston philanthropist; houses the Moody College of Communication Departments of Speech, Language, and Hearing Sciences, Communications Studies, and Radio-Television-Film, and KLRU TV
Jesse H. Jones Hall	Named for Houston philanthropist; houses part of the School of Law
Joe C. Thompson Conference Center	Named for former member of the Board of Regents
John A. and Katherine G. Jackson Geological Sciences Building	Named for alumnus and benefactor John A. Jackson and his wife; houses the Office of the Dean of the John A. and Katherine G. Jackson School of Geosciences
John B. Connally Center for the Administration of Justice	Named for alumnus and benefactor who was a member of the Board of Regents, governor of Texas, and United States secretary of the treasury; houses programs for advocacy and dispute resolution in the School of Law
John W. Hargis Hall	Formerly Building H of the Little Campus property (now the Heman Sweatt Campus); renamed in 1983 for former special assistant to the president of the University. Houses a research facility for the School of Social Work.
Laboratory Theatre Building	
Lake Austin Centre	Located three miles west of the University; houses the Hogg Foundation for Mental Health and some units of the Division of Continuing and Innovative Education
Larry R. Faulkner Nano Science and Technology Building	Named for former University president; houses several affiliated programs for the promotion of nanoscience and nanotechnology
Littlefield Home and Littlefield Carriage House	Houses part of the University Development Office
Louise and James Robert Moffett Molecular Biology Building	Named for alumni benefactors
Lyndon B. Johnson Library	
Main Building (Tower)	Located on the site of Old Main; houses University administrative offices
Mari and James A. Michener Gallery Building	Named for the Pulitzer Prize–winning novelist and University benefactor, and his wife; provides gallery space for the Blanton Museum of Art
Mary E. Gearing Hall	Formerly the Home Economics Building; renamed in 1976 for the first chair of the Department of Home Economics; houses part of the School of Human Ecology
Mezes Hall	Named for former University president Sidney E. Mezes; houses the Center for European Studies and the Schusterman Center for Jewish Studies
Music Building East and Music Building/ Recital Hall	Houses the Kate Broocks Bates Recital Hall and the Office of the Director of the Sarah and Ernest Butler School of Music
Neural and Molecular Science Building	Houses classrooms, laboratories, and offices
Norman Hackerman Building	Named for the late president of UT Austin and Rice University; houses parts of the School of Biological Sciences and the Department of Chemistry and Biochemistry
Nursing School	
Parlin Hall	Formerly the English Building; renamed for Hanson Tufts Parlin, former professor of English and dean of the College of Arts and Sciences; houses the Department of English and the Department of Rhetoric and Writing
Patton Hall	Formerly known as the College of Liberal Arts Building; houses many College of Liberal Arts departments, programs, and centers; includes two dozen classrooms and auditoriums, offices for campus groups, and study spaces
Performing Arts Center	Houses the Nancy Lee and Perry R. Bass Concert Hall and the Ralph H. and Ruth J. McCullough Theatre
Perry-Castañeda Library	Named for Ervin S. Perry, former associate professor of civil engineering, and Carlos E. Castañeda, former professor of Latin American history
Peter O'Donnell Jr. Building	Houses facilities for research and graduate study in computer sciences, electrical and computer engineering, and computational sciences, engineering, and mathematics
Peter T. Flawn Academic Center	Formerly the Undergraduate Library and Academic Center; renamed in 1985 for University president emeritus; houses part of the University Undergraduate Programs
Pharmacy Building	Houses the College of Pharmacy
Robert A. Welch Hall	Formerly the Chemistry Building; renamed in 1974 for Houston philanthropist; houses the Department of Chemistry and Biochemistry

Robert B. Rowling Hall	Named for Dallas businessman Robert B Rowling; houses the McCombs School of Business graduate programs
Physics, Math, and Astronomy Building	Formerly known as Robert Lee Moore Hall; renamed in 2020; before that formerly the Physics-Mathematics-Astronomy Building; renamed in 1974; houses the Departments of Astronomy, Mathematics, and Physics
Sarah M. and Charles E. Seay Building	Named for alumni benefactors; houses the Department of Psychology and research facilities of the Department of Human Development and Family Sciences
School of Social Work Building	Formerly University Junior High School
Sid Richardson Hall	Named for Texas philanthropist; houses the Lyndon B. Johnson School of Public Affairs, the Dolph Briscoe Center for American History, and the Teresa Lozano Long Institute of Latin American Studies
Student Services Building	Houses University Health Services, Counseling and Mental Health Center, Office of the Dean of Students, Office of the Ombudsperson, Office of Financial Aid, Student Government, and the Senate of College Councils
Sutton Hall	Named for William S. Sutton, former dean and professor of education; houses part of the School of Architecture
T. S. Painter Hall	Formerly the Physics Building; renamed in 1974 for former University president Theophilus Shickel Painter; houses parts of the Schools of Biological Sciences and Human Ecology, and parts of the Departments of Computer Science and Physics
Texas Memorial Museum	Built to commemorate the centennial of the Republic of Texas in 1936; funded in part by the sale of centennial coins and a University student donation drive; serves as the exhibit hall for the Texas Natural Science Center
Townes Hall	Named for Judge John Charles Townes; houses part of the School of Law
University Teaching Center	
UT Administration Building	Houses the School of Information and part of the Department of Computer Science.
Waggener Hall	Named for the University's first president, Leslie Waggener; houses the Departments of Classics and Philosophy
Walter Webb Hall	Named in 1975 for former professor of history; houses the Visitor Center, and the Office of Public Affairs
West Mall Office Building	Houses part of the School of Architecture, the Center for Mexican American Studies, the Department of Middle Eastern Studies, and the University Station Post Office
Will C. Hogg Building	Formerly the Geology Building; renamed for distinguished alumnus and benefactor; houses the Department of Asian Studies, the Plan II Honors Program, and the Office of the Dean of the College of Natural Sciences
William C. Powers, Jr. Student Activity Center	Houses the Department of Anthropology and the Américo Paredes Center for Cultural Studies on the fourth and fifth levels
William Randolph Hearst Building	Named for gifts from the Hearst Foundations; houses Texas Student Media

For Student Activities

Anna Hiss Gymnasium	Formerly Women's Gymnasium; renamed in 1974 for former director of Physical Training for Women
Clark Field	Named for Judge James Benjamin Clark, first proctor of the University
Darrell K Royal-Texas Memorial Stadium	Formerly Texas Memorial Stadium; renamed in 1997 to honor former head football coach and athletics director
Denton A. Cooley Pavilion	Basketball practice and training facility; named for University alumnus and heart transplant pioneer
Frank C. Erwin Jr. Special Events Center	Formerly the Special Events Center; renamed in 1981 for former chairman of the Board of Regents
Frank Denius Practice Field	Named for alumnus and benefactor Franklin Wofford Denius
Gregory Gymnasium	Named for former United States attorney general Thomas Watt Gregory; houses the Gregory Aquatics Facility and part of the Department of Recreational Sports
Lee and Joe Jamail Texas Swimming Center	Named for alumni benefactors
Mike A. Myers Track and Soccer Stadium	Named for alumnus benefactor
Moncrief-Neuhaus Athletic Center	Named for alumni benefactors Vernon F. Neuhaus and W. A. "Tex" Moncrief; called the Neuhaus-Royal Athletic Center until the 1997 renaming of Memorial Stadium
Recreational Sports Center	
Red and Charline McCombs Field	Named for alumnus and benefactor Red McCombs and his wife
Richard Mithoff Track and Soccer Fieldhouse	Named for University of Texas and School of Law alumnus
William C. Powers Jr. Student Activity Center	Features a variety of unique, informal lounge spaces, four food vendors, and thirteen reservable spaces such as a black box theatre, a legislative assembly room, and a dance rehearsal space with a sprung floor.
Texas Union Building	Houses dining areas, entertainment venues, meeting rooms for student organizations, reading rooms, banquet rooms, the Informal Classes program, and the Union Underground
UFCU Disch-Falk Field	Named for former baseball coaches Billy Disch and Bibb Falk and for the sponsorship of the University Federal Credit Union
Whitaker Field	Named for Berry M. Whitaker, former director of intramurals; located at 51st and Guadalupe streets

Admission

A comprehensive college education depends on a robust exchange of ideas, exposure to differing cultures, preparing for the challenges of an increasingly diverse workforce, and acquiring competencies required of future leaders. The Office of Admissions recruits prospective undergraduate students, manages the admissions application process,

and reviews applications in order to admit and enroll undergraduate students who are best able to contribute to, and benefit from, the University's rich, diverse, and challenging educational environment. Similarly, the Office of Graduate Admissions (OGA) manages the admissions application process and assists in the review of applications in order to admit and enroll all applicants to the University's many master's and doctoral programs.

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

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

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

Questions about undergraduate admission may be addressed to the Office of Admissions by telephone or by e-mail. The Office of Admissions may also be contacted by mail at The University of Texas at Austin, Office of Admissions, PO Box 300609, Austin, TX 78703. Questions about graduate admission should be directed to the Office of Graduate Admissions.

Undergraduate Admission

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

Undergraduate Admission Application

Application deadlines

For undergraduate admission, application materials must be received in the Office of Admissions by the deadlines published on Applying for Admission.

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

	Summer Semester 2026	Fall Semester 2026	Spring Semester 2027
US and international freshmen	December 1, 2025	December 1, 2025	September 1, 2026
US and international transfer students	March 1, 2026	March 1, 2026	September 1, 2026
Returning students	May 1, 2026	July 1, 2026	December 1, 2026
Transient students	May 1, 2026	not applicable	not applicable

Application processing fees

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

Admission to requested majors

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

Accepting admission

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

Major changes following acceptance of admission

Undergraduate students are limited in their ability to change majors (p. 28) after accepting admission offers. Incoming undergraduates are not allowed to change majors from one college/school to another during summer or during orientation, but may join the Waitlist for a desired major after receiving their admission decision. Students interested in changing majors within their college/school should speak with an academic advisor about the requested change during orientation. Visit Internal Transfer for more information.

Rescinding offers of admission

The Office of Admissions has the authority to rescind an offer of admission to a student who, after being admitted to the University, fails to maintain the level of academic, achievement, or honor code standards that were displayed in the information the student submitted when applying for admission to the University. Applicants who falsify any part of their application or the documents required to complete the application process are subject to cancellation of their offer of admissions or disciplinary action.

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

Scholarship recipients

The Assistant Vice Provost of Admissions may admit recipients of bona fide scholarships.

Submitted application items

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

Undergraduate Applicants with College Credit

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

Reporting previous college coursework

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

Awarding college credit

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

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

The following policies govern evaluation of credit:

- **Institution types:** Transfer credit is generally awarded for academic course credit earned from regionally accredited institutions or from institutions that are candidates for regional accreditation if the course credit was earned during the candidacy period. In rare circumstances, course credit earned at other institutions may be accepted.
- **Courses that are not transferable:** Workforce (vocational) courses, developmental and remedial courses, and courses classified as below freshman level by the institution at which the student took them are not transferable and will not count toward a degree.
- **Credit for military training:** Transfer credit is awarded for some kinds of military training. Credit awarded for military training usually does not count toward the 24 hours of transferable credit needed to apply for admission.
- **Coursework level:** Junior and community college courses transfer as lower-division (freshman or sophomore) credit. Undergraduate courses from senior colleges transfer at the level (lower- or upper-division) at which the student took them. Graduate-level coursework is not transferable as undergraduate credit.
- **Limits on use of credit toward degree:** No limit is placed on the total amount of course credit accepted in transfer from either junior- or senior-level institutions. However, use of transfer credit toward a degree may be limited by the student's academic dean.
- **Credit by exam at another institution:** Credit earned by examination at another institution is treated as transfer credit only if the sending institution records the credit on the student's transcript with regular catalog course numbers and with a grade of at least *C-*, the symbol *CR*, or a similar designation representing credit earned without letter grade.
- **Computing an applicant's GPA:** When computing an applicant's grade point average (GPA) for admissions purposes, the Office of Admissions includes grades earned in all academic courses (except developmental courses), whether passed, failed, or repeated, including those in which the student earned a grade of *D+*, *D*, or *D-*. However, a course in which the student earned a grade of *D+*, *D*, *D-*, or *F* is not transferable and will not count toward a degree. An *A* or *A +* earned on transferable coursework is awarded four points in admission GPA calculations. (See Academic Policies and Procedures (p. 62) for information about how the University computes GPA.)
- **Transfer coursework and the University's GPA:** Grades earned at other institutions are not averaged with grades earned at the University to determine the student's internal University grade point average.

Disputed credit

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

College credit for earning an International Baccalaureate diploma

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

College credit for military service

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

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

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

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

Recruiting Students for Undergraduate Admission

The Office of Admissions offers a variety of services and resources to assist prospective students with the undergraduate admissions

application process. Undergraduate applicants are encouraged to use all available resources, especially consultation with the University's admissions representatives and counselors.

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

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

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

Freshman Admission

Freshman applicants should take advantage of the detailed information and resources available through Texas Admissions - Freshman.

Eligibility to Apply

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

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

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

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

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

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

Admission Deficiencies

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

Admitted students must complete the coursework required to remove a deficiency before they enroll at the University. A deficiency in foreign language must be removed by achieving first-year college-level credit in a foreign or classical language, by earning a passing score on the appropriate placement examination given by the University, or by taking computer science/programming coursework, when applicable. A deficiency in mathematics must be removed by earning credit for M X01 College Algebra, or M X03D Applicable Mathematics, or an equivalent transfer course. For all other subjects, one semester of college credit is required to remove a deficiency of one year or less of high school credit.

Freshman Application Procedures

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

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

Additional requirements for some applicants

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

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

Keeping prospective students informed

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

Reporting dual credit

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

Freshman Application Review Process

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

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

The following items are considered during holistic review:

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

No specific class rank, test score, or other qualification by itself—other than automatic admission based on section 51.803 of the Texas Education Code or admission for top students from small Texas high school graduating classes—ensures admission.

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

Admission Decisions

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

Texas applicants eligible for automatic admission

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

Each September, the University informs school districts of the rank that will be required to earn automatic admission to the University in the next application cycle. More information can be found at Admission Decisions.

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

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

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

Automatic admission for military/veteran applicants

Students who qualify for automatic admission to UT Austin at the time they graduate from high school and who join the military after graduation maintain eligibility for automatic admission for the period of time they serve in the military. Military or veteran applicants interested in enrolling at UT Austin following military service who have not enrolled in college-level coursework since high school graduation should apply for freshman admission. Such applicants are reviewed holistically with the freshman applicant pool to determine the major to which they will be offered admission. Qualified applicants who have enrolled in college-

level coursework since high school graduation should apply for transfer admission.

Applicants not eligible for automatic admission

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

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

Notifying applicants of admission decisions

In keeping with the admissions policy adopted by the University of Texas System Board of Regents, the Office of Admissions notifies freshman applicants of their admission decisions as soon as possible. Summer/fall applicants who qualify for automatic admission are notified of their admissibility soon after their applications are complete. All freshman admissions decisions for summer/fall are communicated by the spring before the entry semester. The Office of Admissions also works to deliver spring decisions in a timely manner.

Alternative paths to admission

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

Information about PACE and CAP requirements are available on Texas Admissions - Freshman.

Transfer Admission

Prospective transfer applicants should take advantage of the detailed information and resources available on Texas Admissions - Transfer.

Eligibility to Apply

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

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

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

Ineligible at other institutions

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

Students interested in transferring to the University will need to work with their previous institution and obtain good standing status before applying to UT Austin.

Degree holders

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

Former CAP and PACE participants

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

Additional situations requiring application for transfer

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

Transfer Application Procedures

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

1. **Application and essays:** A completed Transfer application, including the required essays and statement of purpose.
2. **Transcripts:** Separate, official transcripts from each college attended, including any at which the applicant enrolled while in high school. Every college-level course the student took must be reported on a transcript from the institution at which the student enrolled in the course, even if it also appears on the transcript of another institution that accepted it for transfer credit. Summer and fall applicants must submit official transcripts of all coursework undertaken through the previous fall; spring applicants must submit official transcripts of all coursework undertaken through the previous summer.
3. **Fee (or exemption request):** The nonrefundable application fee or a request for an exemption, described in the section Application Processing Fee (p. 16).
4. **Résumé:** An expanded résumé that provides information about the applicant's previous five years of academic, extracurricular, community, and work activities, honors, and awards.

The following items are required for some applicants:

1. Permanent resident alien applicants must submit a photocopy of the front of the permanent resident card or temporary evidence of I-551 in the passport.
2. Transfer applicants (including United States citizens and permanent residents) who have undertaken a significant amount of their college coursework in a country in which English is not the only language spoken must show proficiency in English by presenting a score

on either the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), or the Duolingo English Test (DET). Details about possible exemptions are available on Texas Admissions - Transfer.

3. International transfer applicants must submit evidence of sufficient financial support while studying in the United States.

Required for enrollment

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

Automatic admission for eligible transfer applicants

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

Automatic admission for military/veteran applicants

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

Transfer Application Review Process

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

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

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

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

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

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

Grade point average computation

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

The admission grade point average (GPA) is computed on all transferable college coursework the student has undertaken, whether passed, failed, or repeated. The Office of Admissions uses the University's numerical equivalents as described in Academic Policies and Procedures (p. 62) when computing GPA for transferable coursework.

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

Transfer and evaluation of credit

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

Additional information about evaluation of credit is available in Undergraduate Applicants with College Credit (p. 17).

Catalog eligibility for Texas transfer students

A student who transfers from another Texas public institution of higher education has the same catalog choices that the student would have had if the dates of attendance at the University had been the same as

the dates of attendance at the other institution. However, the student's choice of major may affect whether or not transferable coursework may be counted toward a degree. Rules about catalog choice are given in the undergraduate catalog in the section Graduation Under a Particular Catalog.

Coursework-in-residence requirement

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

Transient Admission (Summer Only)

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

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

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

Fresh Start

Section 51.931 of the Texas Education Code provides that a resident of Texas may apply for admission to the University as an undergraduate student without consideration of course credit or grades earned 7 or more years prior to the semester the applicant plans to enroll. To be admitted, the applicant must meet the admission standards in effect at the time of application. Students admitted under fresh start receive no credit for coursework taken 7 or more years before enrollment, even if a degree was earned.

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

Enrollment as a Nondegree Student

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

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

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

Exchange students

A student who is admitted to the University through a reciprocal exchange program is also classified as a nondegree student. An exchange student may not register for more than two fall or spring semesters and one summer semester. The transferability of academic credit to the student's home institution is determined by the home institution.

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

To be considered for admission to some undergraduate majors, applicants must submit additional information or meet additional requirements beyond those for applying to the University.

Major Specific Requirements and Prerequisites

A full list of major specific requirements for freshman or transfer applicants can be found on the College and School section of the Office of Admissions website.

All freshman applicants must meet the appropriate high school prerequisites. Additional information is available on the Prerequisites page of the Office of Admissions website.

Information on Prerequisites and Major Specific application items are also shared with applicants as applicable through MyStatus, the University's secure admissions portal.

Foreign language requirement

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

Admission to upper-division work and requirements for continuing study

Some undergraduate academic programs admit new students as undeclared or entry-level majors within a college or school. In such cases, students must meet certain requirements—earn a certain grade point average in specified coursework, for example—to move into upper-

level study. In some cases, students must apply for admission to a concentration or to a professional program after meeting the specified requirements.

Readmission of Former Undergraduate Students

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

A student who leaves the University on academic warning will be on academic warning when readmitted, even if they have attended another institution in the interim. Students previously dismissed from the university for academic reasons, contact the dean's office of your college or school before applying to find out if you are eligible to re-enter.

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

Readmission Following Military Service

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

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

Graduate Admission

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

Requirements

General requirements for admission to Graduate and Postdoctoral Studies are:

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

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

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

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

Admission Tests

The Graduate Record Examinations General Test (GRE), the Graduate Management Admission Test (GMAT), and the Test of English as a Foreign Language (TOEFL) are offered at testing centers throughout

North America and at selected international sites. Current information about GRE and TOEFL test dates, locations, and registration procedures is published by the Educational Testing Service. Similar information about the GMAT is published by the Graduate Management Admission Council.

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

The Duolingo English Test (DET) is only administered online. Information about the DET registration procedures is published on their website.

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

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

Rescinding Offers of Admission

The Office of Graduate Admissions (OGA) has the authority to rescind an offer of admission to a student who, after being admitted to the University, fails to maintain the level of academic, achievement or honor code standards that were displayed in the information the student submitted when applying for admission to the University. Applicants who falsify any part of their application or the documents required to complete the application process are subject to cancellation of their offer of admissions or disciplinary action.

Students at the University are expected to conduct themselves in ways that reflect the University's Student Honor Code.

Graduate and Postdoctoral Studies Select Admission Program

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

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

Additional information about the Graduate and Postdoctoral Studies Select Admission Program is available in the Office of Graduate and Postdoctoral Studies and from the graduate advisor of the nominating graduate program.

Conditional Admission

Almost all of the students who are admitted to the Graduate and Postdoctoral Studies have qualifications equal to or better than the minimum standards outlined in Graduate Admission Requirements (p. 23). However, a Graduate Studies Committee may recommend, with the consent of the vice provost for graduate and postdoctoral studies, that a student be admitted to the Graduate and Postdoctoral Studies with conditions. The Graduate Studies Committee may require the student to maintain a certain grade point average or to take a certain number of semester hours of coursework. A conditionally admitted student may also be required to remedy deficiencies in undergraduate preparation by taking upper-division or graduate courses. The graduate advisor notifies the student of these conditions at the time of admission. The Graduate Studies Committee petitions the vice provost for graduate and postdoctoral studies for removal of conditions once the conditions have been met.

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

Students admitted with conditions are not eligible to be graduate student academic employees, except under rare and unusual circumstances and with the approval of the vice provost for graduate and postdoctoral studies.

Admission as a Nondegree Student

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

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

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

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

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

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

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

Recommended Application Dates for Graduate Study

Each graduate program sets its own application deadline. Summer and fall applications typically open on August 1 for the following year. Few graduate programs admit new students for the spring term; those that do generally open applications in January for the following year and have deadlines no later than October 1. Deadlines posted are the dates by which all documents and test scores must be received. It is the applicant's responsibility to monitor their application status, to ensure all required items are submitted, and to meet the deadline set by the graduate program. A list of program deadlines is published by the Office of Graduate and Postdoctoral Studies. Applicants should complete and submit their applications, as well as all supporting documents, well in advance of the application deadline. Certain items, such as test scores, take several weeks to arrive and applicants should plan accordingly.

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

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

Fellowships

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

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

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

Application Processing Fee

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

US citizens, permanent residents, and University of Texas at Austin undergraduates

The fee for applicants to Graduate and Postdoctoral Studies is $65. The fee for applicants to the full-time, working professional, and executive Master of Business Administration (MBA) programs is $200. The fee for applicants to the Master in Professional Accounting (MPA) program, including students in the integrated BBA/MPA program, is $125. Applicants applying to a dual-degree program with the Master of Business Administration (MBA) program will pay only the higher of the application fees.

International applicants

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

Enrollment Deposit

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

student enrolls. Students who demonstrate financial need may qualify for assistance to cover the deposit.

An enrollment deposit is assessed in the following graduate programs:

Programs	Degree	Deposit
Accounting	MPA	$950.00
Business administration	MBA, full-time	$2,000.00
Business administration	MBA, working professional and executive	$2,000.00
Business Analytics	MSBA, Option III	$2,000.00
Communication Studies	MA, Option III	$1,000.00
Communication Studies-Strategic Communication Stackable Certificate	Stackable Certificate, Option III	$1,000.00
Communication Studies-Sports Communication Stackable Certificate	Stackable Certificate, Option III	$1,000.00
Computer Science	MSCS, Online Option III	$500.00
Data Science	MSDS, Online Option III	$500.00
Design	MA, Option III	$1,500.00
Economics	MA, Option III	$2,000.00
Electrical and Computer Engineering	MSE, Option III	$1,000.00
Electrical and Computer Engineering - Software Engineering	MSE, Option III	$1,000.00
Engineering Management	MSE, Option III	$1,000.00
Finance	MSFin, Option III	$2,000.00
Health Care Transformation	MSHCT	$2,000.00
Human Dimensions of Organizations	MA, Option III	$1,500.00
Identity Management and Security	MSIMS, Option III	$1,000.00
Information Security and Privacy	MSISP, Option III	$1,000.00
Information Technology and Management	MSITM, Option III	$2,000.00
Marketing	MSMkt, Option III	$2,000.00
Mechanical Engineering	MSE, Option III	$1,000.00
Nutritional Sciences	MSNS, Option III	$500.00
Public Leadership	MPL, Executive Option III	$1,000.00
Social work	MSSW, PhD	$150.00
School of Architecture	M Arch I, MAAD, MAAH, MID I, MID II, MLA I, MLA II, MSAS, MSCRP, MSHP, MSSD, MSUD, PhD in ARC, PhD in CRP	$350.00

Law School Admission

Overview

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

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

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

Application Procedures

Please refer to the School of Law admissions website for detailed information about the policies and procedures.

First-Year Applicants

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

Transfer Applicants

To be considered for admissions at the School of Law as a transfer student, an applicant must be attending a law school that is accredited by the American Bar Association and a member of the Association of American Law Schools. The applicant must register with the Law School Admission Council (LSAC) and the Credential Assembly Service (CAS), and demonstrate that they have completed the first-year curriculum in good academic standing.

Transient (Visiting) Applicants

To be considered for admissions at the School of Law as a transient (visiting) student, an applicant must have completed the first-year

curriculum in good academic standing at a law school that is accredited by the American Bar Association and a member of the Association of American Law Schools and register with the Law School Admission Council (LSAC).

Deadlines

The following deadlines are non-negotiable.

First-Year Applicants

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

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

Transfer Applicants

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

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

Transient Applicants

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

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

Enrollment Deposit

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

Residency Regulations

Under Texas law and rules established by the Texas Higher Education Coordinating Board, each student applying to a public institution of higher education is classified for tuition purposes as a Texas resident, nonresident, or international student.

A student may be eligible for classification as a Texas resident if they meet the requirements to establish domicile in Texas, as defined by state law and Coordinating Board rules.

A U.S. citizen, national, or permanent resident who does not meet residency requirements is classified as a nonresident. A student who is not a U.S. permanent resident may be classified as an international student unless they hold an immigration status that allows them to establish domicile in the United States.

In some cases, students classified as nonresident or international may still qualify for in-state tuition through specific waivers or exceptions, as outlined in Coordinating Board rules.

Students entering the University for the first time, or returning after an extended absence, should review residency requirements carefully to understand their tuition obligations. Residency determinations are made through the Core Residency Questionnaire and supporting documentation submitted to the Office of the Registrar.

Students returning after an absence of more than two long semesters are required to submit a new residency questionnaire for review.

Information and advice on residency status is available from the Office of the Registrar.

Registration, Tuition, and Fees

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

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

Texas Success Initiative

Undergraduate students who have not fulfilled requirements of the Texas Success Initiative (TSI) may be subject to enrollment restrictions or may have a hold for registration. TSI is described in Academic Policies and Procedures (p. 70).

Concurrent Enrollment at the University and Another Collegiate Institution

Concurrent enrollment occurs when a student is enrolled at two separate institutions simultaneously. Prior written approval of a student's academic dean is required to assure that a course taken at another institution while the student is concurrently registered at the University will count toward the student's degree. Concurrent enrollment policies of the colleges and schools are given in the Undergraduate Catalog. Information about fees for students enrolled concurrently at two institutions is given in Additional Fees (p. 42).

Continuous Registration of Graduate Students

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

is required. The only alternative to continuous registration is a leave of absence, discussed in the Leave of Absence for Graduate Students (p. 28) section. In order to fulfill the continuous registration requirement, doctoral candidates who are readmitted must register retroactively and pay tuition for all long terms that have elapsed since they were last enrolled.

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

Leave of Absence for Graduate Students

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

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

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

Registration in Graduate and Postdoctoral Studies Following Graduation

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

In Absentia Registration

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

Undergraduate Students

After registering for classes, undergraduate students may change to in absentia status only with the approval of their dean. The classes for which the student is registered should be dropped and the in absentia registration added through the normal add/drop procedure. If the change is made during the first 12 class days, the student's tuition is refunded.

Graduate Students

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

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

Transfer from One Division to Another Within the University

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

1. To transfer, students must apply using the university internal transfer application. The application process is described on the Office of Admissions website. Transfer procedures must be completed by the end of the eighth class day in the fall or spring or the fourth class day in the summer for the transfer to be effective in the current term.
2. Students may apply to transfer only two times to each new college or school that has limited space for internal transfers. For these colleges and schools, the student must apply within the student's first four fall or spring semesters of enrollment at the University.
3. Students who transfer to a new college or school retain the same University warning status, if any, that was in effect at the time of the transfer.
4. Students who are dismissed under University-wide regulations from one college or school are ineligible to transfer to another college or school.
5. Restrictions based on credit earned:
   a. Students who have completed 45 or fewer semester hours of college credit are eligible to apply for transfer between colleges and schools regardless of their University grade point average, provided they satisfy all conditions and procedures that apply to students who enter the same college or school, and any program thereof, when first admitted to the University.
   b. Students who have completed more than 45 semester hours of college credit must have a University grade point average of at least 2.00 to qualify for transfer between colleges and schools. Generally, students with more than 45 semester hours of credit and a grade point average less than 2.00 may not transfer to another division within the University and must enroll in courses approved by their current college or school. All colleges are authorized to allow such students to register for courses required for the students' potential new majors, provided the normal prerequisites are met.

c. Students may not transfer to another college or school after they have completed 60 semester hours of coursework in residence. A student who wishes to seek an exception to this rule should petition the dean's office of the college into which the student would like to transfer. Approval of the petition will take into account the student's ability to graduate within four[1] years of entering the University.

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

[1] Or more than four years if dictated by the length of the program.

Auditing a Course

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

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

A law student may not audit a law course.

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

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

Tuition and Fees

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

Financial Responsibility

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

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

For any questions, please contact Texas One Stop.

Returned Checks

Returned Checks are payments received by the University that cannot be processed due to reasons such as insufficient funds, incorrect account number, or stop payment. A $25 service charge is applied when a check or electronic payment is returned. Students must pay the balance within 10 days using cash, cashier's check, credit card, or money order (EFT, eCheck, or personal checks cannot be used to resolve the balance on the What I Owe website.) The University does **not** redeposit a check returned unpaid for any reason.

Failure to comply will result in refusal of future personal checks. If the returned check was for registration fees or bar clearance, the student's registration will be canceled, and additional fees will be charged. These fees will be added to the students account (see Additional Fees (p. 42)).

The University will not accept EFT, eCheck or personal checks from individuals who have had their registration canceled, was not responsive to request for payment, wrote a dishonored check to clear a bar or have a history of returned checks, even though restitution is promptly made. The restriction may last for a minimum of one year (dependent on the reason for the restriction), after which the student may appeal to have the bar lifted. All returned checks and bursar bar fees must be paid prior to consideration of the appeal. A written request must be sent by email to receive the personal check restriction appeal form.

For more information regarding returned checks, please review the Returned Checks page.

Payment Plans

An installment plan is a method of payment during the fall, spring, and summer semesters. Tuition payments must be made according to the plan's guidelines. Students sign an Installment Plan Note in the Financial Responsibility Statement (FRS) prior to registration each semester. Payment due dates are found on My Tuition Bill and are provided in the Academic Calendar (p. 7). Any student who does not pay their tuition bill in full by 11:59 PM CST on the 12th class day (4th class day for the summer) will automatically be enrolled in the installment plan and assessed a nonrefundable $15 installment plan fee. If the remaining balance of the tuition is not paid by the installment deadline, they will be charged an additional $25 late fee. It is the student's responsibility to track the amount due and payment deadlines on My Tuition Bill. If applicable, the following charges may also appear on a student's tuition bill: the international student health insurance program fee, the general property deposit and the late registration fee. The first payment is due by the date given in the Academic Calendar (p. 7).

First payment

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

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

Additional payments

All tuition must be paid in full by 11:59 PM CST on the 12th class day in the fall and spring semesters, or by the 4th class day in the summer semester. Students who choose to initially pay the minimum amount due should pay their tuition in full by the above days, or they will be automatically placed on the installment plan, and will be assessed a nonrefundable $15 service charge. Students who do not pay the balance by the installment deadline, will be assessed a nonrefundable $25 late fee. It is the student's responsibility to track the amount due on My Tuition Bill. Students who add classes, change their major, or otherwise change their registration record may incur additional tuition fees after their initial payment. In this case, payment for additional tuition is due by the date given in the Academic Calendar (p. 7) or shown on My Tuition Bill.

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

Any questions regarding Financial Aid should be referred to Texas One Stop.

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

For additional questions about payment plans, please contact Texas One Stop.

Admission Application Processing Fees

Each applicant for admission to the University must submit a nonrefundable application processing fee. The amounts of these fees for undergraduate applicants are given in Undergraduate Admission (p. 16); for graduate applicants, in Graduate Admission (p. 23); and for law applicants, in Law School Admission (p. 26).

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

Tuition

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

Flat-rate tuition for Fall 2026 and Spring 2027 is given in the tuition tables (p. 31). After selecting classes for a future semester, the student may view their estimated tuition bill at My Tuition Bill. Flat-rate tuition for Summer 2027 will be published on the Texas One Stop website.

The tables (p. 31) show tuition for students enrolled in a single college. Undergraduates with simultaneous majors in more than one college are charged only the higher college rate. Tuition for graduate dual degree programs is unique to each program; amounts are available from Texas One Stop.

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

Tuition Deferment

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

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

Nonresident Tuition for Resident Students

Because the University is a state-assisted institution, tuition rates are lower for Texas-resident students than for nonresidents, including both out-of-state and international students. Information about residency is given in Residency Regulations (p. 27). In the following

circumstances, a student who is classified as a Texas resident may be charged nonresident tuition:

Undergraduates

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

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

Graduate students

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

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

Tuition Tables

House Bill 29, passed by the 83rd Texas Legislature, requires public institutions of higher education to offer a fixed tuition price plan to incoming freshman and transfer students. The University of Texas at Austin has met the requirements of the law by establishing Longhorn Fixed Tuition which is offered to eligible undergraduate students. Tuition rates for the academic year, including Longhorn Fixed Tuition rates for entering undergraduates, are published below. Undergraduates who enrolled in the Longhorn Fixed Tuition plan prior to this catalog's academic year can view their cohort rates online.

Undergraduate Traditional Flat Rate Tuition: Fall 2026 - Spring 2027

Texas Resident Undergraduate Students

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

Undergraduate Traditional Flat Rate Tuition: Fall 2026 - Spring 2027

Nonresident Undergraduate Students

Hours	1	2	3	4	5	6	7	8	9	10	11	12+
Architecture	$6,844	8,443	10,040	11,636	13,235	14,829	16,426	18,245	18,245	18,245	18,245	22,779
Business	$7,679	9,471	11,262	13,051	14,844	16,634	18,426	20,465	20,465	20,465	20,465	25,553
Civic Leadership	$6,395	7,886	9,379	10,869	12,362	13,852	15,345	17,043	17,043	17,043	17,043	21,277
Communication	$6,578	8,111	9,648	11,180	12,719	14,249	15,786	17,531	17,531	17,531	17,531	21,888
Education	$6,590	8,128	9,664	11,202	12,739	14,275	15,813	17,567	17,567	17,567	17,567	21,931
Engineering	$7,271	8,966	10,666	12,358	14,057	15,752	17,450	19,380	19,380	19,380	19,380	24,197
Fine Arts	$6,820	8,407	9,999	11,587	13,181	14,769	16,362	18,170	18,170	18,170	18,170	22,687
Geosciences	$6,949	8,567	10,188	11,807	13,431	15,049	16,671	18,519	18,519	18,519	18,519	23,118
Liberal Arts	$6,395	7,886	9,379	10,869	12,362	13,852	15,345	17,043	17,043	17,043	17,043	21,277
Natural Sciences	$6,757	8,332	9,906	11,488	13,065	14,641	16,217	18,009	18,009	18,009	18,009	22,485
Nursing	$7,191	8,870	10,547	12,223	13,900	15,580	17,255	19,167	19,167	19,167	19,167	23,934
Public Affairs	$6,820	8,407	9,999	11,587	13,181	14,769	16,362	18,170	18,170	18,170	18,170	22,687
Social Work	$6,719	8,285	9,853	11,418	12,986	14,554	16,120	17,905	17,905	17,905	17,905	22,353

Undergraduate Longhorn Fixed Tuition: Fall 2026 - Spring 2027

Texas Resident Undergraduate Students

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

Undergraduate Longhorn Fixed Tuition: Fall 2026 - Spring 2027

Nonresident Undergraduate Students

Hours	1	2	3	4	5	6	7	8	9	10	11	12+
Architecture	$7,841	9,665	11,496	13,323	15,154	16,980	18,812	20,896	20,896	20,896	20,896	26,090
Business	$8,742	10,782	12,819	14,859	16,899	18,935	20,977	23,299	23,299	23,299	23,299	29,097
Civic Leadership	$7,324	9,031	10,741	12,447	14,157	15,863	17,573	19,518	19,518	19,518	19,518	24,369
Communication	$7,535	9,288	11,048	12,801	14,562	16,316	18,076	20,075	20,075	20,075	20,075	25,067
Education	$7,546	9,308	11,069	12,828	14,587	16,348	18,108	20,113	20,113	20,113	20,113	25,119
Engineering	$8,279	10,206	12,139	14,065	15,998	17,930	19,859	22,059	22,059	22,059	22,059	27,545
Fine Arts	$7,808	9,631	11,449	13,269	15,093	16,912	18,734	20,808	20,808	20,808	20,808	25,982
Geosciences	$7,957	9,809	11,667	13,523	15,379	17,233	19,089	21,204	21,204	21,204	21,204	26,478
Liberal Arts	$7,324	9,031	10,741	12,447	14,157	15,863	17,573	19,518	19,518	19,518	19,518	24,369
Natural Sciences	$7,715	9,515	11,312	13,115	14,915	16,712	18,514	20,565	20,565	20,565	20,565	25,676
Nursing	$8,238	10,156	12,081	13,995	15,918	17,841	19,761	21,950	21,950	21,950	21,950	27,408
Public Affairs	$7,808	9,631	11,449	13,269	15,093	16,912	18,734	20,808	20,808	20,808	20,808	25,982
Social Work	$7,696	9,485	11,283	13,076	14,870	16,665	18,460	20,502	20,502	20,502	20,502	25,601

Graduate: Fall 2026 - Spring 2027

Texas Resident Graduate Students

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

Nonresident Graduate Students

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

Law: Fall 2026 - Spring 2027

Texas Resident and Nonresident Law Students

Hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Resident Group 1	$3,235	3,970	4,558	5,734	6,914	8,089	9,118	10,150	11,178	11,915	12,650	13,384	13,972	14,705	15,437	16,022
Resident Group 2	$3,799	4,665	5,354	6,735	8,122	9,504	10,712	11,923	13,131	13,994	14,860	15,722	16,413	17,275	18,135	18,822
Resident Group 3	$3,951	4,851	5,566	7,003	8,444	9,881	11,137	12,397	13,651	14,550	15,449	16,344	17,064	17,962	18,855	19,570
Resident Group 4	$4,025	4,941	5,671	7,135	8,604	10,067	11,347	12,628	13,910	14,826	15,738	16,652	17,384	18,299	19,209	19,937
Continuing Nonresident	$5,294	6,497	7,459	9,384	11,313	13,238	14,922	16,609	18,290	19,495	20,697	21,899	22,861	24,064	25,263	26,223
Intermediate Nonresident	$5,419	6,652	7,638	9,609	11,582	13,554	15,278	17,004	18,728	19,960	21,192	22,422	23,409	24,638	25,865	26,849
New Nonresident	$5,982	7,340	8,427	10,604	12,782	14,957	16,860	18,763	20,668	22,027	23,386	24,745	25,832	27,192	28,547	29,630

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

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

Professional: Fall 2026 - Spring 2027

Texas Resident Professional Students

Hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MPA	$3,906	4,944	5,984	6,895	7,808	8,720	9,499	10,410	11,190	11,578	12,230	12,616	13,007	13,523	13,909
MBA	$8,285	9,663	11,042	12,421	13,805	15,185	16,562	17,942	19,322	20,701	22,077	23,457	24,839	26,220	27,598
Executive MBA*	$2,600	3,839	5,079	6,316	7,558	8,796	9,911	11,149	12,390	13,127	13,864	14,480	15,095	15,707	16,446
Evening MBA*	$2,600	3,839	5,079	6,316	7,558	8,796	9,911	11,149	12,390	13,127	13,864	14,480	15,095	15,707	16,446
International MBA*	$5,106	5,955	6,805	7,656	8,508	9,357	10,206	11,057	11,908	12,757	13,607	14,458	15,308	16,155	17,006
PharmD	$3,393	4,067	4,859	5,537	6,217	7,007	7,683	8,474	9,153	9,830	10,622	11,265	11,265	11,265	11,265

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

Nonresident Professional Students

Hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MPA	$5,888	6,975	8,065	9,592	11,116	12,644	14,170	15,696	17,222	18,530	19,400	20,491	21,798	22,883	23,751
MBA	$9,187	10,715	12,247	13,775	15,306	16,837	18,365	19,895	21,426	22,955	24,486	26,015	27,545	29,077	30,607
Executive MBA*	$3,611	5,334	7,056	8,779	10,501	12,221	13,772	15,495	17,218	18,244	19,272	20,126	20,982	21,838	22,867
Evening MBA*	$3,548	5,235	6,928	8,618	10,310	12,001	13,521	15,213	16,904	17,910	18,918	19,760	20,599	21,439	22,447
International MBA*	$8,440	9,844	11,251	12,657	14,064	15,469	16,874	18,280	19,687	21,093	22,498	23,901	25,309	26,714	28,120
PharmD	$7,761	9,312	11,123	12,675	14,227	16,035	17,588	19,397	20,950	22,502	24,311	25,831	25,831	25,831	25,831

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

Dell Medical School: Fall 2026 - Spring 2027

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

Incoming Class	Year in School	Academic Semester	Texas Residents	Nonresidents	Required Fees
2026	First	Fall	$9,997	$17,529	$1,040
		Spring	9,997	17,529	1,040
2025	Second	Fall	9,503	16,663	1,040
		Spring	9,503	16,663	1,040
2024	Third	Fall	9,503	16,663	1,040
		Spring	9,503	16,663	1,040
2023	Fourth	Fall	9,503	16,663	1,040
		Spring	9,503	16,663	1,040
MD/MBA		Fall	39,939	46,444	1,040
		Spring	39,939	46,444	1,040

Graduate Dual Degree

Texas Resident Graduate Students

Hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Advertising/ Business administration	$5,374.40	6,403.80	7,329.20	8,402.02	9,434.90	10,340.30	11,327.54	12,421.10	13,305.92	14,291.80	15,213.78	16,116.66	17,063.54	17,967.42	18,870.40	19,727.90
Advertising/ Public affairs	$1,344.02	1,888.90	2,186.78	2,831.13	3,376.02	3,623.58	4,069.55	4,763.06	4,962.05	5,401.14	5,694.46	5,938.58	6,279.92	6,524.05	6,768.19	6,914.56
Asian studies/ Business administration	$5,455.00	6,478.20	7,412.40	8,471.00	9,497.40	10,414.60	11,400.80	12,478.80	13,378.80	14,363.40	15,293.80	16,210.20	17,162.20	18,078.40	18,992.40	19,868.80
Asian Studies/ Public Affairs	$1,271.98	1,787.70	2,069.56	2,678.48	3,193.62	3,428.04	3,849.99	4,506.36	4,694.46	5,109.55	5,386.84	5,618.83	5,940.30	6,171.29	6,401.69	6,540.06
Business Administration/ Energy and Earth Resources	$4,797.50	5,752.00	6,587.00	7,589.50	8,546.50	9,357.50	10,264.00	11,291.50	12,078.00	12,981.50	13,813.00	14,621.00	15,479.00	16,288.50	17,096.00	17,853.50
Communication Studies/ Business Administration	$5,374.40	6,403.80	7,329.20	8,402.02	9,434.90	10,340.30	11,327.54	12,421.10	13,305.92	14,291.80	15,213.78	16,116.66	17,063.54	17,967.42	18,870.40	19,727.90
Communication Studies/Latin American Studies	$1,281..70	1,801.42	2,085.00	2,699.06	3,218.20	3,454.33	3,879.72	4,541.23	4,730.48	5,149.00	5,428.01	5,660.71	5,986.03	6,218.75	6,450.88	6,590.37
Communication Studies/Public Affairs	$1,344.02	1,888.90	2,186.78	2,831.13	3,376.02	3,623.58	4,069.55	4,763.06	4,962.05	5,401.14	5,694.46	5,938.58	6,279.92	6,524.05	6,768.19	6,914.56
Community and Regional Planning/ Geography	$1,310.85	1,842.58	2,132.45	2,760.23	3,291.39	3,532.67	3,967.77	4,644.15	4,837.97	5,266.21	5,551.51	5,789.93	6,122.69	6,360.54	6,598.38	6,741.31
Global Policy Studies/Asian Studies	$1,271.98	1,787.70	2,069.56	2,678.48	3,193.62	3,428.04	3,849.99	4,506.36	4,694.46	5,109.55	5,386.84	5,617.83	5,940.30	6,171.29	6,401.69	6,540.06
Global Policy Studies/ Business Administration	$5,226.56	6,236.72	7,139.20	8,192.16	9,205.68	10,086.72	11,052.32	12,127.84	12,988.20	13,951.84	14,850.88	15,730.16	16,652.80	17,533.08	18,411.24	19,243.36
Global Policy Studies/Energy and Earth Resources	$1,322.30	1,858.02	2,151.33	2,784.25	3,319.98	3,563.54	4,002.64	4,684.75	4,880.28	5,311.95	5,600.68	5,840.82	6,176.43	6,416.57	6,656.12	6,800.21
Global Policy Studies/ Journalism and Media	$1,344.02	1,888.90	2,186.78	2,831.13	3,376.02	3,623.58	4,069.55	4,763.06	4,962.05	5,401.14	5,694.46	5,938.58	6,279.92	6,524.05	6,768.19	6,914.56
Global Policy Studies/Latin American Studies	$1,271.98	1,787.70	2,069.56	2,678.48	3,193.62	3,428.04	3,849.99	4,506.36	4,694.46	5,109.55	5,386.84	5,617.83	5,940.30	6,171.29	6,401.69	6,540.06
Global Policy Studies/Middle Eastern Studies	$1,271.98	1,787.70	2,069.56	2,678.48	3,193.62	3,428.04	3,849.99	4,506.36	4,694.46	5,109.55	5,386.84	5,617.83	5,940.30	6,171.29	6,401.69	6,540.06
Global Policy Studies/Russian, East European, and Eurasian Studies	$1,271.98	1,787.70	2,069.56	2,678.48	3,193.62	3,428.04	3,849.99	4,506.36	4,694.46	5,109.55	5,386.84	5,617.83	5,940.30	6,171.29	6,401.69	6,540.06
Information Studies/English	$1,341.64	1,886.11	2,182.60	2,824.50	3,367.93	3,615.95	4,060.92	4,753.35	4,951.86	5,390.06	5,681.84	5,925.69	6,266.97	6,511.35	6,753.63	6,900.57
Information Studies/Global Policy Studies	$1,401.61	1,970.05	2,280.76	2,951.84	3,520.84	3,779.12	4,244.35	4,967.87	5,175.38	5,633.98	5,939.73	6,194.69	6,550.66	6,806.18	7,060.59	7,213.47
Information Studies/Latin American Studies	$1,339.44	1,882.60	2,179.34	2,820.28	3,362.87	3,609.85	4,054.67	4,745.92	4,943.75	5,381.69	5,673.29	5,916.86	6,257.05	6,500.61	6,743.03	6,889.41
Information Studies/Public Affairs	$1,401.61	1,970.05	2,280.76	2,951.84	3,520.84	3,779.12	4,244.35	4,967.87	5,175.38	5,633.98	5,939.73	6,194.69	6,550.66	6,806.18	7,060.59	7,213.47
Journalism and Media/Business	$5,374.40	6,403.80	7,329.20	8,402.02	9,434.90	10,340.30	11,327.54	12,421.10	13,305.92	14,291.80	15,213.78	16,116.66	17,063.54	17,967.42	18,870.40	19,727.90

Nonresident Graduate Students

Hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Advertising/ Business administration	$6,160.06	7,520.06	8,725.30	10,005.50	11,24964	12,571.06	13,852.94	15,214.10	16,378.44	17,579.00	18,741.66	19,863.26	21,063.98	22,109.20	23,348.98	24,546.06
Advertising/ Public affairs	$1,977.51	3,103.29	3,855.14	4,793.37	5,638.42	6,670.99	7,610.37	8,736.15	9,393.66	10,139.22	10,791.01	11,349.61	12,094.60	12,467.38	13,304.99	14,050.54
Asian Studies/ Business Administration	$6,257.40	7,597.80	8,800.60	10,071.00	11,307.60	12,615.80	13,886.60	15,227.40	16,394.40	17,592.20	18,756.00	19,883.80	21,082.60	22,142.60	23,375.80	24,570.00
Asian Studies/ Public Affairs	$1,918.62	3,010.67	3,739.65	4,649.86	5,469.75	6,472.02	7,382.82	8,474.86	9,112.92	9,835.62	10,467.97	11,009.99	11,732.10	12,094.03	12,906.48	13,629.74
Business Administration/ Energy and Earth Resources	$5,579.00	6,904.00	8,044.50	9,276.50	10,463.00	11,743.00	12,975.50	14,301.50	15,394.50	16,530.00	17,621.00	18,663.50	19,800.50	20,752.00	21,934.50	23,067.00
Communication Studies/ Business Administration	$6,160.06	7,520.06	8,725.30	10,005.50	11,249.64	12,571.06	13,852.94	15,214.10	16,378.44	17,579.00	18,741.66	19,863.26	21,063.98	22,109.20	23,348.98	24,546.06
Communication Studies/Latin American Studies	$1,921.49	2,015.23	3,745.93	4,657.87	5,478.90	6,482.31	7,394.83	8,488.58	9,127.80	9,851.63	10,485.12	11,027.71	11,751.54	12,113.46	12,927.62	13,652.04
Communication Studies/Public Affairs	$1,977.51	3,103.29	3,855.14	4,793.37	5,638.42	6,670.99	7,610.37	8,736.15	9,393.66	10,139.22	10,791.01	11,349.61	12,094.60	12,467.38	13,304.99	14,050.54
Community and Regional Planning/ Geography	$1,946.07	3,054.11	3,793.95	4,717.33	5,549.22	6,565.79	7,489.74	8,597.78	9,245.00	9,977.99	10,619.49	11,169.51	11,902.49	12,269.55	13,094.01	13,828.13
Global Policy Studies/Asian Studies	$1,918.62	3,010.67	3,739.65	4,649.86	5,469.75	6,472.02	7,382.82	8,474.86	9,112.92	9,835.62	10,467.97	11,009.99	11,732.10	12,094.03	12,906.48	13,629.74
Global Policy Studies/ Business Administration	$6,013.72	7,364.40	8,551.44	9,9819.84	11,048.12	12,359.56	13,627.52	14,979.32	16,125.32	17,309.36	18,452.72	19,554.48	20,738.20	21,759.80	22,984.44	24,165.56
Global Policy Studies/Energy and Earth Resources	$1,972.95	3,095.85	3,845.41	4,781.36	5,624.70	6,654.98	7,592.08	8,714.99	9,370.79	10,114.07	10,764.70	11,322.16	12,064.87	12,437.06	13,272.96	14,016.24
Global Policy Studies/ Journalism and Media	$1,977.51	3,103.29	3,855.14	4,793.37	5,638.42	6,670.99	7,610.37	8,736.15	9,393.66	10,139.22	10,791.01	11,349.61	12,094.60	12,467.38	13,304.99	14,050.54
Global Policy Studies/Latin American Studies	$1,918.62	3,010.67	3,739.65	4,649.86	5,469.75	6,472.02	7,382.82	8,474.86	9,112.92	9,835.62	10,467.97	11,009.99	11,732.10	12,094.03	12,906.48	13,629.74
Global Policy Studies/Middle Eastern Studies	$1,918.62	3,010.67	3,739.65	4,649.86	5,469.75	6,472.02	7,382.82	8,474.86	9,112.92	9,835.62	10,467.97	11,009.99	11,732.10	12,094.03	12,906.48	13,629.74
Global Policy Studies/Russian, East European, and Eurasian Studies	$1,918.62	3,010.67	3,739.65	4,649.86	5,469.75	6,472.02	7,382.82	8,474.86	9,112.92	9,835.62	10,467.97	11,009.99	11,732.10	12,094.03	12,906.48	13,629.74
Information Studies/English	$1,973.87	3,098.55	3,849.37	4,785.52	5,629.02	6,661.00	7,598.20	8,721.86	9,378.93	10,122.48	10,773.32	11,330.98	12,075.55	12,447.83	13,283.51	14,028.09
Information Studies/Global Policy Studies	$2,028.56	3,183.63	3,954.61	4,917.09	5,783.54	6,843.16	7,806.18	8,961.82	9,635.66	10,401.12	11,069.45	11,642.86	12,407.21	12,789.66	13,648.94	14,414.40
Information Studies/Latin American Studies	$1,972.37	3,095.28	3,845.41	4,781.36	5,624.12	6,654.41	7,590.93	8.713.85	9.370.22	10,113.49	10,763.56	11,321.02	12,064.29	12,435.92	13,271.82	14,015.67
Information Studies/Public Affairs	$2,028.56	3,183.63	3,954.61	4,917.09	5,783.54	6,843.16	7,806.18	8,961.82	9,635.66	10,401.12	11,069.45	11,642.86	12,407.21	12,789.66	13,648.94	14,414.40
Journalism and Media/Business Administration	$6,160.06	7,520.06	8,725.30	10,005.50	11,249.64	12,571.06	13,852.94	15,214.10	16,378.44	17,579.00	18,741.66	19,863.26	21,063.98	22,109.20	23,348.98	24,546.06
Journalism	$1,921.49	3,015.23	3,745.93	4,657.87	5,478.90	6,482.31	7,394.83	8,488.58	9,127.80	9,851.63	10,485.12	11,027.71	11,751.54	12,113.46	12,927.62	13,652.04

Non-Funded Program Fee Estimates: Fall 2026- Summer 2027

The University offers non-formula-funded (Option III) graduate programs to meet market demand which cannot be accommodated by formula-funded programs. Option III programs enable the University to fulfill demonstrated higher education and workforce needs as well as to serve a greater number of students than state resources support. Click the following link for additional details: UT Austin Partially Funded and Non-Funded Program Fees with VA-eligible expenses.

The fees published in this section assume continuous attendance by students. International students may be subject to additional fees, such as those associated with full-time enrollment required for a visa. When required, the deposit is included in the first semester's costs. Refer to the "Additional Fees (p. 42)" section of this catalog for details.

Estimate of per semester program fees is based on an example program schedule which may vary. Refer to the program for further information.

Texas Resident, New Student Fee Estimate

Degree Programs

Program	Total Program	Fall	Spring	Summer
Artificial Intelligence (MSAI)	$10,000	2,000 (F)	1,000	1,000
Business Administration, Evening/ Austin (MBA)	$141,000	28,200 (F)	28,200	28,200
Business Administration, Dallas (MBA)	$141,000	28,200 (F)	28,200	28,200
Business Administration, Houston (MBA)	$141,000	28,200 (F)	28,200	28,200
Business Administration, Houston (MD/MBA)	$79,000	26,333 (F)	26,333	26,334 (L)
Business Analytics (MSBA)	$55,600	N/A	N/A	12,600 (F)
Business Analytics, Working Professionals (MSBA)	$55,600	N/A	N/A	8,250 (F)
Communication Studies (MA)	$49,500	13,500 (F)	13,500	N/A
Computer Science (MSCompSci)	$10,000	2,000 (F)	1,000	1,000
Data Science (MSDS)	$10,000	2,000 (F)	1,000	1,000
Economics, 10-Month (MA)	$36,000	N/A	N/A	6,600 (F)
Economics, 18-Month (MA)	$43,500	N/A	N/A	6,600 (F)
Economics, 24-Month (MA)	$54,600	N/A	N/A	6,600 (F)
Educational Leadership and Policy (EdD)	$76,215	N/A	N/A	11,955 (F)
Educational Psychology, Applied Data Analytics (MSEdP)	$21,000	4,200 (F)	4,200	2,100
Electrical & Computer Engineering, Software Engineering and Systems (MSE)	$38,000	7,600 (F)	7,600	3,800
Engineering Management (MSE)	$50,000	10,000 (F)	10,000	5,000
Engineering Management, Fast Track (MSE)	$50,000	20,000 (F)	20,000	5,000
Finance (MSF)	$55,600	N/A	N/A	12,600 (F)
Human Dimensions of Organizations (MA)	$60,000	18,000 (F)	14,000	14,000
Information Security and Privacy (MSISP)	$50,000	10,000 (F)	10,000	10,000
Information Technology and Management (MSITM)	$55,600	N/A	N/A	12,600 (F)
Kinesiology, Sports Management (MSKin)	$20,250	4,050 (F)	4,050	2,025
Marketing (MSM)	$55,600	N/A	N/A	12,600 (F)
Mechanical Engineering (MSE)	$42,000	8,400 (F)	8,400	4,200
Nursing Practice (DNP)	$30,000	6,000 (F)	6,000	6,000
Nutritional Sciences, 1-Year (MSNS) Fall Cohort	$25,722	10,231 (F)	10,231	5,271 (L)
Nutritional Sciences, 1-Year (MSNS) Spring Cohort	$25,722	N/A	10,231 (F)	5,271
Nutritional Sciences, 2-Year (MSNS) Fall Cohort	$26,670	5,281 (F)	5,281	2,789
Nutritional Sciences, 2-Year (MSNS) Spring Cohort	$26,670	N/A	5,281 (F)	2,789
Public Leadership (MPL)	$48,000	N/A	N/A	16,000 (F)
Technology Commercialization (MSTC)	$59,250	N/A	N/A	19,750 (F)

Stackable Certificate Programs (Texas Resident, New Students)

Program	Total Program	Fall	Spring	Summer
Artificial Intelligence: Foundations and Applications in AI/ML	$5,000	N/A	1,250 (F)	1,250
Artificial Intelligence in Nursing and Healthcare	$6,000	2,000 (F)	2,000	2,000 (L)
Communication Studies: Communication and Leadership	$22,500	13,500 (F)	9,000 (L)	N/A
Communication Studies: Strategic Communication	$22,500	13,500 (F)	9,000 (L)	N/A
Communication Studies: Sports Communication	$22,500	13,500 (F)	9,000 (L)	N/A
Mechanical Engineering: Controls	$12,600	4,200 (F)	4,200	4,200 (L)
Nursing: Teaching	$6,000	2,000 (F)	2,000	2,000 (L)
Petroleum Engineering: Data Analytics	Not accepting students			
Petroleum Engineering: Fundamentals	Not accepting students			
Petroleum Engineering: Unconventional Resources	Not accepting students			
Semiconductor Science and Engineering: Semiconductor Process and Devices	$12,000	4,000 (F)	4,000	4,000 (L)

Nonresident, New Student Fee Estimate

Degree Programs

Program	Total Program	Fall	Spring	Summer
Artificial Intelligence (MSAI)	$10,000	2,000 (F)	1,000	1,000
Business Administration, Evening/ Austin (MBA)	$141,000	28,200 (F)	28,200	28,200
Business Administration, Dallas (MBA)	$141,000	28,200 (F)	28,200	28,200
Business Administration, Houston (MBA)	$141,000	28,200 (F)	28,200	28,200
Business Administration, Houston (MD/MBA)	$79,000	26,333 (F)	26,333	26,334 (L)
Business Analytics (MSBA)	$59,700	N/A	N/A	12,600 (F)
Business Analytics, Working Professionals (MSBA)	$59,700	N/A	N/A	8,250 (F)
Communication Studies (MA)	$49,500	13,500 (F)	13,500	N/A
Computer Science (MSCompSci)	$10,000	2,000 (F)	1,000	1,000
Data Science (MSDS)	$10,000	2,000 (F)	1,000	1,000
Economics, 10-Month (MA)	$48,000	N/A	N/A	8,800 (F)
Economics, 18-Month (MA)	$58,000	N/A	N/A	8,800 (F)
Economics, 24-Month (MA)	$72,800	N/A	N/A	8,800 (F)
Educational Leadership and Policy (EdD)	$76,215	N/A	N/A	11,955 (F)
Educational Psychology, Applied Data Analytics (MSEdP)	$21,000	4,200 (F)	4,200	2,100
Electrical & Computer Engineering, Software Engineering and Systems (MSE)	$38,000	7,600 (F)	7,600	3,800
Engineering Management (MSE)	$50,000	10,000 (F)	10,000	5,000
Engineering Management, Fast Track (MSE)	$50,000	20,000 (F)	20,000	5,000
Finance (MSF)	$59,700	N/A	N/A	12,600 (F)
Human Dimensions of Organizations (MA)	$60,000	18,000 (F)	14,000	14,000
Information Security and Privacy (MSISP)	$50,000	10,000 (F)	10,000	10,000
Information Technology and Management (MSITM)	$59,700	N/A	N/A	12,600 (F)
Kinesiology, Sports Management (MSKin)	$20,250	4,050 (F)	4,050	2,025
Marketing (MSM)	$59,700	N/A	N/A	12,600 (F)
Mechanical Engineering (MSE)	$42,000	8,400 (F)	8,400	4,200
Nursing Practice (DNP)	$30,000	6,000 (F)	6,000	6,000
Nutritional Sciences, 1-Year (MSNS) Fall Cohort	$25,722	10,231 (F)	10,231	5,271 (L)
Nutritional Sciences, 1-Year (MSNS) Spring Cohort	$25,722	N/A	10,231 (F)	5,271

Nutritional Sciences, 2-Year (MSNS) Fall Cohort	$26,670	5,281 (F)	5,281	2,789
Nutritional Sciences, 2-Year (MSNS) Spring Cohort	$26,670	N/A	5,281 (F)	2,789
Public Leadership (MPL)	$48,000	N/A	N/A	16,000 (F)
Technology Commercialization (MSTC)	$59,250	N/A	N/A	19,750 (F)

Stackable Certificate Programs (Nonresident, New Students)

Program	Total Program	Fall	Spring	Summer
Artificial Intelligence: Foundations and Applications in AI/ML	$5,000	N/A	1,250 (F)	1,250
Artificial Intelligence in Nursing and Healthcare	$6,000	2,000 (F)	2,000	2,000 (L)
Communication Studies: Communication and Leadership	$22,500	13,500 (F)	9,000 (L)	N/A
Communication Studies: Strategic Communication	$22,500	13,500 (F)	9,000 (L)	N/A
Communication Studies: Sports Communication	$22,500	13,500 (F)	9,000 (L)	N/A
Mechanical Engineering: Controls	$12,600	4,200 (F)	4,200	4,200 (L)
Nursing: Teaching	$6,000	2,000 (F)	2,000	2,000 (L)
Petroleum Engineering: Data Analytics	Not accepting students			
Petroleum Engineering: Fundamentals	Not accepting students			
Petroleum Engineering: Unconventional Resources	Not accepting students			
Semiconductor Science and Engineering: Semiconductor Processes and Devices	$12,000	4,000 (F)	4,000	4,000 (L)

Texas Resident, Continuing Student Fee Estimate

Degree Programs

Program	Total Program	Fall	Spring	Summer
Artificial Intelligence (MSAI)	$10,000	2,000	1,000	1,000
Business Administration, Evening/ Austin (MBA)	$135,000	27,000	27,000 (L)	N/A
Business Administration, Dallas (MBA)	$135,000	27,000	27,000 (L)	N/A
Business Administration, Houston (MBA)	$135,000	27,000	27,000 (L)	N/A
Business Administration, Houston (MD/MBA)	N/A	N/A	N/A	N/A
Business Analytics (MSBA)	$54,000	21,000	21,000 (L)	N/A
Business Analytics, Working Professionals (MSBA)	$54,000	10,500	10,500	4,000
Business Analytics, Working Professionals (MSBA), 24-25 Cohort	$50,500	9,500	9,500 (L)	N/A
Communication Studies (MA)	$49,500	13,500	9,000 (L)	N/A
Computer Science (MSCompSci)	$10,000	2,000	1,000	1,000
Computer Science (MSCompSci), 24-25 Cohort	$10,000	2,000 (L)	N/A	N/A
Data Science (MSDS)	$10,000	2,000	1,000	1,000
Data Science (MSDS), 24-25 Cohort	$10,000	2,000 (L)	N/A	N/A
Design (MA)	$46,000	17,800	17,800 (L)	N/A
Economics, 10-Month (MA)	$36,000	14,700	14,700 (L)	N/A
Economics, 18-Month (MA)	$43,500	12,900	12,900	N/A
Economics, 18-Month (MA), 24-25 Cohort	$39,000	10,200 (L)	N/A	N/A
Economics, 24-Month (MA)	$54,600	12,900	12,900	N/A
Economics, 24-Month (MA), 24-25 Cohort	$46,500	11,550	8,850 (L)	N/A
Educational Leadership and Policy (EdD)	$72,225	11,325	11,325	11,325
Educational Leadership and Policy (EdD) 24-25 Cohort	$72,225	11,325	7,650	3,975
Educational Leadership and Policy (EdD) 23-24 Cohort	$72,225	11,325	7,650 (L)	N/A
Educational Psychology, Applied Data Analytics (MSEdP)	N/A	N/A	N/A	N/A

Electrical & Computer Engineering, Software Engineering and Systems (MSE)	$34,000	6,800	6,800	3,400 (L)
Engineering Management (MSE)	$50,000	10,000	10,000	5,000 (L)
Engineering Management, Fast Track (MSE)	$50,000	5,000 (L)	N/A	N/A
Finance (MSF)	$54,000	21,000	21,000 (L)	N/A
Human Dimensions of Organizations (MA)	$60,000	14,000 (L)	N/A	N/A
Information Security and Privacy (MSISP)	$45,000	9,000	9,000 (L)	N/A
Information Technology and Management (MSITM)	$54,000	21,000	21,000 (L)	N/A
Kinesiology, Sports Management (MSKin)	$20,250	4,050	4,050	2,025 (L)
Marketing (MSM)	$54,000	21,000	21,000 (L)	N/A
Mechanical Engineering (MSE)	$40,000	8,000	8,000	4,000 (L)
Nursing Practice (DNP)	$30,000	6,000	6,000 (L)	N/A
Nutritional Sciences, 1-Year (MSNS) Spring Cohort	$25,722	10,221 (L)	N/A	N/A
Nutritional Sciences, 2-Year (MSNS) Fall Cohort	$26,670	5,271	5,271	2,789
Nutritional Sciences, 2-Year (MSNS) Spring Cohort	$26,670	5,271	5,271	2,789
Nutritional Sciences, 2-Year (MSNS) 24-25 Spring Cohort	$26,670	5,271 (L)	N/A	N/A
Public Leadership (MPL)	$46,500	15,500	15,500	N/A
Technology Commercialization (MSTC)	$58,500	19,500	19,500 (L)	N/A

Stackable Certificate Programs (Texas Resident, Continuing Students)

Program	Total Program	Fall	Spring	Summer
Artificial Intelligence: Foundations and Applications in A I/M L	$5,000	1,250	1,250 (L)	N/A

Nonresident, Continuing Student Fee Estimate

Degree Programs

Program	Total Program	Fall	Spring	Summer
Artificial Intelligence (MSAI)	$10,000	2,000 (F)	1,000	1,000
Business Administration, Evening/ Austin (MBA)	$135,000	27,000	27,000 (L)	N/A
Business Administration, Dallas (MBA)	$135,000	27,000	27,000 (L)	N/A
Business Administration, Houston (MBA)	$135,000	27,000	27,000 (L)	N/A
Business Administration, Houston (MD/MBA)	N/A	N/A	N/A	N/A
Business Analytics (MSBA)	$58,000	22,500	22,500 (L)	N/A
Business Analytics, Working Professionals (MSBA)	$58,000	11,000	11,000	5,500
Business Analytics, Working Professionals (MSBA), 24-25 Cohort	$55,500	9,900	9,900 (L)	N/A
Communication Studies (MA)	$49,500	13,500	9,000 (L)	N/A
Computer Science (MSCompSci)	$10,000	2,000	1,000	1,000
Computer Science (MSCompSci), 24-25 Cohort	$10,000	2,000 (L)	N/A	N/A
Data Science (MSDS)	$10,000	2,000	1,000	1,000
Data Science (MSDS), 24-25 Cohort	$10,000	2,000	N/A	N/A
Design (MA)	$46,000	17,800	17,800 (L)	N/A
Economics, 10-Month (MA)	$48,000	19,600	19,600 (L)	N/A
Economics, 18-Month (MA)	$58,000	17,200	17,200	N/A
Economics, 18-Month (MA), 24-25 Cohort	$52,000	13,600 (L)	N/A	N/A
Economics, 24-Month (MA)	$72,800	17,200	17,200	N/A
Economics, 24-Month (MA), 24-25 Cohort	$62,000	15,400	11,800 (L)	N/A
Educational Leadership and Policy (EdD)	$72,225	11,325	11,325	11,325
Educational Leadership and Policy (EdD) 24-25 Cohort	$72,225	11,325	7,650	3,975

Educational Leadership and Policy (EdD) 23-24 Cohort	$72,225	11,325	7,650 (L)	N/A
Educational Psychology, Applied Data Analytics (MSEdP)	N/A	N/A	N/A	N/A
Electrical & Computer Engineering, Software Engineering and Systems (MSE)	$34,000	6,800	6,800	3,400 (L)
Engineering Management (MSE)	$50,000	10,000	10,000	5,000 (L)
Engineering Management, Fast Track (MSE)	$50,000	5,000 (L)	N/A	N/A
Finance (MSF)	$58,000	22,500	22,500 (L)	N/A
Human Dimensions of Organizations (MA)	$60,000	14,000 (L)	N/A	N/A
Information Security and Privacy (MSISP)	$45,000	9,000	9,000 (L)	N/A
Information Technology and Management (MSITM)	$58,000	22,500	22,500 (L)	N/A
Kinesiology, Sports Management (MSKin)	$20,250	4,050	4,050	2,025 (L)
Marketing (MSM)	$58,000	22,500	22,500 (L)	N/A
Mechanical Engineering (MSE)	$40,000	8,000	8,000	4,000 (L)
Nursing Practice (DNP)	$30,000	6,000	6,000 (L)	N/A
Nutritional Sciences, 1-Year (MSNS) Spring Cohort	$25,722	10,221 (L)	N/A	N/A
Nutritional Sciences, 2-Year (MSNS) Fall Cohort	$26,670	5,271	5,271	2,789 (L)
Nutritional Sciences, 2-Year (MSNS) Spring Cohort	$26,670	5,271	5,271	2,789
Nutritional Sciences, 2-Year (MSNS), 24-25 Spring Cohort	$26,670	5,271 (L)	N/A	N/A
Public Leadership (MPL)	$46,500	15,500	15,500	N/A
Technology Commercialization (MSTC)	$58,500	19,500	19,500 (L)	N/A

Stackable Certificate Programs (Nonresident, Continuing Students)

Program	Total Program	Fall	Spring	Summer
Artificial Intelligence: Foundations and Applications in A I/M L	$5,000	1,250	1,250 (L)	N/A

Notes:

(F) First Semester
(L) Last Semester

Partially Funded Program Fee Estimates: Fall 2026- Summer 2027

The University offers partially formula-funded (Option II) graduate programs to meet market demand which cannot be accommodated by fully formula-funded programs. Option II programs enable the University to fulfill demonstrated higher education and workforce needs as well as to serve a greater number of students than state resources support. Click the following link for additional details: UT Austin Partially Funded and Non-Funded Program Fees with VA-eligible expenses.

The fees published in this section assume continuous attendance by students. International students may be subject to additional fees, such as those associated with full-time enrollment required for a visa. When required, the deposit is included in the first semester's costs. Refer to the "Additional Fees (p. 42)" section of this catalog for details.

Estimate of per semester program fees is based on an example program schedule which may vary. Refer to the program for further information.

Texas Resident, New Student Fee Estimate

Program	Total Program	Fall	Spring	Summer
Business Administration (MBA, Executive)	$174,000	34,800 (F)	34,800	34,800
Global Policy Studies, DC (MGPS)	$39,115	6,234 (F)	5,896	13,308
Public Affairs, DC (MPAff)	$39,115	6,234 (F)	5,896	13,308

Nonresident, New Student Fee Estimate

Program	Total Program	Fall	Spring	Summer
Business Administration (MBA, Executive)	$195,792	39,628 (F)	40,208	36,893

Global Policy Studies, DC (MGPS)	$58,891	12,075 (F)	11,332	17,355
Public Affairs, DC (MPAff)	$58,891	12,075 (F)	11,332	17,355

Texas Resident, Continuing Student Fee Estimate

Program	Total Program	Fall	Spring	Summer
Business Administration, Executive (MBA)	$168,000	33,600	33,600 (L)	N/A
Global Policy Studies, DC (MGPS)	$39,115	13,677 (L)	N/A	N/A
Public Affairs, DC (MPAff)	$39,115	13,677 (L)	N/A	N/A

Nonresident, Continuing Student Fee Estimate

Program	Total Program	Fall	Spring	Summer
Business Administration, Executive (MBA)	$189,689	38,717	37,946 (L)	N/A
Global Policy Studies, DC (MGPS)	$58,891	18,129 (L)	N/A	N/A
Public Affairs, DC (MPAff)	$58,891	18,129 (L)	N/A	N/A

(F) First Semester
(L) Last Semester

Additional Fees

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

Affiliated studies registration fee

The fee of $600 per semester defrays costs associated with registration, record keeping, and certification for students participating in sanctioned study abroad programs.

Concurrent enrollment

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

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

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

The University of Texas at Austin does not charge a minimum tuition. A student who registers first at the University (if the University is the institution with the lower tuition rate) and then at a second public institution must request concurrent enrollment by contacting tuition@austin.utexas.edu.

Duplicate fee receipt

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

Field trip fees

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

Freshman and transfer orientation program fees

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

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

General deposit

A fee of $10 is assessed for every student in the first semester of enrollment to help offset the cost of property loss or damage and nonpayment of any University billing. The deposit, less outstanding charges, is returned on request when the student leaves the University with no intention to return. Applications for refund are available online and in Student Accounts Receivable, MAI 4. A general deposit that remains without request for refund for four years from the date of the student's last attendance at the University is forfeited to the Student Property Deposit Scholarships.

In absentia fee

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

International student health insurance fee

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

International insurance administrative fee

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

International student support services fee

A fee of $225.00 per semester is assessed to international students to defray costs associated with orientation, immigration advising and compliance, and support services.

Independent student and research registration fee

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

Joint and cooperative program fees

The University has agreements with several other University of Texas System institutions that allow students to enroll in courses at the other institution. Tuition and required fees for full-time students are normally paid at the degree-granting campus and allocated by that unit to the other institution involved. Graduate students enrolled at the University may apply for admission to another University of Texas System institution through the appropriate dean's office at that institution. Evidence of support from the University should include the approval of the vice provost for graduate and postdoctoral studies. Programs are available only where formal agreements exist between institutions.

Late registration charge

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

Matriculation fee

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

Reciprocal Exchange fee

The fee of $500 per semester defrays the costs associated with registration, record keeping, and certification for students enrolled in study abroad exchange programs.

Reinstatement fee

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

Returned Check Fees

All returned checks are assessed a service charge of $25. Additional fees may apply.

Tuition Exemptions

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

Applications and supporting documents for the Hazlewood exemption must be submitted to the Veteran Certification team in the Office of the Registrar, https://bit.ly/uthazlewood, by the last class day of the semester for which you are seeking exemption.

Highest Ranking High School Graduate

Who is eligible	What is exempted	Where to apply
Highest ranking graduate of an accredited Texas high school.	Tuition during first two consecutive semesters following graduation.	The "To Public Colleges and Universities" certificate, issued by the high school, may be scanned and submitted to tuition@austin.utexas.edu. Include the student's EID and first semester of use.

Blind/Deaf Student Exemption

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

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

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

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

Who is eligible	What is exempted	Where to apply
Dependent person under 25 years of age who receives majority of support from parent classified by Department of Defense as a Prisoner of War or Missing in Action at time of registration.	Tuition	Student Accounts Receivable, tuition@austin.utexas.edu

Exemption for Children of Professional Nursing Faculty and Staff Members

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

Exemption for Clinical Nursing Preceptors and their Dependents

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

Exemption for Foster and Adopted Children

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

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

Who is eligible	What is exempted	Where to apply
Spouses and biological children, adopted children, and stepchildren of an eligible veteran (per the Hazlewood Act Statute, https://statutes.capitol.texas.gov/Docs/ED/htm/ED.54.htm#54.341) who is determined by the VA to be 100% total and permanent service-connected disabled veteran or one who became totally disabled for purposes of employability as a result of a service-related injury or illness. Additional information is available at https://www.tvc.texas.gov/education/hazlewood.	Tuition in state-supported courses (except, but not limited to, student services, general deposit, optional, travel, and field trip fees)	Veteran Certification in the Office of the Registrar, The University of Texas at Austin, https://bit.ly/uthazlewood

Hazlewood Act Exemption for Texas Ex-Servicemembers

Who is eligible	What is exempted	Where to apply
The applicant must meet all the eligibility requirements per the Hazlewood Act Statute (https://statutes.capitol.texas.gov/Docs/ED/htm/ED.54.htm#54.341) and 40 Texas Administrative Code §461; have entered service at a location in Texas, have declared Texas as their home of record, or have been eligible to be declared a resident in accordance with 40 Texas Administrative Code §461.40; and meet other requirements stipulated by the Hazlewood Act Statute. Additional information is available at https://www.tvc.texas.gov/education/hazlewood/	Tuition in state-supported courses (except, but not limited to, student services, general deposit, optional, travel, and field trip fees)	Veteran Certification in the Office of the Registrar, The University of Texas at Austin, https://bit.ly/uthazlewood

Hazlewood Legacy Act Exemption for Children of Texas Ex-Servicemembers

Who is eligible	What is exempted	Where to apply
The ex-servicemember must meet the Hazlewood Act Statute (https://statutes.capitol.texas.gov/Docs/ED/htm/ED.54.htm#54.341) and 40 Texas Administrative Code §461 requirements given above and the child must be a Texas resident who is 25 years of age or younger on the first day of the semester or summer term; and be a child or dependent of a veteran who has received unused hours. Additional information can be found at https://www.tvc.texas.gov/education/hazlewood/.	Tuition in state-supported courses (except, but not limited to, student services, general deposit, optional, travel, and field trip fees)	Veteran Certification in the Office of the Registrar, The University of Texas at Austin, https://bit.ly/uthazlewood

Peace Officers Disabled in the Line of Duty Exemption

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

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

Who is eligible	What is exempted	Where to apply
Surviving spouses and minor children of those killed in the line of duty while employed in certain public service positions.	Tuition, room and board (textbook stipend)	Student Accounts Receivable, tuition@austin.utexas.edu

Exemption for Senior Citizens

Who is eligible	What is exempted	Where to apply
Those age 65 or older. Applicant must submit copy of birth certificate.	Tuition up to six credit hours	Student Accounts Receivable, tuition@austin.utexas.edu

Exemption for Participants in a Military Funeral

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

Tuition Waivers

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

Competitive Scholarship Waiver

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

Economic Development and Diversification Waiver

Who is eligible	What is exempted	Where to apply
Nonresident and domiciled international students whose families transferred to Texas as part of the state's Economic Development and Diversification Plan.	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	The University of Texas at Austin, https://gov.texas.gov/business/page/economic-development-diversification-in-state-tuition-for-employees

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

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

Good Neighbor Scholarship

Who is eligible	What is exempted	Where to apply
Native-born citizens and residents from nations of the Western Hemisphere other than the United States. Applicants must furnish certified evidence of native-born citizenship and scholastic qualifications.	Tuition.	The University of Texas at Austin, Texas Global, ISSS, 1925 San Jacinto Blvd., G14 Austin, TX 78712; https://global.utexas.edu/isss/advising-services/financial-aid

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

Who is eligible	What is exempted	Where to apply
International students establishing domicile in Texas and meeting residency requirements.	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	The University of Texas at Austin, Office of the Registrar, Residency, https://registrar.utexas.edu/residency

Waiver for Mexican Citizens with Financial Need

Who is eligible	What is exempted	Where to apply
A limited number of students from Mexico who have financial need.	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	The University of Texas at Austin, Texas Global, ISSS, 1925 San Jacinto Blvd., G14 Austin, TX 78712; https://global.utexas.edu/isss/advising-services/financial-aid

Waiver for Military: Persons Eligible for Veterans Education Benefits, Their Spouses and Children who Move to Texas

Who is eligible	What is exempted	Where to apply
Veteran or dependent eligible for VA Post-9/11 GI Bill® or another federal law authorizing VA Education Benefits. Child must be 25 years of age or younger on the first day of the semester or summer term for which the benefit is used. Eligibility may be extended if child can provide proof of severe illness or debilitating condition that prevented prior enrollment. Applicant must provide a letter of intent to establish residence in Texas.	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	The University of Texas at Austin, Office of the Registrar, Residency, https://registrar.utexas.edu/residency

Waiver for Military: After Assignment in Texas, Assigned to Duty in Texas, and other Military Exemptions

Who is eligible	What is exempted	Where to apply
Members of the U.S. Armed Forces, their spouses, and/or dependent children in accordance with the Texas Education Code (TEC), Texas Administrative Code (TAC), and Texas Higher Education Coordinating Board (THECB) statutes and regulations.	Tuition waivers can vary depending on a student's status and/or benefits. The nonresident portion of tuition is waived for eligible students. Students are responsible for payment of any resident portion of tuition not exempted.	The University of Texas at Austin, Office of the Registrar, Residency, https://registrar.utexas.edu/residency

Waiver for students in Reserve Officers' Training Corps (ROTC) Program

Who is eligible	What is exempted	Where to apply
A person who is enrolled and in good standing in a Reserve Officers' Training Corps (ROTC) program.	The nonresident portion of tuition is waived for eligible students. Students are responsible for payment of any resident portion of tuition not exempted.	The University of Texas at Austin, Office of the Registrar, Residency, https://registrar.utexas.edu/residency

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

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

Third-Party Billing

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

Description	Who is eligible	What is exempted	Where to apply
Post 9/11 GI Bill® (Ch. 33)	Eligibility for veteran and dependent education benefits is determined by the U.S. Department of Veterans Affairs (VA) and may be earned by members of Active Duty, Selected Reserve and National Guard Armed Forces and their families.	A percentage of tuition and mandatory fees based on the length of active duty service as determined by the VA.	Student pursuing VA State Approving Agency (SAA) approved programs should visit our Veteran Education Benefits website and must request benefit certification using the Office of the Registrar Veteran Certification's GI Bill® portal. For additional information contact Veteran Certification in the Office of the Registrar. Main Building (MAI) Room 1, gibill@austin.utexas.edu, Phone 512-475-7540 The University of Texas at Austin Office of the Registrar, Veteran Certification PO Box 302666, Austin TX 78703
Staff Tuition Assistance Program (STAP)	Active employees appointed as full-time for at least 12 continuous months as of the first class day. Eligibility is determined by Human Resource Services.	Tuition for the college in which the employee is enrolled for one eligible course or more than one course not to exceed three credit hours.	Applications for the Staff Tuition Assistance Program are processed through Human Resource Services. https://hr.utexas.edu/current/career/staff-tuition-assistance-program
Teaching assistant/ assistant instructor/ graduate research assistant tuition reduction	Students employed as teaching assistants, assistant instructors, or graduate research assistants.	Tuition reduction amount is indexed to the number of hours the student is employed.	Student's academic department regarding employment https://gradschool.utexas.edu/academic-employment
Texas Guaranteed Tuition Plan (TGTP)	Students enrolled in the Texas Guaranteed Tuition Plan. Plan enrollment, requirements, and payments determined and maintained by the Texas Comptroller of Public Accounts.	Resident tuition and fees required of all students. The student is responsible for all other fees.	A student's TGTP ID card(s) may scanned and emailed to tuition@austin.utexas.edu. Include student's EID and first semester to use.
Texas Tuition Promise Fund (TTPF)	Undergraduate students enrolled in the Texas Tuition Promise Fund. Plan enrollment, requirements, and payments determined and maintained by the Texas Comptroller of Public Accounts.	Resident tuition and fees required of all undergraduate students. The student is responsible for all other fees.	The purchaser should authorize use of units, using student's EID, at www.texastuitionpromisefund.com at least three weeks prior to the tuition payment deadline each semester to allow for TTPF to submit the information to Students Accounts Receivable.

Tuition Adjustments

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

Refunds for Students Withdrawing from the University

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

Spring and Fall Semester and Summer term

Official withdrawal date	Percentage refund
Prior to the first class day	100% less $15 matriculation fee
During the first five class days	80%
During the second five class days	70%
During the third five class days	50%
During the fourth five class days	25%
After the fourth five class days	none

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

Official withdrawal date	Percentage refund
Prior to the first class day	100% less $15 matriculation fee
During the first, second, or third class day	80%

During the fourth, fifth, or sixth class day	50%
After the sixth class day	none

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

A student who elects to pay their tuition on the installment plan and then withdraws from the University may still owe a portion of the tuition and fees; the installment service charge is not refundable. Likewise, a student who defers their tuition to financial aid and withdraws before the aid disburses may be responsible for a portion of the tuition. A hold will be placed on the student's record until all financial obligations are met.

Students withdrawn by the University because of a returned check are assessed a $25 service charge, a $15 matriculation fee (p. 42), and a $50 reinstatement fee. A student withdrawn by the University for scholastic reasons, class cancellations, or other reasons receives a full refund; the matriculation fee is not charged.

A student who withdraws as a result of being called to required military service may choose to receive a tuition refund. More information about withdrawal for active service is given in the section Withdrawal (p. 70).

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

Student Accounts Receivable initiates refunds for all eligible students who submit approved withdrawal petitions to the Office of the Registrar as described in the section Withdrawal (p. 70). A refund is issued no earlier than thirty days after the date the student paid the initial tuition bill. The refund is sent to the address specified on the withdrawal petition.

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

Policy on Return of Unearned Tuition Assistance

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

Adjustments for Added and Dropped Classes

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

Overpayments of tuition resulting from classes that a student drops (1) during the first twelve class days in a fall or spring semester; (2) during the first four class days in any summer term will be refunded. No refunds are made for classes dropped after these dates. Tuition refunds begin processing the week after the twelfth (or fourth) class day. They are mailed to the student's local address or deposited into the account the student has designated if an electronic funds transfer authorization is in effect. The student may contact Texas One Stop at onestop@utexas.edu to verify account information.

Tuition Rebates for Certain Undergraduates

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

1. The student must not have been enrolled at any institution of higher education before the fall semester 1997.

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

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

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

3. The student must have been a Texas resident and must have been eligible to pay resident tuition at all times while pursuing the degree.

4. If the student received a bachelor's degree in architecture, engineering, or any other program that is determined by the Texas Higher Education Coordinating Board to require more than four years to complete, then the student must have graduated within five calendar years after first enrolling in a Texas public senior college or university. If the student's degree is in a field other than those that have been determined to take more than four years to complete, the student must graduate within four calendar years after that first enrollment.

Requirement 4 applies only to students who enrolled in a public Texas senior college or university for the first time on or after September 1, 2005.

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

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

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

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

Longhorn Fixed Tuition Rebates

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

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

Short-Term Loans

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

Payment of Fees for Students with Disabilities

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

Optional Fees

Students may select the following optional fees when they register. Those who select an optional fee for the fall semester pay the academic year rate. The spring semester rate is available only during the spring semester.

Cactus fee

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

Department of Theatre and Dance Package

The fee entitles the student to a specified number of tickets to major season productions at no additional cost as long as tickets are available. Associated performance fees may arise in the event of severe and unforeseen disruption to fall or spring programming. See the Theatre and Dance Discounted Student Tickets page for additional information.

Big Ticket Pass

The Big Ticket is the annual sports pass giving UT students access to all Texas Athletics home regular season events. UT students can purchase either a Big Ticket **WITH** football access or a Big Ticket **WITHOUT** football access. That's over 120 home regular season events each year including football, men's basketball, women's basketball, volleyball, baseball, softball, and Texas Relays! All active full-time UT-Austin students are eligible to purchase beginning June 15 and receive email communication from Texas Athletics to their email address on file with the University. For more information or to purchase, visit TexasLonghorns.com/BigTicket or call 512-471-3333 (Monday through Friday 9 a.m. – 4 p.m. Central).

Parking permit fee

Class C, M, or N parking permits purchased in the fall semester enable students to park in any appropriately designated lot or area for the academic year; a permit purchased in the spring is valid through the summer semester. See the Student Parking (p. 80) page for all parking permit fees. All fees are prorated for permits purchased after September 30.

Only class C, M, and N permits may be purchased during registration. Information about other parking permits available to students is given in Student Parking (p. 80), along with more information about class C, M, and N permits.

Texas Performing Arts Bass Pass

The fee enables a student to purchase tickets for professional touring events presented by Texas Performing Arts at a discount, as long as tickets are available. For more information or to purchase, visit Texasperformingarts.org/BassPass.

Student Speaker Series fee

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

Optional Fee Refunds

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

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

No refunds will be issued for The Big Ticket after the twelfth class day. Pro-rated refunds will only be issued the semester of purchase and must be requested prior to the twelfth class day for students who have terminated enrollment.

Student Insurance

Student Health Insurance Plan

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

International Student Health Insurance

The Student Health Insurance Plan described above is mandatory for international students; the cost is included in the student's tuition bill each semester. International students may be eligible to waive the cost and coverage of the Student Health Insurance Plan if they are able to present to International Student and Scholar Services an alternative insurance policy that provides benefits comparable to the Student Health Insurance Plan. Additional information about international students and student health insurance is given in the International Student and Scholar Services (p. 76) section of this catalog.

Student Liability Insurance

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

Identification Cards

Student identification cards (ID Card)

Students attending classes on campus must obtain a University photo identification card issued by the ID Center, which is located on the first floor of the Flawn Academic Center. Photos for ID Cards may be submitted online or taken in person. Visit the ID Center page for more information. The proximity-enabled photo ID card is needed for many purposes, including use of the libraries and University Health Services and access to residence halls and other University buildings. ID cards may also be used for purchases at stores that accept Bevo Pay and for admission to athletic and other special events.

Students receive their first ID card at a cost of $20. This ID card is intended to be used throughout the student's enrollment at the University. It is not replaced unless changes in data are required, the card is defective or damaged through normal wear and tear, or the card is lost or stolen. In some cases, an additional $28 replacement fee may apply. Students should report lost or stolen ID cards; found cards should be returned to the ID Center on the first floor of the Flawn Academic Center.

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

Faculty/staff identification cards

The ID Center provides all faculty and staff members with an official University ID card. The card allows access to certain buildings and can be used as a campus library card. Upon loss of eligibility, the individual's ID card must be surrendered to an employee's supervisor, Human Resource, or the ID Center. More information about ID cards is available on the ID Center page.

Obtaining an ID Card

To obtain an identification card, visit utexas.edu/idcenter and scroll down to UT ID Card Online Photo Submission. For more information, please visit the ID Center page.

Fees for Nonstudents

Auditor's fee

A fee of $20 a course is required of individuals not registered at the University who wish to audit one or more courses. In accordance with section 54.210 of the Texas Education Code, a person 65 years of age or older may audit a course without paying the fee if space is available. More information about auditing a course is given in Auditing a Course (p. 29).

Library card fee for non-University borrowers

Libraries are open to the public for use of materials. Adult Texas residents who are not members of the University community may borrow materials for home use by purchasing a courtesy borrower card at the Courtesy Borrower Services Desk at the Perry-Castañeda Library, entrance level. A photo ID and proof of Texas residence are required at the time of purchase. The fee may be waived for current members of the Texas Exes, for users who present valid TexShare cards from libraries participating in the TexShare Card Program, and for other users included in reciprocal borrowing agreements in which the University Libraries participates. More information on fees and waivers is published by the University Libraries. Card expiration dates are determined by the period of enrollment, membership, or appointment.

The Big Ticket guest pass for football season option

Guest season tickets for football are currently not available. More information is available on the Texas Longhorn Athletics website.

Recreational and facility use fees

Recreational Sports memberships, which allow access to University recreational facilities, are available to current faculty and staff members, UT retirees, UT alumni, community members, and minor children. The recreational facilities are the Caven Lacrosse and Sports Center at

Clark Field, the Charles Alan Wright Fields at the Berry M. Whitaker Sports Complex, Gregory Gymnasium, the Gregory Gymnasium Aquatic Complex, the Recreational Sports Center, Whitaker Courts and the recreational spaces inside Bellmont Hall and the Robert B. Rowling Hall at the McCombs School of Business. Below are RecSports membership fees. Additional information is available from the Recreational Sports Membership and Guest Services Office, GRE 2.200. A $15 replacement fee is charged for RecSports identification cards. Find more information at https://www.utrecsports.org/.

Membership Category	Membership Fee Per Calendar Month Through 8/31/26
Faculty/Staff Member	$26
Retired Faculty/Staff	$14
Minor Child (Age 17 and Younger)[8]	$14
UT Alumni and Community Members	$50
Gregory Gym Locker Rental	$10
Recreational Sports Center Locker Rental	$10
Bellmont Hall Locker Rental	$10
Towel Service	$8

Day Pass	Daily Fee
Adult Pass	$14
Minor Child (Age 17 and Younger)[8]	$7
Official Visitor[9]	Fee Varies

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

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

Academic Policies and Procedures

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

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

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

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

Academic Warning and Dismissal

Undergraduate Students

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

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

Table of Academic Standards

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

Warning and Dismissal

The following rules govern academic warning and dismissal.

1. *Change of academic status.* Academic status is determined when grades are reported at the end of each fall and spring semester and at the end of the summer semester. Although a student's University grade point average may change between these grade-reporting periods (because a final grade has been recorded in place of an *X,* for example), the student's academic status is not changed until the next official grade-reporting period during which the student is enrolled at the University.
2. *Effect of grades in courses repeated.* All grades earned in University courses, whether repeated or not, count in a student's grade point average. However, in counting grade points for any semester, a student who earned a grade of at least *C-* in a course taken in a previous semester may not use grade points earned in that same course in the current semester to meet the minimum requirements for continuance given below without written permission from the dean.
3. *Academic warning.* (a) A student whose cumulative University grade point average falls below 2.00 at the end of a grade-reporting period is placed on academic warning. Warning status is reflected on the student's permanent academic record. (b) Any student returning to the University after a period of academic dismissal returns on academic warning. (c) Under exceptional circumstances, the director

of admissions may admit a student to the University on academic warning.

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

Graduate Students

To continue in Graduate and Postdoctoral Studies beyond the first term of enrollment, the student must make satisfactory progress in fulfilling any admission conditions that were imposed, meet any requirements made in writing by the Graduate Studies Committee, maintain a graduate grade point average of at least 3.00, and receive the approval of the student's Graduate Studies Committee.

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

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

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

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

Law Students

Minimum Performance Standards

A law student must receive a final grade of at least D in a course to receive credit for that course. A student must have a cumulative grade point average (GPA) of at least 2.10 on all law courses taken to graduate from the School of Law.

Grades of F are included in the GPA, but courses in which the student earned an F are not counted toward the number of hours required for a degree. A student who fails a required course must repeat it until the student has passed. A student who fails an elective course may, at their option, repeat it only once. When a student repeats a course, the original and all subsequent grades are included in the student's GPA.

Dismissal

A student who has received final grades for 20 or more semester hours will be dismissed from the School of Law for failure if their cumulative GPA falls below 2.10.

A student who receives a total of two grades of F, or three grades of D and one grade of F, or four grades of D for law courses during their law school career will be dismissed for failure.

Academic Probation

A student will be placed on academic probation if their cumulative GPA falls below 2.40, or they receive a grade of F in a law course, or two grades of D for law courses in any one semester. A student on academic probation is not in good standing.

A student on academic probation must participate in academic counseling from the Student Affairs Office (SAO), receive SAO approval for course selection, and successfully complete any additional courses required by the Dean of the School of Law.

A student who fails to comply with the requirements of the academic probation policy will be dismissed for failure. Such a dismissal may be appealed to a committee of the law school faculty designated by the Dean of the School of Law.

Academic probation is lifted after one fall or spring semester in which the student has completed one or more law courses and satisfied the requirements of the academic probation policy, provided that the student does not receive a grade of F or two grades of D for law courses during that semester and their cumulative GPA is at or above 2.40. If the student does not raise their cumulative GPA to 2.40 or above after one fall or spring semester, the student will continue on academic probation.

Academic Concern

A student will be placed on academic concern if their cumulative GPA is at or above 2.40 but below 2.80. A student on academic concern remains in good standing.

A student on academic concern must participate in academic counseling from the Student Affairs Office (SAO), receive SAO approval for course selection, and successfully complete any additional courses required by the Dean of the School of Law.

A student who fails to comply with the requirements of the academic concern policy will be subject to a registration hold and placed on a leave of absence for the following semester. The registration hold and leave of absence may be appealed to a committee of the law school faculty designated by the Dean of the School of Law.

Academic concern is lifted after one fall or spring semester in which the student has completed one or more courses and satisfied the requirements of the academic concern policy, provided the student's cumulative GPA is at or above 2.80. If the student does not raise the cumulative GPA to 2.80 or above, the student will continue on academic concern.

Leave of Absence, Withdrawal, and Readmission

A student who has been dismissed for failure after receiving grades for fewer than 20 semester hours may submit a new application to the School of Law after the student has remained out of the School of Law for at least 12 months. The Law School Admissions Committee may attach significance to the prior failure. No student who has been dismissed for failure from the School of Law will be permitted, prior to readmission, to visit classes.

A student who has been dismissed from the School of Law for failure after receiving grades for 20 or more semester hours will not be readmitted to the School of Law, with this exception: if the student has never been on academic probation in the School of Law, the student may be readmitted with permission of the Dean of the School of Law after the student has remained out of the School of Law for at least 12 months. The student must show evidence of changed circumstances that demonstrate a likelihood of academic success. A student admitted under this rule will continue on academic probation.

A student who has withdrawn from the School of Law after receiving nine or more hours of credit may be readmitted to the school if the student was not on academic probation or academic concern when he or she withdrew or took a leave of absence. Such a student must submit an application for readmission to the University. The Dean of the School of Law may also require the student to show evidence of circumstances that demonstrate a likelihood of academic success.

A student who, while on academic probation or academic concern, withdrew from the School of Law, took a leave of absence, or was placed on a leave of absence may be readmitted on these conditions: the student must submit an application for readmission to the University; provide evidence of changed circumstances that demonstrate a likelihood of academic success; and have permission of the Dean of the School of Law to return. A student readmitted under this rule will continue on academic probation or academic concern.

Adding and Dropping Classes

Overview

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

Course Load Reduction

Approval of requests for course load reductions are always the prerogative of the academic dean when medical reasons are given. Applications to request consideration of a course load reduction should be submitted to Disability and Access. Disability and Access will request a recommendation from the UHS chief medical officer. Once the chief medical officer signs the application, UHS will submit it to the appropriate dean's office for a final decision.

Adding a Class

The addition of a class is governed by the following requirements: (1) the student must obtain all required approvals; (2) the student must be eligible to take the class; (3) there must be space available in the class; and (4) the student must remain in conformity with the Enrollment Status (p. 60).

Subject to these requirements, a registered undergraduate student may add themselves to a class through the sixth class day of a fall or spring semester or the second class day of a summer semester. Undergraduate students are expected to be settled in their classes their classes by the sixth class day of the fall or spring semester or the second class day of the summer semester.

After the sixth class day of a fall or spring semester or after the second day of a summer semester, approval to add a class must be obtained from the chair of the offering department, or their designee.

After the twelfth class day of a fall or spring semester or the fourth class day of a summer semester, with the approval of the student's dean and the chair of the department offering the class, a student may add a current or past semester class (either with or without a grade) only[1]:

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

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

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

Adding a Class

The addition of a class is governed by the following requirements: (1) the student must obtain all required approvals; (2) the student must be eligible to take the class; (3) there must be space available in the class; and (4) the student must remain in conformity with the Enrollment Status (p. 60).

Subject to these requirements, a registered graduate student may add themselves to a class through the fourth class day of a fall or spring semester or the second class day of a summer semester; the approval of the chair of the department offering the class may be required. Graduate students are expected to be settled in their classes their classes by the fourth class day of the fall or spring semester or the second class day of the summer semester.

After the fourth class day of a fall or spring semester or after the second day of a summer semester, approval to add a class must be obtained from the instructor, the graduate advisor of the department offering the course, and the vice provost for graduate and postdoctoral studies.

After the twelfth class day of a fall or spring semester or the fourth class day of a summer semester, with the approval of the student's dean and the chair of the department offering the class, a student may add a current or past semester class (either with or without a grade) only[1]:

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

The addition of a class for a semester prior to the current fall or spring semester must be signed by the dean or the appropriate associate dean of the college/school. For graduate students, this is the vice provost for graduate and postdoctoral studies or the associate dean for student services.

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

Dropping a Class: Rules for Undergraduate Students

The deadlines for dropping a class are provided in the Academic Calendar. (p. 7) To drop a class, the student must meet the conditions described below and must abide by the Quantity of Work Rule (p. 60). Students considering dropping a course are encouraged to speak with the course's instructor to determine if options exist for completing the course.

In addition to other required approvals, international students must have the written consent of Texas Global (p. 76) to drop a class.

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

Limitations

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

A dropped class is counted toward the six-drop limit if the student dropped it from the thirteenth class day through the deadline to drop a class for academic reasons in a fall or spring semester or from the fifth through the last class day in a summer semester, and if the student did not drop the class for a substantiated, nonacademic reason as defined below.

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

Nonacademic Reasons for Dropping a Class

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

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

family or who is otherwise considered to have a sufficiently close relationship to the student that the person's required military service is considered to be a showing of good cause.

5. A change of the student's work schedule that is beyond the control of the student and that affects the student's ability to complete the course.

Procedures

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

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

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

After the deadline to drop a class for academic reasons. After the deadline to drop a class for academic reasons has passed, there are only two possible ways for a student to drop a class. One way is in the case of urgent, substantiated, nonacademic reasons, which must be approved by their dean. Approved nonacademic drops that occur during this period are not counted toward the six-drop limit described above. The other way is for the student to seek approval to use the One-Time-Exception. Approved One-Time-Exception (OTE) drops that occur during this period are counted toward the six-drop limit described above. To seek either type of drop within this period a student must submit the completed OTE form to the student's dean's office by the last class day.

One-Time Exception

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

General Provisions

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

Provisions for Drops

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

Provisions for Withdrawals

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

Dropping a Class: Rules for Graduate Students

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

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

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

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

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

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

Students should note that dropping a course may cause their course load to drop below that required for full-time status.

Specific deadlines for adding and dropping courses are given in the academic calendar; procedures are given in the Course Schedule.

Attendance

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

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

Religious holy days

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

Absence for military service

In accordance with section 51.9111 of the Texas Education Code, a student is excused from attending classes or engaging in other required activities, including exams, if they are called to required military service of a reasonably brief duration. The maximum time for which the student may be excused has been defined by the Texas Higher Education Coordinating Board (THECB) as "no more than 25 percent of the total number of class meetings or the contact hour equivalent (not including the final examination period) for the specific course or courses in which the student is currently enrolled at the beginning of the period" of required military service. The student will be allowed a reasonable time after the absence to complete assignments and take exams. Policies affecting students who withdraw from the University for military service are given in the Withdrawal (p. 70) section.

Availability of Coursework to Students

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

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

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

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

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

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

For more information, including related policies, see General Information > Academic Policies and Procedures > Evaluation > Symbols. (p. 63)

Class Syllabi

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

- The course number and title
- The instructor's name, office location, and office hours
- The names, office locations, and office hours of any teaching assistants
- An overview of the class, including prerequisites, the subject matter of each lecture or discussion, and the learning outcomes for the course and how they will be assessed
- Grading policy, including:
  1. The means of evaluation and assignment of class grades;
  2. Whether plus and minus grades will be used for the final class grade; and
  3. Whether and, if so, how attendance will be used in determining the final class grade
- A Course AI Policy Statement that includes whether generative AI use is permitted, prohibited, or partially permitted in each course according to the specifications detailed on the UT Austin Your Syllabus website.
- A brief descriptive overview of all major course requirements and assignments, along with the dates of exams and assignments that count for 20 percent or more of the class grade
- A list of required and recommended materials, such as textbooks, image collections, audio and audiovisual materials, supplies, articles, chapters, and excerpts as appropriate, identified by author, title, and publisher
- Final exam date and time (when available)
- A link to the class Canvas site
- A notice that students with disabilities may request appropriate academic accommodations from the Division of Student Affairs, Disability and Access
- A notice that HOP 2-9970 prohibits students from recording class instruction (audio or video) unless a student obtains the instructor's permission or Disability & Access has approved audio recording as an accommodation.

Instructors must provide a syllabus to students by uploading and publishing a complete syllabus to a course's Canvas site as a file OR by using the Simple Syllabus tool. Instructors must also ensure the Canvas

site has been published and made available to students by the first day of class.

Each instructor of record for an organized undergraduate course must also submit a copy of their course syllabus and curriculum vitae to their departmental office or dean's office on or before the first day of classes each semester so that they can be made publicly available at the university's **Access Syllabi and CVs website**. Making undergraduate course information available to the public is mandated by HB 2504, passed by the 81st Texas Legislature (2009). The administrative units must upload instructor CVs and syllabi of undergraduate courses to the University's public website no later than seven days after the first day of classes. Listing of office location, office hours, and teaching assistant information is not required for the publicly available version of the syllabus. Instructors for organized graduate courses must submit their course syllabi and curriculum vitae according to their departmental office or dean's office (for non-departmentalized units) specifications.

Classification of Students

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

Credit Value and Course Numbers

The Semester Hour

The credit value of courses is expressed in semester hours. Most courses are designed to require approximately three hours of work a week throughout the semester for each semester hour of credit given; that is, for each hour a class meets, an average of two additional hours of preparation is expected of the student. The time requirement in the laboratory, field, or studio varies with the nature of the subject and the aims of a course, so there is no fixed ratio of laboratory to class hours. Most courses meet three hours a week in the fall and spring semesters and have a credit value of three hours. In a six-week summer term, courses meet seven and a half hours a week for three semester hours of credit. Fall and spring semester classes that meet on Monday, Wednesday, and Friday are scheduled for an hour (50 minutes with a 10-minute interval between classes); classes that meet on Tuesday and Thursday are scheduled for an hour and a half (75 minutes with a 15-minute interval between classes). Monday/Wednesday/Friday classes normally begin on the hour and are dismissed after 50 minutes; Tuesday/Thursday classes normally begin on the hour or half-hour as appropriate and are dismissed after 75 minutes. Summer classes normally are scheduled every day for an hour and a half (75 minutes with a 15-minute interval between classes).

Course Numbers

Each field of study taught at the University is identified by a name and a one-, two-, or three-letter abbreviation. Lists of fields (p. 167) are included in the *General Information Catalog*. Each course in the field is identified by a number made up of three digits, which may be followed by a letter. Except in the Dell Medical School, the first digit of the course number indicates the credit value of the course in semester hours. Courses numbered 201 through 299 have a value of two semester hours; 301 through 399, a value of three semester hours; and so on. A zero as the first digit indicates that the course is noncredit. Except in the Dell Medical School, the second and third digits of the course number indicate the rank of the course; if they are 01 through 19, the course is of lower-division rank; if 20 through 79, of upper-division rank; and if 80 through 99, of graduate rank.

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

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

Digital Badging Initiative

The Digital Badging Initiative allows colleges, schools, and units to offer non-transcriptable, not-for-credit recognition of a student's academic accomplishments. Digital badges (or microcredentials) signify the smaller academic achievements of a learner or student. Digital badges may represent work that a learner has participated in (completion badge), or a skill that they have demonstrated and been assessed on (competency badge).

Completion Badges

A completion badge is a digital record that acknowledges a learner's completion of an assignment, training, or other activity. These offerings require participation of a minimum of four contact hours.

Competency Badges

A competency badge is a digital record that acknowledges the assessed mastery of knowledge, skills and/or abilities in a given context. These badges have associated learning outcomes, assessment, and rubrics.

Diplomas

The diploma is a formal document issued by the University to recognize that a degree has been awarded by the institution.

University diplomas display the student's legal name or designated diploma name, graduation date, and degree earned (e.g. Bachelor of Arts, Bachelor of Science in Chemistry, or Doctor of Philosophy), along with the name and seal of the institution and the signatures of University and University of Texas System officials. If the student has graduated with University honors as described in Graduation with University Honors (p.), this accomplishment is indicated. The diploma does not display the student's major(s), minors or certificates.

Information regarding multiple degrees for undergraduate students can be found in the Graduation section of the Undergraduate catalog.

A graduating student has the option to have their diploma name printed with a chosen name instead of the name on their University record. This option must be submitted by the name change deadline as set by the Registrar during the final semester before graduation.

Any requests to reprint the diploma based upon a name change after the deadline will be assessed a $50 fee.

Diplomas are mailed about six to eight weeks after the student's graduation. A student who owes a debt to the University may be unable to obtain a diploma until the debt is paid.

A graduate may purchase a replacement diploma through the Office of the Registrar for $50. The signatures of University and University of Texas System officials may not be the same as those on the original

diploma, since the signatures of former officials are not maintained on file, therefore your diploma may reflect a reissued date. A graduate who requests a replacement diploma based on a name change (either legal or chosen) must pay the replacement fee.

Enrollment Status (Quantity of Work Rule)

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

Enrollment Status

Fall or Spring

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

Summer

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

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

Course Load Reduction

Approval of requests for course load reductions are always the prerogative of the academic dean when medical reasons are given. Applications to request consideration of a course load reduction should be submitted to Disability and Access. Disability and Access will request a recommendation from the UHS chief medical officer. Once the chief medical officer signs the application, UHS will submit it to the appropriate dean's office for a final decision.

[1] Graduate Quantity of Work rules apply to the Pharm.D. program.

Maximum Hours in the Fall and Spring Semesters

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

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

Pharm.D. students. A Pharm.D. student must register for a minimum of 12 semester hours and may not register for more than 17 semester hours in any fall or spring semester without the approval of their dean, unless the degree plan published in the undergraduate catalog for the Pharm.D. major specifies otherwise.

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

Maximum Hours in the Summer Semester

Undergraduates. Except as permitted by their academic dean, no undergraduate student may register for more than 14 semester hours in a 12 week summer semester or for more than eight semester hours in either six-week term. A student whose maximum period of summer registration is nine weeks may not register for more than ten semester hours except as permitted by their academic dean.

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

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

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

Full-Time and Half-Time Enrollment

A student's enrollment status is determined by the number of credit hours for which the student is enrolled in residence in a semester. University Extension semester-based coursework is included in the total along with in-residence coursework. Semesters include multiple subterms. Fall and Winter Terms are subterms included in Fall Semester enrollment while Spring and May Terms are subterms included in Spring Semester enrollment. First Term, Second Term, Nine-Week Term, and Summer Term are subterms included in Summer Semester enrollment. The following table shows the minimum number of hours required.[1]

Minimum Hours in the Fall and Spring Semesters

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

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

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

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

Pharm.D. students. A Pharm.D. student must register for a minimum of 12 semester hours in any fall or spring semester.

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

Minimum Hours in the Summer Semester

There is no minimum course load in the summer semester.

Undergraduate Student Employees

An undergraduate student's combined University employment and semester-hour course load may not exceed 40 hours a week in any semester. Any academic unit may require a lower work-study load of students in the unit who are employed by the University. A student who wishes to exceed the maximum work-study load set by their college must have the approval of the dean of the college. More information is available at the student employment website.

Graduate Student Academic Employees

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

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

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

Examinations

The final examinations for each semester and summer term are scheduled by the Office of the Registrar. Classes that meet at the same time during a semester also have a common examination time. An index of these examination times is included in the Course Schedule; the examination schedule for a specific class is available through the Texas One Stop's website. The final exam schedule will be available by the first-class day of each semester. Students may access their individual examination schedules through the Texas One Stop's site.

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

No final examinations may be given before the examination period begins, and no change in time from that published in the official schedule is permitted without approval. An instructor with a compelling reason to change the time of an examination must obtain the approval of the department chair and the dean of the college or school in which the course is taught before announcing an alternative examination procedure to the students. No substantial examinations may be given during the last class week or during the study days preceding the final examination period. An examination is considered to be substantial if it counts for more than 30 percent of the final course grade. A change in the room assignment for a final examination may be made only with the approval of the registrar.

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

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

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

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

Uniform exams, also known as departmental exams, occur when an academic unit administers a single exam to all students in multiple classes at the same time.

In the event of a student having a regular exam and a uniform exam scheduled at the same time resulting in a conflict, the student should plan to take the final exam during the make-up exam period as written on the final exam public search because uniform exams already have a make-up exam scheduled for another date and time.

In the event of a student having two regular final exams scheduled at the same time resulting in a conflict, the instructor who chose the non-default exam period for their regular exam is responsible for accommodating the student by providing another time to take the exam that works with the student's schedule.

In the event of a student having two uniform final exams scheduled at the same time resulting in a conflict, the student should plan to take one of the final exams during the corresponding make-up exam period as written on the final exam public search because uniform exams already have a make-up exam scheduled for another date and time.

Instructors cannot require students to make up an exam on a day that would cause the student to exceed the three-exam limit. In the event a student has more than three (3) final exams scheduled in a single day, the student may petition the instructor(s) to allow them to take the additional exam on an alternate day. Students should ask the instructor of their latest two-hour exam time(s) on days they are scheduled for more than three exams for an alternate exam day.

Instructors of asynchronous courses are presumed to be offering asynchronous final exams. An instructor of an asynchronous course who wishes to give a synchronous final exam must contact their unit's course scheduler no later than one week before their first class meeting of the semester to request a synchronous final examination time. The instructor of the asynchronous course must accommodate students who

have regularly scheduled final exams that conflict with the asynchronous course scheduled final exam time.

All instructors must communicate dates and times of all final exams to all students on the syllabus, on the first class day.

In the event a student has an exam accommodation through Disability and Access (D&A) that causes an overlap with another scheduled exam, the instructor of the course causing the overlap must work with the student to find an alternative time for the exam or allow the student to take the exam through the designated D&A exam proctoring system.

A student should address complaints related to the final examination procedures in a course to the chair of the department offering the course. The student may appeal the decision of the department chair to the dean of the college or school in which the course is offered.

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

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

Grade Point Average (GPA) Computation

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

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

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

Undergraduate Students

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

Graduate Students

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

Grading (Evaluation)

Overview

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

Grades

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

To receive credit for a course, an undergraduate student must earn a grade of at least *D-*. To include a course in the Program of Work for a graduate degree, a graduate student must earn a grade of at least *C*. More information about the Program of Work is given in the Graduate Catalog. In addition to earning adequate grades in courses, undergraduates must have a cumulative University grade point average of at least 2.00 to maintain satisfactory progress toward a degree; graduate students must maintain a graduate grade point average of at least 3.00. Information about these requirements is given in the section Academic Warning and Dismissal (p. 53). Computation of the grade point average is explained in the section Computation of the Grade Point Average (p. 62).

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

Members of the faculty are not authorized, without the academic dean's approval, to withhold a final grade or to defer reporting a final grade at the end of the semester other than by the use of the symbol *X*, described in Symbols (p. 63). If a grade is withheld without the dean's approval, the grade may not be added to the official records later without the written approval of the academic dean. Issues involving withholding or deferring grades for graduate students are handled by the deans of the colleges and schools.

After a grade has been reported to the registrar, it may not be changed unless an error was made by the instructor. A college or school may approve an appeal for change of final grade for a semester prior to

the previous fall or spring semester, but only for the most compelling nonacademic reasons. If approved, the appeal must be signed by the dean or the appropriate associate dean of the college/school. For graduate students, this is the vice provost for graduate and postdoctoral studies or the associate dean for graduate student services.

Symbols

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

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

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

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

Improper uses of the symbol *X*

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

Approved uses of the symbol *X*

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

1. **Missing the final examination.** The student is unable to take a final examination because of illness or for another nonacademic reason. A physician's statement or other satisfactory verification is required.
2. **Incomplete classroom assignment.** The student has not been able to complete the required class or laboratory assignments for a reason other than lack of adequate effort. A request for temporary delay of the final course grade because of incomplete class or laboratory work can be made only if the student has a passing average on the classwork or laboratory work already completed and has taken and passed the final examination (unless a final examination is not given in the course or the student is unable to take the examination for reasons indicated in the previous paragraph).
3. **Reexamination petition.** Only a student who has a grade average of at least *C-* on all classwork and laboratory work submitted before the final examination may request a temporary delay of the final course grade because the student failed the final examination, which is the examination given during the final examination period as defined in the official examination schedule. If the instructor denies the student's reexamination petition, the student's final course grade remains as originally determined. If the instructor grants the petition, and the student earns a grade of at least *C-* on the reexamination, then the instructor substitutes the reexamination grade for the original examination grade in determining the student's final course grade. If the instructor grants the petition, and the student earns a grade on the reexamination of less than *C-,* then a final course grade of *F* must be recorded.

Assignment of the symbol *X* by the registrar

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

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

Undergraduates

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

The registrar will notify the student when a grade change is recorded. While the symbol *X* appears on a student's record, the course for which the symbol is recorded is not included in the student's University grade point average. When the final grade has been recorded as described above, then the course is included in the student's grade point average. More information about the grade point average is given in Computation of the Grade Point Average (p. 62).

Graduate students

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

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

The registrar will notify the student when a grade change is recorded. A course for which the symbol *X* or *I* is recorded is not included in the graduate grade point average and may not be listed on the student's Program of Work. When the symbol *X* is converted to a grade as described above, the course is included in the graduate grade point average and may be listed on the Program of Work. More information about the graduate grade point average is given in Computation of the Grade Point Average (p. 62); more information about the Program of Work is given in the Graduate Catalog.

Symbols *CR* and *NC*

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

earn either the symbol *CR* (credit) or a grade of *F;* graduate students register on the credit/no credit basis and earn either the symbol *CR* or the symbol *NC* (no credit).

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

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

Pass/Fail

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

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

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

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

Students in the College of Liberal Arts and students pursuing the Bachelor of Arts in the College Natural Sciences may take up to 16 semester hours of classroom or correspondence work in elective courses on the pass/fail basis. Students in the College of Natural Sciences pursuing a Bachelor of Science or a Bachelor of Science and Arts may take up to six semester hours of classroom or correspondence work in elective courses on the pass/fail basis. For students in the College of Natural Sciences pursuing a B.S. in Medical Laboratory Science (MLS) degree, hours taken in fulfillment of MLS clinical education program requirements may exceed the limit on pass/fail hours. Plan II students may take up to 19 semester hours in elective courses on the pass/fail basis. All other undergraduates may take up to five one-semester courses, including correspondence courses, on the pass/fail basis.

If students decide to major in a subject in which they have taken a course on the pass/fail basis, it is the prerogative of the department to decide whether or not the course will count toward degree requirements. Each department may offer as many as two courses in its major entirely on the pass/fail basis.

Credit by examination

Undergraduates may earn credit by exam on the pass/fail basis in required courses. Accepting credit by exam with the symbol *CR* does not reduce the number of elective courses for which the student may register on the pass/fail basis. (More information about credit by examination is given in Course Placement and Credit by Examination (p. 68).)

Credit/No Credit

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

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

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

Symbols *S* and *U*

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

Repetition of a Course

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

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

Honors

Overview

Except as noted, the opportunities displayed in the following sections are open to all qualified undergraduates. Honors available through the colleges and schools, and the interdisciplinary programs and activities offered by the University Undergraduate Program, are described in the Undergraduate Catalog.

University Honors

Each fall and spring semester, undergraduates who complete a full course load and earn outstanding grades are recognized by inclusion on the University Honors list. Each time a student is included on the list, their official record also shows the award of University Honors for that semester. The list is compiled at the end of each fall and spring semester; it is based on the student's work in that semester only. To be included, a student must earn at least 45 grade points and a grade point average of at least 3.50 on courses completed in residence and must have no incomplete grades (symbol *X*).

Students are notified on the semester grade report of their inclusion on the list.

Graduation with University Honors

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

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

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

The faculty may adopt college- or school-wide standards or may designate grade point average and percentage requirements for each

program within the college or school, but the percentage of the college or school class receiving honors, high honors, and highest honors may not exceed those above.

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

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

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

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

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

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

College Scholars

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

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

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

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

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

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

(1) academic misconduct and/or

(2) non-academic misconduct involving warning or higher.

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

Marshall, Rhodes, and Truman Scholarships

The Marshall scholarship allows young Americans of high ability to study for a degree in the system of higher education of their choice in the United Kingdom. Each scholarship offers up to two years of postgraduate study. Up to 40 new awards are offered every year in the United States. Students should apply in their senior year. Applications are typically due to the Office of Distinguished and Postgraduate Scholarships in early August.

The Rhodes scholarship is for outstanding students between 18 and 24 years of age on October 1 of the year of application. Students should apply in their senior year. Each scholarship offers two years of postgraduate study at the University of Oxford. Thirty-two scholarships are assigned annually to the United States. Applications are typically due to the Office of Distinguished and Postgraduate Scholarships in early August.

The Harry S. Truman Scholarship Foundation awards $30,000 merit-based scholarships annually to college students who wish to attend graduate school in preparation for careers in government or elsewhere in public service. Applicants must be United States citizens or nationals, or applying for citizenship at the time of application. Truman Scholars receive leadership training, graduate school counseling, preferential admission and merit-based aid at some premier graduate institutions, and internship opportunities with federal agencies. Students who will be seniors the following academic year should apply to the Office of Distinguished and Postgraduate Scholarships in October.

Alpha Lambda Delta and Phi Eta Sigma

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

Membership is by invitation only to students who earn a grade point average of at least 3.50 after completing at least twelve semester hours of coursework in their first semester at the University. Eligible students are notified by the University Undergraduate Programs at the beginning of the spring semester. More information can be found on the Honors Societies website.

Junior Fellows Program

The Junior Fellows Program provides recognition for outstanding students who have completed four semesters, or approximately 60 semester hours of coursework. Chosen annually from the best students across the campus, junior fellows are given the opportunity to participate in independent study and research with distinguished professors of their choice, and to have that research supported by small grants, if necessary. The program is administered by the College of Liberal Arts, but undergraduates in all colleges and schools are eligible to take part. Students who wish to be considered should apply by April 15. Applications are available online.

Phi Beta Kappa

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

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

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

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

All eligible students are notified by the University Undergraduate Programs after spring chapter elections. More information can be found on the Honors Societies website.

Phi Kappa Phi

Founded in 1897 at the University of Maine, Phi Kappa Phi is the nation's oldest, largest, and most selective honor society for all academic disciplines. The University of Texas chapter was established in 1962. Phi Kappa Phi awards more than $800,000 annually through graduate and undergraduate scholarships, member and chapter awards, and grants for local and national literacy initiatives.

Membership is by invitation only to the top 7.5 percent of second-semester juniors, the top 10 percent of seniors, and graduate students with a grade point average of 4.00. Students are eligible for membership if they have completed the minimum required hours and have the required grade point average. Eligible students are notified by the University Undergraduate Programs in the spring. More information can be found on the Honors Societies website.

Tau Sigma

Tau Sigma is a national honor society that recognizes the scholastic achievement of transfer students at The University of Texas at Austin. The purpose of Tau Sigma is to recognize and promote academic excellence and involvement among transfer students. The UT Austin Beta Theta Chapter was established in 2007. Tau Sigma members have opportunities to earn scholarships, take leadership positions within the chapter, and serve others at the university and community level while connecting with other academically oriented transfer students.

Membership is by invitation only to students who earn a grade point average of at least 3.50 after completing at least twelve semester hours of coursework at UT Austin. Eligible students are notified by the University Undergraduate Programs at the beginning the spring semester.

Personal Record Information

Name change

The University maintains educational records under the student's full, legal name. Official documents such as transcripts will not be issued bearing any other name.

Currently enrolled and former students may change the name on their permanent academic record by presenting an original or certified copy of the appropriate documentation to the registrar. In addition, students may be asked to present a notarized copy of their request. To change the first, middle, last name, suffix, or sequence of names the student must present an original or certified copy of one of the following: government issued ID (US only), such as driver's license; valid passport (any country); signed certificate of naturalization; original or certified copy of birth certificate (US only), marriage certificate; court order (must show change to new name); or divorce decree (must show change to new name). The registrar may request additional documentation if necessary.

Change of address, telephone number, or e-mail address

The student must give the correct local and permanent postal addresses, telephone number(s), and e-mail address to the Office of the Registrar and to the office(s) of the student's dean(s) and must notify these offices immediately of any changes. Official correspondence is sent to the postal or e-mail address last given to the registrar; if the student has failed to correct this address, the student will not be relieved of responsibility on the grounds that the correspondence was not delivered.

Searches

General searches of a student's personal papers and belongings may be conducted at the discretion of an instructor only when there is reasonable suspicion that the student has engaged in misconduct in violation of the Appendix C, chapter 11, Student Conduct and Academic Integrity (p. 117). In addition, the instructor must believe that the search is necessary to maintain the academic integrity of an examination or to maintain an environment in which learning can occur.

Self-Paced Distance Education Coursework by Resident Students

Students enrolled in residence must have the prior approval of their dean to count correspondence work toward degree requirements. Correspondence courses taken from The University of Texas at Austin

and used toward a degree at the University are subject to the same pass/fail rules that apply to courses taken in residence; information about pass/fail registration is given in Symbols CR and NC, Pass/Fail (p. 63).

Summons to Administrative Offices

A summons to the office of any administrative officer must be observed. Failure to respond to a summons may result in suspension from the University. A summons to the dean may be sent by post or by e-mail, so it is important that the student keep both the dean and the Office of the Registrar informed of all current addresses.

Teacher Certification

The University conducts a large, field-based educator preparation program leading to certification for future teachers, administrators, and educational support personnel. This program is evaluated each year by the State of Texas and by the federal government. The results of these evaluations attest to the high quality of educator preparation at the University. Teacher preparation requires extensively supervised field experiences, with most programs requiring approximately 800 hours in the field. Based on certification exam pass rates for all applicant demographic groups, the Texas Education Agency (TEA) rated the University educator preparation program "accredited," its highest rating. The University recommends students for teacher certification to TEA. To be recommended for a certificate to teach in elementary or secondary school, an undergraduate student must earn a degree as well as complete an approved teacher certification program. Students complete the following requirements for approved programs in conjunction with degree requirements:

1. *Enrollment.* Students seeking certification to teach at the elementary school level (option a below) must register in the College of Education and major in education, an interdisciplinary program. Students seeking secondary (option b), or all-level (option c) certification must earn a degree from the college or school that houses the academic program in their prospective teaching field. Students should be advised by both an advisor in their academic department and a teacher certification advisor to confirm that the courses for which they register are applicable to their certification program.
   Students who are seeking teacher certification should select from the following options:
   a. Elementary (early childhood through grade 6): ESL generalist or ESL bilingual generalist
   b. Secondary (grades 6 through 12): dance; (grades 7 through 12): mathematics, science, computer science, English language arts and reading, history, or social studies
   c. All-level: special education, art, music, theatre, or languages other than English
2. *Admission to the Professional Development Sequence.* All students seeking teacher certification must complete a sequence of professional development courses. Admission to the Professional Development Sequence is restricted, and students must apply for admission. Academic performance, completion of prerequisite courses, documented evidence of proficiency in reading and in oral and written communication, and the number of hours needed to complete the program may be factors in the admission decision.

   For students seeking early childhood through grade six or all-level generic special education certification, admission to the Professional Development Sequence requires a minimum University grade point average and minimum course grades prescribed by each program. To progress within the sequence, the student must maintain the minimum grade point average for the program. In addition, when they enter the Professional Development Sequence, students seeking early childhood through grade six and all-level generic special education certification may lack no more than one class outside the sequence. Additional information about these requirements is available in the Student Division Office, College of Education.

   For students in other teacher certification programs, requirements for admission to and continuation in the Professional Development Sequence are set by the college in which the student majors.
3. *Certification exam.* An individual seeking certification is required to achieve a satisfactory level of performance on the appropriate Texas Examinations of Educator Standards (TExES) test to be approved for initial or additional certification. Students who do not apply for their teaching certificate within three years of completing student teaching may be required to complete additional fieldwork hours and coursework before applying for the certificate.
4. *Legal questions.* In accordance with state law, the commissioner of education may suspend or revoke a teaching certificate or refuse to issue a teaching certificate for a person who has been convicted of a felony or misdemeanor for a crime that directly relates to the duties and responsibilities of the teaching profession. Information about legal issues is available from the teacher certification officer, George I. Sánchez Building, Certification Office, (512) 471-3223.

For students who hold a bachelor's degree, separate programs are available that lead to teacher certification at all levels. The requirements of these postbaccalaureate programs may be different from those of the undergraduate certification programs.
For more information about teacher certification programs, students should see an academic advisor in the Student Division Office of the College of Education, in the George I. Sánchez Building.

Criminal History Acknowledgement

As required by HB1508, teacher certification applicants need to be aware of the following:

- In order to earn a State of Texas teacher certification, you must pass a criminal history background check.
- If you have been convicted of an offense that is considered not appropriate for an educator, you could be ineligible to earn a teacher certification from the State of Texas. Details about potential eligibility of persons with a criminal history can be found in Texas Administrative Code, §249.16.
- You have a right to request a preliminary criminal history evaluation letter from the Texas Education Agency before admission into a program. The Texas Education Agency currently charges a fee for this criminal history evaluation. More information about the preliminary criminal history evaluation is online at https://tea.texas.gov/Texas_Educators/Investigations/Preliminary_Criminal_History_Evaluation-FAQs/.

Testing and Evaluation Services

Testing and Evaluation Services

Testing and Evaluation Services (TES) coordinates many exam-related programs and services for UT Austin students and faculty, and in some cases, public exams.

Campus Testing Center

The Campus Testing Center (CTC) collaborates with Disability and Access to provide a centralized testing location for in-person accommodated tests for UT Austin students.

Student Testing Services

Student Testing Services (STS) coordinates the credit by examination (CBE) program and administers many exams for course credit and placement for UT Austin students. In addition to tests developed by University departments, STS also serves as a testing center for some worldwide testing programs, including:

- College Level Examination Program (CLEP)
- Graduate Record Examinations (GRE) General Test
- Praxis Series (Professional Assessments for Beginning Teachers)
- Test of English as a Foreign Language (TOEFL)

Scanning Services

Scanning Services are provided to any UT Austin instructor who administers coursework for an official class using the standard answer sheets or Remark answer sheets.

Public Testing Center

The Public Testing Center offers proctoring services to the public for the following exam types:

- Exams from Other Universities: Students may visit our testing center to take proctored exams from outside universities, including international universities.
- Kryterion Exams: Kryterion is a secured exam delivery company that offers high-stakes test delivery. The UT Public Testing Center serves a HOST Location (High-stakes Online Secured Testing) for Kryterion.
- State Exams: The UT Public Testing Center partners with various state of Texas organizations to provide specified licensing and credentialing exams.

More information about exams, programs, and services can be found on the Testing and Evaluation Services website.

Credit by Examination (CBE) and Course Placement

Student Testing Services (STS) coordinates the credit by exam (CBE) program as well as many placement tests within the University. UT Austin students may use qualifying scores on accepted exams to earn course credit and determine the appropriate level of placement for certain undergraduate coursework. Many exams are optional, while others are recommended or required for enrollment in certain courses. Most serve as a basis for both placement and course credit.

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

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

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

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

Petitioning for Placement and/or Credit

A student who has earned an eligible score on an accepted exam has the option of using the score to meet a prerequisite requirement, as well as to earn credit for a given course. Course credit is not automatically added to a student's academic record upon enrollment; a student must accept credit for the specific courses they wish to add to their academic record via the course petitioning process. Students may choose to petition for placement or petition for credit.

- Petitioning for Placement allows a student to "place out" of a given course, as well as enroll in any courses that require the petitioned course as a prerequisite.
- Petitioning for Credit allows a student to "place out" of a given course, enroll in any courses that require the petitioned course as a prerequisite, and earn credit for the petitioned course.

If the student petitions for credit, STS reports the petitioned course to the Registrar's Office and the course then becomes part of the student's academic record. If the student wishes to use the test score as a course prerequisite without earning credit hours for the prerequisite course (petition for placement), they may use the qualifying score, after consulting their academic advisor, to enroll in the subsequent course. In this case, the student does not earn the hours associated with the course and the course does not appear on the student's academic record. A student who uses a test score for placement only may later petition for credit for that course, but once the score has been used for course credit it may not be changed to placement only. Credit by examination cannot be reported to the Registrar for former students who are prohibited from enrolling in Texas public colleges and universities due to noncompliance with Texas Success Initiative regulations. Students may not petition for credit by examination while on academic dismissal.

A fee is assessed for using the test score to earn course credit. There is no fee assessed for using a test score for placement purposes only. The STS website gives complete instructions for petitioning and paying for exam and credit-related fees.

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

In deciding whether to petition for credit by exam, students should consider the impact of the credit on their eligibility for a tuition rebate (p.); and the possibility that they will be charged additional tuition (p. 30) if they have excessive credit. They should also consider their program requirements and recommendations, future graduate or professional education plans, as well as any residency requirements. It is strongly advised that a student speak with their academic advisor prior to claiming credit by exam. Once credit for a petitioned course is written to a student's academic record, it cannot be removed.

Language Placement Testing

Most of the tests mentioned below are given during various periods throughout the academic year, and in some cases, during the summer session. Scheduled administrations for each exam may vary. General testing periods for the exams listed below may be found on the Yearly Testing Schedule on the STS website.

Foreign language placement tests serve not only to determine the level of work appropriate for students but also as the basis for credit by exam, which normally may be earned in lower-division courses. Credit by exam

may be used to absolve a high school unit deficiency or to fulfill degree requirements. Language credit that exceeds degree requirements often may be used as elective credit.

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

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

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

Students without transfer credit or eligible AP or IB scores but with knowledge of American Sign Language or a foreign language, however acquired, are strongly encouraged and in some cases required to take the associated placement test before enrolling in a course in that language. Please contact STS for additional information.

Examinations Used for Course Credit and Placement

The following tests serve as basis for placement and credit by examination at the University. A complete list of exams, required scores, and course numbers awarded can be found on the STS website.

1. **College Board Advanced Placement (AP) Examinations.** Credit is granted to students who have earned satisfactory scores of 3 or higher on the College Board Advanced Placement (AP) Examinations in Art (Art History and Studio Art), Biology, Calculus, Chemistry, Chinese, Computer Science, English, European History, French, German, Human Geography, Italian, Japanese, Latin, Macroeconomics, Microeconomics, Music Theory, Physics, Precalculus, Psychology, Spanish, Statistics, United States Government and Politics, United States History, and World History: Modern. The AP Examination in US Government and Politics is supplemented with test items on Texas government; these additional items are administered only at the University. Advanced Placement Examinations are offered only once each year, in May, at specific high schools across the country. More information about AP Examinations is published by the College Board.
2. **College-Level Examination Program (CLEP).** The CLEP examinations in American Government, American Literature, Calculus, English Literature, German Language: Levels 1 and 2, Principles of Macroeconomics, Principles of Microeconomics, Introductory Psychology, and Introductory Sociology are used as basis for credit by examination. The tests in American Government, American Literature, and English Literature are supplemented with items prepared by University faculty members; these items are available only on the University campus. Information about locally prepared items may be obtained from STS. All CLEP examinations used by the University as a basis for credit by exam are given on campus on an ongoing basis.
3. **International Baccalaureate (IB) Higher-Level Examinations.** Credit is granted by the University to students who earn satisfactory scores on the IB Higher-Level Examinations in Arabic, Biology, Chemistry, Chinese, Computer Science, Danish, Dutch, Economics, English, French, Geography, German, Hebrew, Hindi, History (concentrations in Africa, the Americas, Europe, and Islamic History), Italian, Japanese, Korean, Mathematics, Norwegian, Philosophy, Physics, Portuguese, Psychology, Russian, Social and Cultural Anthropology, Spanish, Swedish, and Visual Arts.
4. **International Baccalaureate (IB) Diploma.** Students who have earned the IB Diploma and enter the University as freshmen (p. 16) are awarded credit based on scores of 4 or higher on IB Higher-Level (HL) and Standard-Level (SL) examinations as described by Texas Education Code section 51.968. Before petitioning for credit, students should consider the impact of these hours on their eligibility for a tuition rebate (p.); and the possibility that they will be charged additional tuition (p. 30) if they have excess credit. Each student is strongly encouraged to discuss these issues with an academic advisor in their college before claiming credit. The student and advisor should also discuss the student's academic preparation for subsequent courses based on IB test scores. Credit by exam is awarded as described below to students who have participated in the IB program and submitted scores to the University:
   - Students who earn the IB Diploma and enter the University as freshmen (p. 18) may earn credit by exam for HL and SL subject exam scores of 4 or higher, as well as Theory of Knowledge.
   - Students who enter the university as transfer (p. 20) students or who complete some IB exams but do not earn the IB Diploma and may be eligible for credit by exam for qualifying scores on HL exams.
5. **The University of Texas at Austin tests for credit in American Sign Language (ASL), Arabic, Biology, Chemistry, Chinese, Computer Science, Government, Hebrew, Hindi, History, Japanese, Korean, Latin, Math, Physics, Persian, Polish, Portuguese, Spanish, Russian, and Turkish.** Eligible students can earn credit for specified courses in these fields. Descriptions of the tests are available on the STS website and from the STS office. These exams are offered at various times throughout the academic year. General testing periods can be found on the Yearly Testing Schedule on the STS website.
6. **Placement in rhetoric and writing.** A student must have an eligible score on the ACT Writing test, the SAT Writing and Language Test (paper-based SAT), or SAT Reading and Writing test (digital SAT) to receive credit for RHE 306 . Students first admitted to UT Austin as freshmen who were first enrolled at the University in the summer 2021 and subsequent semesters may be eligible to use a qualifying score on the essay portion (Writeplacer) of the TSI Assessment (TSIA) to earn credit for RHE 306 when taken during their first two long semesters of enrollment. A score on the Advanced Placement (AP) Examination in English Language and Composition or transfer credit for RHE 306 may also be used for credit and placement. Additional information is available from STS.

   International students whose native language is not English must submit satisfactory scores on the Internet-based Test of English as a Foreign Language (TOEFL iBT) for admission to a lower-division rhetoric and writing course. The TOEFL does not serve as a basis for awarding course credit.
7. **Other credit by examination.** With the approval of the appropriate academic dean and department chair or program director, a student may take an examination in any undergraduate course offered by the University for which they have reason to feel qualified. A candidate may apply to take a **Department Administered Exam (DAE)** only after registering as a student at the University and obtaining permission from the academic department in which the course is taught. Exams are given at the discretion of the administering department. A student who earns a satisfactory score will receive credit for the course. A student who intends to apply for a Department

Administered Exam should obtain a copy of the syllabus for the course or courses for which they are interested; only students who have the equivalent in knowledge or training of that presented in the outline should attempt the exam. After obtaining permission from the academic department to attempt the exam, students should contact Student Testing Services to obtain a Department Administered Exam form.

The Texas Success Initiative

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

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

All non-exempt students are required by law to take the TSI Assessment (TSIA), which is the only college-readiness assessment approved by the Texas Higher Education Coordinating Board. Students admitted to The University of Texas at Austin may register to take the TSIA by completing this form. If a student chooses to take the TSIA at another institution, it is the responsibility of the student to see that scores are sent to the University's TSI office. Please check our Navigating TSI Requirements page to find more information on how to be TSI Complete.

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

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

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

- For SAT scores:
  - A student with a math score of 530 or higher is exempt from the math requirement.
  - A student with an Evidence-Based Reading and Writing (EBRW) score of 480 or higher is exempt from the English Language Arts and Reading (ELAR) requirement.
- For ACT administered prior to February 15, 2023:
  - A student with an ACT composite score of at least 23 and a math score of at least 19 is exempt from the math requirement.
  - A student with an ACT composite score of at least 23 and an English score of at least 19 is exempt from the English Language Arts and Reading (ELAR) requirement.
- ACT administered on or after February 15, 2023:
  - A combined score of 40 on the English and Reading (E+R) tests is exempt from the English Language Arts and Reading (ELAR) requirement.
  - A score of 22 on the mathematics is exempt from the math requirement. There is no composite score.
- For STAAR scores:
  - A student with a score of at least Level 2 on the STAAR English III end-of-course (EOC) is exempt from the English Language Arts and Reading (ELAR) requirement.
  - A student with a score of at least Level 2 on the STAAR Algebra II end-of-course (EOC) is exempt from the math requirement.
- For GED scores:
  - A student with a minimum score of 165 on the Mathematical Reasoning subject test is exempt from the math requirement.
  - A student with a minimum score of 165 on the Reasoning Through Language Arts (RLA) subject is exempt from the English Language Arts and Reading (ELAR) requirement.
- For HiSET scores:
  - A student with a minimum score of 15 on the Mathematics subtest is exempt from the math requirement.
  - A student with a minimum score of 15 on the Reading subtest and a minimum score of 15 on the Writing subtest, including a minimum score of 4 on the essay, is exempt from the English Language Arts Reading (ELAR) requirement.

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

Withdrawal

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

The dean's signed acknowledgement to withdraw must be submitted to the registrar, where the student may request a refund of tuition, if eligible. Note that tuition refunds are strictly limited according to University policy as described at the following page: Tuition Adjustments (p. 49). No refund will be made to anyone other than the payer, except on the payer's written order.

After the last day for withdrawing, an undergraduate student may petition for withdrawal only for urgent, substantiated, nonacademic reasons. Withdrawal by an undergraduate student on academic warning may affect the student's academic standing. Information about academic warning and dismissal is given in Academic Warning and Dismissal (p. 53).

A graduate student in good standing may withdraw with the acknowledgement of the vice provost for graduate and postdoctoral studies through the last class day of the semester. A graduate student who is in warning status may not withdraw without the recommendation

of the graduate advisor and the acknowledgement of the vice provost for graduate and postdoctoral studies.

Withdrawal for military service

A student who withdraws as a result of being called to required military service may choose (1) to receive a refund of tuition for the semester; (2) if eligible, to be assigned an incomplete (symbol *X*) in each course as described in Symbol X: Temporary Delay in Reporting the Final Class Grade (p. 63); or (3) at the instructor's discretion, to receive a final grade in courses where the student has completed a substantial amount of coursework and has demonstrated sufficient mastery of the course material. Policies affecting students who are absent for military service but do not withdraw are described on the following page: Attendance (p. 58).

Medical withdrawal

After the last day for withdrawing, a student who has an urgent, substantiated, and significant medical or mental health condition which impacts the student's academic functioning may be withdrawn from the University as of the date, and under the conditions, specified at the time of the withdrawal. Note that tuition refunds are strictly limited according to University policy as described at the following page: Tuition Adjustments (p. 49).

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

- ### Course Load Reduction

  Approval of requests for course load reductions are always the prerogative of the academic dean when medical reasons are given. Applications to request consideration of a course load reduction should be submitted to Disability and Access. Disability and Access will request a recommendation from the UHS chief medical officer. Once the chief medical officer signs the application, UHS will submit it to the appropriate dean's office for a final decision.

Retroactive withdrawal

A student who wishes to leave the University for nonacademic reasons is expected to withdraw by the last class day of the current semester as described above. Requests to withdraw after the last class day are considered only if there were compelling documented circumstances that reasonably prevented the student from withdrawing by that day. Note that tuition refunds are strictly limited according to University policy as described at the following page: Tuition Adjustments (p. 49). Students considered under this standard may include, but are not limited to, students who were hospitalized or incarcerated, called away at the end of the semester because of a family crisis, asked to perform military service, or experienced a mental or physical health problem documented by an appropriate healthcare professional, that seriously inhibited their mental or physical functioning.

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

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

Student Services

Vice President for Student Affairs

The Vice President for Student Affairs leads the following departments in the Division of Student Affairs: the Counseling and Mental Health Center, Disability and Access, Longhorn Wellness Center, the Office of the Dean of Students, Recreational Sports, Texas Parents, University Health Services, University Unions. The vice president is the liaison between the president of the University and the department directors providing leadership to develop student-focused programs, spaces and resources that enhance the student experience and complement their academic work. Below are links to find more information about these departments within the Division of Student Affairs, as well as other student services on campus.

Office of the Dean of Students

The Office of the Dean of Students develops student leaders, fosters involvement, and supports all Longhorns throughout their UT Austin experience.

Student Conduct and Academic Integrity

Student Conduct and Academic Integrity provides oversight, intervention, and management for behavioral and academic misconduct for students and student organizations to reinforce UT Austin's core values of Learning, Discovery, Freedom, Leadership, Individual Opportunity, and Responsibility. Student Conduct and Academic Integrity staff administer the University Code of Conduct and provide proactive educational programming for students, faculty, and staff on community expectations related to behavior and academic integrity, emphasizing the prevention of policy violations. Student Conduct and Academic Integrity staff offer support and resources on navigating the conduct process, responding to behavior(s) that may rise to a policy violation, and consulting with community members on strategies for addressing classroom disruption.

Student Governance Organizations

The University seeks to enrich students' educational experiences and opportunities for productive communication between the student body and the University by sponsoring Student Governance Organizations. The Student Government, Senate of College Councils, and Graduate Student Assembly are student-led Student Governance Organizations. Although each organization has a specialized mission and purpose, they both serve as voices for students on campus to enhance the student experience.

Student Involvement

The Student Involvement areas of the Office of the Dean of Students provide engagement opportunities and enrichment for students, student leaders, and student organizations to support connectedness and involvement across the entire UT Austin campus. Programs provided for engagement and development include Student organization resources, such as event planning, space reservations, and organizational development; support for Sorority and Fraternity Life to foster safe and responsible Greek communities; Prevention and risk education workshops, training and resources, including the Successful Student Organization Program to reduce high-risk behavior and reinforce positive organizational culture; training and coaching for leadership development; opportunities to serve the campus and the community through volunteerism and service-learning; and programming for students both on and off campus.

Student Support

The Student Support areas in the Office of the Dean of Students provide assistance, intervention, and referrals to support students' holistic well-being and academic success. Programs provided for support and resources include Basic Needs resources, such as assistance applying for SNAP benefits, demonstration planning and response support, emergency aid for financial hardships, Legal Services for Students, non-clinical case management, and UT Outpost (food pantry and career closet). In addition to these programs, the Behavioral Concerns Advice Line (BCAL) is a resource for reporting behavioral concerns of an individual affiliated with the University (i.e., student, faculty, staff, or visitors). BCAL is operated in partnership with the Counseling and Mental Health Center, Healthpoint-Employee Assistance Program, and the UT Police Department.

Recreational Sports

Recreational Sports develops and conducts programs through which students and anyone with a RecSports membership, including faculty and staff members, may participate in recreational activities. Intramural Sports tournaments and events are scheduled throughout the year for individual, dual, and team participation. Sport clubs provide students an opportunity to participate in a single sport on a continuing basis. About 40 clubs, ranging from taekwondo to lacrosse to sailing, are active each term. Outdoor Recreation provides equipment rental through the Outdoor Center, an indoor Climbing Wall inside Gregory Gym, and facilitates guide-led trips in a variety of activities such as backpacking, camping, canoeing, kayaking, hiking, and rock climbing. Opportunities through the Fitness and Wellness program include group fitness classes, clinics and series, and personal training. The Instructional Program provides access to safety education, swimming and sport skills classes.

In addition to structured sports programs, the department promotes the concept of informal recreational use of its facilities through the Informal Recreation program. Recreational Sports manages the following facilities: the recreational spaces at Bellmont Hall, Caven Lacrosse and Sports Center at Clark Field, Charles Alan Wright Fields at the Berry M. Whitaker Sports Complex, Gregory Gym, Gregory Gym Aquatic Complex, Recreational Sports Center, and Whitaker Courts. Student organizations and University departments may request to reserve spaces within Recreational Sports facilities for a variety of events.

Currently enrolled UT students and anyone with a current Recreational Sports membership may utilize Recreational Sports facilities and register for programs. Current UT faculty and staff, retired UT faculty and staff, alumni, and members of the community are eligible to purchase a RecSports membership. Members may also purchase youth memberships for children; youth facility guidelines apply.

Participants may check out sports equipment at the recreational spaces at Bellmont Hall, Caven-Clark Field, Gregory Gym, Gregory Gym Aquatic Complex, the Recreational Sports Center, Wright-Whitaker Sports Complex, and Whitaker Courts.

Other services offered at Gregory Gym are an Amazon Pickup Point, offering the campus community a convenient location to pick up and return Amazon orders; Shake Smart, a purveyor of freshly-blended protein shakes, cold brew coffee, and healthy on-the-go foods; and a University Federal Credit financial center.

Membership and Guest Services manages recreation facility access systems and provides amenities to students, and anyone with a RecSports membership. Amenities include rental lockers and towel service.

University Housing and Dining

All students enrolled in The University of Texas at Austin are eligible to live in University-owned housing. Students are not required to live on campus and may choose to live on or off campus. Freshmen are encouraged to consider living in University residence halls. The experience of many students indicates that adjustment to University life is often easier for those who live on campus. Research indicates that students who live in residence halls are more fully involved in academic and extracurricular activities, earn higher grade point averages, more frequently exceed predicted levels of learning and personal development, and more frequently complete their college education within four years, as compared to students who live off campus.

A brief description of University housing follows. More information about housing is available online and from The University of Texas at Austin, University Housing and Dining, 200 W Dean Keeton St, Austin, TX 78712. Institutional rules regarding university-owned residences are listed in Appendix C, Chapter 5. University-Owned Residences (p. 96).

Applying for housing in University residence halls

Students may apply to live on campus after they have completed the admission application. Contracts are offered to students who are admitted to the University; incoming freshmen must be admitted and have paid or satisfied the enrollment deposit. More information about the housing application process is available online. Housing is not guaranteed for students.

University-owned residence hall for men

The University residence hall for men is Creekside Residence Hall, which can accommodate approximately 200 students.

University-owned residence halls for women

The University residence halls for women are Kinsolving and Littlefield, which can accommodate approximately 900 students. Freshmen women who apply for housing with Littlefield as their first building choice are given priority consideration for assignment to Littlefield.

University-owned residence halls for men and women

Jester Center, San Jacinto Hall, Almetris Duren Hall, Brackenridge Hall, Prather Hall, Moore-Hill Hall, and Roberts Hall accommodate approximately 5,300 students. Andrews, Blanton, and Carothers honors residence halls accommodate about 500 students. Dobie Twenty21 accommodates approximately 750 students.

University-owned apartments

2400 Nueces, located off campus in the west campus area, is open to continuing students. Continuing students include undergraduate students in their second year (or later) at UT Austin, graduate students and transfer students. 2400 Nueces offers fully furnished studio, one-, two-, three- and four-bedroom apartments. More information about 2400 Nueces is available online.

East Campus Graduate Apartments, located in East Austin close to the Forty Acres, opens Fall 2024 and is exclusively for graduate students. This six-building complex offers 545 fully furnished studio, one- and two-bedroom apartments with all utilities included in the monthly rates, controlled card access to residential areas, live on staff support and onsite maintenance. More information about East Campus Graduate Apartments is available online.

The University Apartments, located in off campus areas that have shuttle bus service, are open to graduate and undergraduate students who have completed at least 30 semester hours of coursework, including those with families. Gateway Apartments and Colorado Apartments have approximately four hundred air-conditioned, unfurnished units; Brackenridge Apartments have approximately 300 one-, two-, and three-bedroom, air-conditioned, unfurnished units. Rates for all units include utilities, internet and laundry. Apartment contracts may be signed up to 60 days before move-in. More information about University Apartments is available online and from The University of Texas at Austin, University Apartments, 3501 Lake Austin Boulevard, Austin TX 78703-5533.

Privately owned housing

A wide range of privately owned housing is available for men, women and families in the University community. Arrangements for living in these residence halls, rooming and boarding houses, cooperative houses, apartments and private homes are made directly with the management of each residence. The University maintains a website that includes links to other housing and real estate listings.

The University accepts no responsibility for the terms of rental or the accommodations offered and will not be a party to the enforcement of contracts between students, parents, and landlords for privately owned housing.

Scholarships and Financial Aid

The Office of Scholarships and Financial Aid provides financial assistance to students who might otherwise be unable to attend the University. Financial aid awarded through the office may include grants, scholarships, loans, or work-study. Most financial aid is determined based on documented financial need, which is the difference between the cost of attending the University, the Student Aid Index, and the financial resources available to the student.

Students must complete a need analysis form each year to apply for financial assistance. The office requires students to complete either the Free Application for Federal Student Aid (FAFSA) or the Texas Application for State Financial Aid (TASFA). The FAFSA should be completed by students who are U.S. citizens or eligible resident aliens. The TASFA should be used by non-citizens who are classified as Texas residents; the Apply page of the Texas One Stop website has more information on the TASFA. The information submitted through these applications helps the Office of Scholarships and Financial Aid assess family resources and determine eligibility for specific aid programs. Students who are admitted as transient/non-degree-seeking and attend the University are not eligible for financial aid through the Office of Scholarships and Financial Aid.

Estimated Costs

Pursuant to state law, The University of Texas System Board of Regents (the Board) is authorized to set tuition. Please visit Tuition Rates on the Texas One Stop website for up-to-date information regarding Fall 2025 rates.

Estimated costs for tuition, fees, housing, food, books, transportation, and personal and miscellaneous items for a typical student (both undergraduate and graduate) living in University-owned housing for the 2025-2026 fall, spring, and summer semesters are available on the Cost of Attendance page of the Texas One Stop website. The tuition amounts included in these figures are based on an average course load of 12 or more semester hours for undergraduates and nine or more semester hours for graduate students.

Application dates

The University strongly recommends that all students complete their financial aid applications by the Texas Higher Education Coordinating Board's priority filing date. More information about the priority filing date and financial aid is published by Texas One Stop.

A student may apply for financial aid before being officially admitted to the University, but the awarding of aid is contingent upon admission. Aid cannot be disbursed until the student is officially enrolled.

Once they have a UT EID, prospective freshmen can apply for scholarships via the Scholarship Interest Form. Continuing and transfer students may apply for annually awarded scholarships by completing the UT Austin Continuing and Transfer Student Scholarship Application. Both applications are available in the scholarship management system, Longhorn Awards and Student Scholarship Opportunities (LASSO).

For more information, including deadlines and other scholarship opportunities, see Scholarships on the Texas One Stop website

Course load requirements

Most financial aid programs are based on a minimum full-time enrollment of 12 credit hours for undergraduate students and from nine to 15 credit hours for graduate students, depending on the student's academic program. Students may receive financial aid for less than full-time enrollment, but the amount of aid awarded may be adjusted based on the student's final enrollment status. Some financial aid programs require that award amounts be reduced proportionally for less than full-time enrollment. To receive financial assistance for summer semester, students (except those admitted as transient/non-degree-seeking) must enroll for classes in a designated summer semester.

Changes in financial circumstances

Students are responsible for reporting to the Office of Scholarships and Financial Aid any change in their financial resources that occurs after the initial application for aid is submitted. A documented decrease in resources may make a student eligible for an increase in financial aid if funds are available; an increase in resources may result in a reduction or cancellation of financial aid funds or a requirement to repay awards already released to the student. Students can submit a Special Circumstance Appeal to report changes in student or parent income.

Satisfactory Academic Progress

Federal law requires that institutions of higher education monitor the academic progress of students who receive federal financial aid. To remain eligible for federal, state, and some institutional financial aid, students must comply with The University of Texas at Austin's standards for Satisfactory Academic Progress (SAP); requirements for satisfactory progress are:

1. Minimum GPA: An undergraduate student must maintain a cumulative University grade point average (GPA) of at least 2.00. A graduate student must maintain a cumulative GPA of at least 3.00.
2. Minimum Pace: A student must successfully complete at least 67% of the credit hours they attempt.
3. Maximum Timeframe: A student may attempt no more than 150% of the credit hours required by their degree program.

Undergraduate and Graduate students will be evaluated annually at the end of the spring semester. For more specific information about the policy and the appeal procedure, see Maintaining Eligibility on the Texas One Stop website.

Types of Financial Aid

A student who submits a FAFSA or TASFA is considered for all applicable federal, state, and institutional funds that are administered by the Office of Scholarships and Financial Aid. The composition of the aid package depends on the characteristics of the student, including program eligibility and degree of financial need, as well as on the availability of funds. For more information, see Types of Financial Aid on the Texas One Stop website.

Scholarships and Grants

Students who apply for financial assistance by the priority deadline are considered for all scholarship and grant awards administered through the Office of Scholarships and Financial Aid. To be considered for a Federal Pell Grant, a student must be enrolled as an undergraduate and must not have received a bachelor's degree. Many scholarships and grants awarded through the financial aid process are based on financial need. For more information, see Scholarships or Grants on the Texas One Stop website.

In addition to specific qualifications for competitive undergraduate scholarships and fellowships awarded by the University, the entity responsible for selecting recipients for a given scholarship or fellowship may consider such factors as the following in designating recipients:

- Standardized test scores
- Class rank
- Grade point average
- Leadership and extracurricular activities
- Status in national academic competitions
- Academic performance within a major and other performance criteria
- Financial need
- Educational level

Loans

Federal loan programs are available to assist students with cost of attendance at the university. These programs have interest rates that may be adjusted annually and do not require repayment of principle or interest until the student has graduated or is no longer enrolled half-time. In addition, the loans offer a grace period between the time the student leaves school and the time repayment begins. Deferment or cancellation of repayment is available for certain situations, such as military service, periods of unemployment, or teaching service in designated schools. Federal and state loans are available to both students and parents of students who do not show financial need. Interest rates on these loans are set by federal and state law. Under certain conditions, repayment of these loans may be deferred while the student is enrolled in school. For more information, see Loans on the Texas One Stop website.

Work-Study

Federal, state and institutional Work-Study programs provide jobs for students who show financial need and want to earn money to cover part of their educational expenses while attending school. Most Work-Study jobs are on campus, though some may be at off-campus nonprofit agencies. Depending on their educational interests and experience, students may choose from a variety of employment opportunities. For more information, see Work-Study on the Texas One Stop website.

Other Services Not Based on Financial Need

Emergency Loans

Short-term loans are available for emergency expenses related to educational costs. For more information on what type of short-term loans are available, visit Loans on the Texas One Stop website.

Student Employment

In addition to overseeing the work-study program at The University of Texas at Austin, the Office of Scholarships and Financial Aid works in conjunction with the Career Success office assisting students in finding part-time, seasonal, and summer employment through HireUTexas powered by Handshake.

Requirements for Student Borrowers

Mandatory counseling sessions

Prior to receiving the first disbursement of a Federal Direct Subsidized or Unsubsidized Loan, Federal Direct Graduate PLUS, or Federal Perkins Loan, student borrowers must complete an online loan counseling session, in which they receive information about their obligations, rights, and privileges as borrowers. In addition, student loan recipients who withdraw, graduate, or drop to less than half-time will be required to complete an online exit interview. The exit interview gives information about their repayment obligations and the consequences of failure to repay.

Identification and release of official transcript

Records of students who have received loans are identified to the Office of the Registrar.

Tuition Refunds and Repayment of Financial Aid

Students who are awarded financial aid for a specific semester but cease attendance/withdraw prior to the beginning of classes are required to repay all funds released back to the University. Students who cease attendance/withdraw after the beginning of classes may be required to repay at least some portion of the funds received. The amount to be repaid is calculated according to a repayment policy determined by the Office of Scholarships and Financial Aid, according to federal regulations. Repayment varies depending on the amount and type of funds received and when the student leaves the University. Any refund of tuition or University housing charges due to a student may be used to meet the repayment requirement.

Students who received financial aid may have all or part of the calculated refund credited to the student aid programs from which the student was paid. The remaining refund, if any, will be paid to the student.

Federal regulations require that refunds due to student aid programs be credited in the following order: (1) Federal Direct Unsubsidized Loan; (2) Federal Direct Subsidized Loan; (3) Federal Direct Grad Plus; (4) Federal Direct Parent Loan for Undergraduate Students; (5) Federal Pell Grant; (6) Federal Supplemental Educational Opportunity Grant; (7) other federal student aid programs; (8) nonfederal student aid program. Nonfederal student aid programs are refunded in the following order: (1) state grants; (2) institution grants; (3) state loans; (4) scholarships, if specified by donor.

Longhorn Orientation

Orientation

Longhorn Orientation programs are designed to aid in the transition of all newly admitted undergraduate students into the academic and social climate of the University. Longhorn Orientation programming serves new freshman and transfer students by: acclimating them to the campus and surrounding community; providing information and assistance concerning academic policies, procedures, requirements, and class registration; serving as a campus information and referral agent; and hosting opportunities for campus offices and organizations to interact with new students through programs and events. Longhorn Orientation strives to provide a holistic, encompassing student development approach to achieve goals that ultimately support the missions of the University. Program fees provide the budget for student programs and services coordinated by the unit.

Texas One Stop for Enrollment Services

As part of the University's commitment to providing exceptional customer service to support student success, the Texas One Stop for Enrollment Services was developed in late 2019 to maximize service to students and make it easier for them to get help with registration, financial aid, and billing in one central location while maintaining the high standards for compliance and integrity of student records.

In a newly remodeled location on the ground floor of the UT Tower (MAI 1), Texas One Stop offers upgraded technology and professional staff support who are cross-trained in registration and records, student accounts, and financial aid.

Along with the new, integrated center, the virtual Texas One Stop website launched in November 2019 to help students find important information easily to complete important steps in the enrollment process. The launch of the website included the new Bevo Bot automated chatbot to provide immediate answers to questions and connect students to the resources they're looking for.

Texas One Stop offers students:

- A central location to have questions answered regarding financial aid, billing, payment, registration and records.
- Support by having cross-trained staff answer questions from a student-life-cycle perspective.
- Updated technologies and support to better serve students across campus.
- A central website with student-focused content to support student success.

University Health Services

University Health Services (UHS) is located in the Student Services Building and is a fully accredited ambulatory healthcare facility. It provides medical services primarily for currently enrolled students at The University of Texas at Austin and extends its travel health and physical therapy services to university faculty and staff. UHS offers certain services for some non-students who are officially enrolled in particular university programs. UHS also provides public health leadership and initiatives, including the promotion of a healthy campus.

The medical staff includes board-certified physicians (family medicine, internal medicine and sports medicine), nurse practitioners, physician assistants, physical therapists, registered dietitians and an integrated behavioral health team in conjunction with the Counseling and Mental Health Center (CMHC). UHS offers laboratory, radiology, and ultrasound services and other specialty services, including an allergy shot/immunization/travel health clinic, gynecology, and sports medicine.

For routine health concerns, students can schedule appointments by calling (512) 471-4955 on weekdays during posted business hours. Students can also schedule many types of appointments online. UHS has same-day and next-day appointment availability for illness or injury that requires more prompt medical attention. Regular operating hours, as well as those for the summer semester, holidays, and semester breaks, are posted on the UHS website.

Students with medical emergencies should go directly to an emergency facility or call 911.

The UHS Nurse Advice Line, (512) 475-NURS (6877), is available 24 hours a day to offer guidance to ill or injured students. Students who need medical treatment when UHS is closed must go to a healthcare facility in the community and are responsible for any charges incurred.

There are charges associated with UHS clinic visits. The complete University Health Services Charges Statement is posted on the UHS website.

Students sometimes are affected by medical conditions beyond the scope of services offered by UHS. Payment for services at other healthcare facilities is the sole responsibility of the student; therefore, students are encouraged to purchase the optional student health insurance plan or have insurance coverage under another policy. Additional information about the student health insurance plan can be found here.

UHS accepts most types of health insurance; however, students are not required to have health insurance to use UHS. For more information, including types of plans with which claims cannot be filed, go to the UHS website.

Counseling and Mental Health Center

The Counseling and Mental Health Center (CMHC) assists University of Texas at Austin students in coping effectively with aspects of their personal, social and psychological well-being and growth, so they may realize their full academic potential. CMHC programs address problems that can affect day-to-day living; respond to student crises; support student mental health, well-being and safety; and prepare the student to respond more effectively to the challenges of university life. CMHC also provides support to the University community by consulting with faculty, staff and administrators and by responding to traumatic events affecting university students when requested.

CMHC services include brief assessment for referral to the most appropriate CMHC or community service; short-term individual counseling; group counseling; support and skills development workshops; psychiatric evaluation and medication, if indicated; and prevention and education programs designed to support student safety, growth and development. Crisis counseling is provided during business hours, and a 24-hour crisis line is available at (512) 471-CALL (471-2255).

CMHC also offers TimelyCare, a virtual mental health and well-being platform for currently enrolled students. Through the mobile app or desktop, students receive 24/7 access to virtual care through phone or secure video visits. Scheduled counseling and psychiatry visits are available to students anywhere in the United States, and additional services such as TalkNow, health coaching, and self-care content can be accessed anywhere in the world. TimelyCare providers offer support in over 240 languages.

The Counselors in Academic Residence (CARE) program provides convenient and accessible counseling for students in most colleges and schools, as well as consultation for their faculty and staff.

The Integrated Health Program, a collaboration with University Health Services (UHS), offers mental health services within the UHS clinical setting, as well as self-help MindBody Lounge for stress reduction and biofeedback.

The Voices Against Violence Program provides clinical services for survivors of interpersonal violence including crisis, individual and group counseling.

The Mindful Eating Program provides treatment options for students with disordered eating or body image concerns.

The Substance Use Support Team provides assessment, support services and short-term counseling for students with alcohol and other drug use/abuse issues.

CMHC clinical staff includes psychologists, professional counselors, psychiatrists and social workers. It is approved by the American Psychological Association for internship training and partners with various departments on campus to provide training for graduate students in social work, counseling psychology, and clinical psychology. Additionally, CMHC partners with University of Texas at Austin Dell Medical School Psychiatry Residency Program in training psychiatry residents and the Child and Adolescent Psychiatry Fellowship Program in training child and adolescent psychiatry fellows.

The CMHC has two locations. The primary location will a full array of services is on the fifth floor of the Student Services Building, 100 West Dean Keeton Street, and is open weekdays 8:00 am to 5:00 pm. Services are available in-person and through virtual visits. The second location, CMHC @ WCP, offers a more limited range of services and is located in the William C. Powers, Jr. Student Activity Center room 1.102. The hours are Monday, Tuesday, Wednesday, Friday: 9:00 am to – 5 pm and Thursday: Noon to 5 pm. The telephone number for both locations is (512) 471-3515.

Longhorn Wellness Center

The Longhorn Wellness Center (LWC) supports student life and academic success by promoting student well-being and creating a healthier campus community. Professional and student staff lead evidence-informed health promotion initiatives including peer education, social marketing, workshops and trainings, environmental change strategies and strategic campus partnerships.

Focus areas of the Longhorn Wellness Center include:

- Interpersonal violence prevention
- Healthy sexuality
- Social connections
- Sleep

- Stress
- Suicide prevention

Student organizations, residence hall staff, faculty and other units can request workshops on a variety of topics. Students on campus can get involved with the Longhorn Wellness Center through opportunities like:

- Longhorn Wellness Peer Education Program
- Longhorn SHARE Peer Mental Health Support Program
- Employment and internships

Staff in the Longhorn Wellness Center are trained health promotion professionals with multidisciplinary backgrounds and work experiences. The Longhorn Wellness Center is located on the first floor of the Student Services Building (SSB 1.106). UT Austin campus members visiting the office can access well-being resources, inquire about programs and services, and utilize student study and work spaces. The office is open Monday-Friday 9 a.m. - 5 p.m. when the University is open. The LWC can be reached by either calling (512) 475-8252 or emailing longhornwellnesscenter@austin.utexas.edu.

Sanger Learning Center

The Sanger Learning Center is a university-wide resource dedicated to helping students master course content and develop transferable academic skills. Services are free to currently enrolled students in all schools and colleges (some restrictions may apply). The center's services are described on the Sanger Learning Center website.

Career Success

Undergraduate Students

Explore career-related programs and resources available to UT Austin students, including a zero-credit internship course, the Archer Fellowship, Home To Texas, job simulations, skill certifications and life design support. Details available at the Career Success Undergraduate Student site.

University Unions

The mission of University Unions is to enhance the student experience and enrich campus life by providing cultural, educational, social, and recreational programs as well as related goods and services to the campus community.

Unions spaces include the Texas Union, William C. Powers, Jr. Student Activity Center, Hogg Memorial Auditorium, and several additional managed spaces that serve as community centers for The University of Texas at Austin. Our facilities offer spaces for studying, programming, events, gatherings, and varied food options. In addition, there are outdoor gathering spaces, patios, and mobile food truck locations for the campus community.

Campus Events + Entertainment (E+E) is the premier student programming organization on campus. With over 120 events annually, there is something for everyone. E+E offers students an array of concerts, movies, lectures, celebrations, campus traditions, theater productions, trivia nights, and more. Through volunteer opportunities, students can strengthen leadership experience, self-expression, and management skills.

The board of directors recommends policy for University Unions. The voting membership of the board includes six students and three faculty members. The executive director of University Unions, as well as an appointee of the vice president for Student Affairs, serve as ex officio members without vote.

Texas Global

Overview

Texas Global is the central home for international student and scholar services, education abroad, English as a second language instruction, global risk and safety, and cross-disciplinary international projects. For location, hours of operation, and contact information visit our website.

International Student and Scholar Services

International student advisors are available to assist international students with matters related to their immigration status, cross-cultural adjustment, orientation to the University, housing resources, employment eligibility, social security regulations, and personal issues or concerns. International Student and Scholar Services (ISSS) also assists with student emergencies. Office hours and further information about services can be found on the ISSS website.

Immigration advising and compliance

International student advisors issue immigration documents, provide personalized advising on student visa rules and benefits, and process requests to facilitate international travel, employment authorization, and other activities subject to student visa regulations. ISSS also monitors student and University immigration compliance. For example, in accordance with immigration regulations, an international student who seeks to be enrolled for fewer than twelve hours as an undergraduate or fewer than nine hours as a graduate student is referred to ISSS. Withdrawal petitions for international students are referred to ISSS before the appropriate academic dean's office takes final action.

Reciprocal exchange students

Students enrolled at The University of Texas at Austin as reciprocal exchange students receive ISSS support with admission coordination, immigration document issuance, enrollment verification letters, and home university collaboration.

Sponsored student services

ISSS provides customized services to sponsored students and their sponsoring agencies, including student immigration consultation, customized programming, and the facilitation of third-party billing.

Intercultural and social programming

ISSS offers programs to help international students adjust to life and study in the United States including orientation programs, social hours, informational sessions, and intercultural events.

Mandatory health insurance

Enrollment in the Student Health Insurance Program is mandatory for F-1 and J-1 international students. Insurance fees are included in the student's tuition bill each semester. A student who has an acceptable level of coverage under another insurance plan ***may*** be eligible for a waiver of insurance fees, as long as the completed waiver is submitted by the waiver deadline. Dependents in J-2 (exchange visitor) status are also required to have an acceptable level of coverage.

English Language Center

English classes for nonnative speakers are available through the English Language Center (ELC). More information about courses and associated fees is available through the English Language Center.

Classes for University undergraduate and international exchange students

The English Language Center offers courses for undergraduate students who need English language support. Each five-hour course counts toward full-time enrollment, but the courses do not count toward The University of Texas at Austin's degree requirements. However, most exchange students may count the credits toward degree requirements in their home universities with advanced approval. Courses are available for

English language improvement in writing or listening/speaking and are placed in the appropriate class after taking a placement test.

Classes for University graduate students

The English Language Center offers courses for graduate students who want to improve their English or are required by their departments to do so. Each three-semester-hour course counts toward full-time enrollment, but the courses do not count toward degree requirements. Courses are available in oral communication, academic writing, and communication for international teaching assistants.

Classes for everyone

The English Language Center offers two intensive English programs that are open to adult nonnative speakers of English. The *Academic English Program* (AEP) is a full-time academic program for prospective graduate students who have completed their first university degree and plan to pursue a master's or doctoral degree in the United States. English proficiency at the intermediate level or above is required for admission to the program. The *English Language Program* (ELP) provides both full-time and part-time instruction in general-purpose English for students at all levels of English proficiency, including prospective undergraduates and those interested in improving their communication skills. Both programs offer optional test preparation instruction for the Test of English as a Foreign Language (TOEFL) and other admission tests. Discounts are available for ELC part-time study by University students, faculty and staff, and University-affiliated family members.

Education Abroad

Education Abroad provides information on educational opportunities in other countries, including study abroad, exchange, international internships, research abroad, and education abroad scholarships. Information sessions are offered throughout the year, and students are strongly encouraged to attend a session before seeking advising to select the program most appropriate to their needs and interests. University programs available to students include reciprocal exchanges with foreign universities; affiliated studies through other organizations and institutions; faculty-led programs, including May Term and summer sessions; internships and international study and research. All applicants must submit a $75 application fee, which is non-refundable, regardless of acceptance into or enrollment in a program.

Exchange Programs

Exchange programs allow The University of Texas at Austin's students to enroll at a partner university abroad while continuing to pay The University of Texas at Austin's tuition. These cost-effective programs integrate students into courses at the host university. Students in exchange programs register for a block of coursework in Education Abroad that maintains their full-time enrollment. Students pay a $500 fee per semester to participate in an exchange. Faculty members in the appropriate academic departments review the student's work to identify equivalent University courses; Education Abroad staff convert grades from the foreign credit system used by the host institution into their University equivalents. Courses and grades are recorded as resident credit. All courses reported to The University of Texas at Austin on the official transcript from abroad must be represented in some way on the official University transcript.

Affiliated Programs

Students register for affiliated studies (A S) when they participate in education abroad programs offered by organizations and institutions with which the University has an affiliation agreement. Students enrolled in affiliated studies pay a fee of $600 per semester. Students who enroll in a part-time affiliated study program are considered part-time students by the University. Students who enroll in a full-time affiliated study program are considered full-time students by the University.

After a student participates in a program offered under an affiliation agreement, University faculty members in the appropriate academic units review the student's work to identify the equivalent University courses. Courses and grades appear on the student's academic record, but they are not included in the University grade point average. A student must make a C- or better to earn credit in accordance with UT transfer credit policies. In some circumstances, affiliated studies credit is treated as resident credit; more information is given in the General Requirements for Graduation in the *Undergraduate Catalog*.

Faculty-Led Programs

Academic units may offer courses taught abroad as a part of their regular curriculum. Students who take these courses follow normal registration procedures and are assessed normal tuition and fees. Additional fees are charged to cover program costs.

International Study and Research

Students may register for international study and research (ISR) if they are conducting research or studying independently abroad. Enrollment requires the approval of the student's faculty sponsor, graduate advisor (for graduate students) or departmental undergraduate advisor (for undergraduates), and Education Abroad. The approval may last for up to four consecutive semesters and contiguous summer terms.

Students enrolled in ISR pay a fee of $600 per semester and are considered full-time students by the University.

Students who register for ISR are not guaranteed credit for work completed abroad. Students must consult with the departmental undergraduate advisor or the graduate advisor and with the Office of Graduate Admissions to determine whether credit will be granted.

Scholarship Opportunities through Texas Global

Texas Global offers a range of scholarship and funding opportunities to support students participating in international education experiences, as well as international students studying at The University of Texas at Austin. These awards are designed to increase access to global learning and to reduce financial barriers to participation.

For UT Austin students studying abroad, Texas Global provides scholarships that support a variety of program types, including semester exchange, faculty-led programs, internships, and research abroad. Funding is awarded based on a combination of academic merit, financial need, program alignment, and demonstrated commitment to global engagement.

International students enrolled at UT Austin may be eligible for scholarships that support academic success, leadership development, and global engagement initiatives. These opportunities are often tied to specific programs, partnerships, or areas of study and may include merit-based and need-based awards.

In addition to centrally administered scholarships, Texas Global works in coordination with colleges, schools, and external partners to expand funding opportunities and connect students with additional sources of support. Students are encouraged to explore available opportunities early and identify funding options aligned with their academic and professional goals.

Overseas Insurance

Ensuring that University of Texas at Austin students have adequate health and safety support while abroad is a primary goal of the University. All students participating in UT-sponsored international travel are automatically enrolled in the UT System overseas insurance plan, On Call International and are required to pay associated fees for this coverage. This policy was established to ensure that all students are comprehensively covered by an international health insurance policy, an emergency services policy, and a general liability policy. The fee is non-refundable and is scaled to correspond to the length of international activity. Students are also encouraged to maintain their domestic health insurance coverage. The only exception is UT Austin students studying in their country of citizenship, who must submit a request for exemption from UT Austin Overseas Insurance. All students are also encouraged to maintain their domestic health insurance coverage; international

students are **required** to maintain continuous coverage as long as their I-20 or DS-2019 is active, even if not physically in the United States.

Health Clearances

Students participating in an official education abroad program lasting **15 days or longer** must obtain a medical exam from a healthcare provider, who will complete and submit the mandatory health clearance form on their behalf. Some shorter programs may also require a health clearance - contact your program coordinator or program faculty leader for specific requirements.

Transfer Credit Policies for Coursework from International Institutions

Evaluation by the Office of Admissions of course credit earned at an international institution does not constitute approval of the credit for use toward a degree; such approval is solely within the jurisdiction of the student's academic dean. Policies governing the evaluation of transfer credit from international institutions include the following:

1. Transfer credit is generally awarded for academic course credit earned from Ministry of Education–accredited institutions.
2. Rules governing the assignment of transfer credit from United States institutions also apply to transfer credit from international institutions. These rules are given in the Transfer Application Review Process (p. 20).
3. To receive credit, the student must earn a grade that is comparable to at least a *C-* on the grading scale used at the University. The Office of Graduate Admissions (OGA) establishes grading scale equivalencies for international institutions.
4. If the credit was not earned as part of a University-affiliated study abroad program, the symbol *CR* (credit) will appear on the student's University record instead of a letter grade.
5. Transfer credit from a nonaffiliated study abroad (language and culture) program is not assigned a specific University course number. Instead, undesignated credit may be recorded, and the student's academic dean will determine the specific credit to be allowed for degree purposes on a substitution basis. Both current and previously enrolled University students who attend a nonaffiliated study abroad program may be required, at the discretion of the appropriate language department, to take an examination to earn credit for specific language courses.

Student Government

Established in 1902 (as the Students' Association), Student Government serves as the representative body of students whose primary purpose is advocating for and representing the interests of the student body to University of Texas at Austin administration, faculty, and other organizations. All students enrolled at the University are constituents of Student Government; official actions of the organization are carried out by the Executive Board, the Assembly, and the Supreme Court.

Student Government provides input and presents initiatives to the University administration on matters related to student welfare. It helps facilitate responsible student participation in the university's policy and decision-making processes, enhances the quality and scope of the student experience at the university, and ensures responsible and effective participation in the organization with a focus on issues that impact students. Additionally, Student Government works to transparently and responsibly utilize student fees to promote student welfare, preserves the tradition of the University, and helps to provide university students with an educational experience for leadership development. Student Government nominates and appoints undergraduate and graduate students from the student body for various university-wide councils and committees when student body representation is requested or required.

Campus Wide Elections for president, vice president, and members of the Assembly are held each spring. Elections for the first-year student assembly members are held each fall.

More information about Student Government is available in the Student Government office located in suite 2.102 of the William C. Powers, Jr. Student Activity Center or at the Student Governance Organization website.

Senate of College Councils

The Senate of College Councils is the coordinating body for the individual college councils, which are composed of student leaders enrolled in the University's colleges and schools. Since 1973, the Senate of College Councils has represented students in matters related to their academic experience through their college councils and provided the opinions and sentiments of their constituents on academic issues to the university administration.

Senate of College Councils provides input and presents initiatives to University administration on matters related to improving the academic experience of students, programming that promotes academic excellence and, fosters relationships between students and faculty, and initiatives that encourage a sense of belonging and positive student experiences. Senate of College Councils nominates active members of college councils for various university-wide councils and committees as requested or required. The president and vice president are elected each spring by college council representatives. The membership includes active members of recognized college councils. Official actions of the organization are carried out by the Executive Board and the Assembly.

More information about the Senate of College Councils is available in the Senate of College Councils office located in suite 2.102 of the William C. Powers, Jr. Student Activity Center or at the Student Governance Organization website.

Graduate Student Assembly

The Graduate Student Assembly (GSA) is the official representative body for graduate students. GSA addresses issues that are important to its constituents, not only as students but also as teaching assistants, research assistants, and assistant instructors. GSA reports administratively to the Office of the Dean of Students with support from the Office of Graduate and Postdoctoral Studies. Administrative expenses are funded through an allocation from students' tuition.

The objectives of GSA are to represent the views of graduate students to the University community and the community at large; to facilitate graduate student communication and interaction; to gather and disseminate information pertinent to graduate students; to conduct activities that promote the general welfare of graduate students; and to provide a means of assisting in the selection of graduate student members of departmental, college, and University bodies.

More information about GSA, including contact information for officers, current representatives, meeting agendas and minutes, and current and past activities, is available at the GSA website.

Student Media

Texas Student Media (TSM) offers an incredible range of real-world work experience for students in multiple areas of student-managed media. With opportunities in print, digital media, television, radio, video production, podcasting, marketing, and advertising, students learn skills that can prove invaluable once they begin their professional careers. Texas Student Media is open to students of all majors and attracts and welcomes a diverse group of student staff from a wide variety of backgrounds and experience levels.

TSM comprises the following student-managed and student-produced media entities: The Daily Texan newspaper, KVRX 91.7 FM radio, Texas Student Television (TSTV), the Cactus yearbook, Burnt X Orange, and the

Texas Travesty humor publication. Additional experiential opportunities exist with Texas Connect magazine, Bevo Video Productions, The Drag Audio Production House, Tower & Bridge Communications agency, and advertising sales. Texas Student Media is supported through University funding allocated by the Student Services Budget Committee, and through efforts of a sales team that sells advertisements and performs promotional/marketing duties.

TSM is administratively supported by the Moody College of Communication and is governed by an eleven-member Board of Operating Trustees composed of six student members elected by the student body, three faculty members, and two media professionals appointed by the president. Student managers (editors and station managers) are appointed by the Operating Trustees, while the Daily Texan editor-in-chief is elected by the student body. Student managers, the Texas Student Media director, and representatives from Student Government and the Office of the Dean of Students serve as non-voting board members.
Students interested in being a part of one or more of TSM's media entities should visit participateTSM.com.

Office of the University Ombuds for Students

The Office of the University Ombuds for Students provides a neutral, impartial, and confidential environment for students to voice concerns related to life at The University of Texas at Austin, and provides information and assistance to students who have University-related questions, concerns, or complaints. The office functions in an independent and informal manner to help students explore options for effective problem solving and conflict resolution. The office also identifies and provides recommendations to the University regarding systemic issues. The Ombuds advocates for fair and equitably administered processes and does not side with individuals or the University. The office helps the University uphold the institutional core values, Student Honor Code, and University Code of Conduct.
The Office of the University Ombuds for Students:

- Provides students with information, referrals, and assistance with appropriate policies and processes for addressing University-related concerns.
- Helps students receive expeditious, fair, and impartial treatment.
- Provides students with voluntary conflict management for disputes and concerns related to student life at the University, both academic and nonacademic. This includes identification of options, policy clarification, conflict coaching, mediation, training, and other conflict resolution or consultative services as appropriate.

In order to create a safe place for students to voice concerns, evaluate issues, and identify options, the office maintains privacy and confidentiality to the extent permitted by law and University policy. Additionally, the office is considered an informal and off the record resource, and does not maintain identifying records.

Student Grievance Procedures

Academic-Related Grievances

Academic grievances involving grade disputes should be discussed with the course instructor. Grade disputes that are not resolved and all other academic grievances of undergraduate students should be submitted in writing to the department chair or other designated administrator of the academic program to which the grievance relates. Appeals may be directed to the appropriate academic dean, who will render the final decision. A grade will not be changed by the department chair (or other designated administrator) and/or the dean without first consulting with and considering fully the position of the course instructor. The course instructor will be advised by the department chair, another appropriate administrator, or dean of the resolution of the grievance.
Procedures for the resolution of grievances of graduate students are specified in the Handbook of Operating Procedures 9-1240.
The dean of the college or school in which a student is enrolled has jurisdiction over the student's program of study, degree requirements, and all other academic matters, including grievances, except as described below. A student pursuing simultaneous majors in two colleges is considered to be enrolled in both colleges and is under the jurisdiction of both deans. Students taking a course in a college or school other than the one(s) in which they are enrolled are subject, so far as the course and academic grievances regarding the course are concerned, to the dean of the college or school in which the course is offered. Procedures for cases of alleged academic dishonesty are given in Appendix C, Sec 11-402 (p. 117).

Student Program and Student Activity Related Grievances

Grievances related to non-academic student programs and activities should be submitted in writing to the dean of students or director of the specific student affairs area. Appeals may be directed to the vice president for student affairs, and then to the president for final disposition.
Appendix C (p. 91) of this catalog describes the institutional rules on student services and activities and includes provisions for formal hearings. Additional information on these provisions is available from the Office of the Dean of Students.
Disability-related grievances. No qualified student with a disability shall, on the basis of disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any academic program or activity at The University of Texas at Austin. Complaints alleging discrimination on the basis of disability should be submitted according to the procedures outlined in the Nondiscrimination Policy, Appendix I (p. 147). The policy is in accord with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA).
Sex discrimination and sexual conduct. The following policies address sex discrimination and sexual conduct:

- Policy on Sex Discrimination, Sexual Harassment, Sexual Assault, Sexual Misconduct, Sexual Misconduct, Interpersonal Violence, and Stalking, Appendix D (p. 143)
- Policy on Consensual Relationships, Appendix F (p. 143)

Hate and bias incidents. The policy regarding acts of hate or bias and reporting such incidents is described in HOP 9-1810.

Student Discipline

Under the direction of the president, the dean of students has primary responsibility for the administration of student discipline.

General statement

The University's expectations for student conduct are grounded in the University Code of Conduct, which can be found in Appendix C (p. 117). University students are also expected to uphold the Student Honor Code and expected to abide by all city, state, and federal laws and statutes and all regulations of the University and the University of Texas System. However, as a community of scholars, the University expects from its students a higher standard of conduct than that required simply to avoid discipline. The principles of the Student Honor Code together with the University Code of Conduct should govern and direct student conduct to promote a safe environment that is conducive to academic success, and to ensure that each University student graduates ready to contribute to society as an ethical citizen.

Academic dishonesty

Since the value of a university degree depends on the absolute integrity of the work done by each student for that degree, a student should maintain a high standard of individual honor in their academic work. Academic dishonesty includes, but is not limited to plagiarism, collusion, falsifying academic records, and misrepresenting facts. More information about academic dishonesty is given in Appendix C, chapter 11 (p. 117).

Group responsibility

Any student organization is subject to disciplinary sanctions, including revocation of the group's registration as a student organization, for violation of the penal or civil statutes of the local, state, or federal government or a rule or regulation of the University of Texas System or a Regents' *Rule,* University regulation, or administrative rule. More information about discipline of student organizations is given in Appendix C, chapter 6 (p. 98).

Disciplinary procedures

The University of Texas at Austin administers student discipline according to the procedures defined and described in the Regents' *Rules and Regulations*, Rule 50101, in the Model Policy of Student Conduct and Discipline promulgated by the Office of General Counsel of the University of Texas System and in Appendix C, chapter 11 (p. 117).

Religious Organizations

State institutions are constitutionally restricted with regard to the establishment of religion; however, many sectarian activities are available to students through the sponsorship of various denominational organizations. Several places of worship are located in the University area. A number of student centers are maintained near campus, and many student religious organizations are registered with the University.

Shuttle Bus Service

The University shuttle bus system is operated for the benefit of students, faculty and staff members, and retirees of the University. The system is funded through students' tuition. Shuttle bus patrons should be prepared to show and/or swipe their UT IDs upon boarding.

Shuttle service is provided on scheduled class and final examination days. On most routes, service is not provided on holidays or on Saturdays that are not final examination days. Shuttle bus maps and schedules are available at the Parking and Transportation Services website. Questions about routes or policies should be sent by e-mail (shuttle@utexas.edu).

Student Parking

Students who drive or park a vehicle on campus must purchase a permit from Parking and Transportation Services (PTS). To park within the campus boundaries, a proper permit must be displayed as required. Purchase of a surface lot permit (A, C, M, N) does not assure a parking space in a specific lot. Purchase of a garage permit (R or S) generally assures an unassigned parking space in the garage in which it is valid. If you need to use a car, there is no free parking on campus aside from signed 30-minute loading zones. Everywhere else requires either a permit or payment of a fee to park.

Policies, fees, and regulations are given below. For the most recent information, students should visit the PTS website or email parking@utexas.edu.

Students are eligible for the following types of parking permits:

1. Class C (surface student) parking permits are available to all students enrolled at the University. The fee is $184 for the year. This permit allows parking in C and Longhorn lots.
2. Class C+ (surface student plus night garage access) parking permits are available to all students enrolled at the University. The fee is $277 per year. This permit allows parking in C and Longhorn lots. It also allows parking in university garages, within the limits given for night garage access (N+) permits below.
3. Class D (students with disabilities) parking permits are available to qualifying students with disabilities. The fee is $184 for the year. This permit requires display of a valid state-issued ADA license plate or placard to be valid. It allows parking in D, A, and C spaces as well as Longhorn Lots. It also allows parking in garage ADA SPACES.
4. Class D+ (special accommodation disabilities) parking permits are available to qualifying students with disabilities. The fee is $369 for the year. This permit requires display of a valid state-issued ADA license plate or placard to be valid. It allows parking in the same areas as a Class D permit. Additionally, it allows parking in D+/F Special Accommodation spaces throughout campus.
5. Class A (surface faculty/staff) parking permits are available to university graduate students who are also employed by the University for at least 20 hours a week. The student's employment must be verified by an active appointment in Work Day or a signed copy of the appointment or reappointment form or a letter from the dean, director, or department chair. The fee is $210 a year. This permit allows parking in A parking areas, in Longhorn lots, and in C lots after 2:00 p.m.
6. Class M (motorcycle/moped/motor scooter) parking permits are available to any university student. The fee is $111 a year, but there is no charge for the first Class M permit with the purchase of another permit except an R, N, or N+ permit. The Class M permit allows parking in M parking areas; motorcycles, mopeds, and motor scooters may not be parked in automobile parking areas between 7:30 a.m. and 3:30 p.m. Monday through Friday.
7. Class R (garage resident student) parking permits are available to residents of university-owned housing located on the main campus. The fee is $245, $462, $558 or $588 for a semester, or $369, $833, $1055, or $1058 for two semesters, depending on the garage. Students may purchase a permit for the summer semester. The fee is $74, $136, $166 or $216 depending on the garage. The Class R permit allows parking in R areas in the designated garage purchased; it also allows parking in Longhorn lots.
8. Class S (garage commuting student) parking permits are available to University students who live off campus. The fee is $245 or $421 per semester, $72 or $161 for the summer semester, $358 or $857 for 12 months, depending on the garage. Class S permits allow parking in the garage designated on the permit and in Longhorn lots. For overnight storage, the annual fee is $197, fall/spring is $115. There is no overnight parking at MAG.
9. Class N (night surface access) parking permits are available to anyone affiliated with the university. The fee is $56 for the year. Class N permits allow parking Monday through Thursday from 5:45 p.m. to 7:30 a.m. and from Friday at 5:45 p.m. until Monday at 7:30 a.m. in otherwise unrestricted spaces and in spaces that require any UT permit.
10. Class N+ (night garage access) parking permits are available to anyone affiliated with the university. The fee is $93 for the year. Class N+ permits allow weeknight and weekend surface parking within the limits described for the Class N permit. In addition, they allow parking when space is available in any University garage except the Conference Center, Health Center, Nueces, and Rowling Hall Garages from 5:00 p.m. to 4:00 a.m., Monday through Thursday, and from 5:00 pm Friday to 4:00 am Monday.

Class C, C+, D, D+, M, N, N+, and A permits purchased in the fall semester are valid through August 18. Permits are prorated daily with the refunds for returned permits available until the last month in which the permit is valid. Additional fees may apply.

Parking may be restricted in any garage or surface lot for special events.

The following table lists the charges for violation of the Parking & Traffic Regulations. Parking and Transportation Services reserves the right to refer any violator to the Office of the Dean of Students or the appropriate academic dean, chair, or director.

Violation	Penalty
Unauthorized parking in an "AT ALL TIMES" space.	$75
Improper method of parking.	$35
Disabled vehicle.**	$75
Unauthorized special event parking.	$75
Inhabiting a vehicle of any kind on University property without authorization.	$75
Parking overtime at a meter.	$20
Improper use of a controlled access area or a key card.	$75
Unauthorized parking in a space reserved for persons with disabilities.	$200*
Unauthorized parking in Thompson Conference Center or LBJ Library lot.	$35
Moped/motorcycle/motorbike parked in a space designated for four-wheeled vehicles.	$25
Unregistered bicycle.	$15
Bicycle or EPAMD parking in areas other than those designated for bicycles.**	$25*
Violating temporary parking restrictions.	$35
Parked in violation of set time parameters.	$35
Idling at air intake louvers.**	$35
Damage to PTS Property	$100 + cost
Failure to display proper permit on a registered vehicle. (Three warning tickets per academic year, then $15 per incident.)	warning/ $15
The unauthorized sale, distribution, possession, counterfeiting, or alteration of a university parking permit and/or the possession of an illegally purchased, distributed, counterfeited, or altered permit (plus cost of the permit)	$250 + permit cost*+
Obstruction to vehicular or pedestrian traffic.**	$35
Parking at a fire lane, fire hydrant, red, or yellow curb.**	$75
Parking or driving on sidewalks, grass, or shrubbery (plus the actual cost of repairs).	$35 + cost
Improper passenger pickup and drop off.	$35
Exceeding 15 miles per hour speed limit or other posted speed limit on campus.	$75
Violation of an official traffic control device, such as a STOP or YIELD sign.	$75
Moving violation of Texas Motor Vehicle Laws not otherwise specified in these regulations.	$75
Other non-moving violation of Texas Motor Vehicle Laws.	$75
Moving a barricade or parking within any barricaded area or moving a vehicle without permission of owner/operator.**	$35
Failure to stop and heed instructions given by a University police officer or guard.	$75
Parking or operating a motor vehicle while privileges are suspended.**	$200*
Having a vehicle of any type within a University building (except parking facilities).	$100
Parking without authorized valid permit.	$35
Theft of property or damaging property by either unauthorized boot removal or tampering/attempted removal of the boot (plus replacement cost of damaged property)	$125 + cost
Improper exit from a university parking garage (plus maximum daily fee due).	$75 + fee*
Vehicle relocation or towing.	$125
Operation of a non-registered commercial scooter or dockless commercial bicycle on The University of Texas campus	$35
Reckless Operation of a Vehicle	$75
Unauthorized Parking on Speedway Pedestrian Mall	$75
Unauthorized Entry into Speedway Pedestrian Mall	$100
Scooter Impound: violation of scooter parking regulations related to a university event, parking in a manner that obstructs ADA access or parking, doorways, ramps and stairways, and on Speedway Mall and the Main Mall	$150
Automobile Boot Fee	$150
Bicycle Impound Fee	$25
Commercial Scooter and Dockless Commercial Bicycle Impound Fee	$75-$150 + $25/day storage fee
Unauthorized Moody Special Event Citation	$150
Multiple Vehicles Parked On Campus	$35***

*Penalty doubles upon second offense and all subsequent violations are subject to immobilization or impound.

** Offense subject to citation and vehicle impound.

+ All relevant and currently outstanding fines and fees must be paid prior to the release of the boot.

***Penalty increases to $75 for each additional offense

The Texas Exes

The Texas Exes, the alumni association for The University of Texas at Austin, was established in 1885 and now boasts more than 120,000 members. It is one of the largest alumni organizations in the nation. The association is self-governed and works to unite alumni and friends around the world, create a passionate voice that strengthens the university, promote alumni accomplishments, and celebrate Longhorn spirit and traditions.

Members of the Texas Exes support the mission of the association and receive benefits tailored for people who love UT Austin. Click here to join.

The Texas Exes is the premier scholarship administrator at The University of Texas at Austin. Hundreds of entering freshmen and current UT Austin students are impacted by these awards every year. Classifications include Chapter, Named, and Opportunity Scholarships. The Forty Acres Scholars Program is administered by the Texas Exes and is The University of Texas at Austin's premier full-ride, merit-based scholarship. On average, approximately $4 million in scholarship funds are awarded to UT Austin students.

News about the university and its more than 580,000 living alumni reaches members through the bimonthly Alcalde magazine and its website. The association engages alumni and friends through its lively social channels, including Facebook, Twitter, and Instagram.

There are around 150 Texas Exes chapters and networks across the globe. Chapters are geographically based groups that engage alumni through social, community service, cultural, business networking, student development, and scholarship-fundraising events. Networks are national groups organized around ethnicity, profession, or strong affinity to a university student organization.

Recently the Texas Exes expanded the ways that Longhorns could connect and help one another through the additions of HookedIn and the Longhorn Business Network. HookedIn is the official networking platform for UT Austin alumni and students. This powerful online networking and career-boosting community offers a single platform for alumni, students, faculty and staff to connect and transform lives. The Longhorn

Business Network was launched to support alumni-run businesses. From a Business Directory to networking events, Longhorn faithful can now shop and support one another.

The Texas Exes provides lifetime learning opportunities through the Flying Longhorns travel program, virtual lectures from rockstar faculty, student programming, and online university library access. The association is the keeper of The University of Texas at Austin traditions and works to create unforgettable moments for students on campus, while supporting their academic success.

The Texas Exes' home on campus is the Etter-Harbin Alumni Center, which stands on San Jacinto Boulevard across from Darrell K Royal-Texas Memorial Stadium. Facilities include a banquet hall, offices, meeting rooms, outdoor pavilion, and underground parking. The building is named for Lila B. Etter and John P. Harbin. Etter, whose bequest to the university financed much of the original structure in 1965, was the daughter of the University's first president, Leslie Waggener. Harbin was a Distinguished Alumnus and past president of the Texas Exes. His gift provided site preservation, development, and landscaping.

The university depends on the time and talents of Texas Exes members to support and carry out many of its programs. Membership is a charitable contribution. For more information, click here or call 512-471-8839.

Libraries and Other Academic Resources

The University Libraries

The University Libraries, one of the largest academic libraries in North America, include the University of Texas Libraries, the Dolph Briscoe Center for American History, the Harry Ransom Center, and the Joseph D. Jamail Center for Legal Research: Tarlton Law Library. The libraries are open and information services are available to the University community and to visitors, including students and faculty members from other institutions.

The University of Texas Libraries

The University Libraries website offers a range of services and resources. Each year this site is visited more than a billion times by information seekers around the world.

Online Services

- Check the library catalog for a listing of on-site and electronic information resources.
- Libraries hours information. Most circulation desks close fifteen minutes before the library closes.
- Renew an item or recall an item loaned to another borrower.
- Ask a Librarian: Use e-mail or instant messaging to obtain assistance from a librarian.
- Request books, photocopies of articles, and other material not owned by the University Libraries from another library in the United States or abroad.
- Request that the University Libraries purchase an item it does not currently own.
- Ask for an item in remote storage to be delivered to a library.
- View jobs available in the University Libraries.

Online Resources

Campus-affiliated users may access specially licensed scholarly information, including the full text of articles and illustrations from thousands of journals and the full text of about 80,000 books in electronic format. They may search hundreds of indexes and view the world's largest and most heavily used online map collection.

Subject specialists are responsible for developing the extensive collections that make up the University Libraries. Users who have questions about resources or need research assistance are encouraged to consult one of the subject specialists listed.

On-Site Services and Resources

The University of Texas Libraries includes several libraries on the Austin campus and the Marine Science Library in Port Aransas. Each location offers a range of services and specialized resources.

Library classes and tours

The University Libraries offers a variety of classes on how to use the library and how to access and evaluate information, as well as advanced classes covering databases and other electronic and on-site materials in specific subject areas. Virtual and on-site tours are also offered.

Information and research help

Staff members are available in all libraries to help users find information.

Computing facilities

Computing facilities available to UT Austin students, faculty members, and staff members are located in all libraries. The Perry-Castañeda Library, the Fine Arts Library, and the science libraries offer the largest number of available workstations.

Copying and printing facilities

Printing, copying, and scanning are available in all UT Libraries locations.

Individual and group study areas

All libraries offer individual study spaces. Many also offer group study rooms, designated collaborative study areas, or closed studies or carrels. Group study rooms may be reserved online.

Libraries

Perry-Castañeda Library

This six-level open stack library contains more than 2.5 million volumes, computers for public use, a coffee shop, and enclosed studies as well as group study areas.

This main library of the University serves most subject areas, with emphasis on the humanities, the social sciences, business, education, nursing, social work, and European, East European, Asian, Middle Eastern, Hebraic, and Judaic studies. Special materials include United States and United Nations official documents, current journals, and newspapers. Reference and information help is provided in the lobby area. Library users are also encouraged to make appointments with subject specialists in their areas to discuss information needs. A list of subject specialists, with contact information and office locations, is published online. Service units in the library include Borrower Services, Courtesy Borrower Services, Library Business Services, and Interlibrary Services. The Office of the Vice Provost and Director of the University Libraries and the University Libraries administrative staff are also housed in the Perry-Castañeda Library.

Nettie Lee Benson Latin American Collection

The Benson Latin American Collection holds over one million books, periodicals, pamphlets, and newspapers; and over 7,000 linear feet of archives and manuscripts. The collection acquires research material from across Latin America, the Caribbean, and the United States, on Latin Americans and U.S. Latinas/os, with subject focuses including the humanities, social sciences, natural resources, natural sciences, history of medicine, law, human rights, civil rights, and technology. In 2011, the Nettie Lee Benson Latin American Collection entered into a partnership with the Teresa Lozano Long Institute for Latin American Studies (LLILAS), creating LLILAS Benson Latin American Studies and Collections.

The Benson's Special Collections consist of archival and digital collections, and include manuscripts, publications, and other written works. Other formats include broadsides, newspapers, photographs, slides, musical scores, oversize materials such as posters, artwork, and architectural drawings and blueprints. Audiovisual materials are found

throughout the collections, including VHS tapes, cassettes, vinyl records, DVDs, CDs, and others audiovisual formats. The collecting areas of focus for the Benson Special Collections are Latin American Archives, U.S. Latina/o Archives, the Black Diaspora Archive, and Rare Books. Major resources include the Guatemalan National Police Historical Archive (AHPN) and the Archive of the Indigenous Languages of Latin America (AILLA). The Benson and UT Libraries are founding partners in Primeros Libros de las Américas, an international digital initiative providing access to the earliest printed works published in the Americas.

Science libraries

The science libraries on the main campus are the Walter Geology Library, the Life Science Library, and the Kuehne Physics Mathematics Astronomy Library. The Marine Science Library is located at the Marine Science Institute in Port Aransas.

Fine Arts Library

The Fine Arts Library contains collections that support learning and research in art, music, theatre, and dance. The collections include a variety of formats, including books, journals, musical scores, plays, CDs, and DVDs. UT Austin students, faculty and staff members, and courtesy borrowers may check out digital cameras, camcorders, and boom boxes. Cassette players may be checked out for use in the listening carrels.

John S. Chase Architecture and Planning Library

Learning and research in architecture, interior design, urban planning, landscape architecture, and related disciplines are supported by the John S. Chase Architecture and Planning Library and, within it, the extensive collection of architectural drawings and other records in the Alexander Architectural Archive.

Other units

Other units of the University Libraries include the Classics Library. The Collections Deposit Library is a limited-access facility that houses a number of specialized collections.

Information for Borrowers

Loan periods

Courtesy borrowers may borrow most library materials for 28 days. All other holders of University ID cards may borrow most materials for one semester.

A borrower may place a recall request online for a book checked out to another borrower. When the recalled item is returned, the requestor is notified and the item is held for eight days.

Borrower responsibilities

Borrowers are responsible for maintaining correct records of their identification numbers and email addresses with the University and for obtaining corrected borrower cards in case of error or a change in data. Borrowers are responsible for items checked out to them until they are checked in. The University Libraries is not responsible for notifying borrowers that materials are overdue.

Fines and fees for overdue materials

Borrowers are fined for failing to return library materials by the date they are due. Fines vary depending on the loan period of the material; detailed information is published at Charges for Overdue and Lost Material.

Charges for lost or damaged materials

Borrowers are charged for lost and damaged items. Charges include a rebinding or repair charge if a damaged item can be repaired; the cost of replacing a lost item or a damaged item that cannot be repaired, plus a rebinding fee if applicable; a processing fee when an item is reported lost or is presumed by the University Libraries to be lost; and a billing service fee. A detailed list of charges is published by the University Libraries.

Library cards for non-University borrowers

Libraries are open to the public for use of materials. Adult Texas residents who are not members of the University community may borrow materials for home use by purchasing a courtesy borrower card at the Courtesy Borrower Services Desk at the Perry-Castañeda Library, entrance level. A photo ID and proof of Texas residence are required at the time of purchase. The fee may be waived for current members of the Texas Exes, for users who present valid TexShare cards from libraries participating in the TexShare Card Program, and for other users included in reciprocal borrowing agreements in which the University Libraries participates. More information on fees and waivers is published by the University Libraries. Cards are valid for the period of enrollment, membership, or appointment, not to exceed one year.

Blanton Museum of Art

Founded in 1963, the Blanton Museum of Art at The University of Texas at Austin is one of the foremost university art museums in the country and holds the largest public collection of art in Central Texas. The museum is recognized for its Italian Renaissance and Baroque paintings, modern and contemporary U.S. and Latin American art collection, an encyclopedic collection of prints and drawings, and *Austin* by Ellsworth Kelly. The Blanton's reimagined grounds, designed by Snøhetta and led by School of Architecture alumni, opened in spring 2023.

The Blanton is a vital resource for faculty and students, supporting the University's goal of providing students with a transformative education. The museum serves more than 25,000 UT Austin students each year and has ongoing teaching partnerships with every school and college at the University, ranging from the Dell Medical School to the Cockrell School of Engineering to the College of Fine Arts. The Blanton's education team facilitates curricular experiences to engage classes from across UT Austin, from courses on cell biology and engineering to courses in the humanities.

The Julia Matthews Wilkinson Center for Prints and Drawings offers students, scholars, and other visitors access to the Blanton's collection of more than 18,000 works on paper. The H-E-B Study Room, located within the Wilkinson Center for Prints and Drawings, is one of the most active print study rooms in the country, welcoming nearly 3,500 visitors per year. The print study room provides a venue for close examination of works on paper, a valuable resource for scholars at the University and beyond.

The Blanton offers a range of fellowships to graduate students at UT Austin to provide hands-on learning opportunities and other pre-professional experiences to students who are interested in the museum field. This is in addition to the museum's extensive volunteer program, which is open to both undergraduate and graduate students from the University, as well as others from the community who have a special interest in volunteering at the museum.

Computing Resources

Access to and use of campus information technology resources is governed by university policies and state and federal law. All students, faculty members, staff members, and other users are responsible for knowing and abiding by these regulations on computer use.

While Enterprise Technology is the largest on-campus provider of IT resources, individual schools, colleges, and departments also offer technology services for their students, faculty, staff, and guests. UT Austin's IT services portal, IT@UT, lists services provided by any campus unit, including links to departmental IT resources.

Enterprise Technology (ET)

ET supports the university's mission of education, research, and public service by providing centralized IT services in a strategic, connected, and transformative way. ET enables UT Austin to adapt, compete, innovate, and thrive well into the future and focus on mission-enabling endeavors. Enterprise Technology (ET) provides the core networking, telecommunications, systems, and application services infrastructure at the university. ET is committed to providing a diverse set of secure, high-quality products and services that support and enhance the academic mission of the institution.

ET Services Available to All UT Students

MyUT

MyUT is a customized, responsive web portal into university resources students need, including information about registration, classes, tuition bills, financial aid, events, and other official university business. Information is personalized based on student classification and major and is accessed with their EID.

Accounts and Access

Multi-Factor Authentication (MFA)

The university has implemented a multi-factor authentication system to provide an additional level of security when using sensitive online services. Currently, the university is using a tool called Duo. Duo provides a user-friendly and secure multi-factor authentication solution. With multi-factor authentication, the regular UT EID sign on process is enhanced with an additional authentication step.

University of Texas Electronic ID (UT EID)

Each member of the university community is provided with an electronic identifier, or EID, that is used to access secure online campus services and information. A UT EID is required for all secure electronic transactions at the university, including registering for classes, claiming a university email address, and accessing the university Library's online resources. Self-service tools allow users to manage their UT EIDs online.

ID Center

The ID Center, located on the first floor of the Flawn Academic Center (FAC), is responsible for upgrading your electronic identifier (EID) to allow full access to secure online services and creating identification cards. For example, a service that requires an upgraded EID is claiming financial aid.

Students must present a driver's license, passport, or other forms of government-issued identification to receive an upgraded EID and a University ID card.

To upgrade an EID online, visit utexas.edu/idcenter and scroll to the "Online EID Upgrade" request.

To obtain an identification card, visit utexas.edu/idcenter and scroll down to the "UT ID Card Online Photo Submission" request.

If you cannot complete the transactions online, please see us in person at the FAC.

Acceptable Use Policy

The university's Acceptable Use Policy (AUP) provides students, faculty, staff, and university affiliates with guidelines on appropriate and legal uses of computers and information technology at the university. The policy outlines each person's responsibility when accessing and using these resources; it includes the university's position on downloading copyrighted materials.

Violating the AUP can lead to serious consequences, including disciplinary action and criminal prosecution. All members of the university community are urged to become familiar with the AUP.

The student AUP can be found here.

The faculty and staff AUP can be found here.

Email and Collaboration

Email is recognized as an official means of communication from the university to students. Policy and expectations are provided in Appendix M: Use of Email for Official Correspondence to Students.

Available Email Accounts

Two email environments are available to current students, faculty, and staff. Microsoft (Office) 365 and UTMail powered by Google. Refer to the knowledge article 'What Email Accounts are Available to Me?' to decide which best fits your requirements or choose both.

Microsoft 365

When you become an official UT Austin student, you will automatically receive a free Microsoft 365 account. This includes access to communication and productivity applications such as the Microsoft Office suite (Word, PowerPoint, Excel and Outlook) in addition to Microsoft Teams, Sharepoint, Planner and more. To learn more and to login please visit the Microsoft 365 student page. For additional help, refer to the student Microsoft knowledge article.

UTmail

UTmail, UT's Google Workspace tenant, provides UT Austin students, alumni, faculty, and staff with a University affiliated e-mail address in the @utexas.edu domain. Those who opt in to the service can choose their email address and will receive 5GB of storage. In addition, when you leave the university, you will have the option to keep your email address indefinitely.

Mailing lists

Mailing lists are forums for teaching, collaboration, discussion, entertainment, announcements, and more. Messages are sent directly to subscribers via email.

UTBox

UTBox cloud storage is a campus-wide file sharing service for business and academic purposes. It offers unlimited storage for students, faculty, and staff, a secure way for sharing files across campus, and easy synching between a desktop, laptop, smartphone, and tablet device. Group accounts are also available for research groups and teams with unlimited storage quotas.

University Blog Service

The University Blog Service, which uses the WordPress platform, is available for use by all students, faculty, and staff. Blogs can be created by, and are available for, individuals, groups, projects, or departments.

Learning and Instructional Tools

Canvas

Canvas, a cloud-hosted learning management system (LMS), is the university's online instructional hub. It enables students to connect and communicate with their instructors and classmates online, as well as access class materials, engage in discussion threads, receive assignments, and learn in a media rich environment. Canvas also integrates with Zoom to support hybrid and fully remote learning activities.

Zoom

Zoom is a centrally supported video conferencing solution available to university faculty, staff and students that enables you to meet, teach, and learn from anywhere. It is integrated with Canvas, and you can host and join meetings from your mobile device, desktop client or the web. With your Zoom Pro account, you can host up to 300 users in a meeting. Visit https://utexas.zoom.us to access your account. Other video conferencing and collaboration tools are available on campus.

Qualtrics Survey Tool

Qualtrics, a generalized survey service, permits the creation of survey instruments, distribution of the surveys, data storage, and analysis. Qualtrics is user-friendly and able to handle complex designs. Students using Qualtrics are limited to 1000 responses per survey.

UTprint

UTprint is a convenient way for students to print documents. Students simply log in with their UT EID and print to one of the university printers available in select labs and buildings across campus. Items can be printed in black and white or color and are purchased using Bevo Pay.

Wi-Fi, Internet, and Telecommunications

Public Internet Access

Enterprise Technology provides the campus community with wireless access to the university's network, *utexas*. Wireless connectivity is available throughout campus.

Current students, faculty, staff, and official visitors can access *utexas* by logging in using their UT EID and password. Visitors can gain wireless access using the university's *utguest* network. *Utguest* should not be used by students, faculty or staff. Official university affiliates should use

the *utexas* network. For more information on the campus network, visit the university wireless networks page.

Support Services

Service Desk

The Service Desk provides the university community with a centralized point of contact for help with a variety of topics, including questions concerning information technology, business processes, services and applications. Whether the problem is related to email, EID, Wi-Fi access, or some other inquiry, the Service Desk provides support and troubleshooting by telephone, email, or on a walk-in basis at the FAC.

Campus Computer Store

Conveniently located in the Flawn Academic Center (FAC), the Campus Computer Store is the official technology store of The university of Texas at Austin. The store is an Apple Authorized Campus Store and a Dell Authorized Reseller. We provide service for Apple, Dell and most computer brands. The store carries computer hardware for all major brands including Microsoft Surface, Apple, Dell, HP, Lenovo, MSI and many others! We offer students, alumni, retirees, faculty, and staff exclusive discounts on computers and other select products. The Campus Computer Store is conveniently located on campus in the Flawn Academic Center.

Flawn Academic Center

The Flawn Academic Center (FAC), which has convenient hours, offers flexible study spaces, relaxed collaboration, and printing solutions.. Students and others in the campus community are invited to conduct research, write papers, and use the internet. In addition, the ID Center, Service Desk, and the Campus Computer Store are located at the FAC.

Texas Advanced Computing Center

The Texas Advanced Computing Center (TACC) is one of the nation's leading supercomputing centers. TACC enables discoveries that advance science and society through the application of advanced computing technologies, including high-performance computing, scientific visualization, and massive data storage/archival systems and software. TACC's technologies enhance the capabilities of university faculty members, staff members, and students, and TACC's computational experts help researchers and students use these technologies most effectively. Through regional and national partnerships, including the university of Texas Research Cyberinfrastructure (UTRC) initiative and the National Science Foundation's Extreme Science and Engineering Discovery Environment (XSEDE), TACC resources and services are made available to the national open science research community, but UT Austin researchers have unique access to TACC systems and staff. TACC staff also conduct research and development to produce new advanced computing technologies and techniques that increase the performance, usability, and reliability of advanced computing systems.

Dolph Briscoe Center for American History

The Briscoe Center for American History is one of the nation's leading research centers for historical study. The center's archives, libraries, museums, and historic buildings are part of the University of Texas at Austin's commitment to collecting, preserving, and making available the evidence of the past. The Briscoe Center promotes the university's teaching and research mission through classes, academic fellowships, faculty collaborations, and student internships. The center fosters public exploration of history through research services, exhibits, books, public programs, and digital humanities projects inspired by archival holdings.

The Office of the Director of the Briscoe Center is located in the Arno Nowotny Building, the oldest building on the Austin campus. The Briscoe Center has four additional divisions, each serving a unique purpose.

- The Research and Collections Division is located in Sid Richardson Hall Unit 2, on the main campus of the University. It is the Briscoe Center's main research facility, and the reading room provides access to most of the Briscoe Center's book, manuscript, map, newspaper, photographic, sound, and ephemera collections. The location includes three exhibit galleries and two classrooms for a variety of public and academic programs such as lectures, panel discussions, symposia, book talks, and film screenings. The Military History Institute, also located in Sid Richardson Hall, is an educational outreach and archival program.
- The Sam Rayburn Museum documents the life and career of former Texas congressman and Speaker of the United States House of Representatives Sam Rayburn (1882–1961). It is located in Rayburn's hometown of Bonham in northeast Texas.
- The Briscoe-Garner Museum in Uvalde, Texas, is dedicated to the remarkable lives of John Nance "Cactus Jack" Garner and Dolph Briscoe, both Uvalde natives and historically important political figures from Texas.
- Winedale is a complex of historical structures and modern facilities situated on 225 acres near Round Top, Texas. Winedale's mission is to foster an understanding of Texas history, culture, and native plants and landscapes through research, teaching, and public service.

The Briscoe Center's Texas history archives have no peer in size, quality, and diversity. Within its collections, the Briscoe Center has primary sources—documents, records, newspapers, photographs, maps, and oral histories—of great breadth and depth on almost all subjects related to the story of Texas. The Briscoe Center's Texana library of rare books on the history of Texas is the largest and most valuable collection of its kind. The Briscoe Center is also one of the nation's leading research centers for Southern history. Its Southern history holdings include the Littlefield Southern History Collection, the Natchez Trace Collection, the Parsons Collection on the Louisiana Purchase, and the Pugh Plantation (Louisiana) Archive.

The Briscoe Center has the largest congressional and political history collection outside Washington, D.C., with a special focus on Texas congressional and gubernatorial papers.

The Briscoe Center's photography holdings include the largest collection of photographs of the United States presidency outside Washington, D.C., as well as the largest existing collection of photographs of Martin Luther King, Jr. The Briscoe Center owns more than ten million photographic images from the late 1840s to the present, including the Alamo daguerreotype, the oldest datable photograph taken in Texas. The collections place special emphasis on the archives of leading photojournalists and documentary photographers.

The Briscoe Center is also one of the leading institutions in the United States for the study of news media history. Collections include the papers of media professionals (including Walter Cronkite, Dominick Dunne, Robert Trout, Morley Safer, Andy Rooney, and Harry Reasoner), the research archives of media industry leaders, and one of the largest newspaper collections in the United States, with original editions of some of the earliest known newspapers published in Texas. Another major research strength is the history of political activism in the United States including the civil rights movement. Highlights include the papers of John Henry Faulk, James Farmer, and C. Wright Mills, and the historical archives of the *Texas Observer* and the Field Foundation.

The archives of the University of Texas at the center include the historically valuable official records of UT Austin and the UT System, the personal and professional papers of significant individuals from its history, and additional materials that substantively document its growth from a regional college to a world-leading research institution. Currently, the archives maintain some 4,500 linear feet of records in addition

to personal papers, books, and periodicals. They also house student publications; sound recordings and oral histories; and photographs, maps, and drawings.

The Briscoe Center's collections document more than three hundred years of United States military history, including America's involvement in foreign wars from Mexico to Iraq.

The American Energy History Collection provides a comprehensive view of the modern age and the influence of energy in business, society, politics, and culture. It includes the extensive ExxonMobil archives, the largest publicly available collection documenting a single energy company.

The Briscoe Center also has an extensive material culture collection comprised of thousands of museum objects at the Briscoe Center's four sites. The collection includes rare historical artifacts, clothing, textiles (notably quilts), furniture, and other decorative arts dating from the Anglo-American settlement of Texas in the early nineteenth century to the present.

The Briscoe Center presents a wide variety of permanent and temporary exhibits drawn from its collections. Exhibit topics have encompassed Texas and Southern history, news media history, civil rights, women's history, decorative arts, the entertainment industry, and Texas music.

The Briscoe Center offers exhibits of photographs on tour to museums across the country.

The Briscoe Center's website provides access to valuable resources to researchers worldwide. The site includes a digital media repository of more than twenty thousand photographs, maps, documents, and videos; finding aids to hundreds of major collections; and online exhibits.

Harry Ransom Center

The Harry Ransom Center is an internationally renowned humanities research library and museum at The University of Texas at Austin. Its extensive collections provide unique insight into the creative process of writers and artists, deepening our understanding and appreciation of literature, photography, film, art, and the performing arts. The Center's collections include nearly one million books, more than 42 million manuscripts, five million photographs, and 100,000 works of art.

Visitors engage with the Center's collections through research and study, exhibitions, publications, and a rich variety of program offerings including readings, talks, symposia, and film screenings. For more information about the Center and its collections, please consult the Ransom Center's website.

The Ransom Center invites use by University faculty members, staff members, students, and members of the public engaged in research across a range of scholarly disciplines. University faculty are encouraged to work with the Center to design collaborative teaching experiences in the galleries and seminar rooms. Each year, the Center awards more than 50 fellowships for projects that require substantial on-site use of its collections including fellowships for graduate students writing their dissertations. In addition, undergraduate internships and volunteer opportunities for students are available.

Visitors may access collection materials in the second-floor Reading and Viewing Rooms. The first-floor galleries feature rotating exhibitions, as well the Gutenberg Bible, one of only 20 complete copies in the world that survive intact, and the Niépce Heliograph, one of the oldest surviving photographs taken in a camera, both of which are on permanent display in the lobby.

Hours of operation for the Reading and Viewing Rooms and the exhibition galleries are available on the Ransom Center's website or by calling (512) 471-8944.

Hogg Foundation for Mental Health

The Hogg Foundation for Mental Health envisions a future in which the people of Texas thrive in communities that support mental health and well-being. Health is not solely an individual responsibility, but is also a product of community conditions. Working collaboratively, we can change the impact of mental illness across Texas, for all Texans.

In recognition of the systemic and structural nature of barriers to mental health, the foundation addresses challenges through a variety of approaches, including grantmaking, convening, research and public policy. Additionally, the foundation offers graduate-level scholarships and fellowships to encourage and support research and study in the field of mental health. The foundation's operations include the Texas Grants Resource Center.

The foundation was established in 1940. The original $2.5 million endowment came from the estate of Will C. Hogg. Upon his death, his sister Ima and his brother Mike established the foundation in his memory at The University of Texas at Austin. Ima, who is known fondly as the mother of the foundation, imagined a future in which people with mental health challenges would be treated with respect and dignity, and mental health would be seen as indivisible from all other aspects of a flourishing and healthy life.

The foundation is an administrative unit of The University of Texas at Austin and is located three miles west of the main campus at 3001 Lake Austin Boulevard.

Learn more at hogg.utexas.edu. Check the website frequently for updates and changes to programs and activities.

KUT and KUTX Public Media

KUT Public Media informs, connects, and strengthens the Central Texas community through independent news, transformative music and community storytelling. As a voice of – and for – the greater Austin community, we bring people together, amplify diverse voices and provide critical information that influences public dialogue and drives meaningful change.

KUT News provides reliable, independent reporting that informs and engages Central Texans. Our award-winning journalism – which is free to all – sparks public dialogue and influences policy, from housing affordability and zoning reforms to water conservation efforts. Known for our in-depth and investigative journalism, we play a vital role in shaping local conversations and driving meaningful change.

Texas Standard, an hourlong weekday news-magazine, airs on 30 public radio stations statewide. It is produced by KUT News in Austin in collaboration with KERA North Texas, Houston Public Media and Texas Public Radio in San Antonio.

KUTX 98.9, The Austin Music Experience, launched in 2013 and named "Best Radio Station" in the Austin Music Awards poll 10 times, is the destination for music from local, national and international artists driving the sound of Austin and Texas today.

KUT and KUTX Studios, the podcast arm of KUT Public Media, creates distinct listening experiences for people who care about the people, places, culture and history shaping the greater Austin community.

A Standard-Bearer for Trusted, Independent News – and a Catalyst for Civic Engagement

- Independent, paywall- and subscription-free journalism via KUT News and Texas Standard
- Non-partisan voter guides that help Central Texans stay civically engaged and make informed decisions.
- Spanish-language news via KUT En Español
- Statewide news collaboration with The Texas Newsroom, a collaborative effort among KUT News, KERA North Texas, Houston Public Media and Texas Public Radio in San Antonio, to optimize resources and capitalize on journalistic expertise from across the state.

A Lifeline in Emergencies

- Real-time safety updates on severe weather, wildfires and other disasters via radio, KUT News app notifications and social media; updates also reach KUTX 98.9 audiences
- KUT News social media channels harnessed for emergency communications, earning the Excellence in Social Media Engagement award for 2023 ice storm coverage
- The Central Texas broadcast emergency alert system relies on KUT News and KUTX 98.9 to reach the public

Promoting Local Culture and Music

- Showcasing Austin's music scene and elevating local artists to a national audience through award-winning KUTX 98.9
- Amplifying Texas artists and musicians of all genres on TMX.fm, the Texas Music Experience, a 24-hour live stream of an all-Texas playlist powered by KUTX 98.9
- Podcasts that tell unique Texas stories: *Black Austin Matters*, *Tacos of Texas*, *24 Hours in Austin*, *Vamos Verde*, about Austin FC, and more
- Highlighting Austin arts and culture through the *Austin Cultura* and *Arts Eclectic* programs on air and online
- Uncovering stories about Austin's people, places and culture through *ATXplained*, the podcast and semi-annual live journalism event, which draws 1000+ people to each performance

Bringing Central Texans Together

- Free public educational forums and live events encouraging civic engagement, plus listener meet ups that support local restaurants and venues
- Free and low-cost community music events like family-friendly KUTX Rock the Park and KUTX Live at Scholz Garten, featuring local, national and international musicians and drawing hundreds of guests every year
- 5,500+ Public Service Announcements annually supporting Central Texas nonprofits
- 12 local non-profits spotlighted annually, on air and online, to support volunteer recruitment via KUT's Get Involved series
- A comprehensive online field guide to Austin for newcomers and old-timers, highlighting the sites, sounds and stories that make Austin "Austin"

Investing in the Next Generation

- 30+ paid interns annually from UT Austin, Texas State University, St. Edward's University, Austin Community College and more, who gain hands-on experience in preparation for journalism and other media-related careers
- A university resource for journalism expertise: KUT journalists serve as adjunct professors or guest lecturers for area journalism programs
- Intensive, hands-on mentoring for a small cohort of students each year during a weeklong, digital-first intensive via the NPR Next Generation Radio program

Supported by a dedicated community of sustaining members, local businesses and foundations, KUT Public Media powers the news, music and conversations that matter to Central Texas.
KUT 90.5 was established in 1958 and is licensed by the Federal Communications Commission to The University of Texas at Austin.

Marine Science Institute

The Marine Science Institute (UTMSI), located in Port Aransas, Texas, is home to the Department of Marine Science in the College of Natural Sciences. The Institute is dedicated to advancing and sharing knowledge of estuaries, coastal, and blue-water oceans through research, education, and outreach programs. Marine science faculty, students, and professional staff conduct basic and applied research with global reach, from the Gulf waters to the polar oceans. The department is well known for its master's and doctoral degree programs in marine science. A Bachelor of Science in Biology: Option III: Marine Science undergraduate degree is available through the College of Natural Sciences at The University of Texas at Austin.
Founded in 1941, the 62-acre UTMSI main campus and 10-acre Port Street campus are strategically located on Mustang Island's north shore, offering unparalleled access to open Gulf waters and the pristine bays and estuaries of Texas. These natural habitats include fresh to hypersaline waters, seagrass and mud flats, oyster reefs, sand beaches, dune areas, the open Gulf, and estuarine nurseries. Core research areas include marine ecosystem structure and function, fisheries biology, organismal biology, fish physiology, and marine biogeochemistry.
The Marine Science Institute facilities include approximately 216,000 square feet of research and teaching laboratories, digital classrooms, study areas, a library, visitor centers, an auditorium, meeting rooms, offices, and seawater for laboratory experiments. The Institute has an advanced seawater filtration system and associated diverse tank laboratories to support a wide range of research. Dormitories, apartments, cottages, and a fitness facility support resident student and visiting scholar needs. The institute's boat basin harbors watercraft ranging from shallow water skiffs to the *R/V Katy*, a 57-foot trawler.
A new 78-foot research vessel is under construction and slated to be completed in 2026.
The Marine Science Institute is home to several unique programs. A mile west of the main campus is the Port Street Campus, which includes the Fisheries and Maricultural Laboratory (FAML) and the Center for Coastal Ocean Science on 10 acres adjacent to the ship channel. The FAML complex provides facilities for research on the spawning and rearing of marine finfish. The Center for Coastal Ocean Science provides newly renovated laboratories for toxicological research on marine ecosystems. The Marine Science Institute also manages two federally sponsored programs: the Mission-Aransas National Estuarine Research Reserve and the Beaufort Lagoon Ecosystems Long Term Ecological Research Program (LTER). The Mission-Aransas Reserve, at 186,189 acres, is the third-largest estuarine reserve in the nation and focuses on research, education, and stewardship. The Mission-Aransas Reserve maintains outreach facilities and programs of the Patton Center for Marine Science Education in Port Aransas and the Bay Education Center in Rockport, Texas. The Reserve also operates the Amos Rehabilitation Keep (ARK), which rescues and rehabilitates hundreds of sea turtles and marine birds annually. The Beaufort Sea (LTER) is a research program along the northern Alaskan Arctic coastline in the Beaufort Sea, and the program is focused on studying the relationship of seasons and Arctic ecosystems.
Faculty, graduate, undergraduate students, and professional research staff at UTMSI have achieved landmark discoveries in marine science spanning decades of local and global interests. The record of excellence in research, teaching, and mentorship provides an outstanding opportunity for new students interested in marine science career paths.

The University of Texas McDonald Observatory at Fort Davis

Understanding the nature of dark energy—a force that is causing the universe to expand faster as it ages—is one of the great challenges in modern science. McDonald Observatory is meeting that challenge with the Hobby-Eberly Telescope Dark Energy Experiment (HETDEX), an innovative experiment that will examine more than one million galaxies that are billions of light-years from Earth. These observations will reveal new details about how the expansion rate has changed over the eons, helping narrow the list of possible explanations for dark energy.
This experiment and many others are adding to McDonald Observatory's legacy of innovation and discovery. Dedicated in 1939 in the Davis

Mountains of West Texas, the Observatory is a leader in astronomical research, education, and outreach. It hosts a battery of telescopes, including one of the world's largest. Its astronomers study everything from our own solar system to the most distant galaxies, and they develop new instruments for observing the universe.

McDonald Observatory is extending its reach far beyond Texas as a partner in the Giant Magellan Telescope, a mammoth instrument under construction in Chile. Its primary mirror, which gathers and focuses starlight, will consist of seven segments. Combined, they will cover almost as much area as a basketball court, and will see deeper into space than any telescope yet built. With this telescope, astronomers expect to snap pictures of planets in other star systems and look at the dawn of the universe, allowing them to see the formation of the first galaxies.

McDonald Observatory has been operating some of the world's largest telescopes since its beginning. Its first telescope, with a mirror spanning 82 inches (2.1 meters), was the second-largest in the world. Its second major telescope, completed three decades later, was the world's third-largest at the time. And today, McDonald Observatory hosts the Hobby-Eberly Telescope (HET), with a segmented primary mirror that spans 33 feet (10 meters).

HET has been upgraded to host HETDEX and many other research projects. Engineers have replaced the top half of the telescope, installing new optics that provide a wider view of the sky. And they are finalizing powerful new instruments, including a suite of 156 spectrographs known collectively as VIRUS (Visible Integral-Field Replicable Unit Spectrographs). These instruments allow astronomers to measure an object's temperature, chemical composition, and motion through space. VIRUS will be able to look at as many as 34,000 galaxies or other objects at a time, which is almost like looking at the sky with 34,000 individual telescopes.

In addition to its research role, McDonald Observatory is a busy training ground for astronomy students, both graduate and undergraduate. Students conduct their own observations with some of the telescopes, providing valuable experience for their future careers as scientists and teachers. They also have opportunities to help develop new instruments, which extend the capabilities of the telescopes.

McDonald Observatory is also a leader in astronomy outreach. It produces a daily radio program, StarDate, that airs on more than 350 stations and reaches millions of listeners every week, as well as the bimonthly StarDate magazine.

The Frank N. Bash Visitors Center at the Observatory hosts tens of thousands of visitors every year. It offers interactive exhibits and observatory tours, and conducts star parties every Tuesday, Friday, and Saturday night. The Visitors Center also hosts regular workshops for science teachers and special events for students. These programs have impacted thousands of teachers and hundreds of thousands of students. For more information about McDonald Observatory outreach, education, and research, visit the website.

Other Libraries in Austin

The Lyndon Baines Johnson Library and Museum, located on the eastern edge of the campus, is operated by the National Archives and Records Administration. Though not part of the University library system, this library is a rich resource for scholars studying the twentieth century. Faculty members and students also have access to other public and private libraries in the Austin area, including several that focus on special areas of interest.

The Nettie Lee Benson Latin American Collection is world-renowned for Latin American materials. The library holds over one million books, periodicals, pamphlets, and newspapers; and over 7,000 linear feet of archives and manuscripts. The collection acquires research material from across Latin America, the Caribbean, and the United States, on Latin Americans and U.S. Latinas/os, with subject focuses including the humanities, social sciences, natural resources, natural sciences, history of medicine, law, human rights, civil rights, technology, and Latina/o Studies. The Benson Collection proudly marked its centennial in 2021.

Tarlton Law Library/The Joseph D. Jamail Center for Legal Research

The Tarlton Law Library in the Jamail Center for Legal Research supports the research and curricular needs of the students and faculty of the School of Law, and provides legal research support and assistance to the University community. The highly qualified library staff provides reference services, offers individual and group instruction, and maintains and organizes the collection for efficient use. Librarians teach advanced legal research courses on a range of topics, including Texas law, corporate and securities law, foreign and international law, and general advanced legal research. Courses include conventional legal research instruction as well as the emerging use of artificial intelligence technology.

The Tarlton Law Library is one of the largest academic law libraries in the country, with a collection including extensive print and electronic resources. Tarlton has a comprehensive collection of United States primary and secondary legal materials, as well as an excellent collection of foreign and international legal resources. Tarlton is a selective depository for United States government documents. Tarlton also has a broad interdisciplinary collection from the social sciences and humanities. Special collections at Tarlton include the papers of former United States Supreme Court Justice Tom Clark, law school history archival collections, and an extensive collection of rare and antiquarian law books. Collections also include paintings, prints, documents, textiles, and pieces of furniture on display in the library from the Hyder Collection. Tarlton offers law students access to Bloomberg Law, Lexis, Westlaw, and other legal research databases. Computers, a building-wide wireless network, printers, and scanners are available for law student use. The facility has group study rooms; a student collaborative study space; and tables, carrels, and comfortable seating throughout. The Tarlton Law Library website offers online resources and finding aids, including digital collections highlighting Texas legal history and law school history.

The Teresa Lozano Long Institute of Latin American Studies (LLILAS)

Founded in 1940 and renamed in 2000 in honor of Joe R. and Teresa Lozano Long, whose endowment supports the Institute's scholarly and student-funding mission, LLILAS is among the oldest Latin American Studies centers in the United States, and one of the most comprehensive. LLILAS is recognized as a premier center for Latin American Studies, distinguished by its integration of research, teaching, outreach, and public programming — and by its standing as one of just five university programs nationally, alongside Columbia, Stanford, Chicago, and Wisconsin, recognized through the Tinker Foundation's endowed professorship.

LLILAS operates through a dual structure that integrates academic and resource functions.

Academic Unit

LLILAS offers an undergraduate major in Latin American Studies and three graduate options: a stand-alone MA, a dual MA combining Latin American Studies with any of ten professional degrees at UT Austin — including Law, Journalism, Information Studies, Business, Communication Studies, Community and Regional Planning, Global Policy Studies, Public Affairs, Radio-Television-Film, and Social Work — and a PhD for students pursuing interdisciplinary expertise on Latin America. The graduate program admits approximately 10–15 students per year, each supported through a competitive funding

package combining fellowships, teaching assistantships, and grant- and endowment-funded awards such as the E.D. Farmer Fellowship.
More than 180 LLILAS-affiliated faculty teach across 40 departments and 13 colleges and schools, offering an average of 120 Latin American Studies courses each semester in fields as varied as Literature, History, Political Science, Sociology, Anthropology, Geography, Public Affairs, Law, Architecture, Education, and Journalism. This faculty community includes 101 Mexicanists, 43 Brazilianists, 13 Mesoamericanists, and 32 Caribbeanists, with some faculty claiming more than one region, reflecting the breadth of the Institute's regional coverage. LLILAS has developed a system of shared faculty hires with academic departments, holding formal appointments at LLILAS, extending the Institute's reach. The Institute leads the Indigenous Languages Initiative (ILI), currently offering coursework in K'iche' (Maya).

Resource Center

As a resource and research center, LLILAS funds faculty and student research, supports thematic working groups, and fosters public engagement across Texas, the U.S., and Latin America. The Institute is home to the Mexico Center (est. 1980) and the Brazil Center (est. 1995), and supports the Argentine Studies Program, the Caribbean Studies Initiative, and the Maya Studies Initiative. LLILAS also hosts distinguished Latin American visiting professors annually through endowments and grants, such as the Edward Larocque Tinker Chair in Latin American Studies.
LLILAS's institutional reach extends well beyond campus: the Institute maintains 29 formal exchange agreements with Latin American universities and draws on Texas Global's more than 60 approved programs across 12 Latin American countries. These global and interdisciplinary linkages support current dual-degree partnerships with professional schools including the LBJ School of Public Affairs, the School of Law, and the Moody College of Communication, and extend to standing collaborations with units such as Dell Medical School's Global Health Division.
For research and digital scholarship, students and faculty draw on the Nettie Lee Benson Latin American Collection (BLAC), a unit of UT Libraries and the second-largest research collection of its kind in the United States after the Library of Congress. BLAC's physical holdings total over 1.5 million books, periodicals, pamphlets, and microforms, alongside thousands of linear feet of manuscripts, maps, and rare materials that include some of the first books published in the Americas. Since 2011, a formal LLILAS Benson partnership, jointly led by the directors of LLILAS and BLAC, has integrated these collections directly into LLILAS's academic programs, building a joint research and teaching-driven digital scholarship program. Together, LLILAS and BLAC provide students and faculty with an essential library resource for coursework, thesis research, and dissertation work, reinforcing LLILAS's standing as a hub for both traditional area-studies scholarship and emerging digital humanities methods.
The LLILAS Benson partnership is also the home of AILLA, the Archive of the Indigenous Languages of Latin America, a digital archive of recordings and texts in a wide range of genres that includes a wealth of language documentation materials. LLILAS Benson's online magazine, *Portal,* publishes the work of faculty, students, staff, and invited authors on a wide variety of topics relating to Latin America.
LLILAS is located in Sid Richardson Hall, on the eastern edge of The University of Texas at Austin campus. Additional information is available through the LLILAS website.

Texas Science & Natural History Museum

Texas Science & Natural History Museum is located in the Texas Memorial Museum building (TMM) on the main University campus at 2400 Trinity Street. The museum excites, engages, and connects curious minds of all ages.
The Art Deco style building was constructed 1936-1938 with state and federal funds, contributions, and proceeds from the sale of Texas Centennial coins sponsored by the American Legion. The museum opened to the public January 15, 1939. It became part of The University of Texas at Austin in 1959 by legislative enactment.
The museum displays the university's stunning biological and geological collections, including meteorites, rocks, fossils and Texas wildlife. New exhibits tell stories of Texas science and natural history, connecting visitors to the natural world from prehistoric life to the impacts made by current research and technology.
The museum is open from 10:00 am to 5:00 pm Tuesday through Saturday and 1:00 pm to 5:00 pm on Sunday; closed on Monday and major holidays. General admission is $10 for adults, $5 for children 12 and under, and free for The University of Texas at Austin students, staff, and faculty with valid UT ID. Public education programs and special events are held throughout the year.

University of Texas Press

The University of Texas Press publishes approximately 85 new books and 15 journals each year in both print and digital formats. Although books have been published under the University of Texas imprint since 1922, the Press was formally established in 1950. The imprint is guided by a nine-member Faculty Advisory Committee, with members drawn from the President's Faculty Advisory Cohort and the university faculty at large.
In the years since its founding, UT Press has become a publisher of international scope, issuing more than 3,500 works in a wide range of fields. The major areas of concentration are American studies, architecture, classics and the ancient world, film and media studies, food studies, history, Jewish studies, Latin American and Latinx studies, Middle Eastern studies, music, and photography; as part of its mission to serve the people of Texas, the Press also produces books on the history, culture, arts, and environment of the state.
UT Press regularly collaborates with the Dolph Briscoe Center for American History, the Center for Mexican American Studies, the Center for Middle Eastern Studies, the Institute of Classical Archaeology, the Schusterman Center for Jewish Studies, the Stark Center for Physical Culture and Sports, and the Teresa Lozano Long Institute for Latin American Studies, as well as the Blanton Museum of Art and the Harry Ransom Center.
The Press also offers a fellowship program designed to give one year of experience in book publishing. The objective of the program is to help prepare the fellow for a career in book publishing by providing intensive training in selected departments with exposure to and instruction in the operations of the other departments.
The Press offices are located at the Lake Austin Centre, 3001 Lake Austin Boulevard.
For more information, please see the UT Press website.

Appendices

Appendix A: Emergency Notification Policy

A. **Policy Statement**
As safety and emergency notification practices are under greater scrutiny at institutions of higher education, it is the position of The University of Texas at Austin that at least one emergency contact person must be listed for each student enrolled at the University. A student's cell phone number is also part of the emergency notification protocol in case the University should need to contact the student via text message about critical incidents on campus. Information gathered remains confidential to the extent allowed by law.

B. **Scope**
This policy applies to all admitted and enrolled students of the University. This policy provides for two distinctly different types of emergency notification. First, it details all the ways the University provides notification about emergencies to students, faculty members, and staff members. Second, it indicates the way the University will follow to notify a student's designated emergency contact in the event of personal distress or missing person status.

C. **University Communication of Emergency**
Emergencies may range from inclement weather to building evacuations to campus closures, and the University has a variety of tools to communicate with the public in the event of these and other possible emergencies. Depending on the type of emergency, some or all of the following tools may be used to communicate with faculty members, staff members, and students:

1. **Siren System**
This system is tested at about noon on the first Wednesday of every month. It delivers a siren warning and public address in the event of certain outdoor emergencies. More information about the siren system is available.
2. **Emergency Website**
The emergency website is updated with information during actual emergencies or campus closures.
3. **University Emergency Information Line, (512) 232-9999**
Students and faculty and staff members may call this main number for information about campus closures.
4. **Campus Television Emergency Announcement System**
Emergency announcements will override residence hall and campus cable television, instructing the viewer where to go for additional information.
5. **Text Messaging Service**
The University contracts with a third-party vendor that provides the technological ability to send text messages to members of the campus community. Only text messages about emergencies and messages used periodically to test the system are sent. Any data provided to the vendor by the University is protected by contractual arrangements.
6. **Pager System**
Campus first responders, resident advisors, and some building managers are part of the Austin Warning and Communication System paging system. Pagers send text messages about emergencies on campus and alert city responders like the Austin Police Department, the Austin Fire Department, Emergency Medical Services, and the Office of Emergency Management to campus crisis situations.
7. **Fire Panel Systems**
Residence halls are equipped with fire panel systems that have a public address capability. Resident advisors are trained to use these systems in emergencies in order to make announcements to the entire building regarding evacuation, shelter in place, or other responses.
8. **University Group E-mail**
During emergencies, UT Safety Alert sends an "urgent" group e-mail to every student and faculty and staff member. The message directs individuals to the emergency Web site for additional information and instructions.
9. **Voice Mail to Office Telephones**
This system leaves a voice message on every faculty and staff member's office phone on campus.
10. **Local News Media**
The Office of Public Affairs sends press releases and makes calls to contacts on a local media list. Because of the transient nature of its population, the University depends a great deal on broadcast media to notify students, faculty members, and staff members of emergencies before or during their commutes.
11. **Public Safety Patrol Car Announcements**
University of Texas Police Department patrol cars are equipped with public address systems that officers can use to provide instructions to pedestrians during emergencies.
12. **Telephone Tree**
The president's office has a telephone tree of department contacts that is activated during an emergency

D. **Emergency Contact Information**
Using the online update form in UT Direct, every student must provide the University with the name and contact information of at least one individual who could be contacted in the event of an individual emergency or to report the student missing. Students under the age of eighteen (unless emancipated) must provide contact information for at least one custodial parent. Students over the age of eighteen may designate anyone of their choosing to be the emergency contact. If a student living in University housing is determined to have been missing for more than twenty-four hours, University Housing and Dining will notify law enforcement (The University of Texas Police Department) and the Student Emergency Services unit in the Office of the Dean of Students to initiate missing person procedures. Student Emergency Services will notify the designated emergency contact for a student identified as a missing person within twenty-four hours of receiving the report.

E. **Updating Emergency Contact Information**
Students are required to update their primary cell phone and emergency contact information annually in order to keep the information current. Students who fail to update their emergency contact information have holds placed on their records that keep them from registering for classes. The hold is removed when the student submits the required emergency contact information.

F. **Privacy and Confidentiality**
Official use of emergency contact information is subject to the same privacy and record retention requirements as other official University information.

G. **Authoritative Source**
The authoritative source of this policy and responsibility for its implementation rests with the vice president for student affairs. The University emergency protocols are managed by the associate vice president for University operations.

H. **For Assistance**
Questions about data security should be directed to the registrar at (512) 475-7575. Questions about acceptable use standards should be directed to the Office of the Dean of Students at (512) 471-5017.

Appendix B: Official Extracurricular Student Activities

Athletic Activities

Intercollegiate Athletics

The University is a member of the National Collegiate Athletic Association and the Southeastern Conference and, in matters involving intercollegiate athletics, is bound by the provisions contained in the constitutions, bylaws and rules of these organizations. The Lois and Richard Folger Athletics Director/Vice President reports to the University president.

The University has men's intercollegiate athletics teams in baseball, basketball, cross country, football, golf, swimming and diving, tennis, indoor track and field and outdoor track and field.

The University has women's intercollegiate athletics teams in basketball, beach volleyball, cross country, golf, rowing, soccer, softball, swimming

and diving, tennis, indoor track and field, outdoor track and field and volleyball.

The Intercollegiate Athletics Council. Members of the Intercollegiate Athletics Council are advisory to the president of the University on issues relevant to athletics. The IAC is comprised of:

a. Eight members of the General Faculty appointed by the president to four-year staggered terms that begin at the start of the fall semester
b. Four presidential appointees appointed to four-year terms that begin at the start of the fall semester;
c. One former student appointed by the Texas Exes to a one-year term that begins at the start of the fall semester;
d. One student appointed by the president to a one-year term that begins at the start of the fall semester;
e. Up to four ex-officio and non-voting appointees (including the Faculty Athletics Representative, who is appointed to a five-year term)

Each IAC member serves until a successor is appointed, and each member may be reappointed to one or more additional terms.

EADA reports. The Equity in Athletics Disclosure Act (EADA), an amendment to the 1994 Improving America's Schools Act, requires certain coeducational institutions of higher education to prepare annually and make available a report on participation rates, financial support, and other information on men's and women's intercollegiate athletic programs.

Sport Clubs

A variety of sports and recreation programs are administered by Recreational Sports through the Sport Club program. Where applicable, the regulations for sport clubs are consistent with the requirements established by appropriate national sports organizations. In each sport club, the University reserves the right to adopt additional regulations.

Nonathletic Activities

Nonathletic activities include extracurricular student events, contests, and programs, and elective, honorary, and appointive positions under the jurisdiction and supervision of a University agency. Eligibility rules for participation in each official nonathletic student activity shall be determined, adopted, and administered by the agency having jurisdiction over and responsibility for the activity. Participation in any of the above named nonathletic activities means

a. managing or taking part in an intercollegiate or other public contest, program, or performance under the jurisdiction of an official nonathletic agency;
b. holding, by official election or official appointment, any office, title, or honorary or representative position recognized by the constitution or governing regulations of an official nonathletic agency; and
c. holding a special all-University honorary or representative position designated as such by the dean of students.

Appendix C: Institutional Rules on Student Services and Activities

There are in the *Institutional Rules on Student Services and Activities* (known as the *Institutional Rules*) a number of references to portions of the Rules and Regulations of the Board of Regents of The University of Texas System (known as the Regents' *Rules and Regulations*). These references are included because (1) all of the Regents' *Rules and Regulations* have full force and effect as concerns The University of Texas at Austin; (2) certain aspects of student services and activities are treated only in the Regents' *Rules and Regulations*; and (3) certain portions of the *Institutional Rules* have since their enactment been superseded or amended by the Regents' *Rules and Regulations*.

The Regents' *Rules and Regulations* (http://www.utsystem.edu/board-of-regents/rules) are published by the board.

Chapter 1. Student Orientation

Subchapter 1–100. General Provisions

Sec. 1–101. Purpose and Application

a. Student orientation programs are designed to initiate the integration of newly admitted first-year and transfer undergraduate students into the academic and social climate of the University.
b. The primary purpose of a University orientation program is to help new undergraduates understand the nature of the University, the educational opportunities available to them, the values and functions of the University community, and the central objective of the University as an academic enterprise. It also permits students to participate in academic advising and to learn about matters relating to student registration, housing, campus activities, and other aspects of University life.

Sec. 1–102. Definitions

In this chapter, unless the context requires a different meaning,

1. "director" means director of orientation;
2. "student" means a person enrolled in residence at the University or a person accepted for admission or readmission to the University while that person is on the campus;
3. "University" means The University of Texas at Austin; and,
4. "Senior Vice Provost for Strategic Enrollment Management" means the Senior Vice Provost for Strategic Enrollment Management or the Senior Vice Provost for Strategic Enrollment Management's delegate or representative.

Subchapter 1–200. Administration of Orientation

Sec. 1–201. Duties of Director

The director, in direct coordination with the Offices of the Provost, shall actively guide, plan, implement, and evaluate the programs and services designed to introduce incoming students to the University. In carrying out their responsibilities, the director is administratively responsible to and will report to the Senior Vice Provost for Strategic Enrollment Management.

Subchapter 1–300. Student Conduct

Sec. 1–301. Rules and Regulations Applicable to Student Conduct

Prospective students attending an orientation program are subject to the rules and regulations governing student discipline and conduct set out in chapter 11 of the *Institutional Rules*.

Chapter 2. The Office of Admissions and the Office of the Registrar

Subchapter 2–100. General Provisions

Sec. 2–101. Definitions

In this chapter, unless the context requires a different meaning,

1. "student" means a person enrolled in residence at the University or a person accepted for admission or readmission to the University while that person is on the campus; and
2. "University" means The University of Texas at Austin.

Subchapter 2–200. The Office of Admissions

Sec. 2–201. The Assistant Vice Provost of Admissions

The assistant vice provost of admissions is the administrative officer responsible for supervising the Office of Admissions and reports to the Vice President for Student Experience.

Sec. 2–202. The Office of the Assistant Vice Provost of Admissions: Duties

a. Serve as the coordinating office for University relations with high schools, junior and community colleges, and other educational institutions. The responsibility of this office is to disseminate information to prospective students about the University and about the admission process.
b. Be responsible for the University's program of visitation to high schools and junior and community colleges. Develop outreach programs through which the University communicates with its constituents concerning the educational opportunities at the University.
c. Receive and evaluate the admission credentials of each undergraduate applicant and determine the admission eligibility for these students and inform them of their admission status.
d. Receive and examine credentials of returning students who have not been in residence during a fall/spring semester to ascertain their eligibility for reentry.
e. Evaluate, in conjunction with the academic departments, the courses from other colleges, universities, and junior colleges to determine their transferability to the University.
f. Be responsible for maintaining and coordinating admissions programs with the various academic areas.

Subchapter 2–300. Admissions

Sec. 2–301. Requirements, Procedures, and Policies

The requirements, procedures, and policies for admission and transfer to the University and for reentry after a student's absence are set out in *General Information* and in the *Undergraduate*, *Graduate*, and *Law* catalogs.

Sec. 2–302. Waitlist and Appeals

a. On request of a student, the Admission Appeals Committee will review decisions of the Office of Admissions pertaining to admission or transfer.
b. A student may join the waitlist to be considered for a different decision by the Admission Appeals Committee appointed by the assistant vice provost of admissions.
c. A student may appeal a decision of the assistant vice provost of admissions to the vice president of student experience.

Subchapter 2–400. Rules Applicable to Nonresidents

Sec. 2–401. Where Found

General Information prescribes rules applicable to nonresidents in the Admission Section (p. 15).

Sec. 2–402. Appeal

A student or applicant may appeal a decision of the Office of Admissions pertaining to residence status through the Office of General Counsel of The University of Texas System to the Office of the Chancellor by following the established procedure administered through the Office of Admissions.

Subchapter 2–600. The Office of the Registrar

Sec. 2–601. The Registrar

The registrar is the administrative officer responsible for supervising the Office of the Registrar and reports to the Senior Vice Provost for Academic Affairs.

Sec. 2–602. The Office of the Registrar: Duties

The Office of the Registrar will

1. maintain the official inventory of courses;
2. maintain, by department and subject, records and reports about the class sizes;
3. assist departments in scheduling classes in a manner that results in optimum space utilization;
4. supervise and administer registration procedures;
5. prepare official publications, including bulletins, catalogs, and course schedules;
6. prepare statistical studies and reports of enrollment;
7. schedule final examinations, except in the School of Law and the Dell Medical School;
8. collect, record, and distribute grades;
9. maintain official academic records and issue transcripts;
10. prepare and issue official certifications regarding attendance, enrollment, and status;
11. prepare and issue diplomas;
12. certify student athletes for NCAA competition;
13. administer degree audits;
14. certify the eligibility for student veterans for Veteran Services; and
15. review and determine student Texas residency classification.

Subchapter 2–700. Jurisdiction and Transfer

Sec. 2–701. Jurisdiction

1. Each student by registering enters a college or school of the University and is subject to the rules and regulations of that college or school. A student pursuing simultaneous majors in two colleges or schools is subject to the rules and regulations of both.
2. Each student who takes a course in a college or school other than the college(s) or school(s) in which he or she is registered is subject to the requirements and rules applicable to that course in the college or school in which the course is taught.

Sec. 2–702. Transfer to Another Division: Internal Transfer

1. Students who have completed 45 or fewer semester hours of college credit and are not on academic dismissal are eligible to transfer between colleges and schools within the University , provided they satisfy all conditions and procedures that apply to students who enter the new college or school and any program thereof when first admitted to the University. Students who have completed more than 45 semester hours of credit must present a 2.00 University grade point average to qualify for transfer between colleges and schools within the University. Transfer students from other institutions are eligible to transfer between colleges and schools within the University upon completion of their first semester (including summer) session at The University of Texas at Austin regardless of the number of semester hours accumulated, provided they satisfy all conditions and procedures that apply to students who enter the new college or school and any program thereof when first admitted to the University.
2. Students must complete transfer procedures by the end of the eighth class day of the semester (or the fourth class day of the summer session).
3. Graduate students not previously admitted to the University as undergraduates may transfer from Graduate and Postdoctoral Studies to an university undergraduate program or school only if they (1) meet the general conditions for transfer, (2) satisfy any pertinent admission requirements for that university undergraduate program or school, and (3) have the additional approval of the vice provost of admissions.

Subchapter 2–800. The Official Transcript of Academic Record

Sec. 2–801. Nature of Transcript

1. The provisions of chapter 9 of the *Institutional Rules* describe the official transcript of academic record.
2. A student may obtain from the Office of the Registrar a copy of his or her transcript of academic record by paying a fee prescribed by the

registrar. The transcript includes the recorded results of the student's classwork at the University.

Subchapter 2–900. Reports of Academic Work

Sec. 2–901. Semester Reports from Registrar

At the end of each semester and at the end of the summer session, the registrar will provide a report of each student's academic achievement to the student through a secure Web site.

Chapter 3. Financial Aid

Subchapter 3–100. General Provisions

Sec. 3–101. Purpose

a. As a state institution of higher education, the University endeavors to provide higher education for all eligible persons and to assist in the pursuit of their studies those who do not have sufficient financial resources.

b. The Office of Scholarships and Financial Aid is responsible for administering certain funds for financial aid to students; for keeping abreast of programs relating to financial aid for higher education and to employment opportunities for students funded through federal, state and institutional work-study programs; for disseminating information relating to available financial aid programs and the cost of attending the University to enrolled students and prospective students; and for assisting students who have been accepted for enrollment at the University or who are enrolled at the University in obtaining loans, grants, scholarships, and employment to supplement payment of their educational expenses.

Sec. 3–102. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Advisor" means the single individual a student has elected to accompany him or her to a meeting with the director or a hearing regarding an aid decision. As the student is solely responsible for presenting his or her case during the hearing, an advisor serves only in a support capacity and may not verbally advocate for the student in a meeting with the director or in a hearing. If an advisor poses a conflict of interest, the director or the Subcommittee on Appeals may elect to excuse his or her presence, and advisors may be dismissed from any proceedings if they disrupt the process.
2. "Aid decision" means a written decision regarding the amount of financial aid award to a student by the University under a financial aid program administered by the Office of Scholarships and Financial Aid and includes the findings of fact in support of the decision.
3. "Day" means calendar day.
4. "The Director" means the associate vice provost for financial aid and Texas One Stop or the director's delegate.
5. "Financial aid record" means a student record as defined in subsection 9–202(a)(4) of the *Institutional Rules* that is maintained by the director in connection with a financial aid program administered by the Office of Scholarships and Financial Aid. The record may include applications, forms, notices, hearing records, aid decisions, and other documents required under this chapter or deemed relevant by the director.
6. "Student" means a person who is currently enrolled at the University, or who is accepted for admission or readmission to the University, or who has been enrolled at the University in a prior semester and is eligible to continue enrollment in the semester (including summer) that immediately follows.
7. "University" means The University of Texas at Austin.
8. "Senior Vice Provost" means the senior vice provost for strategic enrollment management and student success of The University of Texas at Austin, or his or her designee.
9. "Weekday" means Monday through Friday.

Subchapter 3–200. The Director of The Office of Scholarships and Financial Aid

Sec. 3–201. Administration of Financial Aid

a. The director will administer institutional, state, and federal programs for scholarships, loans, grants, and other specified financial aid in accordance with the legal provisions and limitations, if any, of particular funds, or in accordance with policies recommended by the Committee on Financial Aid to Students.

b. The director is in charge of the Office of Scholarships and Financial Aid and is administratively responsible to and will report regularly to the senior vice provost.

Sec. 3–202. Duties of Staff

Staff members will process applications for students who need assistance in financing their educational expenses.

Subchapter 3–300. The Committee on Financial Aid to Students

Sec. 3–301. Membership

a. The Committee on Financial Aid to Students has fourteen members and at least three administrative advisors. The members are
   1. five members from the General Faculty, representing five colleges or schools of the University, appointed by the president for two-year staggered terms;
   2. two staff members appointed by the president for staggered two-year terms;
   3. five students (four undergraduate and one graduate), including at least two who are receiving or have received financial aid from the Office of Scholarships and Financial Aid; four of the students are appointed by the president from a panel submitted by Student Government; the fifth student is appointed by the president from a panel submitted by the chair of the Graduate Student Assembly; student members will be appointed for two-year staggered terms; and
   4. two members from the Faculty Council, appointed by the chair of the Faculty Council for one-year terms.

b. The director, a representative of the dean of students, and a representative of the Office of Graduate and Postdoctoral Studies serve as administrative advisors without vote. The president may appoint additional nonvoting administrative advisors from the general administration areas of the University.

c. A Subcommittee for Appeals is designated from the full committee. The subcommittee is composed of no fewer than three of the five members from the General Faculty as voting members and the administrative advisors without vote.

Sec. 3–302. Duties of Committee

a. The full committee initiates and reviews policies and procedures for the Office of Scholarships and Financial Aid.

b. The Subcommittee for Appeals hears appeals regarding Satisfactory Academic Progress (SAP).

Subchapter 3–400. Appeals to the Committee on Financial Aid to Students

Sec. 3–401. Procedure for Denial due to not meeting Satisfactory Academic Progress (SAP)

a. A recipient of a loan, grant, or scholarship administered by the Office of Scholarships and Financial Aid who does not make satisfactory academic progress (SAP) will be notified in writing. An appeal

process is available to students who do not meet SAP due to extenuating circumstances.

Sec. 3–402. Appeal

a. A person whose aid has been denied or revoked under section 3–401, after exhausting all internal review processes through the Office of Scholarships and Financial Aid, may appeal the decision to the Subcommittee for Appeals.

Sec. 3–403. Appeal to Subcommittee for Appeals

a. To appeal a denial or revocation of aid to the Subcommittee for Appeals, the student must submit a written appeal to the director. The appeal must state the student's name, the date the director issued the aid decision, and specific reasons for the appeal, including any related argument and all relevant documentation.
b. The appeal must be submitted by letter or e-mail within 10 days from the date the student received the aid decision from the director. A letter will be considered to have been received on the third day after the day of mailing. An e-mail message will be considered to have been received on the second day after sending the message.

Sec. 3–404. Hearing Before the Subcommittee for Appeals

The Subcommittee for Appeals will preside over the hearing and will:

1. facilitate the hearing process, which includes the ability to excuse any party present at the hearing if he or she is disrupting the process; render a written decision, which will contain findings of fact; approve, reject, or modify the decision of the director; and provide the student and the director with a copy of the decision.

Sec. 3–405. Duties of the Director

The director, in consultation with the Subcommittee for Appeals, will:

1. set the date, time, and place for the hearing and notify the student of the date, time, and place;

Sec. 3–406. Notice of Hearings

a. The Office of Scholarships and Financial Aid will notify the student by letter or by e-mail of the date, time, and place for the hearing. The notice will be delivered in person or sent to the student by e-mail or postal mail at an address listed in the registrar's records.
b. The notice will specify a hearing date at least ten days after the letter or e-mail message is received. A letter or an e-mail message sent to an address listed in the registrar's records will constitute full and adequate notice. A letter will be considered to have been received on the third day after the day of mailing. An e-mail message will be considered to have been received on the second day after sending the message.
c. The student may request, in writing, that an earlier hearing date be set if feasible to arrange.

Sec. 3–407. Preliminary Matters in Hearings

a. At least five days before the hearing date, the student will furnish the Subcommittee for Appeals with
    1. any objection that, if sustained, would postpone the hearing; and
    2. the name and relationship of the advisor to the student, if any, who will appear with the student.

Sec. 3–408. Hearing Procedure

a. The Subcommittee for Appeals will review written arguments and then meet with both parties together to ask questions, seek clarification, and hear any final comments from the parties.
b. The Subcommittee for Appeals' meeting with the parties is informal and is closed.

Sec. 3–409. Evidence in Hearings

a. The Subcommittee for Appeals will review the aid decision made under section 3–401 and subsection 3–402(a) based on admitted evidence. The Subcommittee for Appeals may consider the student's financial aid record admitted into evidence at the hearing in determining an aid decision.

Sec. 3–410. Decision of the Subcommittee for Appeals

a. Within 14 days from the completion of the hearing, the Subcommittee for Appeals will render a written decision. The student and the director will each be given a copy of the decision. The Subcommittee for Appeals' written decision is the official decision on the matter from which any appeal is taken.
b. The criteria the Subcommittee for Appeals' decision will be based on are fairness, reasonableness, compliance with the Institutional Rules and federal and state law, and the student's financial aid record, if any. The Subcommittee for Appeals may approve, reject, or modify the director's decision.

Subchapter 3–500. Suspected Federal Financial Aid Fraud

Sec. 3–501. Procedures Reporting Suspected Federal Financial Aid Fraud

It is the responsibility of the Office of Scholarships and Financial Aid to report any suspicions or evidence of fraud, or intent to defraud, or indication of other disciplinary offenses regarding a student's application for aid to the Office of the Inspector General of the United States Department of Education, following federal and state law.

Chapter 4. University Health Services

Subchapter 4–100. General Provisions

Sec. 4–101. Purpose

University Health Services (UHS) provides: (1) a broad range of professional health services for the diagnosis and treatment of illnesses and injuries; (2) preventive health services such as physicals and annual wellness exams; (3) physical therapy and nutrition services; (4) public health initiatives, including the promotion of a healthy campus; (5) immunizations for vaccine-preventable diseases; and (6) other public health services such as responding to certain infectious diseases on campus.

For a detailed discussion of benefits and services offered, see the UHS website.

Sec. 4–102. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Assistant Vice President" means the Assistant Vice President of UHS.
2. "Chief Medical Officer" means the chief medical officer of UHS.
3. "President" means the president of The University of Texas at Austin.
4. "Student" means a person enrolled at the university.
5. "University" means The University of Texas at Austin.

Subchapter 4–200. The Assistant Vice President and Chief Medical Officer

Sec. 4–201. The Assistant Vice President and Chief Medical Officer

a. The Assistant Vice President is responsible for all clinical services, initiatives and programs; provides organizational oversight, campus leadership and strategic planning activities of UHS and reports to the associate vice president for health and well-being.
b. The Assistant Vice President is responsible for serving as a liaison to campus leaders and media and for planning for and responding to campus public health emergencies in consult with the Chief Medical Officer.

c. The Assistant Vice President and Chief Medical Officer are responsible for establishing the clinic structure and specifying functional relationships among organizational components of clinical and clinic support operations, providing for the orderly development and management of the unit, supporting a policy on patients' rights and responsibilities, maintaining a program that evaluates the quality of care provided and appropriately addressing identified problems.

d. The Assistant Vice President and Chief Medical Officer are responsible for providing consultation in matters concerning the delivery of healthcare services and emerging public health issues affecting The University of Texas at Austin.

Subchapter 4–300. Medical Clearance Requirements for New and Returning Students, Fees, Payment for Services and Eligibility for University Health Services

Sec. 4–301. Medical Clearance Requirements

Entering students who have not provided acceptable documentation to comply with applicable medical clearance requirements below will not be allowed to register for classes until they do so. Students should submit medical clearance documentation (including acceptable documentation for exemptions) advanced of their intended registration date to allow for sufficient processing time.

Information about acceptable documentation to comply with the requirement below, how to submit documentation, allowable exemptions for certain requirements and acceptable documentation to claim an exemption resides on the UHS website. During emergencies or epidemics declared by the governor or commissioner of health of the State of Texas or disasters or other emergencies, exemptions on the basis of reasons of conscience (including religious conflict) may be denied if allowed by rule, executive order or law.

a. All entering students, regardless of age or classification, must submit documentation that they are immune to measles before they will be allowed to register for classes.

b. All entering students who will be under the age of 22 on the first class day of the semester in which they are enrolling must submit documentation that they have received a meningococcal disease (bacterial meningitis) vaccine administered within five years of and at least ten days before the first class day of the semester in which they are enrolling. This includes transfer students and students who previously attended the university or another institution of higher education (or private or independent institution of higher education) and who are entering the university following a break in enrollment of at least one fall or spring semester. Students age 22 or older or who are enrolled only in online or distance courses are exempt from the meningococcal vaccine requirement.

c. International students entering any semester must provide proof of the following by submitting acceptable documentation as described on the UHS website. If they meet the criteria described in Sec. 4-310b, they must also provide proof of a meningococcal vaccine as described in that section.

    1. Proof of immunity to measles, mumps, and rubella as documented by one of the methods described on the UHS website.
    2. If indicated following an online screening questionnaire, proof of an acceptable tuberculosis screening test as described at Medical Clearance Requirements for International Students and administered on or after the date listed on that page. If either acceptable test is positive, documentation of a chest x-ray performed in the U.S. on or after the same date is required, regardless of a history of previous treatment.

Sec. 4–302. Fees

UHS is funded by tuition paid by students and by charges for supplies and services. There are charges associated with UHS clinic visits. A charge applies for missed appointments or appointments not canceled in the specific time frame for that appointment type. Complete information about UHS charges is detailed online.

Sec. 4–303. Payment for Services

Any student who incurs a charge for services rendered by UHS must pay the charges owed, but they do not have to pay for services on the date they are provided, except for students who have health insurance and request that a claim not be filed with their insurance company. UHS can assist a student in arranging a payment plan. If payment is not received or arrangements for payment are not made within ten days of the date charges are posted to "What I Owe," a financial hold will be placed on the student's record. Students with a hold can contact the UHS/CMHC Billing and Insurance Office to discuss options that will allow them to register. Diplomas and/or continued registration will be withheld until outstanding charges have been paid.

UHS can file claims for payment with most health insurance plans; however, health insurance is not required to be seen at UHS. For more information, including the Student Administrative Health Fee and the types of plans with which claims can and cannot be filed, go to the UHS website.

By providing their insurance information, a student authorizes UHS to file a claim with the student's insurance company for services rendered. A student who does not want an insurance claim to be filed for medical services must let UHS know at the time of their appointment.

A student's insurance company may determine that some or all charges incurred at UHS are not covered. The student is responsible for learning what their insurance covers.

For students who do not have health insurance and cannot or prefer not to pay at the time of service or who have health insurance that does not pay for a part or all charges, UHS will post their balance to "What I Owe." Discounted rates are available for students who do not have insurance, who are underinsured or who are covered by Medicare or Medicaid.

Sec. 4–304. Eligibility to Use University Health Services

a. An individual may use UHS if:
    1. the person is a currently enrolled student at the university,
    2. the person has been admitted to the university and needs required or recommended immunizations or medical tests to matriculate,
    3. for acute medical services only, the person is participating in university-sponsored short-term activities such as seminars, institutes and workshops provided the sponsoring agency has entered into an agreement with UHS by properly completing the Request to Use University Health Services form and paying the associated agreement fee. The sponsoring department is responsible for any unpaid charges incurred by program participants,
    4. the person is a university faculty or staff member who is participating in a public health or immunization program. Faculty and staff are not eligible for regular services except for travel-related immunizations, physical therapy, certain campus outreach and educational programs and services arranged and paid for by Interdepartmental Transfer by a university department,
    5. the person was registered during the semester immediately preceding the semester when services are requested (excluding university students who have graduated or who withdrew from the university before the twelfth class

day of the prior semester) and will enroll the semester immediately following the time services are requested,

6. the person has paid an access fee and is a visiting scholar/researcher who is not officially registered for classes at the university, a post-doctoral fellow or a person enrolled in the English as a Second Language Program, or,
7. the person is a student from another University of Texas System institution that has entered into an agreement with the university, otherwise called a Contractual Student.

b. Registered students are eligible to use UHS services following this general eligibility calendar: fall semester eligibility starts August 1 and runs through December 31; spring semester eligibility starts January 1 and runs through the last day of the Maymester; summer eligibility beings the first day after the Maymester ends and runs through summer session graduation day. International Students become eligible on the first day of coverage of the student health insurance plan. Specific eligibility dates are given in the Academic Calendar (p. 7) published in the *General Information Catalog* and at the registrar website.

c. For telehealth, persons must meet the above eligibility criteria and reside in the state of Texas at the time of the visit.

Subchapter 4–400. General Administrative Policies

Sec. 4–401. Informed Consent

The parent or guardian of a minor student must give appropriate consent for treatment before care can be provided at UHS, except when a minor student meets State of Texas criteria to consent for their own care or in cases where immediate medical care is required to stabilize a patient for transfer to an emergency facility.

Sec. 4–402. Medical Withdrawal from the University

Requests for withdrawal from the university for medical reasons may be initiated at the request of a student. Applications to request consideration of a medical withdrawal should be submitted to Disability and Access. Disability and Access will involve UHS as indicated by the student's individual circumstances.

Sec. 4–403. Responsibility of University Health Services

Any intentional action on the part of the student that is against the advice of a UHS health care provider abrogates all responsibility on the part of UHS.

Sec. 4–404. Requests to Administer Medications

Requests to administer medications ordered by a private physician must be within the scope of services offered at UHS, meet the standard of care provided by UHS medical staff, be supported by appropriate medical documentation from the prescribing physician and be approved by the chief medical officer.

Sec. 4–405. Routine, Urgent and Emergency Care Services

a. UHS is not equipped to manage medical emergencies. In the case of a medical emergency, students should call 911.

b. For routine health concerns, students may schedule appointments by calling (512) 471-4955 during posted weekday business hours. Students can also schedule many types of appointments online.

c. UHS is not an urgent care facility. Students who need prompt medical attention for illnesses or injuries may be able to make a same-day or next-day appointment at UHS. If you require medical attention for a non-emergency illness or injury outsides of UHS operating hours (Monday-Friday, 8 am - 5 pm), visit an urgent care facility for prompt medical care.

d. Current operating hours are posted on the University Health Services website.

Sec. 4-406. 24-hour Nurse Advice Line

The UHS Nurse Advice Line (512-475-6877) is available for students 24 hours a day, every day of the year. Advice Line nurses can help students determine whether and how soon they need medical care or can provide self-care advice for illnesses and injuries when appropriate.

Sec. 4–407. Treatment at Other Facilities

a. UHS assumes no financial responsibility for a student's care at another medical facility.

b. A student who goes to or is taken to another medical facility for emergency or other treatment, regardless of geographical location or other circumstantial factors, is responsible for all resulting costs.

Sec. 4–408. Personal Property

a. UHS is not responsible for a student's personal belongings; the student is responsible for arranging for the safekeeping of these articles.

b. In instances when it is necessary for UHS to maintain custody of a patient's property or when a patient leaves personal possessions in waiting rooms or clinics, UHS will exercise all prudent means of securing and returning such property to the owner but cannot be held responsible for losses through theft.

Sec. 4–409. Medical Records

All original medical records (whether electronic or paper) and other records of treatment, whether originating within UHS or another facility or provider, are the property of UHS. Medical information may be disclosed as required by state or federal law. Many items summarizing patient care are available on the patient portal. Additional information from patient records will be released only with informed written consent. Students have the right to review, inspect or request copies of their medical records.

Chapter 5. University-Owned Residences

Subchapter 5–100. General Provisions

Sec. 5–101. Purpose

University-owned residences are provided and operated by The University of Texas at Austin with the welfare of students as the primary goal. The University provides a variety of living accommodations for students and endeavors to maintain a high quality of life within residences through the development of counseling, educational, and social programs within the residence units.

Sec. 5–102. Application

Student residents and their guests are subject to the applicable provisions of this chapter and to the provisions set forth in Sec. 11–401, Sec. 11–403, and Sec. 11–404 of the *Institutional Rules on Student Services and Activities*.

Sec. 5–103. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Guest" means an individual who has been personally invited by a University Resident to enter into the resident's residence; remaining there, for a period of time not to exceed 72 hours.
2. "Residence" means a University-owned family housing unit, a University-owned residence hall or cooperative, or any other subsidiary facility.
3. "Student" means a person who has applied for or entered into a residence contract with the University or who occupies a room or dwelling in a residence.
4. "University" means The University of Texas at Austin.

5. "Associate vice president" means the associate vice president of University Housing and Dining at The University of Texas at Austin.
6. "Assistant vice president" means the assistant vice president of Residence Life at The University of Texas at Austin.

Sec. 5–104. Eligibility

a. To be eligible for residence in 2400 Nueces, Dobie Twenty21, University Apartments, or the University residence halls, undergraduate students must be enrolled for at least twelve semester hours during each fall/spring semester; graduate and law students must be enrolled for at least nine semester hours or six dissertation hours each fall/spring semester. To be eligible for residence in East Campus Graduate Apartments, graduate students must be enrolled for at least nine semester hours or six dissertation hours each fall/spring semester.

b. Exceptions for undergraduate students must be approved by the dean of the student's college or school and the assistant vice president. The vice provost for graduate and postdoctoral studies and the assistant vice president must approve exceptions for graduate students. The assistant vice president will review the contract status of residents who drop below the minimum hours requirement to determine the necessity of contract cancellation.

c. To be eligible as a student resident in the University Apartments, (1) you must be a graduate student at The University of Texas at Austin; or (2) you must be an undergraduate student with at least thirty semester hours credit and in good standing with the University. Registered sex offenders are not permitted to live in University-owned housing, which includes the University Apartments. Full-time students will be given preference to live in University-owned housing over part-time or full-time employees of The University of Texas at Austin, even if the employees are also full-time graduate students or undergraduate students with at least 30 semester hours credit. Subject to applicable law, University rules and policy, the Contract Holder may allow guests to visit their assigned apartments. "Guest" means an individual who has been personally invited by a Contract Holder to enter into the Contract Holder's apartment. Guests are permitted to visit for a period of time, not to exceed 72 consecutive hours. Guests are not permitted to reside in (or occupy) the apartment on a long term basis. "Family Members" means individuals who are related to the Contract Holder by marriage, civil union, domestic partnership, informal marriage, dependency or some other form of recognized familial relationship. Family members are permitted to reside in the apartments that are designated for family housing. Certain stipulations apply. See the University Apartment Manual for the complete policy and rules pertaining to family members. Any changes in occupancy must be reported to the University Apartment's staff within 48 hours of the change. A Contract Holder's invitation to a guest or family member may be revoked at their discretion and be withdrawn by the Contract Holder without the need to express any reason or basis for the revocation. The following restrictions to occupancy apply: In Colorado and Gateway (Single-Occupant Apartments): one-bedroom apartment, maximum of one (1); two-bedroom apartment, maximum of two (2). In Brackenridge (Family Housing): one-bedroom apartment, two to three (2-3) occupants; two-bedroom apartment, two to five (2-5) occupants; three-bedroom apartment, four to seven (4-7) occupants. These limits will be strictly enforced.

d. Should residents violate any of the conditions of the contract, the assistant vice president may, in the future, refuse to contract any premises to those residents.

Subchapter 5–200. Administration of Housing

Sec. 5–201. Responsibilities of Supervisory Officials

The assistant vice president is responsible to the associate vice president for discipline, counseling, and the quality of life in residences, and the fiscal and physical management of residences.

Sec. 5–202. Rule Making in Residences

a. The occupants of each student residence may make reasonable rules governing life in that residence.

b. Residence rules may not conflict with the *Institutional Rules*, *Handbook of Operating Procedure*, Regent's *Rules and Regulations*, local, state or federal law, and will take effect when they are approved by the assistant vice president and associate vice president. Such rules will be publicized to all residents immediately upon taking effect.

Subchapter 5–300. Contracts

Sec. 5–301. Terms of Contract

a. Charges for housing and meals begin and end on the official dates of the contract period.

b. The effective dates and terms and conditions of the contract are provided with each contract.

c. Students who are under contract may not terminate the contract except as provided in the contract and in Subchapter 5–400.

d. Expenses incurred in collecting the total amounts due under a contract, including collection fees up to a maximum of 33 1/3% of the amount due, attorney's fees, and other costs, including court costs, will be the responsibility of the obligor.

Sec. 5–302. Enforcement of Contracts

a. The assistant vice president, or the assistant vice president's delegate, enforces residence contracts.

b. The associate vice president is the final level of appeal in contract disputes.

Sec. 5–303. Student Responsibility

a. Each student will meet all obligations for housing and meals and will observe all conditions of the contract.

b. Students in the residence halls have the option to pay for housing and meals:
   1. in full;
   2. in half payments due once each semester;
   3. in six payments due three times each semester; or
   4. for spring only, in three payments.

c. Students in 2400 Nueces, East Campus Graduate Apartments and University Apartments pay for housing on the first of each month. Students may purchase an optional meal plan.

d. Students who do not comply with the terms of the housing and meals contract may be subject to University disciplinary action as provided in Chapter 11 of the *Institutional Rules*.

Subchapter 5–400. Termination of Contracts

Sec. 5–401. Graduation

Except as provided under Sec. 5–405, students who leave the University at the end of the fall semester because of graduation will not be liable for room rent or meals charges beyond the end of the semester, provided notification of graduation is filed by the official cancellation date for the spring semester. Students will be billed for any damages to the premises and any other applicable charges. Students who cancel after the official cancellation date will be charged $300 for liquidated damages. Cancellations received after the residence halls open for the spring will be handled as withdrawals during the spring semester. Students who are released from a contract because of graduation will again become liable for the contract if they fail to graduate from the University during the original contract period.

Sec. 5–402. Voluntary Withdrawal from the University

Except as provided under Sec. 5–405,

a. Students who voluntarily withdraw from the University during a contract period are normally required to pay liquidated damages of $300 in addition to standard room and meals charges through the date of checkout. Students who withdraw from the University at the end of the fall semester will be billed through the end of the fall semester, provided notice of cancellation is received by the official cancellation date for the spring semester. Students who cancel after the official cancellation date will be charged $300 for liquidated damages. Cancellations received after the residence halls open for the spring will be handled as withdrawals during the spring semester. Students must normally move within twenty-four hours after withdrawing from the University.

b. Students who are released from a contract because of voluntary withdrawal from the University will again become liable for the contract if they re-enroll in the University during the original contract period.

Sec. 5–403. Required Withdrawal from the University

Except as provided under Sec. 5–405, students who are required by the university to withdraw from the university are not liable for paying room rent or meals charges beyond the date of moving, but they will pay all charges that accrue under the contract through the checkout date plus $300 in liquidated damages, any charges for damage to the premises, and any other applicable charges. The University will refund any prepaid room or meals balance less any charges for damages to the premises or any other applicable charges. The University reserves the right to suspend a student from the residence halls for failure to abide by the terms and conditions of the contract. Students who fail to register as regularly enrolled students will be required to move as outlined in Sec. 5–402(a).

Sec. 5–404. Withdrawal from University-Owned Residences during the Contract Period

Except as provided under Sec. 5–405, students granted permission to move within the contract period are required to pay liquidated damages of $300 in addition to standard room and meals charges through the date of checkout.

Sec. 5–405. University Apartments Contracts

a. In any event mentioned below you must fill out the Contract Release Request Form. If you are approved for a release, your housing bill will be adjusted to the end of the month in which you check out.

b. If you withdraw from the University during the semester in which the cancellation occurs, you must notify University Housing within 24 hours.

c. If you fail to register with the University during the semester in which the cancellation occurs, you must notify University Housing by the 12th class day.

d. Once your withdrawal or non-registration is confirmed by the Registrar, you will be charged $300 in liquidated damages and your fall housing bill will be adjusted based on the date the University received notification of official withdraw or termination based on the date the University received notification of official withdraw or termination or your check-out date, whichever occurs last.

e. If you graduate from the University at the end of the fall term, you must notify Housing and Dining on or before November 15. if you graduate from the University at the end of the spring term, you must notify Housing and dining on or before April 15. If you graduate from the University at the end of the summer term, you must notify Housing and Dining on or before July 15. Once your graduation is confirmed by the Registrar, you will pay to the University all charges accrued under the Contract through the end of the fall term. If you notify Housing and Dining after the due date, you will be charged an additional $300 in liquidated damages and your housing bill will be adjusted based on the date the University received notification of official withdraw or termination or your check-out date, whichever occurs last.

f. If you are moving out due to an academic internship, academic study abroad or academic co-op program for the spring term you must notify Housing and Dining on or before November 15. Once your program commitment is confirmed, you will pay to the University all charges accrued under the Contract through the end of the fall term. If you notify Housing and Dining after November 15, you will be charged an additional $300 in liquidated damages.

g. Failure to move out on or before 5 p.m. on the exact date required under the contract (e.g. the end of the contract term or the date listed on the vacancy notice) you must pay 100% of one month's rate and utilities charges plus $50 per day for each day you are occupying the apartment past the notice to vacate date. You agree to indemnify The University and/or prospective residents for damages incurred, including lost income, storage, lodging expenses, and attorney's fees, if such damages are incurred.

h. Failure to follow established check out procedures will result in a $25.00 improper check out charge.

Chapter 6. Student Organizations

Subchapter 6–100. General Provisions

Sec. 6–101. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Academic or Administrative Unit" means any office or department of the University.
2. "Day " means an 8:00 a.m. to 5:00 p.m. calendar day, excluding weekends, university holidays, and days on which regularly scheduled classes are suspended or cancelled due to emergent situations. If a deadline defined in this Chapter falls on a day outside of this definition, that deadline will be moved to the next day.
3. "Dean of Students" means the Dean of Students of The University of Texas at Austin or the Dean of Students' delegate.
4. "Officer" means a student designated to represent or speak for a Student Organization in its relations with the University and to receive official notices, directives, or information from the University on behalf of the Student Organization.
5. "Registered Student Organization" means a Student Organization holding a valid registration under this Chapter. Registered Student Organizations are considered private entities and are not viewed as extensions of an Academic or Administrative Unit, or of the University. Student Organizations must register annually with the University and meet all obligations of Registered Student Organizations listed in subsection 6-302 to ensure privileges as outlined in subsection 6-301 and allow the Registered Student Organization to function within the institutional context.
6. "Registered Student Organization Advisor" means a person serving in an advisory capacity to a Registered Student Organization to provide guidance to the Registered Student Organization and its members. In accordance with section 51.9361 of the Texas Education Code, a person serving as an advisor to a Registered Student Organization must be someone who
   a. is at least twenty-one years of age;
   b. is not enrolled as a student at the University;
   c. serves as either;
      i. a part-time or full-time employee of the University; or
      ii. a representative of a national or alumni organization that is associated with the Registered Student Organization.

d. completes the Safety Education Program advisor training at least once in their tenure as an advisor; and

e. if categorized as a sorority or fraternity advisor, must comply with additional requirements administered by the Sorority and Fraternity Life unit.

7. "Safety Education Program" means an annual compliance and educational initiative administered by the Office of the Dean of Students in accordance with Texas Education Code, Section 51.9361. Its purpose is to promote a safer university community by equipping student organizations with essential knowledge and resources related to risk management and prevention.
8. "Sponsored Student Organization Advisor" means a university staff or faculty member from the sponsoring Academic or Administrative Unit who is serving in an advisory capacity to provide guidance to the Sponsored Student Organization and its members. In accordance with section 51.9361, a person serving as an Advisor to a Sponsored Student Organization must be someone who
   a. is at least twenty-one years of age;
   b. is not enrolled as a student at the University;
   c. serves as a part-time or full-time employee of the University; and
   d. completes the Safety Education Program advisor training at least once in their tenure as an advisor.
9. "Sponsorship" or "Sponsored Student Organization" means a Student Organization whose purpose and activities are in accord with the mission of an Academic or Administrative Unit, for whose actions and activities the sponsoring unit provides endorsement, support, and supervision that has been officially approved by the Vice President through an annual application as prescribed by the Dean of Students.
   a. "Endorsement" means that the sponsoring Academic or Administrative Unit gives approval of the Sponsored Student Organization's status as an official extension of the unit and sanctions the mission, goals, and approved activities of the Sponsored Student Organization.
   b. "Support" means to provide for or to maintain by contributing the necessary money, physical space, staff, advising, mentoring, and other resources that the Sponsored Student Organization needs to carry out its mission, goals, and activities.
   c. "Supervision" means to monitor, oversee, and advise the Sponsored Student Organization. Supervision includes sanctioning and approving all activities and events of the Sponsored Student Organization; maintaining personal knowledge of the Sponsored Student Organization's structure, operations, and activities; and acting as necessary to ensure that all affairs of the Sponsored Student Organization are consistent with the mission of the sponsoring Academic or Administrative Unit and the University.
   d. "Assumption of responsibility" means to ensure endorsement, support, and supervision of all aspects of the Sponsored Student Organization. Assumption of responsibility includes managing the organization to operate with financial accountability for all funds collected or spent; making sure the Sponsored Student Organization conducts its affairs in accordance with all applicable university rules and regulations, Regents' Rules, and local, state, and federal laws; and providing the necessary physical and personnel resources, including a dedicated Sponsored Student Organization Advisor.
10. "Student " means a person who is currently enrolled at the University, or who is accepted for admission or readmission to the University, or who has been enrolled at the University in a prior term and is eligible to continue enrollment in the term that immediately follows, or who is attending an educational program sponsored by the University while that person is on campus, or who engaged in prohibited conduct at a time when they met the above criteria. For the purposes of this Chapter, individuals who are do not currently meet the definition of a student remain subject to the disciplinary process for conduct that occurred while they were a student.
11. "Student Governance Organization" means a student association as defined by the Regents' Rules and Regulations, Rule 50203. Student Governance Organizations include Student Government, the Senate of College Councils, and the Graduate Student Assembly. Student Governance Organizations are sponsored by the Office of the Dean of Students.
12. "Student Organization" means a Sponsored Student Organization or a Registered Student Organization.
13. "University " means The University of Texas at Austin. For the purposes of this Chapter, "University" also includes all activities and programs sponsored by or affiliated with The University of Texas at Austin regardless of the actual location where such activities or programs occur, including but not limited to, field trips, internships, rotations, and clinical assignments.
14. "Vice President " means the Vice President of Student Experience at The University of Texas at Austin or the Vice President's delegate.

Subchapter 6–200. Registration

Sec. 6–201. Registration Required

Any group of students seeking to exercise any of the rights and privileges listed in section 6–301 must apply to be recognized as a Student Organization. An application for a new organization may be submitted during a period prescribed by the Dean of Students. Annual registration for existing Student Organizations occurs during a period prescribed and advertised by the Dean of Students.

Sec. 6–202. Application and Obligations

1. A group of students that wants to be recognized or maintain their status as a Student Organization must
   A. apply on a form prescribed by the Dean of Students;
   B. identify at least six members, three of which must be identified as Officers including one as president;
   C. provide a complete and accurate roster of all members;
   D. submit a current organization constitution; and
   E. provide additional information required by the Dean of Students.
2. To maintain status as a Student Organization, a group of students must provide and maintain the following, as prescribed by the Dean of Students:
   A. a complete and accurate roster of all members, including identifying at least six members, three of which must be identified as Officers including one as president;
   B. a current organization constitution; and
   C. provide additional information as required by the Dean of Students.

Sec. 6–203. Membership

1. Student Organizations may not deny membership on the basis of race, color, religion, national origin, sex, pregnancy, age, disability, citizenship, veteran status, genetic information, sexual orientation, gender identity, or gender expression, except that
   A. a Registered Student Organization created primarily for religious purposes may restrict the right to vote or hold office to persons who subscribe to the Registered Student Organization's statement of faith; and
   B. a Registered Student Organization may restrict membership to a single sex in accordance with the provisions of Title IX of the Education Amendments Act of 1972,

2. Student Organizations must limit membership to students, faculty members, and staff members of the University (as defined in this Chapter).

Sec. 6–204. Use of University Name

1. No student, unregistered group, or Registered Student Organization may use the name of the University or an abbreviation of the name of the University as part of its name.
2. No student, unregistered group, or Registered Student Organization may advertise or promote any event or activity in a manner that suggests that the event or activity is sponsored by the University.
3. The Office of Brand, Trademark and Licensing must approve requests to use the University name and/or protected marks.

Sec. 6–205. Action on Registration Application

1. A Student Organization Registration Application may only be denied according to the following criteria:
   A. the organization is ineligible under sections 6–202, 6-203, 6-204, or 6-512 of this Chapter;
   B. there are bars, including financial, against the organization; or
   C. the organization is under a disciplinary sanction prohibiting registration.
2. If an organization is denied registration, the Executive Director of Student Involvement or their delegate will provide the organization with a written statement detailing the reason(s) for denial.
3. The organization may appeal the denial to the Dean of Students by letter or by e-mail no more than five days after the day the written statement is provided . The appeal must contain the organization's name and email address, a concise description of the decision, the organization's reason(s) for disagreeing with the decision, and the date the decision was announced.
4. When timely notice of appeal is received, the Executive Director of Student Involvement will send to the Dean of Students a copy of the written statement and the reason given for the decision.
5. The decision of the Dean of Students will be communicated by e-mail to the organization.

Sec. 6-206. University Sponsorship of Student Organizations

1. All Sponsored Student Organizations must apply and receive approval for sponsorship through the application process prescribed by the Dean of Students.
2. A Sponsored Student Organization may use the name of the University or an abbreviation of the name of the University or any of the university trademarks or service marks as part of or in conjunction with its Student Organization name, but only with the prior written approval of the Dean of Students and the Office of Brand, Licensing and Trademark.
3. The University may not sponsor a student organization designed or implemented in reference to race, color, ethnicity, gender identity, or sexual orientation, or that is involved in projects for private gain.
4. Student Governance Organizations must be sponsored by the University.
5. Sponsored Student Organizations must comply with all applicable fiscal and accounting procedures of The University of Texas at Austin.
6. Sponsored Student Organizations may not engage in political speech and should not issue statements or express positions on issues of the day. This prohibition does not apply to the speech of individual students in their personal capacities, and only relates to official sponsored student organization statements, functions, ceremonies, and publications. A Sponsored Student Organization that wishes to engage in political speech should reorganize as a Registered Student Organization.
7. Sponsored Student Organizations must comply with all provisions of HOP 3-2010-PM that apply to Sponsored Student Organizations.
8. Membership in a Sponsored Student Organization is at the discretion of the sponsoring department and subject to meeting the administrative and organizational requirements of the Sponsored Student Organization. The sponsoring department of a Sponsored Student Organization may remove a student member of the organization when the sponsoring department receives credible evidence that the student member engaged in activities under the color of their role within the organization that are inconsistent with the requirements of the organization or the scope of their authority to act on behalf of the organization.

Subchapter 6–300. Recognition, Activities and Obligations

Sec. 6–301. Recognition and Activities

1. A Student Organization is granted the following privileges:
   a. to be listed as a Student Organization;
   b. to reserve the use of university facilities under subchapter 10–200 of the Institutional Rules;
   c. to raise funds or make other permissible solicitations on university property under section 13–205 of the Institutional Rules;
   d. to distribute literature under subchapter 13–400 of the Institutional Rules;
   e. to post signs, hang banners, and set up A-frames under subchapter 13–500 of the Institutional Rules;
   f. to set up a table under subchapter 13–600 of the Institutional Rules;
   g. to set up exhibits under subchapter 13–700 of the Institutional Rules;
   h. to use amplified sound under subchapter 13–800 of the Institutional Rules;
   i. to publicly assemble under subchapter 13–900 of the Institutional Rules;
   j. to present a guest speaker on university property in accordance with subchapter 13–1000 of the Institutional Rules;
   k. to apply for storage or office space;
   l. to apply for recognition and awards; and
   m. to access event coordination consultations with staff in the Student Organizations in the Office of the Dean of Students.

Sec. 6–302. Obligations

1. To maintain Student Organization status, each organization must:
   A. submit required registration materials each academic year.
   B. keep a complete and accurate roster of all members. Identify at least six members, including three Officers, one of whom must be designated as President.
   C. ensure a current email address is on file for Officers to receive university communications.
   D. maintain and provide an up-to-date organizational constitution.
   E. provide any additional information as requested by the Office of the Dean of Students.
   F. complete the Safety Education Program annually. Advisors must complete the Safety Education Program Advisor Training at least once during their tenure.
   G. file a final report with the Office of the Dean of Students within 30 days of the start of the spring and fall semesters. The report must include:
      1. Full disclosure of the sources and amounts of money obtained from solicitations during the preceding semester or summer session and

2. Full disclosure of the purposes and amounts of expenditures made during the preceding semester or summer session.
3. Any other information required by the Dean of Students about solicitation activities, per Regents' Rules and Regulations, Rule 80103, Number 2.

H. conduct all organizational affairs in accordance with local, state, and federal laws and the Regents' Rules and Regulations.

2. A Registered Student Organization that is a social Greek letter fraternity or sorority chapter (as defined under the provisions of Chapter 38, Section 1681 of the U.S. Education Amendments of 1972) will automatically be categorized as a sorority or fraternity and must comply with additional requirements administered by Sorority and Fraternity Life in the Office of the Dean of Students.
3. No Student Organization may re-register or use the facilities of the University if it owes a monetary debt to the University and the debt is considered delinquent by the crediting University department.
4. The Dean of Students retains discretion to revoke or deny registration of Student Organizations under disciplinary action; groups disciplined by their governing body; or groups that attempt to register under a different name to circumvent University policy or a disciplinary sanction.
5. A Student Organization may be subject to discipline by the University under subchapters 6-400 and 6–500 for violating a Regents' Rule, University of Texas System policy, or University policy, including, but not limited to, this Chapter.

Subchapter 6–400. Student Organization Discipline

Sec. 6–401. Administration and Jurisdiction

1. The Dean of Students has primary authority and responsibility for the administration of the University process for Student Organizations alleged to have engaged in conduct that violates this Chapter. The Dean of Students delegates authority to, and is represented by, Student Conduct and Academic Integrity during the administration of the conduct process.
2. The leadership of a Student Organization is provided a copy of this policy annually in the form of a link on the university catalog (p. 98). Hard copies are available upon request from the Office of the Dean Students. Students who are members of Student Organizations are responsible for reading and abiding by the provisions of this policy.
3. This policy and the student conduct process apply to the conduct of all Student Organizations. Suspended Student Organizations not currently recognized by the University but participating in the provisional return program remain subject to this policy. Individual students who are members of a suspended Student Organization are subject to Chapter 11 of the Institutional Rules as individual students and may be held individually accountable for their behaviors related to the Student Organization. Individuals who are members of a Student Organization may, through their actions, subject the Student Organization to disciplinary action under this policy, whether or not those individuals are also adjudicated under Chapter 11 of the Institutional Rules.
4. This policy applies to behaviors that take place on University property, at University or organization sponsored events whether on or off-campus, and may also apply to other off-campus behaviors when the Dean of Students determines that the off-campus conduct affects a university interest. Off-campus conduct that affects a university interest includes, but is not limited to:
   A. Any situation where it appears that the Student Organization's conduct may present a danger or threat to the health or safety of individuals;
   B. Any situation that significantly impinges upon the rights, property or achievements of others or significantly breaches the peace and/or causes social disorder; or
   C. Any situation that is detrimental to the educational mission and/or interests of the University.
5. This policy applies to behavior conducted electronically, including, but not limited to email, blogs, web postings, chats, social networking sites, and electronic applications, when the behavior falls within the scope of behaviors described in Section 6-401(4).
6. Student Organizations may be held accountable for the misconduct of their guests, regardless of their affiliation to the University. Visitors to and guests of the University may seek resolution of violations of this policy committed against them by a Student Organization and/or members of a Student Organization.
7. While there is no time limit on reporting violations of this policy, the University encourages individuals to submit reports of alleged violations in a timely fashion.
8. Anonymous complaints are permitted.
9. University disciplinary action will be based upon the "Preponderance of Evidence" standard. This standard is satisfied if the alleged violation is deemed more likely to have occurred than not. If an alternative set of facts is deemed by a Hearing Officer or Student Conduct and Academic Integrity to be equally plausible to the set of facts that results in a finding of a violation, the standard is not met.
10. Notification of conduct proceedings, including but not limited to notice of allegations, interim action, meeting requests, hearings, and resolution, shall be sent by the Student Conduct to the Student Organization by letter or by e-mail, using the addresses on file with the Office of the Registrar or provided by the Student Organization per Sec. 6-302(a)(2).
    A. A letter or email sent to an address listed in the registrar's records or provided per Sec. 6-302(a)(2) will constitute full and adequate notice.
    B. The Student Organization's failure to provide and/or maintain current addresses, refusal to accept delivery of a letter, or failure to open an electronic message will not absolve the Student Organization from the requirements or directives contained therein. Policies on the use of e-mail for official correspondence are provided in Appendix M (p. 156).
11. Allegations of organizational conduct that is prohibited by HOP 3-3031 will be adjudicated in accordance with that policy. Incidents that indicate possible violations of this Chapter and the University Handbook of Operating Procedures 3-3020 ("HOP 3-3020") may be investigated jointly or concurrently by Student Conduct and the Department of Investigation and Adjudication ("DIA"), and the investigatory work produced as a result of the investigations may be shared between the two offices.
    A. In instances where an investigation by Student Conduct results in a finding of a violation of this Chapter, Student Conduct may consider a joint or concurrent finding of a violation of HOP 3-3020 as an aggravating factor in assessing appropriate sanctions.

Sec. 6-402 Other General Definitions

1. In this Chapter, unless the context requires a different meaning, the following definitions apply.
    a. "Administrative Disposition" means a written statement of the alleged conduct, institutional rule(s) implicated, investigative findings, assessed sanction(s), and resolution options, that is issued to a Student Organization as part of a Case Resolution Form.
    b. "Advisor" means a single individual who may accompany a Student Organization to a meeting with the Student Conduct or

a hearing regarding an alleged violation of University policy. An Advisor may confer with and advise the Student Organization but may not advocate for the Student Organization in a meeting with the Student Conduct or in a hearing or directly address the Student Conduct Panel or Hearing Officer. An Advisor cannot be an individual alleged to be involved in the same disciplinary matter as the Student Organization. An advisor cannot serve as a witness for the Student Organization. If an Advisor is directly related to a conduct case or if the advisor's presence poses a conflict of interest, the Student Conduct or Hearing Officer, may dismiss the advisor from the meeting or hearing. Advisors may be dismissed from any meeting, hearing, or conduct proceeding if they disrupt the process. A Sponsored Student Organization must use their Sponsored Student Organization Advisor or a University staff or faculty member from the sponsoring Academic or Administrative Unit as their Advisor

c. "Appellate Officer" means a person designated by the President to evaluate appeals and issue appellate decisions in Student Organization conduct matters.

d. "Case Resolution Form" means a form issued to a student found to have engaged in a violation of this Chapter, and which includes the Administrative Disposition and the available resolution options.

e. "Disciplinary Decision" – A written decision issued the Dean of Students following a conduct hearing that communicates whether a Student Organization is responsible or not responsible for a violation of this Chapter. The Disciplinary Decision includes the findings of fact in support of the decision along with the assessed sanction(s), if applicable.

f. "Disciplinary Record" means an administrative record maintained by Student Conduct in connection with a Student Organization's violation or alleged violation of university policy. The disciplinary record may include complaints, notices, hearing records, disciplinary decisions, and other documents required under this Chapter or deemed relevant by the Student Conduct.

g. "Executive Director" means the Executive Director for Student Conduct and Academic Integrity in the Office of the Dean of Students or their delegate.

h. "Hearing" means a formal proceeding in which a Student Organization, accused of violating university policy as defined in this Chapter and facing either suspension or expulsion, may present their case to a Hearing Officer. A Student Organization's meeting with a Student Conduct staff member shall not be classified as a 'Hearing' for the purposes of this Chapter.

i. "Hearing Officer" means a staff or faculty member appointed by the President of the University to conduct hearings of alleged violations of policy.

j. "Interim Action" means an action taken by Student Conduct against a Student Organization while Student Conduct is assessing an alleged violation of university policy by the Student Organization. Actions include but are not limited to suspension, suspension of rights or privileges, or a prohibition from activities or operations.

k. "President" means the president of The University of Texas at Austin or the President's delegate.

l. "Referral" means a report received by Student Conduct alleging conduct that may violate this Chapter.

m. "Responsibility Decision" - A written determination issued by a Hearing Officer following a conduct hearing, reflecting the Hearing Officer's determination on whether a student is responsible for a violation of this Chapter. This determination includes findings of fact and is submitted to the Dean of Students to make a Disciplinary Decision, including the assessment of sanctions, if applicable.

n. "Sanction" means an official action by the University against a Student Organization found responsible for violating this Chapter. Sanctions include all items listed in Section 6-510 of this Chapter.

o. "Student Conduct" means Student Conduct and Academic Integrity in the Office of the Dean of Students or its delegate.

p. "University Investigation" means a process used to adjudicate allegations of Prohibited Conduct pursuant to Section 6-507 of this Chapter.

Sec. 6-404 Prohibited Conduct of Student Organizations

F. The Student Conduct may initiate disciplinary proceedings under subchapter 6–500 against a Student Organization suspected of engaging in or attempting to engage in any of the following activities:

A. **Local, State, or Federal Law Violations** – any behavior that may violate any federal, state, or local law, ordinance, or regulation;

B. **Weapons –** possesses, uses, or displays firearms, facsimile firearms, ammunition, explosives, or other items that could be used as weapons, including but not limited to sticks, poles, clubs, swords, shields, body-armor or make shift body-armor, masks, helmets and other garments, such as sporting protective gear, that alone or in combination could be reasonably construed as weapons or body-armor on property owned or controlled by the University, without written permission from the Dean of Students, unless authorized by federal, state or local laws; or, violates Policy 8-1060, Campus Carry, of the Handbook of Operating Procedures;

C. **Dangerous Materials** – unauthorized use or attempted use of a hazardous substance (chemicals, fireworks, explosives, etc.) with the intent to cause harm, threat, or fear;

D. **Threatening or Endangering Behavior –** any behavior that threatens or endangers the health or safety of any student, employee, or visitor to the University;

E. **Theft –** use, possession, taking, or removal of property, services, or resources of others without permission or authorization;

F. **Hazing or Hazing Activity** – any intentional, knowing, or reckless act, occurring on or off of the campus of an educational institution, by one person alone or acting with others, directed against a person, for the purpose of pledging, joining, being initiated into, affiliating with, holding office in, or maintaining membership in any organization, and for which consent may not serve as a defense . Hazing includes but is not limited to:

i. any type of physical brutality, such as whipping, beating, striking, branding, electric shocking, placing of a harmful substance in or on the body, or similar activity;

ii. any type of physical activity that involves or results in sleep deprivation, exposure to the elements, confinement in a small space, calisthenics, or other activity that subjects the person to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the person;

iii. any activity involving consumption of a food, liquid, alcoholic beverage, liquor, drug, or other substance, in addition to those described by Paragraph D, that subjects the person to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the person;

iv. any activity that involves coercing, as defined by Section 1.07 Penal Code, a student to consume a drug or an alcoholic beverage or liquor in any amount.

v. any activity that induces, causes, or requires the person to perform a duty or task that involves a violation of the Penal

Code. See Texas Education Code, Section 37.151(6) for more information.

G. **Alcohol Misconduct**
   i. engages in unauthorized use, possession, sale, distribution, or consumption of alcoholic beverages on or in university property, including but not limited to a classroom, laboratory, auditorium, office, athletic facility, or residence hall;
   ii. engages in the improper use, possession, sale, distribution, or consumption of alcoholic beverages, including but not limited to underage possession of alcohol, underage consumption of alcohol, providing alcohol to a minor, public intoxication, minor driving under the influence of alcohol, or driving while intoxicated;

H. **Drugs**
   i. engages in the unauthorized use or possession of a drug, or possession of drug paraphernalia;
   ii. engages in the unauthorized sale or distribution of a drug;

I. **Property**
   i. **Unauthorized Use** – engages in unauthorized use of property, keys, equipment, resources, supplies, buildings, or facilities owned or controlled by the University or The University of Texas System;
   ii. **Unauthorized Entry** – engages in unauthorized entry into property, buildings, structures, or facilities owned or controlled by the University or The University of Texas System;
   iii. **Damage** – damages, defaces, destroys, or tampers with property of the University, property belonging to any student or employee of the University, or property of a visitor to the University;
   iv. **Water and Fountains** – enters, remains, or is in the water of any fountain or other artificial body of water on the university campus that is not designed and maintained for recreational or therapeutic purposes; dumps, throws, places, or causes to be placed any material, object, trash, person, animal, waste, or debris in the water of any fountain or other artificial body of water located on the university campus;

J. **Technology Misuse**
   i. engages in unauthorized use of an information technology resource owned or controlled by the University or The University of Texas System;
   ii. engages in unauthorized access or entry into a computer, computer system, network, database, software, or data;
   iii. engages in unauthorized downloading, copying, or distribution of computer software or data;

K. **Stalking –** a course of conduct directed at a specific person that would cause a reasonable person to fear for the person's safety or the safety of others or would cause that person to suffer substantial emotional distress. (Please note that Stalking here in 11-402(a)(14) is separate from the gender or sex-based stalking rule included in HOP 3-3031.)
   i. A "course of conduct" means two or more acts, including, but not limited to, acts in which a person directly, indirectly, or through third parties, by any action, method, device, or means, follows, monitors, observes, surveils, threatens or communicates to or about a person or interferes with a person's property.
   ii. "Reasonable person" means a hypothetical person of average caution and prudence under similar circumstances to the complainant.
   iii. "Substantial emotional distress" means significant mental suffering or anguish that disrupts or impairs usual functioning. It may, but does not necessarily, require medical or other professional treatment or counseling.

L. **False and Misleading Information**
   i. engages in the falsification of academic records, including but not limited to altering or assisting in the alteration of any official record of the University or The University of Texas System and submitting false information or omitting requested information that is required for or related to any academic record of the University or The University of Texas System. Academic records include, but are not limited to, applications for admission, the awarding of a degree, registration materials, grade change forms, and reporting forms used by the Office of the Registrar;
   ii. furnishes false information to or withholds material information from any university official, Faculty Member, or staff member acting in the course of their duties;
   iii. alters or assists in the alteration of any official nonacademic record or document, including parking permits and athletic tickets, of any university office or of The University of Texas System.

M. **Unauthorized Surveillance or Distribution**
   i. engages in surveillance or recording of any type without the consent of the person or persons being surveilled or recorded in areas where there is a reasonable expectation of privacy;
   ii. engages in broadcasting or distribution, without the consent of all involved parties, of a recording or other surveilled material, that meets the definition of Unauthorized Surveillance in Sec. 11-402(a)(17)(A).

N. **Disruptive Conduct**
   i. engages in conduct that interferes with or disrupts any teaching, research, administrative, disciplinary, public service, learning, or other authorized activity;
   ii. engages in promoting or inciting conduct that interferes with or disrupts any teaching, research, administrative, disciplinary, public service, learning, or other authorized activity;

O. **Failure to Comply**
   i. failure to comply with the directions of any university official(s) acting in the performance of their duties, and who has the authorization to issue such directives;
   ii. failure to identify oneself to a university official(s) when requested to do so;
      1. A person identifies themself by giving their name and complete address, substantiated by a current driver's license, voter registration card, or other official documentation, and by stating truthfully whether or not they are a student or employee of the University.
   iii. failure to comply with rules, regulations, procedures, policies, standards of conduct, or any other directive of the University, including but not limited to schools, colleges, departments, or labs;

P. **Targeted Residential Disturbance -** engages in conduct that violates federal or state law, or city ordinance, either individually or in concert with others , and in close proximity to a University employee's residence, that intimidates the employee or otherwise diminishes the employee's or their fellow residents' ability to maintain the peaceful enjoyment of their home.

Q. **Violent Conduct –** any conduct that physically harms or injures another person;

R. **Animal Cruelty** – any conduct with an animal that may violate any provision of federal, state, or local laws;
   i. Intentionally, knowingly, or recklessly torturing or in a cruel manner killing or causing serious bodily injury to an animal;
   ii. Failing to provide proper care for an animal in a person's custody, including but not limited to failing to provide necessary food or water, unreasonably abandoning an animal, or transporting or confining an animal in a cruel manner;

iii. any other conduct with an animal that may violate any provision of federal, state, or local laws;
1. Conduct occurring solely for the purpose of or in support of fishing, hunting, or trapping; or wildlife management, wildlife or depredation control, or shooting preserve practices as regulated by state and federal law; or animal husbandry or agriculture practice involving livestock animals shall not be interpreted as a violation of this rule.

S. **University System Violations –** any conduct that violates any provision of the Regents' *Rules and Regulations* of The University of Texas System;

T. **Retaliation** – any action taken to materially and adversely affect the terms or conditions of an individual's academic experience or employment with the University, or other institutional status of a student, employee, university affiliate, visitor, or applicant for admission to or employment with the University, because an individual has, in good faith:
i. reported or intends to make a report under university policies or rules;
ii. opposed an unlawful practice;
iii. participated in an investigation or conduct proceeding; or,
iv. requested supportive or protective measures;

U. **Aiding in Academic Misconduct** - the Student Organization aids, encourages, organizes, approves or otherwise participates in behaviors that would constitute collusion, plagiarism, misrepresentation (e.g. having another Student Organization member check into a class or take an exam) and/or other forms of Academic Misconduct. Evidence of a violation of this policy must demonstrate systemic participation and/or knowledge of misconduct beyond 1-2 Student Organization members participating in the violation.

V. **Institutional Rules Violations** – any conduct that violates any provision or rule defined in other chapters of the *Institutional Rules on Student Services and Activities.*

Subchapter 6–500. Disciplinary Procedures

Sec. 6–501. Notice and Initiation of Disciplinary Proceeding

1. Allegations of Prohibited Conduct committed by Student Organizations shall be referred to the Student Conduct for a determination of responsibility and, if applicable, assessment of sanctions(s), in accordance with the procedures detailed in this Chapter.
   A. In accordance with Sec. 10-202(a)(3), Academic and Administrative Units possess the authority to establish and enforce administrative policies regarding access to and the use of building space; however, those units shall not engage in further action related to the Student Organizations. If there are issues regarding other possible policy and rule violations, the Academic and Administrative Units should refer those to the Student Conduct for processing in accordance with this Chapter's procedures.
2. A Student Organization engages in Prohibited Conduct when:
   A. one or more of its Officers acting in the scope of their organizational capacities engages in Prohibited Conduct;
   B. one or more of its members engages in Prohibited Conduct and the action that constitutes Prohibited Conduct was approved by majority vote of those members of the Student Organization present and voting;
   C. one or more members of a committee of the Student Organization engages in Prohibited Conduct while acting in the scope of the committee's assignment;
   D. a member of the Student Organization engages in Prohibited Conduct while acting with apparent authority of the Student Organization;
   E. the Student Organization, its officers, or a cohort of its members, engage in orchestrated conduct to permit, encourage, aid, or assist any of its members in engaging in Prohibited Conduct;
   F. the Student Organization, its officers, or a cohort of its members, under circumstances where such persons knew or should have known that orchestrated conduct constituting Prohibited Conduct was occurring or about to occur, and fails to take steps to stop the conduct; or
   G. the Student Organization, its officers, or a cohort of its members engage in orchestrated conduct to prevent the appropriate university or civil authorities from investigating alleged conduct.
3. When the Student Conduct receives notice that a Student Organization has allegedly engaged in Prohibited Conduct under Section 6-404, the alleged violation will be preliminarily investigated. Upon completing the preliminary investigation, the Dean of Students may:
   A. dismiss the allegation if there is insufficient evidence to proceed with an investigation, and/or the information collected, even if true, would not constitute Prohibited Conduct; or
   B. pursue the appropriate resolution option as outlined in Section 6-503.
4. Dismissal at this stage is not a determination of responsibility. The Dean of Students may reopen a matter dismissed at this stage and proceed to resolution pursuant to Section 6-503 if it receives additional information that supports such a determination.
5. If the Dean of Students determines that there are reasonable grounds for proceeding with the disciplinary process, the Dean of Students will identify the appropriate resolution option as outlined in section 6-503.
6. If an organization chooses to self-report Prohibited Conduct, the Dean of Students may, in its sole discretion, only investigate the individual(s) implicated in the report.
   A. If information is uncovered in the investigation that suggests that the Student Organization aided, encouraged, sanctioned or organized the Prohibited Conduct, the Dean of Students may initiate an investigation of the Student Organization as outlined in Sec. 6-507.

Section 6-502. Interim Actions

1. Pending an investigation, hearing, or outcome of the allegations against a Student Organization, the Executive Director or the President may take immediate action, as is appropriate to the circumstances, against a Student Organization that is alleged to have engaged in Prohibited Conduct, when, in the opinion of the official, the interest of the University or The University of Texas System would be served by interim action.
2. Student Organizations seeking a review of an interim action must submit a written request for an administrative review to the Dean of Students.
   A. This administrative review will occur within two (2) business days of the Dean of Student's receipt of the request unless the Dean of Students, in their discretion, determines that additional time is needed to conduct the review.
   B. Notice will be sent to the Student Organization if the Dean of Students extends the time for review beyond the initial five day period.
   C. This administrative review is not a hearing on the merits of the underlying allegations, but is merely a review to determine what, if any, interim actions are appropriate. The review may lead to a continuance, revocation, and/or modification of the interim actions, including modifications that may be more restrictive than the initial actions. The Dean of Students will notify the Student Organization officers of the outcome of the review

in writing within three (3) days of the review meeting. This notification will include the decision and the rationale for that decision.

3. If the University Investigation lasts beyond 30 days (as outlined below, beginning from the date of the Preliminary Conference), the Student Organization may request another review of the interim action(s), which will be handled similarly to the initial request for review as outlined above.

Sec. 6-503. Resolution Options

1. Allegations that a Student Organization has engaged in Prohibited Conduct may be resolved pursuant to one of four available processes:
   A. Prescribed Resolution (Tier 1) pursuant to Section 6-504;
   B. Partnership Process Resolution (Tier 2) pursuant to Section 6-506;
   C. University Investigation (Tier 3) pursuant to Section 6-507;
   D. A Mutual Resolution Agreement pursuant to Section 6-509.
2. The University will develop, publish and regularly update a Violation Rubric to use in determining which resolution option may be available to a Student Organization to resolve allegations that it engaged in Prohibited Conduct. The Violation Rubric provides a recommendation for an appropriate resolution option that is based on the following criteria:
   A. the severity of the alleged violations
   B. the allegation of physical, sexual or other forms of violence
   C. the risk of harm to other persons
   D. the conduct history of the Student Organization
   E. the current status of the Student Organization; and
   F. other relevant factors.
3. Upon notice of a potential violation, Student Conduct will use the Violation Rubric to assess the allegations and determine which resolution options may be made available to address the allegations of Prohibited Conduct. The recommendation provided by the Violation Rubric is not binding upon the Student Conduct, and Student Conduct reserves the right, at any time during the resolution process, to require the allegations of Prohibited Conduct be resolved through a higher tier resolution process. The Student Organization may, in all cases, elect to resolve the allegations through a University Investigation.
4. At any time, the University may offer to the organization the opportunity to resolve the matter through a Mutual Resolution Agreement as outlined in Sec. 6-509.

Sec. 6-504. Prescribed Resolution Process

1. The Prescribed Resolution Process permits the Student Conduct and the Student Organization to resolve allegations of Prohibited Conduct without engaging in a formal investigation. In these cases, Student Conduct may determine that the preponderance of the evidence supports a conclusion that the Prohibited Conduct occurred without further investigation or meeting with the Student Organization's representative and send an outcomes letter to the Student Organization's Officer(s) outlining the finding, the sanctions, and the rationale for both.
2. Upon receipt of this letter, the Student Organization may do one of the following:
   A. Accept the finding and sanctions
      i. If the Student Organization follows the directives outlined in the outcomes letter, the matter will be considered closed once the sanctions are completed. Failure to complete the sanctions may result in Student Conduct opening an additional disciplinary action; or
   B. Accept the finding, but appeal the assessed sanctions with a written appeal to an Appellate Officer; or
   C. Decline to accept the findings and sanctions
      i. The Student Organization may reject the findings, and the matter will be resolved through a University Investigation as described in Sec. 6-507.
3. The Student Organization must notify Student Conduct of their choice from the above within three (3) business days of receipt of the letter.
4. If the Student Organization does not respond to the letter, the findings and sanctions assessed by Student Conduct will be formally adopted and the Student Organization must comply with the assessed sanctions.

Sec. 6-505. Organizational Response

1. In instances in which allegations of Prohibited Conduct will be resolved through the Partnership Process or a University Investigation, Student Conduct will provide the organization with notice of the charges and an opportunity for the Student Organization Officer(s), the Student Organization Advisor(s), and the Student Organization's inter/national governing body (if applicable) to respond. This opportunity may be provided during an in-person conference or via email and will include information regarding the nature of the allegations, the rights and responsibilities of the Student Organization, the resolution options available to the Student Organization, and the specific steps involved in the different resolution options.
2. If the Student Organization fails provide a response, whether offered in-person or via email, Student Conduct will pursue the allegations using the University Investigation process described in Section 6-507.

Sec. 6-506 - Partnership Process

1. The Partnership Process permits the Student Organization to conduct an internal investigation subject to oversight and approval of the Student. Student Conduct may also conduct a concurrent investigation as described in Sec. 6-507.
2. If the organization agrees to the Partnership Process, Student Conduct will, in consultation with the Student Organization Officer(s), Advisor, and other appropriate parties, develop an investigation scope and timeline.
3. The Student Organization must conduct an investigation and submit a written report within the agreed-upon timeline, or as otherwise specified by Student Conduct. The report should be detailed, including the names of specific individuals involved in the alleged violation, and any internal disciplinary action the Student Organization implemented for those individuals.
4. Student Conduct will review the Student Organization's investigation report and will make one of the following determinations:
   A. Student Conduct agrees that the report is complete and may schedule a Partnership Process Resolution Meeting to discuss the report and findings and review next steps;
   B. Student Conduct determines that the report is insufficient, incomplete, or inconsistent with the university's investigation, if applicable, and provides feedback and instruction for further investigation to the Student Organization; or
   C. Student Conduct determines that the Student Organization has intentionally provided inaccurate or incomplete information, obstructed the process, is non-compliant, is uncooperative, or is unable to complete the investigation and report in a satisfactory manner. Student Conduct will then determine whether to move forward with investigation and adjudication of the allegations as described in Sec. 6-507.

5. Once Student Conduct has determined that the report is complete, Student Conduct will communicate with the Student Organization's Officer(s), Advisor, and other parties as appropriate, and one of the following determinations will be made:
6. **No Policy Violation:** If Student Conduct determines that the Student Organization report indicates that no policies were violated by the Student Organization the process concludes.
7. **Policy Violation(s)**: If Student Conduct determines that the Student Organization report indicates that the Student Organization was responsible for some or all policy violation(s) that were alleged, Student Conduct will issues and Administrative Disposition formally outlining the violation(s) and the proposed sanction(s).
8. Following the presentation of an Administrative Disposition, the Student Organization may choose to:
   a. Accept the finding and assessed sanctions;
   b. Accept the finding, but appeal the assessed sanctions with a written appeal to an Appellate Officer; or,
   c. Contest the finding in a hearing if the sanction proposed by Student Conduct included Suspension or Expulsion.
   d. If the assessed sanctions do not include Suspension or Expulsion, the Student Organization may contest the finding with a written appeal to an Appellate Officer.

When issued an Administrative Disposition, the Student Organization must communicate its choice to Student Conduct in no more than five (5) business days.

9. If the Student Organization does not respond to the Administrative Disposition, the findings and sanctions assessed by Student Conduct will be formally adopted and the Student Organization must comply with the assessed sanctions.

Sec. 6–507. University Investigation

1. Student Conduct or the Student Organization may elect to resolve any allegations of Prohibited Conduct through a University Investigation.
2. An investigation is an administrative process by which Student Conduct gathers information related to the alleged Prohibited Conduct. The investigation may include but is not limited to, meeting with Officer(s) and members of the accused Student Organization; requesting documents from the Student Organization; reviewing organizational records; reviewing information received by off-campus persons or organizations, including law enforcement; reviewing information received by an academic or administrative unit; and calling witnesses.
3. Student Organizations that fail to respond to meeting requests from Student Conduct may be subject to interim action as described in subsection 6-502.
4. At the completion of the investigation, Student Conduct will provide a written draft investigation report to the Student Organization for review and comment. Student Conduct will make the final determination of the relevance of any information gathered during the investigation.
5. The Student Organization must provide any comments related to the investigation report in writing to Student Conduct within five (5) business days of the receipt of the report.
6. At the completion of the investigation, if no policy violation has been found Student Conduct will provide a copy of the final report and the determination to the Student Organization. Student Conduct may choose to meet with the Student Organization's Officer(s) to discuss the findings of the report and ongoing behavioral expectations.
7. the completion of the investigation, if there is sufficient evidence to issue a finding of responsibility for violation of policy, Student Conduct will issue an Administrative Disposition, including a determination of responsibility and related sanction(s).
8. At the completion of the investigation, if there is sufficient evidence to issue a finding of responsibility for violation of policy, Student Conduct will issue an Administrative Disposition, including a determination of responsibility and related sanction(s).
9. Following the presentation of an Administrative Disposition, the Student Organization may choose to:
   A. Accept the finding and assessed sanctions;
   B. Accept the finding, but appeal the assessed sanctions with a written appeal to an Appellate Officer; or,
   C. Contest the finding in a hearing if the sanction proposed by Student Conduct included Suspension or Expulsion.
   D. If the assessed sanctions do not include Suspension or Expulsion, the Student Organization may contest the finding with a written appeal to an Appellate Officer.
10. The Student Organization must make their selection and notify Student Conduct of their choice in no more than five (5) business days.
11. If the Student Organization does not respond to the Administrative Disposition, the findings and sanctions assessed by Student Conduct will be formally adopted and the Student Organization must comply with the assessed sanctions.

Sec. 6-508. Formal Hearing

1. If hearing-eligible, the Student Organization may have the case adjudicated by a Hearing Officer.
2. Student Conduct will give notice, per Sec. 6-401(k), to the Student Organization's Officer(s) at least five (5) days before the hearing date.
3. The notice will:
   A. state the date, time, and location of the hearing;
   B. inform the Student Organization Officer(s) of their rights as outlined in this section.
4. Student Conduct will establish hearing procedure and share that procedure with the student organization in advance of the hearing. Hearing procedures are posted on Student Conduct website.
5. The Student Organization may bring an Advisor of their choosing to the hearing. The Advisor may not speak on behalf of the Student Organization, question witnesses, or actively participate in the hearing other than to advise the Student Organization Officer(s). In accordance with Sec. 6-402(2), a Sponsored Student Organization must use their Sponsored Student Organization Advisor or a university staff or faculty member from the sponsoring Academic or Administrative Unit as their disciplinary proceeding Advisor.
6. The Hearing Officer will render a written Responsibility Decision that includes whether the Student Organization is believed to be responsible for a violation of policy and the facts in support of the finding. The Responsibility Decision will be submitted to the Dean of Students for sanctioning. The Hearing Officer shall complete the written Responsibility Decision within five (5) days of the hearing. If the Hearing Officer is unable to issue the written Responsibility Decision within five days, they shall provide notice of the delay to the student, Student Conduct, and the Dean of Students. Student Conduct will establish the new deadline for submission of the decision.
7. In cases involving allegations of crimes of violence, as defined in the Family Educational Rights and Privacy Act (FERPA) and other applicable law, Student Conduct shall notify the alleged victim(s) of the final outcome.

Sec. 6-509. Mutual Resolution Agreement

1. At any point during the conduct process, the Student Organization may submit a request to Student Conduct to enter into a Mutual

Resolution Agreement. A Mutual Resolution Agreement is a collaboration between Student Conduct and the Student Organization to resolve the disciplinary matter in a way that eliminates the behavior(s) and prevents its recurrence, within the practice and culture of the organization. Student Conduct may continue pursuing an investigation even if a Student Organization requests to enter into a Mutual Resolution Agreement. A Mutual Resolution Agreement is not a finding of responsibility, nor does it absolve the Student Organization of responsibility for any alleged violations. Rather, it is an opportunity to resolve an allegation of misconduct through a set of agreed-upon terms designed to improve the Student Organization's culture.

2. The result of this resolution process is an agreement between the Student Organization and the university intended to restructure and rehabilitate the conduct and practices of the Student Organization through the completion of specified terms and conditions, which may include the development of Sanctions as outlined in Sec. 6-510.
3. This agreement will last for a specified period of time, during which the Student Organization will be granted conditional registration. This conditional registration may be terminated if the organization is found in violation of any university policies as outlined in the Institutional Rules, or if the organization fails to comply with the terms and conditions of the agreement.

Sec. 6–510. Sanctions

1. At the conclusion of the conduct process, sanctions will be imposed for any Student Organization that has engaged in Prohibited Conduct. The Sanctions may include Status Sanctions, Educational Sanctions, and/or Structural Sanctions as described below.
2. The Sanctions may be assessed individually, in combination, or to follow consecutively**.**
3. Record of the finding of a violation shall be maintained by Student Conduct for a period of no less than seven (7) years. If a Student Organization loses campus recognition, Student Conduct will maintain the Sanctions Letter indefinitely. If applicable, a copy of the case resolution may be sent to their Inter/National Organizational Governing Body or other appropriate parties.
4. Student Conduct and/or the appropriate university department will oversee the completion of sanction(s). If the student organization misses any deadlines, fails to complete any sanction(s), and/or has a subsequent violation(s), the Student Organization may be subject to additional sanction(s) and/or disciplinary actions at the discretion of the Student Conduct.
5. **Status Sanctions -** Pursuant to section 6–501, the following status sanctions may be assigned to a Student Organization for violation of a *Regents' Rule*, university regulation, or administrative rule:
   A. "Written Warning" means that the Student Organization's Officer(s) have been notified that the organization has engaged in behavior that violated a rule or regulation of The University of Texas System or the University. Student Conduct or the Dean of Students may impose conditions related to the violation to address the behavior that led to the violation. Further violations may result in a minimum of probation for the organization.
   B. "Probation" means a specified period of time during which the Student Organization is required to comply with specified terms and conditions to address the behavior that led to the violation. During this specified period of time, Student Conduct or the Dean of Students may restrict one or more of the organization's privileges, as listed in Section 6-300.
   C. "Deferred Suspension" means that the conduct of the Student Organization could have resulted in suspension, but the suspension is deferred for a period of observation and review. During the period of deferred suspension, Student Conduct or the Dean of Students may restrict one or more of the organization's privileges, as listed in Section 6-300.
   D. "Suspension" means a specified period of time during which the Student Organization is prohibited from utilizing specified privileges, as listed in Section 6-300, and is required to comply with specified terms and conditions to address the behavior that led to the violation.
   E. "Expulsion" means a permanent separation from the University and prohibits the Student Organization from university recognition. This status results in the automatic loss of all rights and privileges associated with university recognition. Formerly referred to as Cancellation.
6. A Student Organization placed on Suspension or Expulsion is prohibited from sponsoring, co-sponsoring, or participating in any and all social, intramural, athletic, or other similar activities on campus. Suspension or Expulsion may also include the forfeiture of other specifically listed privileges. Suspension should be for a specific and determined time period, and will include a written return agreement outlining specific conditions for return. The Suspension may be delayed or extended at the discretion of Student Conduct or the Dean of Students based on ongoing activity during a period of suspension.
7. If the Student Organization dissolves or loses recognition, as a result of organizational conduct, and then attempts to seek recognition under the guise of a different organizational name, the University reserves the right to deny the request for recognition or withdraw the recognition. This conclusion may be based on multiple factors, including but not limited to, overlapping membership, similarity of purpose, and the timing of the dissolution or prior loss of recognition and the request for new recognition.
8. **Educational Sanctions -** Educational Sanctions may include, but are not limited to, educational programming, community service, interventions, restorative practice, or workshops determined to help develop the culture and community of the Student Organization.
9. **Structural Sanctions -** Structural Sanctions are related to the structure, membership, or governance of the organization. Structural sanctions, developed in collaboration with the inter/national organizational governing body (if applicable), may include, but are not limited to, changes to organizational operating procedures, a review of organization membership/leadership, an external review of the organization, and changes to organization advisor support.

Sec. 6–511. Appeals

1. The Student Organization may appeal the finding of responsibility or sanction(s) issued as a result of an Administrative Disposition or the Dean of Student's Disciplinary Decision.
2. Requests for appeals must be submitted in writing to Student Conduct within five (5) days from the date on which the Student Organization signed the Administrative Disposition or within five (5) business days of receipt of Disciplinary Decision from the Dean of Students. The request for appeal must state the ground(s) for appeal and include the Student Organization's argument in support of appeal.
3. The Student Organization may appeal based on one or more of the following limited grounds:
   A. A procedural error or omission occurred that significantly impacted the outcome of the hearing.
   B. New Evidence: New evidence is information that was unknown or unavailable during the original hearing or investigation that could substantially impact the original finding or sanction. A summary of this new evidence, how it was previously unknown or unavailable, and its potential impact must be included.
      i. If a person or Student Organization Officer refused to testify or participate in the investigation and now wishes to submit

their testimony as new evidence at the appellate level, that testimony will not be considered "new evidence" under this ground.

C. Disproportionate Sanction(s): The Sanctions(s) imposed is significantly disproportionate the violation(s), or are of such nature that the Student Organization could not reasonably complete them within the allotted timeframe.

4. An Appellate Officer will review the request for appeal to determine if the request states one or more of the permissible grounds for appeal. If the request for appeal states one or more of the permissible grounds for appeal, the Appellate Officer will consider the appeal on its merits.
5. The burden is on the appealing party to show that the grounds for an appeal are met using the preponderance of the evidence standard.
6. If there is a challenge to any member of the process (e.g., a challenge of bias by an investigator or Hearing Officer), Student Conduct may share all or part of the appeal with the challenged party to allow them to respond. The response must be provided to Student Conduct within five (5) business days of receipt of the notice of the request for appeal. The Appellate Officer serving in the reviewer role will issue their decision to allow the appeal to proceed in whole or in part or to deny the appeal within five (5) days of receipt of all information and responses.
7. The Appellate Officer will issue their decision within five (5) days of receipt of all information and responses. In instances where the Appellate Officer needs additional time, the Appellate Officer will notify the Student Organization's Officer(s) within the allotted time for issuing a decision.
8. Appeals are not intended to be full re-hearings of the original allegation(s). Appeals are confined to a review strictly limited to the matters being appealed.
9. When an appeal is granted for the appellant. the Appellate Officer may alter the finding or Sanction or remand the case with recommendations to Student Conduct for reconsideration, rehearing, or further investigation.
10. The decision of the Appellate Officer is final.

Sec. 6-512. Provisional Return.

1. In some circumstances, Student Organizations assigned a sanction of Suspension, or Expulsion for a violation of this Chapter, may petition the University for a provisional early return to campus. This subchapter sets out the standards regarding the application and the eligibility determination to begin the provisional return process.
   A. Criteria – Student Organizations must meet the following criteria to be eligible to begin the early provisional return process:
      i. a Student Organization may petition for a disciplinary review by the Dean of Students after completion of no less than half the term assigned Suspension, or Expulsion;
      ii. the suspended Student Organization has not applied for recognition under this Chapter using a different name; and
      iii. members of the organization at the time of the suspension have not had any documented instances of misconduct during the period of loss of recognition that could be reasonably associated with the Student Organization.
   B. Advisor Designation - An applicant must identify an advisor, who meets the criteria established in Section 6-101(8), who will assist in working through the early provisional return process with the Student Organization and university officials. In the event the applicants cannot identify such an advisor, or if they prefer assistance in selecting one, the Office of the Dean of Students, will assign an advisor. Advisor designations for this subsection must be approved by the Dean of Students.
   C. Eligibility Determination – The Executive Director will assess the application and determine whether or not the organization has met the eligibility requirements. If eligibility criteria are met, the Executive Director will convene a review committee to recommend to the Executive Director whether to uphold the existing sanction or allow the organization to begin the provisional return process. The Executive Director will review the application materials and the recommendation of the committee, to make the determination. An organization may make a request, in writing, for reconsideration of that determination to the Dean of Students. Requests for reconsideration must be made within three business days of the Executive Director's determination. The Dean of Students' determination is final and not appealable.
   D. Approval to begin early provisional return process - If the application is approved, a Student Organization will begin the process prescribed by the Dean of Students and published on the Student Conduct and Academic Integrity website. If a Student Organization fails to meet the requirements of the early provisional return process or has any conduct violations during the period of provisional return, the University may revoke the Student Organization's provisional status.
   E. A Student Organization approved for early provisional return will remain on provisional status until it has completed all requirements of the early provisional return process and the original Suspension, or Expulsion term has been met.
2. In circumstances where a Student Organization has completed its full Suspension or Expulsion term for a violation of this Chapter, the organization may petition the University for a provisional return to campus.
   A. Criteria – Student Organizations must meet the following criteria to be eligible to begin the provisional return process:
      i. a Student Organization may petition for a disciplinary review by the Dean of Students after completing the term assigned for Suspension, or Expulsion;
      ii. the suspended Student Organization has not applied for recognition under this Chapter using a different name; and
      iii. members of the organization at the time of the Suspension or Expulsion have not had any documented instances of misconduct during the period of loss of recognition that could be reasonably associated with the Student Organization.
   B. Advisor Designation. An applicant must identify an advisor, who meets the criteria set at above at 6-101(8), who will assist in working through the early provisional return process with the Student Organization and university officials. In the event the applicants cannot identify such an advisor, or if they prefer assistance in selecting one, the Office of the Dean of Students, will assign an advisor. Advisor designations for this subsection must be approved by the Dean of Students.
   C. Eligibility Determination. The Executive Director of Student Conduct and Academic Integrity, or designee, will assess the application and determine whether or not the organization has met the eligibility requirements. If eligibility criteria are met, the director will convene a review committee to recommend to the Dean of Students whether to uphold the existing sanction or allow the organization to begin the provisional return process. The director will review the application materials and the recommendation of the committee, to make the determination. An organization may make a request, in writing, for reconsideration of that determination to the Dean of Students. Requests for reconsideration must be made within three (3) business days of the director's determination. The Dean of Students' determination is final and not appealable.

D. Approval to begin provisional return process. If the application is approved, a Student Organization will begin the process prescribed by the Dean of Students and published on the Student Conduct and Academic Integrity. If a Student Organization fails to meet the requirements of the provisional return process or has any conduct violations during the period of provisional return, the University may revoke the Student Organization's provisional status. If a Student Organization fails to meet the requirements of the provisional return process or has any conduct violations during the period of provisional return, the University may revoke the Student Organization's provisional status.

E. A Student Organization approved for provisional return will remain on provisional status until they have completed all requirements of the provisional return process.

Relates to *Handbook of Operating Procedures*, 3-3031.
Updated to reflect policy changes effective

Chapter 7. The Department of Recreational Sports

Subchapter 7–100. General Provisions

Sec. 7–101. Purpose

The University of Texas at Austin seeks to promote and conduct officially organized sports activities and athletic recreation programs for the University community. The purposes of these programs are:

a. to provide students at the University with an opportunity for interesting and rewarding sports competition and recreation;

b. to present a varied program of sports and recreational activities so that every student and individual with a Recreational Sports membership has the opportunity to participate regardless of athletic ability.

Sec. 7–102. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Student" means a person currently enrolled at the University.
2. "University" means The University of Texas at Austin.
3. "Executive Director" means the executive director of Recreational Sports.
4. "Department" means Recreational Sports.
5. "President" means the president of The University of Texas at Austin.

Subchapter 7–200. The Recreational Sports Committee

Sec. 7–201. Membership

a. The Recreational Sports Committee has fifteen voting members. They are:
   1. six representatives of the General Faculty, appointed by the president for three-year staggered terms;
   2. two staff members appointed by the president for two-year staggered terms;
   3. two students as designated by the Councils of Recreational Sports and two other students as designated by Student Government, all of whom are representative of the student body;
   4. one staff representative designated by Recreational Sports for a one-year term; and,
   5. two members of the Faculty Council, appointed by the chair of the Faculty Council, for one-year terms.

b. The executive director of Recreational Sports will serve as administrative advisor without vote.

Sec. 7–202. Duties of Committee

The Recreational Sports Committee will:

a. advise on policy for the conduct of the Intramural Sports and Sport Clubs programs;

b. hear appeals of decisions made by the Councils of Recreational Sports; and,

c. advise on other matters pertaining to Recreational Sports and its programs, facilities, and services.

Sec. 7–203. Quorum

A majority of the committee constitutes a quorum and a majority of the quorum rules.

Sec. 7–204. Appellate Jurisdiction

The committee may employ the Sport Club Council or appoint a group of students, student employees or faculty/staff members to hear appeals should the need arise.

Subchapter 7–300. Participation in Recreational Sports Programs

Sec. 7–301. Group Eligibility

a. A group is eligible to participate in Recreational Sports programs if:
   1. its membership is not denied to anyone on any basis prohibited by applicable law, including but not limited to race, color, religion, national origin, gender, age, disability, citizenship, veteran status, sexual orientation, gender identity, or gender expression; and,
   2. it is not under a disciplinary sanction prohibiting participation.

b. The application form for participating in recreational sports will set out the provisions of Sec. 7–301(a)(1). By submitting an application, a group affirms that it is in compliance with the policy against discrimination.

Sec. 7–302. Individual Eligibility

An individual is eligible to participate in recreational sports programs if they are not under disciplinary sanction prohibiting participation and if they meet the requirements of rules governing the specific Recreational Sports program.

Sec. 7–303. Reservation of Recreational Sports Facilities

a. University departments and registered student organizations may request event space reservations at Recreational Sports facilities through the Recreational Sports facility operations office.

b. The provisions of Subchapter 10–200 of the *Institutional Rules* do not apply to the use of recreational sports facilities for athletic purposes.

Subchapter 7–400. Administration of Recreational Sports Programs

Sec. 7–401. The Executive Director of Recreational Sports

a. The executive director:
   1. will establish and maintain effective working relations with other University departments, with faculty and staff members, with students and student groups, and with outside groups and special services that utilize recreational sports facilities and programs;
   2. will formulate, plan, and administer, with the support of the Recreational Sports Committee, the following kinds of programs:
      A. a program of organized intramural competition in various sports;
      B. a recreational program to provide leisure-time activities;
      C. an outdoor recreation program;
      D. competitive, recreational, and instructional programs for students, faculty and staff; and
      E. the University of Texas Sport Club Association.
   3. is responsible for developing program innovations in recreational sports, providing for program expansion, providing for acquisition of additional recreational facilities, and supervising senior staff;

4. is responsible for the maintenance, repair, use, and security of all facilities and equipment used in department programming; and,
5. is responsible for enforcing the eligibility requirements of Subchapter 7–300.

b. The executive director is administratively responsible to and reports to the associate vice president for health and well-being.

Sec. 7–402. The University of Texas Sport Club Association Council

a. The University of Texas Sport Club Association (UTSCA) Council has six members. The members are:
   1. the executive director or the executive director's delegate; and,
   2. five student members, representing the participants in the sport club program.
   3. The executive director or the executive director's delegate will serve as administrative advisor without vote.

b. The council will:
   1. elect a student chair to facilitate the business of the council;
   2. participate in the designation of one student for appointment to the Recreational Sports Committee for a one-year term;
   3. assist the sport club staff in formulating sport club program policies;
   4. hear appeals of decisions of the sport club program administrators; and,
   5. make recommendations on student organizations that have completed the application process for UTSCA membership.

c. A majority of the council constitutes a quorum and a majority of the quorum rules.

Sec. 7–403. The Intramural Sports Council

1. The Intramural Sports Council has ten members. The members are:
   a. the executive director or the executive director's delegate; and,
   b. nine student members, representing the participants in the intramural program.
   c. The executive director or the executive director's delegate will serve as administrative advisor without vote.
2. The council will:
   a. elect a student chair to facilitate the business of the council;
   b. participate in the designation of one student for appointment to the Recreational Sports Committee for a one-year term;
   c. assist the intramural staff in formulating intramural program policies;
   d. rule on protests, individual or group eligibility, and related matters.
3. A majority of the council constitutes a quorum and a majority of the quorum rules.

Subchapter 7–500. Areas of Recreational Sports

Sec. 7–501. The Intramural Sports Program

a. The program of organized student sports competition provides the opportunity for competition among individual students and among teams representing student groups or organizations such as fraternities, clubs, and residences, and/or graduate or undergraduate teams organized solely for the purpose of competing in a tournament or event.

b. The purpose of this program is to provide the opportunity for competition among students and to foster the physical, social, and emotional benefits of participation in sports activities, accompanied by a sense of sportsmanship.

Sec. 7–502. The Informal Recreation Program

a. The Informal Recreation program provides an opportunity for students and Recreational Sports members to participate in unstructured recreational activities when facilities are not scheduled for formal programming.

b. The purpose of the program is to assist the participant in developing beneficial and satisfying leisure-time sports activities.

Sec. 7–503. The Outdoor Recreation Program

a. The Outdoor Recreation program provides equipment rental and supervised trips in a variety of activities such as backpacking, camping, canoeing, kayaking, nature hiking, and rock climbing. Trips are open to currently enrolled students and Recreational Sports members. Equipment rental is available to currently enrolled students and Recreational Sports members.

b. The Outdoor Recreation program provides an indoor climbing wall with 2,600 square feet of climbing surface inside Gregory Gym for the leisure-time use of students and Recreational Sports members.

c. The purpose of the Outdoor Recreation program is to provide an opportunity for students to experience outdoor, wilderness activities in educationally oriented, supervised events.

Sec. 7–504. The Fitness and Wellness Program

a. The Fitness and Wellness program offers group fitness classes, clinics and series, and personal training. It is open to currently enrolled students and Recreational Sports members.

b. The purpose of the program is to provide participants with the opportunity to improve and maintain physical fitness and to engage in leisure-time activities.

Sec. 7–505. The University of Texas Sport Club Association

a. The University of Texas Sport Club Association is composed of sport or physical-activity-related student organizations sponsored by Recreational Sports.

b. The purpose of the University of Texas Sport Club Association is to promote interest in specific sport activities and to provide the opportunity for students to compete among themselves and in extramural competition with students from other colleges and universities, or with other approved sources of competition.

c. The association offers sport club members opportunities for the development of leadership and organizational skills as well as opportunities for social interaction.

d. The University of Texas Sport Club Association operates under the administration of Recreational Sports.

Sec. 7–506. The Instructional Program

a. The Instructional Program provides students, Recreational Sports staff, the campus community, and non-UT community with non-credit educational classes in the areas of safety education, swimming, and sport skills.

b. The purpose of the program is to provide opportunities for participants to learn and enhance skills.

Sec. 7–507. Membership and Guest Services

a. Membership and Guest Services manages recreation facility access systems and provides amenities to students and Recreational Sports members. Access is provided through membership, and amenities include rental lockers and towel service.

b. The purpose of this area is to meet the leisure-time needs of the University community and to create a campus culture of wellness.

Chapter 8. The University Unions

Subchapter 8–100. General Provisions

Sec. 8–101. Purpose

The mission of University Unions is to enhance the student experience and to enrich campus life by providing cultural, educational, social and

recreational programs, as well as related goods and services, to the campus community.

Sec. 8–102. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Board" means the board of directors of University Unions.
2. "Chancellor" means the Office of the Chancellor of The University of Texas System.
3. "Executive director" means the executive director of University Unions.
4. "President" means the chief administrative officer of The University of Texas at Austin.
5. "Student" means a person enrolled in residence at the University.
6. "Unions" means:
   a. the Texas Union; and
   b. the William C. Powers, Jr. Student Activity Center.
7. "Unions-managed facilities" means:
   a. Hogg Memorial Auditorium;
   b. Student Services Building; and,
   c. 2609 University Avenue; and
   d. Levels 1 and 2 of Dobie Twenty21
8. "E+E" means Campus Events and Entertainment.
9. "University" means The University of Texas at Austin.
10. "Vice president" means the vice president for Student Affairs at The University of Texas at Austin.

Subchapter 8–200. The Board of Directors of University Unions

Sec. 8–201. Membership

a. The board has nine voting members. The members are as follows:
   a. Three members of the faculty, appointed by the president for three-year overlapping terms, one to be appointed each year, effective May 1.
   b. Six students, including the Student Government president, the E +E president, and four others as follows:
      i. Two students registered for at least six semester hours during each semester of service, to be selected by the president of Student Government after announcement of the position opening in the Daily Texan and other appropriate media. Appointments will be ratified by a majority vote of the Student Government Assembly and will become effective May 1, for two-year overlapping terms. Should a vacancy occur during a term, (i) the Student Government president will appoint a new member who will receive proper approval of the Student Assembly before taking a seat on the board; (ii) the new member will become a full voting member of the board immediately.
      ii. Two students registered for at least six semester hours during each semester of service, to be elected for one-year terms by the student body during Student Government elections each year. Should a vacancy occur during a term, the chair of the University Unions board of directors will nominate another student who must receive a majority vote of the board. A quorum must be present to approve a new member.
b. The executive director and an appointee of the vice president are members of the board without a vote.

Sec. 8–202. Officers

The officers of the board are the chair, the vice chair, and the executive director. The chair will be elected each year from the student membership of the board by the voting members of the board to serve a term to extend from the first official board meeting of the fall term until May 15, the following year or until a new chair is elected. To qualify for election as chair, a student will have at least one year's experience on either E+E or the board. This qualification may be waived by a two-thirds vote. Both outgoing and new board members will be eligible to vote for chair. The vice chair of the board will be a student member, chosen each term by the elected chair. The Student Government president and the E+E president cannot serve as chair of the board of directors. The officers of the board will perform the usual duties of their respective offices.

Sec. 8–203. Meetings

The board will meet once a month during each fall/spring term, setting its own dates for meetings, formulating its own rules of procedure, and setting up and appointing such committees as it may deem necessary and desirable for the proper use of the University Unions' facilities consistent with the Regents' Rules and Regulations.

Sec. 8–204. Executive Committee

a. The board may authorize three of its voting members to serve between meetings as an executive committee.
b. An executive committee may act for the board only during the period beginning annually on May 15, and ending the first day of registration for the fall term or during official University breaks or holiday periods. All actions taken by the executive committee are subject to ratification by the board.

Sec. 8–205. Duties

The board shall:

1. recommend rules, regulations, and procedures regarding the operation and use of the Unions, advise and consult on rules, regulations, and procedures regarding the operations and use of the Unions-managed facilities;
2. approve the E+E budget, the appointment of E+E officers, all changes in E+E by-laws, and the addition or deletion of any E+E committees;
3. advise the president, through the vice president, on the selection of the Unions' executive director; and;
4. be involved in the future development of the Unions.

Subchapter 8–300. Review of Board Action

Sec. 8–301. Review by the Vice President

a. The board will deliver promptly to the vice president of student affairs at least two copies of the minutes of each board or executive committee meeting.
b. No recommendation of the board or executive committee will have any force or effect until said recommendation has been approved by the vice president and has received such other approval as required.
c. Every action of the board or of a committee or subcommittee of the board is subject to review by the vice president. The vice president may approve, reverse, or modify each such action.
d. No budget or budget amendment adopted by the board is effective until it is approved by the vice president through normal budget procedure.
e. No expenditure will be made by the board unless it is made pursuant to a budget item that has been adopted by the board and has received final approval from the vice president.

Subchapter 8–400. The executive director of University Unions

Sec. 8–401. Duties of the executive director

a. The executive director is administratively responsible to and will report periodically to the vice president, serves as the chief executive official in the Unions, and is responsible for the operation of Unions and Unions-managed facilities, programs, and activities. The executive director will:

a. coordinate all functions involving Unions and Unions-managed facilities and the interests of the various groups served by the facilities;
b. employ, supervise, and direct the work of all subordinate employees; and,
c. be a member of all committees without vote.

b. Annually, on or before November 15, the executive director will submit to the board a report of Unions activities for the year. Copies of the report will be distributed to the vice president and to others as the vice president may direct.

Subchapter 8–500. University Unions Campus Events + Entertainment

Sec. 8–501. Purpose

E+E is chartered by University Unions to organize and present a program of activities and events for the University student body in areas of general interest.

Sec. 8–502. Members and Officers

a. E+E is composed of the various committees, their chairs, and the officers of E+E.
b. E+E has a president who is elected by the student body in the general student elections in the spring term each year and such other officers as approved by the University Unions board.

Sec. 8–503. Duties

E+E is the decision-making, coordinating, evaluating, and recommending body of the Union's activities and events program. E+E will:

1. coordinate the Union's activities and events program;
2. evaluate the Unions activities and events program, and recommend changes to its components; and,
3. recommend to the board actions, policies, and procedures affecting the Unions activities and events program.

Sec. 8–504. Review of E+E Actions by the Board

All actions of E+E are subject to review by the board.

Subchapter 8–600. Creative 40 Acres at Hogg Memorial Auditorium

Sec. 8–601. Purpose

The Creative 40 Acres at Hogg Memorial Auditorium is the result of a partnership between the College of Fine Arts and the Division of Student Affairs and will serve as a center of creative engagement for students, staff, and faculty.

Sec. 8–602. The Creative Forty Acres Advisory Committee

The Creative Forty Acres advisory committee exists to provide informed input to the committee chair on specific objectives as the initiative is being developed. This committee is a recommending body to the University Unions board of directors

Sec. 8–603. Membership

The committee can have up to 11 voting members. The desired membership is as follows:

1. Two members of the College of Fine Arts faculty;
2. Five students, including representation from Student Government, Senate of College Councils, College of Fine Arts, and University Unions Campus Events + Entertainment; and,
3. Four staff members, including representation from the School of Undergraduate Studies, Student Activities, Hogg Memorial Auditorium, and University Unions.

Sec. 8–604. The Creative Forty Acres Chair

The chair of the Creative Forty Acres at Hogg Memorial Auditorium is the University Unions executive director or his/her designee. He/she is responsible for reporting periodically to the University Unions board of directors and for the development of the Creative Forty Acres initiative. The chair will:

1. Facilitate meetings; and,
2. Present recommendations from the committee to the board.

The committee will meet twice per term during each fall/spring term, setting its own dates for meetings, formulating its own rules of procedure, and setting up and appointing such committees as it may deem necessary and desirable for the purpose of developing the initiative.

Subchapter 8–700. Unions and Union-Managed Facilities

Sec. 8–701. Reservations and Use of Unions and Union-Managed Facilities

a. Unions and Unions-managed facilities are reserved primarily for use by students, faculty members, and staff members.
b. In accordance with recommendations developed by the board, the executive director or the executive director's representative may permit special persons, groups, or organizations to reserve and use portions of Unions-managed facilities when the intended use does not interfere with regular union programs or activities. The executive director may charge a reasonable rental fee for use of Unions-managed facilities by such persons, groups, or organizations. The executive director will permit persons, groups, or organizations officially designated as guests of the University by the president, the chancellor, or the Board of Regents to use Unions facilities without cost. All requests for the use of Unions facilities are subject to prior reservations, therefore, requests should be made as early as possible.

Sec. 8–702. Policy Against Discrimination

No person or organization will be excluded from participation in or denied the benefits of Unions facilities, services, and programs on any basis prohibited by applicable law, including, but not limited to, race, color, religion, national origin, age, disability, citizenship, veteran status, sexual orientation, gender identity, or gender expression.

Sec. 8–703. Naming and Recognition

The vice president for Student Affairs shall consult with and seek the advice of the University Unions board of directors on all naming or recognition initiatives for the facilities listed in this section as being under the purview of the board.

Chapter 9. Educational Records

Subchapter 9–100. General Provisions

Sec. 9–101. Purpose

The student educational records maintained by the University fall into two general categories: directory information and student records. The purpose of this chapter is to describe various kinds of educational records and to state the permissible uses of these records. These policies and procedures are in full accord with the final regulations implementing the Family Educational Rights and Privacy Act of 1974 (FERPA).

Sec. 9–102. Confidentiality of Records

a. Directory information: That part of a student's educational record defined as directory information in section 9–201 is public information. It will be made available to the public unless the student has restricted it as described in subsection 9–201(c).
b. Student records: Student records include all educational records except for directory information and are not public records. The University will maintain the confidentiality of these student records as indicated in section 9–202.
c. Information in a student's educational record may be released by the University as directed by the president in an emergency if the information is necessary to protect the health or safety of the student or other persons.

Sec. 9–103. Information Not Recorded

No record will be kept that reflects a student's political attitudes, beliefs, or activities.

Sec. 9–104. Definitions

In this chapter, unless the context requires a different meaning,

1. "educational record" means the official record of a student that is maintained by the University for use by the University and includes directory information and student records. "Educational record" does not include the personal records of University personnel that are maintained in the sole possession of and for the sole use of the maker thereof or of a temporary substitute for the maker; the records of law enforcement units that are maintained solely for law enforcement purposes; employment records related exclusively to an individual's employment capacity (except as indicated in subsection 9–201[a]); medical and psychological records; thesis or research papers; or records that contain information about an individual only after the individual is no longer a student at the University.
2. "student" means a person enrolled on or after the first class day of the initial semester of attendance or a person formerly enrolled at the University;
3. "president" means the president of The University of Texas at Austin;
4. "transcript" means a comprehensive record of an individual's academic progress at the University; and
5. "University" means The University of Texas at Austin.

Subchapter 9–200. Directory Information and Student Records

Sec. 9–201. Directory Information

a. "Directory information" is defined as a student's name, local and permanent addresses, electronic mail addresses, UT EID, telephone listing, place of birth, major field(s) of study, participation in officially recognized activities and sports, weight and height if a member of an athletic team, dates of attendance, enrollment status, degrees, awards and honors received (including selection criteria), the most recent previous educational institution attended, job title and dates of employment when employed by the University in a position that requires student status, and other similar information. Other similar information includes a student's classification and expected date of graduation and student parking permit information.

b. Directory information is public information and will be made available to the public unless the student has restricted it as described in subsection 9–201(c).

c. A currently enrolled student may request that all or some directory information not be made public by completing an appropriate request online or in the Office of the Registrar during the first twelve class days of any spring or fall semester or the first four class days of a summer term. This request will remain in effect until revoked by the student. In the event of such a request, this restricted information will be treated as student records information as defined in subsection 9–202(a). In response to public inquiries, the University will state that the student has requested that the University not release part of the student's information; if the student has requested that all information be kept confidential, the University will state that the University has no information to provide regarding the person about whom the inquiry has been made.

Sec. 9–202. Student Records

a. Student records include educational records maintained by the University except for directory information. Student records include official University academic and personal records relating to scholastic, disciplinary, and fiscal matters, as well as records maintained by University offices and agencies that provide services sought voluntarily by individual students. The authorized use of and access to disciplinary records are described in subchapter 9–300 and subchapter 11–900 of the *Institutional Rules*. The University will not permit access to or the release of personally identifiable information contained in these records without the written consent of the student to any party other than the following:
   1. appropriate University administrators, faculty members, or staff members, appropriate administrators or staff members of the Texas Exes, and contractors or others acting on behalf of the University who require access to educational records in order to perform their legitimate educational duties, when such records are needed in furtherance of the educational or business purposes of the student or the University;
   2. officials of other schools in which the student seeks or intends to enroll, upon request of these officials, and upon the condition that the student be notified and receive a copy of the record if desired;
   3. federal, state, or local officials or agencies authorized by law;
   4. in connection with a student's application for, or receipt of, financial aid;
   5. accrediting organizations or organizations conducting educational studies, provided these organizations do not release personally identifiable data and provided they destroy such data when it is no longer needed for the purpose for which it was obtained. If the University discovers that an organization that has received student records from the University has released or failed to destroy such records in violation of this policy, it will prohibit access by that organization to educational records for five years;
   6. the parents of a dependent student as defined in section 152 of the Internal Revenue Code of 1954, provided a reasonable effort is made to notify the student in advance;
   7. in compliance with a judicial order or subpoena, provided a reasonable effort is made to notify the student in advance unless the subpoena specifically directs the institution not to disclose the existence of a subpoena; or
   8. to an alleged victim of any crime of violence or a nonforcible sexual offense, the results of the alleged perpetrator's disciplinary proceeding may be released.

   The University will maintain, as part of a student's student record, a record of all parties who have obtained access to data in the record, except the parties listed in subsection 9–202(a)(1). The record of access will include the legitimate interest of the party in obtaining the information.

b. Upon written request, the University will provide a student access to his or her records described in subsection 9–202(a), except for
   1. financial records of the student's parent or guardian; and
   2. confidential letters of recommendation placed in the student's educational record prior to January 1, 1975; and confidential letters of recommendation placed in the student's educational record after January 1, 1975, if the student has signed a waiver of the right of access to letters of recommendation.

c. The official custodian of records at the University is the vice president and chief financial officer. Since the University does not maintain a central repository for student records, inquiries for access to specific student records should be made to the University office or agency concerned with the particular record. Requests for assistance in locating individual student records should be directed in writing to the custodian of records.

d. A student may obtain copies of his or her records described in subsection 9–202(a) at a cost of ten cents per page, except for an official transcript of academic record, $20, and an unofficial copy of the permanent academic record, $20. Educational records covered by the Family Educational Rights and Privacy Act of 1974 (FERPA) normally will be made available within forty-five days of the request.

e. A student may challenge the contents of his or her educational record on the grounds that the record is inaccurate, misleading, or otherwise in violation of his or her privacy rights. The student submits such a challenge by writing to the custodian of records. If the dispute cannot be resolved by informal proceedings, the student may request a formal hearing. The request for a hearing must be made in writing to the custodian of records. Within a reasonable period of time after receiving the request, the custodian of records will inform the student of the date, place, and time of the hearing. The student may present evidence relevant to the issues raised and may be assisted or represented at the hearing by one or more persons of the student's choice, including attorneys, at the student's expense. The hearing officer who will adjudicate the challenge will be appointed by the president. Decisions of the hearing officer will be based solely on the evidence presented at the hearing, will consist of written statements summarizing the evidence and stating the reasons for the decision, will be delivered to all parties concerned, and will be final. The educational record will be corrected or amended in accordance with the decision of the hearing officer, if the decision is in favor of the student. If the decision is unsatisfactory to the student, the student may place with the educational record statements commenting on the information in the record, statements setting forth any reasons for disagreeing with the decision of the hearing officer, or both. The statements will be maintained as part of the student's records and released whenever the record in question is disclosed. A student who believes that the adjudication of the challenge was unfair or was not in keeping with the provisions of FERPA may request, in writing, assistance from the president.

f. Complaints about alleged failure to comply with the provisions of FERPA may be submitted in writing to the Family Policy Compliance Office, US Department of Education, 400 Maryland Avenue, SW, Washington DC 20202.

g. In addition to the procedures described in subsection 9–202(e), general categories of educational records are periodically reviewed and obsolete information is removed and destroyed in accordance with an established record retention schedule.

Sec. 9–203. Official Transcripts of Records

a. The Office of the Registrar will send, issue, or release a student's official transcript of record only
   1. at the student's written request;
   2. after formal authentication of the student's identity; or
   3. in accordance with subsection 9–202(a).

b. A transcript of record will contain only the information described in section 9–402 and will not be furnished either in part or with information omitted or deleted.

c. The registrar will maintain a "Register of Requests for Official Transcripts." The register of requests is part of the student record.

d. The sanction of withholding a degree may be imposed upon a student who fails to pay a debt owed to the University. The sanction is lifted when the student has paid the debt.

e. The dean of students, the president, or the Office of the Chancellor may withhold the issuance of a transcript or a degree pending a hearing against a student who violates a rule or regulation of The University of Texas System or the University when, in the opinion of the official, the interest of The University of Texas System or the University would be served by interim action.

Subchapter 9–300. Disciplinary Records

Sec. 9–301. Disciplinary Record

a. The University will maintain a permanent written disciplinary record for every student assessed the sanction of suspension, expulsion, denial or revocation of a degree, dismissal from an academic program, withdrawal of a diploma, or permanent bar from admission or enrollment. Disciplinary suspension and temporary bars from admission or enrollment are noted on the official transcript during the term of the sanction. The notation can be removed upon the request of the student when all conditions of the sanction are met. The request for the removal of the transcript notation of suspension should be directed to the Office of the Dean of Students. A notation of disciplinary expulsion will be placed on the official transcript of a student who is assessed the sanction of bar from admission or bar from enrollment. In accordance with law, a notation of ineligible to enroll due to reasons other than academic or financial will be placed on the official transcript of a student who is assessed the sanction of bar from admission or bar from enrollment. A written record of any other case investigated by University Compliance Services or the dean of students will be maintained for at least seven years. The disciplinary record will reflect the nature of the charge, the sanction assessed, and any other pertinent information.

b. The contents of a student's disciplinary record may be made available upon written request of the student, or in accordance with state or federal law.

c. Upon request by a student, the University may remove, from a student's transcript, a notation required under (a) if:
   1. The student becomes eligible to reenroll in the postsecondary educational institution; or
   2. The University determines that good cause exists to remove the notation.

Subchapter 9–400. Official Transcripts

Sec. 9–401. Office of the Registrar

The registrar compiles, maintains, and administers official transcripts of record.

No partial or incomplete record (such as a record with grades of *F* omitted) will be issued. In accordance with amended regulations of the Higher Education Act of 1965 (HEA), effective July 1, 2024, a student who owes a debt to the University is eligible to obtain an official transcript**.** Texas law provides criminal penalties for forgery of a transcript or similar document.

Sec. 9–402. Content of Transcripts

Each student's official transcript of record contains the following information:

1. name of the student;
2. birthdate;
3. name and city of high school attended and date of graduation (unless admitted as a transfer student);
4. transfer credits, if any;
5. courses taken, hours completed, grades received, grading system, and grade point average;
6. for undergraduate students, a symbol showing academic warning or academic dismissal, if any, during the period of warning or dismissal; for graduate students, a symbol showing academic dismissal;
7. type of degree granted by the University and honors received;
8. date of graduation from the University; and
9. notation of disciplinary suspension or disciplinary expulsion, or ineligible to enroll due to reasons other than academic or financial, if applicable.

Chapter 10. Use of University Property, Rooms, and Spaces

Subchapter 10–100. General Provisions

Sec. 10–101. Purpose and Application

a. The University of Texas at Austin permits the orderly use of rooms and spaces on its property, as provided in this Chapter, to further the educational process. The University does not endorse any statement or activity that does not represent official University action.

b. This Chapter authorizes and regulates the reservation of University rooms and spaces; the identification of persons present on University property; and the use of alcoholic beverages on University property. Speech, assembly, and expression by students, faculty members, staff members and members of the public on University property are further protected and regulated in Chapter 13 of the *Institutional Rules*.

c. No person or organization may use a University facility for any purpose other than in the course of the regular mission of the University or the University of Texas System unless authorized by the Regents' *Rules and Regulations*. Any authorized use must be conducted in compliance with the provisions of the Regents' *Rules and Regulations*, the approved rules and regulations of the University, and applicable federal, state, and local laws and regulations.

Sec. 10–102. General Definitions—Categories of Speakers and Users

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Academic or Administrative Unit" means any office or department of the University.
2. "Faculty Member and Staff Member" includes any person who is employed by the University.
3. "Member of the Public" means any person, organization, or business that is not an Academic or Administrative Unit, a Registered Student, Faculty, or Staff Organization, or a Student, Faculty Member, or Staff Member.
4. "Registered Faculty or Staff Organization" includes a faculty or staff organization under the Regents' *Rules and Regulations*, Rule 40201.
5. "Registered Student Organization" means a Student Organization holding a valid registration under Chapter 6. Registered Student Organizations are considered private entities and are not viewed as extensions of an Academic or Administrative Unit, or of the University. Registered Student Organizations must register with the University and meet all obligations of Registered Student Organizations listed in Subsection 6-302 to ensure privileges as outlined in subsection 6-301 and allow the Registered Student Organization to function within the institutional context.
6. "Sponsored Student Organization" means a Student Organization whose purpose and activities are in accord with the mission of an Academic or Administrative Unit, for whose actions and activities the sponsoring unit provides endorsement, support, and supervision that has been officially approved by the Vice President through an annual application as prescribed by the Dean of Students.
7. "Student" means a person who is currently enrolled at the University or has been enrolled at the University in a prior semester or summer session and is eligible to continue enrollment in the semester or summer session that immediately follows.
8. "University Organization" includes Academic and Administrative Units, Sponsored student organizations, and Registered Student, Faculty, and Staff Organizations.

Sec. 10–103. Other General Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Common Outdoor Area" means outdoor space that is not regularly used for dedicated University business and its primary purpose is not an educational function or a research function. This space is generally open for use and enjoyment by University community members in the regular course of their days, pursuant to applicable rules. It does not include the outside surfaces of a University building, surfaces associated with or connected to a University building, a University structure, spaces dedicated to temporary outdoor banners, spaces dedicated to temporary outdoor exhibits, or any Dedicated Areas. It is a Limited Public Forum not open to the general public for their expressive activities.
2. "Co-sponsorship" means an event held within the University's limited public forum where an Academic or Administrative unit is delegated authority from the president of the University to partner with an off-campus person or organization for such event and does so. Co-sponsored events are University events by virtue of being partially sponsored by a University Academic or Administrative Unit.
3. "Day" means an 8:00 a.m. to 5:00 p.m. calendar day, and excludes weekends, University holidays, skeleton crew days, and days on which regularly scheduled classes are suspended due to emergent situations. "University holiday" and "skeleton crew days" means days identified in the holiday schedule published by the Office of Human Resource Services. If a deadline in this Chapter falls on a Saturday, Sunday, University holiday or skeleton crew day, that deadline will be moved to the next day.
4. "Dean of Students" means the Dean of Students of The University of Texas at Austin or any delegate of the Dean of Students.
5. "Dedicated Areas" means the University property, both indoors and outdoors, that is not the Common Outdoor Area. This includes the outside surfaces of a University building, surfaces associated with or connected to a University building, a University structure, spaces dedicated to temporary outdoor banners, spaces dedicated to temporary outdoor exhibits, and residential outdoor spaces managed by University Housing and Dining, including Jester Plaza, San Jacinto Amphitheatre, Honors Quad, Duren Courtyard, the Blanton Museum's outdoor Plaza and Art Garden, the Union Building Patios, the William C. Powers Jr. Student Activity Center patios, Goldsmith Hall, the pedestrian bridge adjoining the Graduate School of Business, Moody Pedestrian Bridge, and the Cronkite Plaza. These spaces are also part of the Limited Public Forum.
6. "Limited Public Forum" refers to the University's status as a place for University students, faculty, and staff to engage in expressive activity pursuant to the reasonable restrictions on the time, place, and manner of expressive activities as set out in Chapter 13 of the Institutional Rules.
7. "Residential Conference Center" means facilities that are designated by the president as allowed by the Regents' *Rules and Regulations*, Rule 80112. Residential Conference Centers include the AT&T Hotel & Conference Center.
8. "Room or Space" includes any Room or Space, indoors or outdoors, owned or controlled by the University.
9. "Special Use Facilities" means facilities that are designated by the president as allowed by the Regents' *Rules and Regulations*, Rule 80106. Special use facilities include the facilities controlled by Texas Performing Arts and the Moody Center.
10. "University" means The University of Texas at Austin.
11. "Vice President for Student Affairs" means the Vice President for Student Affairs at The University of Texas at Austin, or his or her designee.

Subchapter 10–200. Reservation of a Room or Space on University Property

Sec. 10–201. Permission to Use

1. Academic or Administrative Units and Registered Student, Sponsored Student, Faculty, or Staff Organizations may reserve a space to assemble in the limited public forum areas in accordance with subchapter 13–902 of the *Institutional Rules*. University Organizations may reserve the use of a room for purposes permitted by the Regents' *Rules and Regulations*.
2. Academic or Administrative Units and Registered Student, Sponsored Student, Faculty, or Staff Organizations may reserve a temporary outdoor exhibit space on weekends in accordance with subchapter 13-700 of the Institutional Rules.
3. Academic or administrative units and registered student, sponsored student, faculty, or staff organizations may reserve a temporary banner space on weekends in accordance with subchapter 13-500 of the Institutional Rules.
4. University persons and University organizations may reserve an outdoor weekday amplified sound area in accordance with section 13–803 of the Institutional Rules.
5. University persons and University organizations may reserve a space within the Common Outdoor Areas for amplified sound on evenings or weekends in accordance with section 13-804 of the Institutional Rules.
6. University persons and University organizations may reserve a space within the Common Outdoor Areas for assembly in accordance section 13–902 of the Institutional Rules.
7. Academic and administrative units of the University will have priority in reserving the use of rooms and spaces.
8. Any person or organization with a reservation has the right to the room or space for the time covered by the reservation. Any person or organization using or occupying the room or space without a reservation must yield control of the room or space in time to permit a user with a reservation to begin using the room or space promptly at the beginning of its reserved time.
9. Reservations are subject to cancellation for extenuating circumstances, including but not limited to health and safety concerns, credible evidence that the organizing group intends to violate University policy, or business reasons which may require the university to close unexpectedly or with little notice.
10. Except as provided within subchapters 13-600, 13-700, 13-800, 13-900 and 13-1000, reservations are not required but are strongly encouraged. A University organization or faculty member, staff member, or student planning to use a room or indoor space without a reservation may find the facility locked or in use by another University organization.

Sec. 10–202. Application

1. University persons and organizations wishing to reserve a space in the Common Outdoor Area will apply through a process prescribed by the dean of students.
   A. Registered student organizations wishing to reserve a general-purpose classroom will apply through a process prescribed by the Dean of Students.
   B. Individual faculty and staff members using space for academic or administrative purposes, registered faculty and staff organizations, and academic and administrative units wishing to reserve a general-purpose classroom will apply through a process prescribed by the registrar.
   C. Reservations for rooms and spaces controlled by academic or administrative units other than the registrar and the Dean of Students will be made through the unit that controls the room or space.
      i. Rooms and spaces controlled by other units include special use facilities, residential conference centers, athletic facilities, classrooms that are not general-purpose classrooms, many conference rooms, reception areas, and other specialized rooms and spaces and may be subject to special rules.
2. The Dean of Students will maintain the following information online:
   A. the procedures for reserving outdoor space for University persons or organizations and any additional rules applicable to outdoor reservations;
   B. the procedures for registered student organizations reserving general purpose classrooms and any additional rules applicable to such reservations; and,
3. a list of general-purpose classrooms.

Sec. 10–203. Consideration of Application

1. The Dean of Students will approve a properly completed application to reserve an outdoor space and will facilitate a properly completed application to reserve a general-purpose classroom, unless the Dean of Students finds that:
   A. the proposed use of the room or space would violate Regents' *Rules and Regulations*, University regulation, or administrative rule;
   B. another event or exhibit has been scheduled for the proposed time and location, or so near that there is a practical conflict;
   C. the room or space requested is inadequate to accommodate the proposed use;
   D. the proposed use of the room or space would violate reasonable and nondiscriminatory fire, health, or safety standards;
   E. the proposed use of the room or space would constitute an immediate and actual danger to students, faculty members, or staff members or to the peace or security of the University that available law enforcement officials could not control with reasonable effort;
   F. the applicant is under a disciplinary sanction or is the subject of a criminal trespass warning that prohibits reserving the use of a University room or space or that prohibits the proposed use of the room or space;
   G. for indoor spaces and spaces within the University's limited public forum, the applicant owes a monetary debt to the University and the debt is considered delinquent by the crediting agency; or,
   H. the applicant has attempted to reserve space under a different name or different organization name to circumvent university policy or a disciplinary sanction.
2. If the Dean of Students does not approve an application under Sec. 10–203(a), the applicant may request a written statement detailing the grounds for refusal
   A. The written statement shall be provided by the Dean of Students no more than five days after receiving such a request.

Subchapter 10–300. Regulations Applicable to University Property

Sec. 10–301. Identification

1. Any person will identify himself or herself when asked to do so by an institutional representative while in any building or on property owned or controlled by the University or The University of Texas System. A person identifies himself or herself by:
   A. giving his or her name and complete address, substantiated by a current driver's license, voter registration card, or other official documentation; and,
   B. stating truthfully whether they are a student or employee of the University or The University of Texas System.

2. An "institutional representative" is any regent, executive officer, administrative officer, attorney, peace officer, or security officer of the University or the University of Texas System, or the designee of any of the foregoing.
3. Any person who refuses to identify themself in accordance with Sec. 10–301(a) while in any building owned or controlled by the University or The University of Texas System may be referred to the Dean of Students and/or law enforcement, as referenced in the Regents' *Rules and Regulations*, Rule 80101.

Sec. 10–303. Unauthorized Access

Permitting or allowing unauthorized individuals to enter into buildings and facilities restricted from unauthorized access by deliberately disengaging, deactivating, or otherwise circumventing locking devices is prohibited. Unauthorized access includes but is not limited to:

1. an individual leaving the door open or holding it open to individuals without badges or to unauthorized personnel and
2. if an unauthorized person enters at the same time as an authorized individual.

Sec. 10-304. Co-sponsorship

a. Only Academic or Administrative Units delegated authority from the President of the University may partner with an off-campus person or organization for a co-sponsored event in the University's limited public forum.
b. Registered Student, Faculty, or Staff Organizations, individual students, faculty members, and staff members may not co-sponsor any event on campus with an off-campus person or organization. Sponsored Student Organizations are an extension of the sponsoring Academic or Administrative Unit under the authority of subsection 6-101(9) of the Institutional Rules.
c. An event is a prohibited co-sponsorship if an individual or a registered student, faculty, or staff organization
    1. depends on an off-campus person or organization for planning, staffing, or management of the event; or
    2. advertises the event as co-sponsored by an off-campus person or organization; or
    3. operates the event as agent of, or for the benefit of, an off-campus person or organization, except for solicitation of charitable contributions under the authority of subsection 13–205(2)(A); or
    4. distributes any proceeds of the event to an off-campus person or organization, except for
        i. the proceeds of charitable contributions solicited under the authority of subsection 13–205(2)(A); or
        ii. payment of a fair market price for goods or services provided to the University person or organization; or
    5. reserves a room or space for the primary use of an off-campus person or organization; or
    6. engages in any other behavior that persuades the Dean of Students that an off-campus person or organization is in fact responsible for the event, in full or in substantial part.
d. The following facts do not, in and of themselves, indicate a prohibited co-sponsorship:
    1. that a University person or organization endorses an off-campus person or organization or its message;
    2. that a University person or organization sells, distributes, or displays literature prepared by an off-campus person or organization or containing contact information for an off-campus person or organization (subject to the rules in section 13–205);
    3. that a University person or organization has purchased goods or services from an off-campus provider;
    4. that a registered student, faculty, or staff organization has invited a guest speaker under subchapter 13–1000;
    5. that a registered student, faculty, or staff organization has received financial contributions to support the event from an off-campus donor.
e. Speech events occurring in the common outdoor areas, which adhere to the time, place, and manner rules of Chapter 13 of the Institutional Rules, are not prohibited as co-sponsored events even when University persons or organizations partner with an off-campus person or organization for the planning, staffing, or management of such events.

Subchapter 10–400. Enforcement and Appeals

Sec. 10–401. Response to Violations

A student who violates a prohibition in this Chapter may be disciplined under the procedures in Chapter 11 of the Institutional Rules. A Registered Student Organization or a Sponsored Student Organization that violates a prohibition in this Chapter may be disciplined under Chapter 6 of the Institutional Rules. A member of the public who violates a prohibition in this chapter may be issued a criminal trespass warning banning such person from all or part of University property.

Sec. 10–402. Decision Review

a. A person or organization seeking to appeal a denied reservation request made under this chapter may submit a written appeal to the dean, vice president, or executive leaders designated to receive appeals by the Academic or Administrative Unit. The appeal must be sent by e-mail within fourteen days after the day the decision is announced. A copy of the appeal must also be sent to the decision maker within fourteen days after the day the decision is announced.
    1. An appeal regarding a reservation request made through the process prescribed by the Executive Director of Student Involvement may be sent to the Dean of Students.
    2. An appeal regarding a reservation request made through the process prescribed by the registrar may be sent to the Assistant Vice Provost and University Registrar.
    3. An appeal regarding a reservation request for rooms and spaces controlled by another academic or administrative unit may be sent to the dean of the school or college or the executive leader of the administrative unit.
b. The appeal must contain the person or organization's name, contact information, a concise description of the decision complained of, and the person or organization's rationale for appealing, and the date the decision was announced.
c. When timely notice of appeal is received, the decision maker from the Academic or Administrative Unit that controls the room or space will prepare and send a copy of the written decision and the rationale for the decision to the dean, vice president, or executive leader.
d. The dean, vice president, or executive leader will communicate a decision on the appeal by e-mail to the person or organization and the decision maker within five days after the appeal and related documents were received.

Chapter 11. Student Conduct and Academic Integrity

Subchapter 11–100. General Provisions

Sec. 11–101. Preamble

a. As a member of The University of Texas at Austin community, students accept not only the rights and privileges of membership, but also the responsibility to uphold a long and steadfast tradition of excellence. In abiding by the core values of the University – learning, discovery, freedom, leadership, individual opportunity, and responsibility – and adhering to the tenets of academic

integrity, students will uphold an Honor Code reflective of a scholarly community devoted to academic and personal success.

b. This Chapter contains rules for dealing with alleged violations of university policy in a manner consistent with the requirements of procedural due process and in accordance with The University of Texas System Rules and Board of Regents' Rule: 50101.

Sec. 11–102. Application and Jurisdiction

1. The Dean of Students has primary authority and responsibility for the administration of the university process for students alleged to have engaged in conduct that violates this Chapter. The Dean of Students delegates authority to, and is represented by, Student Conduct and Academic Integrity during the administration of the conduct process.
2. Any student who engages in conduct that violates: the institutional rules and policies; federal, state or local laws; instructions issued by an administrative official of the institution or the University of Texas System acting in the course of his or her authorized duties; or instructions issued by a law enforcement officer; is subject to discipline.
3. The provisions of this rule cover conduct occurring on campus, as well as conduct occurring off-campus when the conduct substantially affects a person's education or employment with the University or poses a risk of harm to members of the University community. This Rule does not apply to matters subject to the University Handbook of Operating Procedures 3-3031 ("HOP 3-3031") as that policy's provisions control and require processing by the Department of Investigations and Adjudications.
4. Incidents that indicate possible violations of this Chapter and the University Handbook of Operating Procedures 3-3020 ("HOP 3-3020") may be jointly or concurrently investigated by Student Conduct and the Department of Investigation and Adjudication ("DIA"), and the investigatory work produced as a result of the investigations may be shared between the two offices.
    1. In instances where an investigation by Student Conduct results in a finding of a violation of this Chapter, Student Conduct may consider a joint or concurrent finding of a violation of HOP 3-3020 as an aggravating factor in assessing appropriate sanctions.
5. University disciplinary action may be instituted against a student charged with conduct that potentially violates both the civil/criminal law and University policy or rules without regard to the existence, status, or pendency of civil or criminal litigation in court or criminal arrest and prosecution. Proceedings under this Chapter may be carried out prior to, simultaneously with, following, or in the absence of criminal proceedings. Disciplinary decisions and sanctions imposed under this Chapter will not be subject to change based upon the outcome of criminal charges or decisions.
6. University disciplinary action instituted by Student Conduct will be based upon the "Preponderance of Evidence" standard. This standard is satisfied if the alleged violation is deemed more likely to have occurred than not. If an alternative set of facts is deemed to be equally plausible to the set of facts that would result in a finding of a violation, the standard is not met.
7. Administrative processing of any alleged violation of institutional rules will advance procedurally under *The General Information Catalog* that is in effect on the day that an allegation of misconduct is referred to Student Conduct receives notification of the alleged violation and not the date on which the alleged violation is noted to have occurred.
8. Following the finding of a violation and the resolution of a matter, the student is obligated to abide by the assessed sanctions. Failure to complete or meet the condition(s) of assessed sanctions may be considered an additional violation.
9. Student Conduct may reopen an investigation and/or re-engage the conduct process if it obtains new information regarding an allegation.

Subchapter 11–200. Student Conduct Administration

Sec. 11–201. Notice

1. Notification of conduct proceedings, including but not limited to notice of allegations, interim action, meeting requests, hearings, and resolution, shall be sent by Student Conduct to the student by letter or by e-mail, using addresses on file with the Office of the Registrar.
    1. A letter or email sent to an address listed in the registrar's records will constitute full and adequate notice.
2. The student's failure to provide and/or maintain current addresses, refusal to accept delivery of a letter, or failure to open an e-mail message will not constitute good cause for failure to comply with the meeting request. Policies on the use of e-mail for official correspondence are provided in Appendix M (p. 156).

Subchapter 11–300. Definitions

1. In this Chapter, unless the context requires a different meaning, the following definitions apply.
    1. "Academic Record" – University or University of Texas System documents relating to a student's scholastic record. Components of a student's academic record may include, but are not limited to, applications for admission, academic transcripts, the awarding of a degree, registration materials, grade change forms, and reporting forms used by the Office of the Registrar.
    2. "Administrative Disposition" – A written statement of the alleged conduct, institutional rule(s) implicated, investigative findings, assessed sanctions (s), and resolution options, that is issued to a student as part of a Case Resolution Form.
    3. "Advisor" – A single individual who may accompany a student to a meeting with Student Conduct or a hearing regarding an alleged violation of this Chapter. An Advisor may confer with and advise the student but may not advocate for the student in a meeting with Student Conduct or in a hearing or directly address the Student Conduct Panel or Hearing Officer. An Advisor cannot be an individual allegedly involved in the same disciplinary matter as the accused student, or any individual who will serve as a witness for the accused student. Advisors may be dismissed from any meeting or conduct proceeding if they disrupt the process.
    4. "Appeal" – To contest the outcome of an Administrative Disposition or a hearing decision for an additional review.
    5. "Appellate Officer" – A person designated by the President to issue final decisions in a student conduct matter.
    6. "Case Resolution Form" - A from issued to a student found to have engaged in a violation of this Chapter, and which includes the Administrative Disposition and the available resolution options.
    7. "College Liaison" – An employee designated by each academic college that serves as the primary contact between Student Conduct and the academic college to facilitate communication and process regarding academic misconduct referrals and cases.
    8. "Day" – An 8:00 a.m. to 5:00 p.m. calendar day, excluding weekends, university holidays, and days on which regularly scheduled classes are suspended due to emergent situations. If a deadline defined in this Chapter falls on a Saturday, Sunday, university holiday, or skeleton crew day, that deadline will be moved to the next day.

9. “Dean of Students” – The Dean of Students of The University of Texas at Austin or the Dean of Students’ delegate or representative.
10. “Disciplinary Decision” – A written decision issued by the Dean of Students following a conduct hearing that communicates whether a student is responsible or not responsible for violation of this Chapter. The Disciplinary Decision includes the findings of fact in support of the decision along with the assessed sanction(s), if applicable.
11. “Disciplinary Record” – A student record maintained by Student Conduct in connection with a violation or an alleged violation of this Chapter. The Disciplinary Record may include complaints, notices, hearing records, disciplinary decisions, and other documents required under this Chapter or deemed relevant by Student Conduct. Disciplinary Records may be disclosed to outside parties in accordance with subchapter 9–300 of the Institutional Rules.
12. “Educational Release” – A method of case resolution (detailed in Sec. 11-504 of this Chapter) that is not formal discipline. A referral for misconduct is eligible for Educational Release upon the determination by the Dean of Students. A matter resolved via Educational Release is not considered discipline by the University and need not be reported by a student completing future applications at another institution.
13. “Executive Director” – The Executive Director for Student Conduct and Academic Integrity in the Office of the Dean of Students.
14. “Faculty Member” – A person who teaches a class as part of their employment, and who has authority to assign grades for the class.
15. “Hearing” – A formal proceeding, as outlined in Section 11-600 of this Chapter, in which a student, accused of violating university policy as defined in this Chapter, may present their case to a Hearing Officer or a Student Conduct Panel.
16. “Hearing Officer” – A university employee appointed by the President to conduct hearings and issue responsibility decisions regarding alleged violations of policy.
17. "Interim Action" – An immediate action taken against an accused student before completion of the student conduct process. Interim Action may include, but is not limited to, suspension, suspension of a right or privilege, or a prohibition from entering campus or any part of campus.
18. “President” – The president of The University of Texas at Austin or the President’s delegate or representative.
19. “Responsibility Decision" - A written determination issued by a Hearing Office following a conduct hearing, reflecting the Hearing Office's determination on whether a student is responsible for a violation of this Chapter. This determination includes findings of fact and is submitted to the Dean of Students to make a Disciplinary Decision, including the assessment of sanctions, if applicable.
20. "Responsibility Recommendation" - A written recommendation issued by a Student Conduct Panel following a conduct hearing, reflecting the panel's view on whether a student is responsible for a violation of this Chapter. This recommendation includes findings of fact and is submitted to the Dean of Students to make a Disciplinary Decision, including the assessment of sanctions, if applicable.
21. "Referral" - A report received by Student Conduct alleged conduct that may rise to a violation of this Chapter.
22. “Sanction” – Official action by the University against a student found responsible for a violation of the Institutional Rules. University sanctions include all items listed in Section 11-700 of this Chapter.
23. “Student” – A person who is currently enrolled at the University, or who is accepted for admission or readmission to the University, or who has been enrolled at the University in a prior term and is eligible to continue enrollment in the term that immediately follows, or who is attending an educational program sponsored by the University while that person is on campus, or who engaged in prohibited conduct at a time when he or she met the above criteria. For the purposes of this Chapter, individuals who are not currently enrolled at the University remain subject to the disciplinary process for conduct that occurred while they were enrolled.
24. "Student Conduct" – Refers to Student Conduct and Academic Integrity in the Office of the Dean of Students or its delegate or representative.
25. “Student Conduct Board” (SCB) – A group comprised of students appointed by the President to serve on Student Conduct Panels.
26. “Student Conduct Panel” (SCP) – The entity or group of persons composed of a combination of Hearing Officer(s) and member(s) of the Student Conduct Board, who conduct hearings and issue a written responsibility recommendation to the Dean of Students.
27. “Title IX” – Refers to Title IX of the Education Amendments of 1972, Pub. L. 92-318, as amended by section 3 of Pub. L. 93-568, 88 Stat. 1855, except sections 904 and 906 thereof; 20 U.S.C. 1681, 1682, 1683, 1685, 1686.
28. “Title IX Coordinator” – The employee of the University with major responsibility for Title IX compliance efforts and who is designated to handle complaints under Title IX.
29. “University” – Refers to The University of Texas at Austin. For the purposes of this Chapter, "University" also includes all activities and programs sponsored by or affiliated with The University of Texas at Austin regardless of the actual location where such activities or programs occur, including but not limited to, field trips, internships, rotations, and clinical assignments.
30. “Vice President for Student Affairs” – Refers to the Vice President for Student Affairs of The University of Texas at Austin, or the Vice President’s delegate or representative.
31. "Witness” – A person who may have information or who provides testimony related to a complaint or referral, including the accused student.

Subchapter 11–400. Prohibited Conduct

Sec. 11–401. Academic Misconduct

a. Student Conduct or a Faculty Member may initiate conduct proceedings under subchapter 11–500 against a student suspected of engaging in or attempting to engage in academic misconduct, as defined in this section and which may consist of any of the following activities:
    1. **Copying –** copying answers or information from another individual’s academic assignment;
    2. **Failure to Comply with Instructions –** failing to comply with instructions pertaining to an academic assignment or course requirement, and where that failure results in an unfair academic advantage;
    3. **Unauthorized Materials –** obtaining, accessing, or possessing materials without authorization, including but not limited to class notes, textbooks, calculators, online resources, and/or electronic devices;
    4. **Unauthorized Aid or Assistance** – providing aid or assistance to, or utilizing aid or assistance from, another individual or source without authorization, and pertaining to an academic assignment or course requirement;

5. **Substitution** – substituting for another person, or permitting another person to substitute, to attend a class or complete any academic assignment or other course requirement;
6. **Falsification or Fabrication** – falsifying or fabricating any information, data, or citation in any academic work offered for credit, or academic work done in conjunction with the completion of course or degree requirements;
7. **Plagiarism**
   i. when a person represents another's material as their own work without attribution;
   ii. when a person misrepresents citation or attribution for purposes of an academic advantage; or,
   iii. when a person submits essentially the same work for two assignments without the permission of the Faculty Member.
8. **Collusion** – unauthorized collaboration with another student or students;
9. **Failure to Follow Course Requirements –** conduct that fails to adhere to standards promulgated by an academic unit or Faculty Member, and that is not otherwise constitutionally protected;
10. **Other Academic Misconduct –** any activity in which a student receives or attempts to receive an unfair academic advantage.

Sec. 11–402. Behavioral Misconduct

a. Student Conduct may initiate conduct proceedings under subchapter 11–500 against a student suspected of engaging in or attempting to engage in behavioral misconduct, as defined in this section and not otherwise controlled by another University policy or rule. Behavioral misconduct may consist of any of the following activities:
   1. **Local, State, or Federal Law Violations** – any behavior that may violate any federal, state, or local law, ordinance, or regulation;
   2. **Weapons** – possesses, uses, or displays firearms, facsimile firearms, ammunition, explosives, or other items that could be used as weapons, including but not limited to sticks, poles, clubs, swords, shields, body-armor or make shift body-armor, masks, helmets and other garments, such as sporting protective gear, that alone or in combination could be reasonably construed as weapons or body-armor on property owned or controlled by the University, without written permission from the Dean of Students, unless authorized by federal, state or local laws; or, violates Policy 8-1060, Campus Carry, of the Handbook of Operating Procedures;
   3. **Dangerous Materials –** unauthorized use of a hazardous substance (chemicals, fireworks, explosives, etc.) with the intent to cause harm, threat, or fear;
   4. **Threatening or Endangering Behavior –** any behavior that threatens or endangers the health or safety of any student, employee, or visitor to the University;
   5. **Theft –** use, possession, taking, or removal of property, services, or resources of others without permission or authorization;
   6. **Hazing or Hazing Activity** – any intentional, knowing, or reckless act, occurring on or off of the campus of an educational institution, by one person alone or acting with others, directed against a person, for the purpose of pledging, joining, being initiated into, affiliating with, holding office in, or maintaining membership in any organization, and for which consent may not serve as a defense. Hazing includes but is not limited to:
      i. any type of physical brutality, such as whipping, beating, striking, branding, electric shocking, placing of a harmful substance in or on the body, or similar activity;
      ii. any type of physical activity that involves or results in sleep deprivation, exposure to the elements, confinement in a small space, calisthenics, or other activity that subjects the person to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the person;
      iii. any activity involving consumption of a food, liquid, alcoholic beverage, liquor, drug, or other substance, in addition to those described by Paragraph E, that subjects the person to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the person;
      iv. any activity that subjects a person to conduct or circumstance that adversely affects the mental health, physical health, or property of others, and which affects were reasonably foreseeable;
      v. any activity that involves coercing, as defined by Section 1.07 Penal Code, a student to consume a drug or an alcoholic beverage or liquor in any amount.;
      vi. any activity that induces, causes, or requires the person to perform a duty or task that involves a violation of the Penal Code. See Texas Education Code, Section 37.151 for more information.
   7. **Alcohol Misconduct**
      i. engages in unauthorized use, possession, sale, distribution, or consumption of alcoholic beverages, on or in university property, including but not limited to a classroom, laboratory, auditorium, office, athletic facility, or residence hall;
      ii. engages in the improper use, possession, sale, distribution, or consumption of alcoholic beverages, including but not limited to underage possession of alcohol, underage consumption of alcohol, providing alcohol to a minor, public intoxication, minor driving under the influence of alcohol, or driving while intoxicated;
   8. **Drugs**
      i. engages in the unauthorized use or possession of a drug, or possession of drug paraphernalia;
      ii. engages in the unauthorized sale or distribution of a drug.
   9. **Harassment –** hostile or threatening conduct that:
      i. is sufficiently severe, pervasive, and objectively offensive to create an objectively hostile or threatening environment that interferes with or diminishes the impacted party's ability to participate in or benefit from the services, activities, or privileges provided by the University; and
      ii. is personally directed to one or more specific individuals.
         1. When harassment is sex or gender based, the harassment provision in HOP 3-3031 applies over this policy's harassment provision.
         2. Sec. 13-204 of the Institutional Rules addresses verbal harassment.
   10. **Property**
      i. **Unauthorized Use** – engages in unauthorized use of property, keys, equipment, resources, supplies, buildings, or facilities owned or controlled by the University or The University of Texas System;
      ii. **Unauthorized Entry** – engages in unauthorized entry into or onto property owned or controlled by the University or The University of Texas System;
      iii. **Damage** – damages, defaces, destroys, or tampers with property of the University, property belonging to any student or employee of the University, or property of a visitor to the University
      iv. **Water and Fountains** – enters, remains, or is in the water of any fountain or other artificial body of water on the university campus that is not designed and maintained for recreational or therapeutic purposes; dumps, throws, places, or causes to be placed any material, object, trash, person, animal, waste,

or debris in the water of any fountain or other artificial body of water located on the University campus;

11. **Technology Misuse**
    i. engages in unauthorized use of an information technology resource owned or controlled by the University or The University of Texas System;
    ii. engages in unauthorized access or entry into a computer, computer system, network, database, software, or data;
    iii. engages in unauthorized downloading, copying, or distribution of computer software or data;
12. **Stalking** – a course of conduct directed at a specific person that would cause a reasonable person to fear for the person's safety or the safety of others and causes that person to fear for their safety or suffer substantial emotional distress. (Please note that Stalking as defined here is separate from the gender or sex-based stalking rule included in HOP 3-3031.)
    i. A "course of conduct" means two or more acts in which a person directly, indirectly or through third parties, by any action, method, device or means, follows, monitors, observes, surveils, threatens or communicates to or about a person or interferes with a person's property.
    ii. "Reasonable person" means a hypothetical person of average caution and prudence under similar circumstances to the complainant.
    iii. "Substantial emotional distress" means significant mental suffering or anguish that disrupts or impairs usual functioning. It may, but does not necessarily, require medical or other professional treatment or counseling.
13. **False and Misleading Information**
    i. engages in the falsification of academic records, including but not limited to altering or assisting in the alteration of any official record of the University or The University of Texas System and submitting false information or omitting requested information that is required for or related to any academic record of the University or The University of Texas System. Academic records include, but are not limited to, applications for admission, the awarding of a degree, registration materials, grade change forms, and reporting forms used by the Office of the Registrar;
    ii. furnishes false information to or withholds material information from any university official, Faculty Member, or staff member acting in the course of their duties;
    iii. alters or assists in the alteration of any official nonacademic record or document, including parking permits and athletic tickets, of any university office or of The University of Texas System.
14. **Unauthorized Surveillance or Distribution**
    i. engages in surveillance or recording of any type without the consent of the person or persons being surveilled or recorded in areas where there is a reasonable expectation of privacy;
    ii. engages in broadcasting or distribution, without the consent of all involved parties, of a recording or other surveilled material, that meets the definition of Unauthorized Surveillance in Sec. 11-402(a)(17)(A).
15. **Disruptive Conduct**
    i. engages in conduct that interferes with or disrupts university activities, including but not limited to any teaching, research, administrative, disciplinary, public service, learning, or other authorized activity;
    ii. engages in promoting or inciting conduct that interferes with or disrupts university activities, including but not limited to any teaching, research, administrative, disciplinary, public service, learning, or other authorized activity;
16. **Failure to Comply**
    i. failure to comply with the directives of any university official(s) acting in the performance of their duties, and who has the authorization to issue such directives;
    ii. failure to identify oneself to a university official(s) when requested to do so.
        1. A person provides identification by giving their name and complete address, substantiated by a current driver's license, voter registration card, or other official documentation, and by stating truthfully whether or not they are a student or employee of the University.
    iii. failure to comply with rules, regulations, procedures, policies, standards of conduct, or any other directive of the university, including but not limited to schools, colleges, departments, or labs;
17. **Targeted Residential Disturbance** - engages in conduct that violates federal or state law, or city ordinance, either individually or in concert with other and in close proximity to a University employee's residence, that intimidate the employee or otherwise diminishes the employee's or their fellow residents' ability to maintain the peaceful enjoyment of their home.
18. **Violent Conduct –** any conduct intended to physically harm or injure a person;
19. **Animal Cruelty**
    i. Intentionally, knowingly, or recklessly torturing or in a cruel manner killing or causing serious bodily injury to an animal;
    ii. Failing to provide proper care or safety for an animal in a person's custody, including but not limited to failing to provide necessary food or water, unreasonably abandoning an animal, or transporting or confining an animal in a cruel manner;
    iii. any other conduct with an animal that may violate any provision of federal, state, or local laws;
        1. Conduct occurring solely for the purpose of or in support of fishing, hunting, or trapping; or wildlife management, wildlife or depredation control, or shooting preserve practices as regulated by state and federal law; or animal husbandry or agriculture practice involving livestock animals shall not be interpreted as a violation of this rule.
20. **University System Violations** – any conduct that violates any provision of the Regents' *Rules and Regulations* of The University of Texas System;
21. **Retaliation –** any action taken to adversely affect the terms or conditions of an individual's academic experience or employment with the University, or other institutional status of a student, employee, university affiliate, visitor, or applicant for admission to or employment with the University, because an individual has, in good faith:
    i. reported or intends to make a report under university policies or rules;
    ii. opposed an unlawful practice;
    iii. participated in an investigation or conduct proceeding; or,
    iv. requested supportive or protective measures;
22. **Residence Hall Manual Violations** – any conduct that violates any provision of the *Residence Hall Manual*.
23. **Institutional Rules or other University Policy Violations** – any conduct that violates any provision or rule defined in other chapters of the *Institutional Rules on Student Services and Activities or the Handbook of Operating Procedures.*

Subchapter 11–500. Conduct Procedures

The Dean of Students utilizes the following procedures in working with students and campus partners. Dean of Students maintains the authority and discretion to take other necessary and appropriate actions in the interest of students, their development, and the University.

Sec. 11–501. Investigation

a. When Student Conduct receives information that a student has allegedly violated university policy, Student Conduct will perform an initial assessment and determine, based on the information contained in the referral, if an investigation is merited, or if the referral shall be maintained without further action. If further investigation is merited, Student Conduct will investigate the allegation(s) and afford the accused student an opportunity to hear and respond.

b. After conducting the investigation, Student Conduct will:
   1. Issue a No Finding Letter in instances where the preponderance of the evidence does not support the finding of a violation; or
   2. Issue an Administrative Disposition in instances where the preponderance of the evidence supports the finding of violation, and which shall include:
      i. the results of the investigation;
      ii. the basis for the finding of a violation;
      iii. the specific section(s) of this Chapter the student has violated; and
      iv. any assessed sanction(s).

c. Scientific Misconduct or Misconduct in Other Scholarly Research
   1. If the information received by Student Conduct makes allegations of misconduct in scientific or other scholarly research, Student Conduct will refer the information to the Vice President for Research and/or the Research Integrity Officer for further investigation in accordance with the Handbook of Operating Procedures, 7-1230.
   2. The findings will be set forth in an investigation report. The report will then be provided to Student Conduct for adjudication of any academic integrity violations that may be outlined in the report.
   3. Additional Information regarding the Scientific Misconduct or Misconduct in Other Scholarly Research can be found at http://www.policies.utexas.edu/policies/misconduct-science-and-other-scholarly-activities

d. Investigations involving students enrolled in the Dell Medical School
   1. If Student Conduct receives a referral involving a student enrolled in the Dell Medical School, Student Conduct will notify the dean of the Dell Medical School or designee. Prior to the final resolution of an incident involving a student enrolled in the Dell Medical School, Student Conduct shall consult the dean or designee to determine appropriate sanctions consistent with the professional standards outlined by the Dell Medical school and other applicable university rules.
   2. Additional information regarding the professional standards of the Dell Medical School can be found at https://dellmed.utexas.edu/education/student-resources.

Sec. 11–502. Interim Action

1. Pending an investigation, hearing, or outcome of the allegations against a student, the Executive Director may take immediate interim action appropriate to the circumstances including instances when the continuing presence of the student: (i) poses an immediate or potential danger to persons or property, or (ii) disrupts the academic process, or any activity authorized by the University.
2. The Executive Director may take the following interim actions, individually or in combination: suspending the student's access to the entirety or selected parts of campus (including university-owned housing), prohibiting a student from attending in-person and/or virtual classes, altering the status of the student, withholding grades or an official transcript, or denying the conferral of a degree while the conduct process is ongoing and where the matter will not be resolved until after the completion of all degree requirements, or any other actions deemed necessary to address the risk presented by the student.
3. Notice of the interim action shall be sent to the student in accordance with Sec. 11-201 of this Chapter.
4. A student subject to interim action under Sec. 11–502(a) may meet with the Dean of Students to contest the interim action. A request for a meeting under this subsection must be submitted in writing to the Dean of Students no more than three (3) days after the student is notified (in accordance with Sec. 11-201) that the interim action was taken. If a meeting is requested by the student, such a meeting will be conducted within five (5) days after the request for a meeting is mad. At the discretion of the Dean of Students, the five-day period may be extended for a period not to exceed an additional five days.
   1. During the meeting with the Dean of Students, the student may present documentation or other evidence for review in consideration of lifting or altering the interim action. The Dean of Students shall make every effort to issue a written decision within three (3) days of the meeting regarding whether the decision to take interim action will be reversed, altered, or otherwise left unchanged. If the Dean of Students is unable to issue the written decision within five days, the Dean shall provide notice of the delay and the new date for completion to the student.
5. A student is subject to disciplinary action for prohibited conduct that takes place during a period of interim disciplinary action imposed under Sec. 11-502(a).

Sec. 11–503. Meeting with a Student

a. Student Conduct may require a meeting with a student in connection with an alleged violation of this Chapter.

b. Notice of the meeting shall be sent by Student Conduct to the student in accordance with Sec. 11-201 of this Chapter. The message will direct the student to appear at a specific time and place at least two (2) days after the date of the message.

c. Student Conduct may issue a registration hold, or cancel the enrollment or otherwise alter the status of a student (or of a former student as described in Sec. 11–300(22)) who fails without good cause to comply with a meeting notice sent in accordance with Sec. 11–503(b) until the student complies.

d. If a student fails to appear for a required meeting, or otherwise fails to participate in an investigation into an allegation of misconduct, Student Conduct may proceed with resolving the matter based upon the available information and without the student's participation in the process.

Sec. 11–504. Educational Release

The University is committed to the growth and development of its students in all University interactions. The Educational Release path recognizes that, in some circumstances where a violation of the Institutional Rules may have occurred, the interests of fairness, proportionality, and student learning may be best served by partnering with students in a manner that does not result in a formal finding of responsibility or the creation of a disciplinary file.

1. The University is committed to the growth and development of its students in all University interactions. The Educational Release path recognizes that, in some circumstances where a violation of the Institutional Rules may have occurred, the interests of fairness, proportionality, and student learning may be best served by partnering with students in a manner that does not result in a formal finding of responsibility or the creation of a disciplinary file. The

Dean of Students develops and maintains the parameters for when Educational Release may be implemented for all matters referred to Student Conduct. The Dean of Students may, at their discretion, adjust these parameters in the interest of fairness, proportionality, and student learning.

2. Designated Student Conduct staff shall review all referred conduct matters in accordance with the Educational Release parameters established by the dean. Following this review, or at any subsequent point during the administration of the conduct process, when staff believe those parameters are met, Student Conduct shall recommend the matter to the Dean of Students for the dean's consideration and determination as to whether the matter meets the established parameters. The Dean of Students maintains discretion to direct any student conduct matter to the dean for review under the established parameters.
3. Educational Release review shall not be used to negotiate, pressure, or induce a student to agree to culpability of alleged violations.
4. The Dean of Students shall assess the matter and make the determination regarding whether Educational Release is appropriate. In making the determination, the Dean of Students may require the student to attend a meeting or provide additional information, and may request further information from the Student Conduct staff or other University personnel.
5. The determination by the Dean of Students shall state whether the matter will proceed via Educational Release or be directed back to Student Conduct for further processing, which may include the issuance of an Administrative Disposition in accordance with Sec. 11-505 of the Institutional Rules.
    1. If directed back to Student Conduct, the determination shall provide notice to the student of the next steps in that process. It will also notify the student that they may seek review as set out below at Section 11-504(g);
6. If proceeding via Educational Release, the student will be notified and assigned actions tailored to support positive character development and learning. Other conditions may be implemented at the dean's discretion. Successful completion of the Educational Release actions and meeting assigned conditions fully resolves the referred matter.
    a. Failure to complete assigned actions and meet any other conditions required under the Educational Release may result in the matter being reinstated with Student Conduct, an Administrative Disposition being issued, and the conduct process continued in accordance with Sec. 11-505 of the Institutional Rules.
7. Review of Educational Release decision. A student may accept the dean's determination on the availability of Educational Release for the matter or may seek review of that determination.
    1. Failure to seek review within 3 business days of the issuance of the dean's determination makes the determination final and not reviewable upon student request.
    2. If timely review is requested, the Vice President for Student Affairs will review the determination and will issue a decision, as soon as is practicable, either upholding or reversing the determination. The student may accept that decision or within 3 business days of its issuance, petition the president for review.
    3. The petition to the president is denied by operation of this rule after 3 business days if the president does not provide notice accepting presidential review. If accepted, the president will either uphold or reverse the previous determination. The president's decision is final and unappealable.
8. **Not reportable as discipline.** A matter resolved via Educational Release is not considered University action, sanction, or discipline against the student. It is not a finding that any rule or policy has been violated.
    1. Record of the Educational Release will be maintained by the Dean of Students in accordance with record retention policy outlined in Chapter 9 of the Institutional Rules.
9. Nothing in this rule's provisions shall be construed to prohibit the Dean of Students from implementing an Educational Release path for any matter, at any time.

Sec. 11–505. Administrative Disposition

a. Students found responsible for violating university policy will be issued an Administrative Disposition (in accordance with Sec. 11-501(b)(2)).
b. Following the presentation of an Administrative Disposition, a student may choose to:
    1. Accept the finding and assessed sanctions;
    2. Accept the finding, but appeal the assessed sanctions with a written appeal to an Appellate Officer; or,
    3. Contest the finding in a hearing if the sanction proposed by Student Conduct included:
        i. reduced or no credit on the assessment(s) in question;
        ii. reduced or failing final grade for the course in question;
        iii. bar against readmission, bar against enrollment, withdrawal from the University or from a period of enrollment, and/or drop from one or more classes;
        iv. Suspension; or
        v. Expulsion
c. If the assessed sanctions do not include reduced or no credit on the assessment(s) in question, reduced or a failing final grade for the course in question, Suspension or Expulsion, a student may contest the finding with a written approval to an Appellate Officer.
d. A student may request a hearing (if eligible, as determined by Sec. 11-505(b)(3)) before a Hearing Officer for behavioral or academic misconduct, or before a Student Conduct Panel for academic misconduct only, in which the sanction proposed by Student Conduct did not include separation from the university or a reduced or failing course grade.
    1. The student must request a hearing and select their choice of either a Hearing Officer or a Student Conduct Panel within five (5) days of receipt of the Administrative Disposition. If a student requests a hearing but fails to choose their preference of hearing body, a Hearing Officer will be assigned after the 5-day deadline.
e. If the student's selected option of either a Hearing Office or a Student Conduct Panel is unavailable within 14 days, the Dean of Students reserves the right to override the student's selection in order to ensure timely resolution of the case.
f. If a student fails to inform Student Conduct of their decision within five (5) days of receiving the Administrative Disposition, and their case (as determined by Sec. 11-505(b)(3)) is:
    1. Not hearing-eligible – the finding and sanction (s) assessed by Student Conduct will be formally adopted and the student must comply with the assessed sanctions;
    2. Hearing-eligible – Student Conduct will proceed with a hearing before a Hearing Officer.
g. If a student fails to complete an assigned sanction, Student Conduct may place a registration hold on the student's registration and/or pursue a separate rule violation under Sec. 11-402(a)(16)(C).
h. A student who has been issued an Administrative Disposition may request additional time from Student Conduct to make their choice regarding responsibility or, if applicable, whether their hearing will be heard by a Hearing Officer or a Student Conduct Panel. Student Conduct will determine whether a postponement will be granted based upon the reason shared by the student and will notify the student of the decision and new deadline as soon as possible.

Sec. 11-506. Academic Investigations, Course Withdrawals, and Grade Adjustments

a. A student who is alleged to have engaged in academic misconduct, and who is still enrolled in the class associated with the allegation, may not withdraw from the class while the conduct process in ongoing.

b. A student who is alleged to have engaged in academic misconduct, and who has been granted a withdrawal from the class associated with the allegation, will have the withdrawal rescinded and will be re-enrolled in the class while the conduct process is ongoing.
   1. If the class from which the student has withdrawn has completed prior to an allegation of academic misconduct, the withdrawal shall be rescinded and a grade of X will be recorded while the conduct process in ongoing.
   2. Should the student be found not responsible for engaging in academic misconduct, the previously granted withdrawal will be reinstated.

c. Any student found responsible for academic misconduct and issued sanction(s) will not be eligible to withdraw from the class associated with violation or change the course grade to Pass/Fail or to Credit/ No Credit.

d. Notwithstanding Sec. 11-507(a), a student may seek permission to drop a course where an academic violation has been alleged or determined if there are exceptional circumstances, including but not limited to medical withdrawal, and where both Student Conduct and academic college approve of the withdrawal.

e. The Dean of Students encourages all Faculty Members to submit referrals of academic misconduct allegations in a timely manner. It is recommended that Faculty Members submit referrals of academic misconduct allegations no more than 30 Days after the reporting Faculty Member becomes, or should reasonably have become aware of the alleged violation.

Sec. 11-508. Amnesty and Immunity

1. Amnesty
   1. Alcohol and Drug Amnesty
      i. The University empowers students to prevent high-risk behavior by seeking help for fellow students and community members who are experiencing a medical emergency due to drug or alcohol consumption. A student who seeks emergency medical assistance for themselves or others experiencing a medical emergency due to drug or alcohol consumption may qualify for amnesty from formal disciplinary action under this Chapter, provided the student satisfies all three of the following conditions:
         1. Contacts emergency, medical, law enforcement, and/or university personnel promptly for assistance;
         2. Remains with the person experiencing the medical emergency until medical assistance arrives; and,
         3. Cooperates with all emergency and law enforcement personnel.
      ii. Eligibility for amnesty, as outlined above, also applies to the student experiencing the medical emergency due to drug or alcohol consumption.
      iii. Student Conduct will evaluate a student's eligibility for amnesty under this Chapter on a case-by-case basis; amnesty is not guaranteed. Students may receive amnesty under this policy on more than one occasion.
      iv. Students eligible for amnesty will be required to participate in an educational program and may be referred for individual drug and/or alcohol counseling, but may otherwise avoid formal disciplinary action under this Chapter. Student records related to a grant of amnesty are not considered disciplinary records by the University. Students who receive amnesty but decline or fail to complete the educational component may become subject to formal disciplinary action under this Chapter.
      v. This amnesty policy applies only to university rules and policies; it does not preclude or prevent law enforcement from taking legal actions. Amnesty does not apply to other prohibited behavior such as the sale of an illegal drug or narcotic.
   2. Amnesty Policy for Students Reporting Certain Violations
      i. Consistent with Texas Education Code Section-51.284, the University will not take any disciplinary action against a student who in good faith reports to the institution being the victim of, or witness to, an incident of sex discrimination, sexual harassment, sexual assault, interpersonal violence (domestic violence and dating violence), stalking, or other HOP 3-3031 related allegations, provided the alleged conduct of the reporting student occurred at or near the time of the reported incident, regardless of where the incident occurred or the outcome of the conduct process.
      ii. Eligibility for amnesty under this section shall be determined by Student Conduct, is final, and may not be appealed.
      iii. This policy does not apply to a student who reports their own commission or assistance in the commission of any prohibited conduct as defined in HOP 3-3031.
2. Immunity
   1. Immunity from Institutional Discipline
      i. In an effort to encourage reporting of hazing incidents, the Dean of Students, at their discretion and through written agreement, may grant immunity from University disciplinary action under Chapter 11 of the Institutional Rules to a person who voluntarily reports a specific hazing event, if the person cooperates in good faith by providing a complete and factual account of the incident(s) throughout the conduct process, and either:
         1. reports the indecent(s) before being contacted by the Dean of Students concerning the incident(s) or otherwise being included in the University's investigation of the incident(s); or,
         2. reports the incident after being contacted by the Dean of Students concerning the incident or otherwise being included in the University's investigation of the incident, and was a victim of the hazing conduct.
      ii. A person will not be granted immunity under subsection 15-508(b)(1) if the person:
         1. reports the person's own act of inflicting hazing;
         2. reports an incident of hazing in bad faith or with malice as determined by the Dean of Students; or
         3. reports the incident after being contacted by the Dean of Students concerning the incident or otherwise being included in the University's investigation of the incident, and was not the victim of the hazing.
      iii. The Dean of Students may revoke the immunity granted under subsection 11-508(b)(1) and initiate disciplinary action in accordance with Chapter 11 of the Institutional Rules if the person:
         1. is found to have conducted the hazing activity under investigation.
         2. fails to cooperate fully and in good faith, as determined by the Dean of Students, by providing a complete and factual account of the incident(s) throughout the conduct process regarding the incident(s); or

3. otherwise acts in bad faith or with malice as determined by the Dean of Students

Sec. 11-509. Grade Assignments and Class Participation During Conduct Process

In instances where a student is accused of academic misconduct, Faculty Members shall: allow for the accused student's continued participation in the course during resolution of the conduct process and shall assign a grade of Incomplete ("X") for the accused student if the course concludes prior to the case's resolution. After receiving confirmation that the matter has been fully resolved, the Faculty Member shall make all timely and reasonable efforts to accurately adjust the student's grade, such that any impact on registration, course enrollment, and/or graduation is minimized. In instances where the student would otherwise graduate, Student Conduct shall take reasonable steps to expedite resolution of the matter to reduce the potential impact on the student.

Subchapter 11–600. Hearing

Sec. 11–601. Duties of the Hearing Officer and Student Conduct Panel Forepers

1. The Hearing Officer or Student Conduct Panel Foreperson shall:
   a. preside over the hearing;
   b. determine whether Student Conduct has satisfied the requirements of Sec. 11–602;
   c. hear objections and make decisions during the hearing;
   d. determine the admissibility of evidence;
   e. facilitate the hearing process, which includes the authority to mute (in a virtual setting) or remove (whether virtual or in-person) anyone from the hearing who is disrupting the process;
2. The Hearing Officer shall:
   a. issue a written determination, in accordance with Sec. 11-609, that identifies the finding of fact and Responsibility Decision to the Dean of Students.
3. The Student Conduct Foreperson shall:
   a. issue a written recommendation that identifies findings of fact and Responsibility Recommendation to the Dean of Students.

Sec. 11–602. Duties of Student Conduct

a. Student Conduct shall:
   1. determine the date, time, and location of the hearing and provide notice in accordance with Sec. 11-201 and Sec. 11-604 of this Chapter;
   2. arrange for the hearing to be recorded; and
   3. establish hearing procedures that include, but are not limited to, deadlines for submission of supporting documentation/evidence, a list of witnesses to be called by the student, the role of the advisor, and hearing logistics. Hearing procedures will be provided to the student along with the hearing notice and are available on the Student Conduct website.

Sec. 11–603. Student Rights and Responsibilities

a. An accused student has the right to:
   1. have an advisor at the hearing;
   2. challenge the objectivity of the Hearing Officer or the members of the Student Conduct Panel designated to hear the charges at least two (2) days prior to the hearing (in accordance with Sec. 11-606);
   3. know the identity of each witness who will participate in the hearing;
   4. present documentation, witness testimony, and other supporting information for consideration in the hearing process;
   5. provide a personal statement or account of the incident in question;
   6. question each witness who appears at the hearing; and,
   7. appeal a disciplinary decision in accordance with Subchapter 11-800.

Sec. 11–604. Notice of Hearing

a. Student Conduct will notify the accused student of the date, time, and location of the hearing with a hearing notice sent to the student in accordance with Sec. 11-201 of this Chapter.
b. The student shall be given notice of the hearing at least five (5) days before the hearing date.
c. Notice sent under subsection 11–604(a) will:
   1. state the time, date, and location of the hearing;
   2. contain the name of the Hearing Officer or the names of the members of the Student Conduct Panel appointed to hear the matter;
   3. contain the names of Student Conduct's witnesses who may testify against the accused student;
   4. include a list of documentation and evidence that may be presented by Student Conduct during the hearing; and,
   5. contain a copy of the complaint, which outlines the alleged violation(s).
d. In situations where a student fails to attend a scheduled hearing, the Hearing Officer or Student Conduct Panel will determine if Student Conduct provided notice in accordance with Sec. 11-604, and if so, will proceed with the hearing without the student's participation.

Sec. 11–605. Preliminary Matters for a Hearing

a. **Multiple Charged Students:** Allegations against more than one student that arise out of a single incident or course of conduct may be heard together.
   1. A student may request a separate hearing in writing directly to Student Conduct.
   2. Student Conduct will determine whether to grant the request.
b. A least two (2) days before the hearing date, the accused student must provide the following information, if any, to Student Conduct:
   1. A list of any witnesses the student may call to participate in the hearing. The list must include a summary of each witness's connection to the case;
   2. Copies of any supporting documentation the student intends to use in the hearing; and
   3. The name of their advisor, if any, and the advisor's relationship to the student.
c. **Other Advisors:** The Hearing Officer, Student Conduct Panel, and Student Conduct are entitled to advice and legal counsel from The University of Texas System Office of General Counsel and/or The University of Texas at Austin's Office of the Vice President for Legal Affairs, and may request their presence at a hearing or a meeting with a student.
d. **Hearing Postponement:** An accused student may request a hearing postponement from Student Conduct. The student must provide a reason for the requested postponement, including, but not limited to, a procedural error, an emergency situation, or a documented academic impact that would prevent the student from participating in the hearing. Student Conduct will determine whether or not a postponement will be granted based upon the reason shared by the student, and will notify all parties of the decision as soon as possible.
   1. A postponement must be requested by the student in advance of the hearing date or the hearing will proceed without the student's participation.
   2. In instances where an accused student is unable to request a postponement due to incapacity or emergent situation, Student

Conduct may postpone the hearing for good cause and on their behalf.

Sec. 11–606. Challenges to the Hearing Officer or Members of the Student Conduct Panel

a. A student may challenge the fairness, impartiality, or objectivity of a Hearing Officer or any member of the Student Conduct Panel but is not entitled to disqualify that person from serving. The challenge must be:
   1. in writing,
   2. state the reasons for the challenge, and
   3. be submitted to the Hearing Officer or the Panel Foreperson through Student Conduct at least two (2) days prior to the hearing.

b. The hearing officer or the challenged members(s) of the Student Conduct Panel will determine independently or with the assistance of an advisor whether they can serve with fairness, impartiality, and objectivity, and will communicate their determination in a written response. If the challenged person disqualifies themself, another Hearing Officer or Student Conduct Panel member will be appointed by Student Conduct.

Sec. 11–607. Hearing Procedure

a. In accordance with Sec. 11-602, Student Conduct will establish hearing procedure and share that procedure with the student in advance of the hearing. Hearing procedures are posted on the Student Conduct website.

Sec. 11–608. Evidence in Hearings

a. Legal rules of evidence do not apply to university hearings for alleged violations of the Institutional Rules.

b. All university hearings shall use the "preponderance of the evidence" standard, defined in Sec. 11-102(d) as that which is "more likely to have occurred than not".

c. Student Conduct has the burden of providing evidence and proving the charges by the preponderance of the evidence.

d. During the hearing, the Hearing Officer or the Foreperson of the Student Conduct Panel may admit evidence, including testimony and documentary evidence. The Hearing Officer or the Foreperson of the Student Conduct Panel may exclude irrelevant, immaterial, and unduly repetitious evidence. All evidence admitted during the hearing will be made a part of the record.

e. Any party that provides testimony at a hearing, including the accuses student and the Student conduct case administrator, is subject to questioning from accused student, Student Conduct, and the Hearing Office or Student Conduct Panel.

Sec. 11–609. Disciplinary Decision

a. The Hearing Officer will render a written Responsibility Decision that includes whether the student is believed to be responsible for a violation of policy and the facts in support of the finding. The Responsibility Decision will be submitted to the Dean of Students for sanctioning. The Hearing Office shall complete the written Responsibility Decision with (5) day of the hearing. If the Hearing Office is unable to issue a written Responsibility Decision with five days, they shall provide notice of the delay to the student, Student Conduct, and the Dean of Students. Student Conduct will establish the new deadline for submission of the decision.

b. The Foreperson of the Student Conduct Panel will render a written recommendation, reflective of the majority of the Student Conduct Panel, that includes whether the student is believed to be responsible for a violation and the findings of fact in support of the Responsibility Recommendation. The recommendation will be submitted to the Dean of Students for final Disciplinary Decision, including sanction(s), if applicable. The Responsibility Recommendation will be submitted to the Dean of Students for sanctioning. The Foreperson of the Student Conduct Panel shall complete the written Responsibility Recommendation within five days, they shall provide notice of the delay to the student, Student Conduct, and the Dean of Students. Student Conduct will establish the new deadline for submission of the decision.

c. The Dean of Students will render a written Disciplinary Decision, which includes the Responsibility Decision and Sanction(s). The student and Student Conduct will each be given a copy of the decision. The written decision is the official outcome on the matter from which any appeal is based.

d. The Dean of Students shall complete the written Disciplinary Decision within five (5) days of receipt of the Hearing Office's Responsibility Decision or Student Conduct Panel's Responsibility Recommendation. If the Dean of Students is unable to issue the written Disciplinary Decision within five day, they shall provide notice of the delay to the student and Student Conduct. Student Conduct will establish the new deadline for submission of the decision.

e. In case involving the allegations of crimes of violence, as defined in the Family Educational Rights and Privacy Act (FERPA) and other applicable law, Student Conduct shall notify the alleged victim(s) of the final outcome.

f. Student Conduct may also disclose information regarding student conduct matters, as needed, in conformance with FERPA.

Sec. 11–610. Hearing Record

1. The hearing record shall include, but is not limited to:
   1. a copy of the notice required under Sec. 11–604;
   2. the recording of the hearing;
   3. all evidence admitted under Sec. 11–608;
   4. a copy of the complaint/hearing letter; and
   5. Hearing Officer's Responsibility Decision or Student Conduct Panel's Responsibility Recommendation.

Subchapter 11–700. Sanctions

Sec. 11–701. Disciplinary Sanctions

a. When a student is found responsible for behavioral misconduct, as defined in Sec 11-402, Student Conduct, under Subchapter 11–500, or Dean of Students after a hearing under Subchapter 11–600, may impose one or more of the following sanctions for violation of this Chapter:
   1. written warning;
   2. disciplinary probation;
   3. educational sanction;
   4. restorative practice;
   5. bar against re-admission;
   6. bar against enrollment;
   7. withdrawal from one or more classes;
   8. restitution or reimbursement for damage to or misappropriation of University or University of Texas System property;
   9. suspension of rights and privileges, including, but not limited to, a bar from participating in athletic or extracurricular activities or residing in or entering university housing;
   10. deferred suspension;
   11. suspension from the University for a specified period of time;
   12. expulsion (permanent separation from the University);
   13. other sanction or sanctions as deemed appropriate under the circumstances.

b. Student Conduct or the Dean of Students, may consider mitigating and/or aggravating factors, including but not limited to a student's

prior conduct, when determining proportionate sanctions in response to the finding of a violation.

c. If a violation of the University's Institutional Rules is committed because of the race, color, religion, national origin, age, disability, citizenship, veteran status, of a student or students directly harmed by the violation, or constitutes antisemitism as that term is defined at Sec. 13-104(2) of the Institutional Rules, such a discriminatory purpose will be treated as an aggravating factor for the purpose of determining the appropriate sanction or sanctions under subsection 11-701(a). For a complete set of cross-references to all regulation of harassment on the campus, see subsection 13-204 (covering verbal harassment) of the Institutional Rules, and 3-3020 and 3-3031(V)(D) (covering harassment based on gender, sexual orientation, gender identity, or gender expression) of the Handbook of Operating Procedures.

Sec. 11–702. Academic Sanctions

a. When a student is found responsible for academic misconduct, as defined in Sec. 11-401, either through an Administrative Disposition from Student Conduct issued in accordance with Sec. 11–505, or after a hearing from the Dean of Students, administered in accordance with subchapter 11–600, Student Conduct or the Dean of Students, may impose any of the following sanctions:
   1. Academic integrity probation;
   2. no credit or reduced credit for the graded assessment in question;
   3. retaking of examination or resubmission of assignment;
   4. failing or reduced final grade for the course in question.

b. Student Conduct or the Dean of Students may also impose any of the disciplinary sanctions listed in Sec. 11–701.

c. If a student is found responsible for academic misconduct, as defined in Sec. 11-401, and in accordance with Sec. 11-505, Sec. 11-506, or after a hearing in accordance with Subchapter 11-600, and is also enrolled in an academic program requiring (1) a supplemental application in conjunction with application to UT Austin, (2) a minimum grade point average to matriculate through the program as defined in the Undergraduate Catalog, and (3) a signed commitment to adhere to a program-specific honor code and/or code of conduct, removal from the program will be considered by Student Conduct as a potential sanction.

Sec. 11–703. Pending Actions

Student Conduct may withhold an official transcript, grade, diploma, or degree of a student found to have violated a rule or regulation of The University of Texas System or the University that would reasonably allow the imposition of such sanction. Student Conduct may take such action pending a hearing, resolution by Administrative Disposition, and/or exhaustion of appellate rights when, in the opinion of Student Conduct, the best interests of The University of Texas System or the University would be served by this action.

Sec. 11-704 Authorized Sanction Definitions

a. **Withdrawal, Bar from Readmission/Re-enrollment –** As appropriate under the circumstances, Student Conduct or Dean of Students may impose a bar against the student's readmission or enrollment, may drop the student from one or more classes, or may withdraw the student from the University or from a period of enrollment. This bar may be temporary or permanent in nature. One or more of these sanctions may also be imposed on a student who fails to respond to a meeting notice from Student Conduct to discuss an alleged violation of the Regent's *Rules and Regulations*, university regulation, administrative rules, or the University's expectations of conduct. If imposed for failure to respond to a meeting request, the sanction or sanctions may be reversed when the student responds to the request. A bar from readmission or reenrollment will be noted on the student's official transcript in accordance with Sections 9-301 and 9-402 of the Institutional Rules.

b. **Written Warning –** Notification to the student that they have engaged in behavior that violated a rule or regulation of The University of Texas System or the University and that further violation(s) of the regulations may result in more severe disciplinary action.

c. **Disciplinary Probation –** A specified period of time during which the student is required to comply with specified terms and conditions that include not engaging in further conduct that would violate a rule or regulation of The University Texas System or the University. Further violation or violations will result in consideration of suspension.

d. **Academic Integrity Probation –** A specified period of time during which the student is required to comply with specified terms and conditions that include not engaging in further academic conduct that would violate a rule or regulation of The University Texas System or the University. Further academic violation or violations during this time could result in additional sanctions, which may include the student's suspension or expulsion.

e. **Educational Sanction –** Student Conduct or the Dean of Students may impose conditions related to the violation, such as counseling, educational seminars, or educational assignments.

f. **Restorative Practice** – An agreement that offers students found in violation of the Institutional Rules the opportunity to take ownership of their decisions, to be held accountable for their actions, and to work collaboratively to repair any harm caused to the impacted party and/or the university community. Examples of Restorative Practice include, but are not limited to, conferences, circles, and/or an educational coaching session.
   1. Eligibility for Restorative Practice as a sanction shall be determined at the discretion of Student Conduct, and will be based upon a number of factors including the category and severity of the conduct of the responsible student. Additionally, the responsible student must voluntarily agree to participate in Restorative Practice and accept responsibility for their conduct.

g. **Restitution –** Reimbursement for damage to or misappropriation of university property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages. Other than in extraordinary circumstances deemed necessary by Student Conduct, the University will not facilitate restitution between individuals for conduct-related occurrences.

h. **Suspension of Rights and Privileges –** Student Conduct or the Dean of Students may impose limitations to fit the particular case, as in the suspension of rights and privileges to enter or reside in university housing facilities. Suspension of eligibility for official athletic and nonathletic extracurricular activities prohibits the student on whom it is imposed, during the period of suspension, from joining a registered student organization; from taking part in a registered student organization's activities or attending its meetings or functions; and from participating in an official athletic or nonathletic extracurricular activity.

i. **Academic Sanction –** A failing grade or other academic sanction may be assigned to a student for a class in which they are found to have violated the University's regulations regarding academic misconduct.

j. **Rescission of Degree –** The University may rescind a degree already conferred where it has been determined, in accordance with the procedures outlined in this chapter, that the degree holder, while enrolled as a student and while in the process of completing their degree requirements, engaged in academic misconduct, as defined in the University's Institutional Rules, and where a finding of that violation also affects whether the degree holder completed the applicable degree requirements.

k. **Deferred Suspension –** Permits the sanction of suspension to be deferred for a student where mitigating circumstances can be identified and determined by Student Conduct or the Dean of Students. If a student is found to have violated any rule of the University or The University of Texas System while the sanction of deferred suspension is in effect, the sanction for such a violation may be immediate suspension except in extraordinary circumstances as deemed appropriate by Student Conduct. Student Conduct or the Dean of Students may impose conditions related to the violation, and failure to meet such conditions will be considered an additional violation.

l. **Suspension –** Prohibits the student on whom it is imposed, during the period of suspension, from entering the university campus without prior written approval from the Vice President for Student Affairs, being initiated into an honorary or service organization, and receiving credit for academic work done during the period of the suspension. Suspension is noted on the student's official transcript in accordance with Sections 9-301 and 9-402 of the Institutional Rules. Suspension may also prohibit the student from being admitted to, enrolling at, or entering the campus of another component institution of The University of Texas System without prior written approval of the chief student affairs officer of the institution at which the student wishes to be present. Student Conduct, the student's home department or school, and/or the Office of the Registrar may permit the student to receive credit for academic work completed at another institution during the period of suspension, except in cases where suspension is imposed for academic misconduct.

m. **Expulsion –** A permanent separation from the University which prohibits the student on whom it is imposed from entering the university campus without prior written approval from the Vice President for Student Affairs. Expulsion may prohibit the student from being admitted to, enrolling at, or entering the campus of another component institution of The University of Texas System without prior written approval of the chief student affairs officer of the institution at which the student wishes to be present. A permanent notation of expulsion will also be placed on the student's official transcript in accordance with Sections 9-301 and 9-402 of the Institutional Rules.

n. Sanctions not listed in this section may be imposed when, in the opinion of Student Conduct or the Dean of Students, the best interests of The University of Texas System or the University would be served.

Subchapter 11–800. Appeal

Sec. 11–801. Request for Appeal

a. The accused student may request to appeal:
   1. a finding of responsibility and sanction(s) assessed by Student Conduct in an Administrative Disposition to an Appellate Officer, in accordance with Sec. 11-802(b) of this Chapter, where the sanction(s) assessed render the case ineligible for a hearing, in accordance with Sec. 11-505(b)(3);
   2. only the sanction(s) assessed by Student Conduct in an Administrative Disposition to an Appellate Officer, in accordance with Sec. 11-802(c) of this Chapter;
   3. a finding of responsibility and sanction(s) assessed as a result of a hearing decision to an Appellate Officer, in accordance with Sec. 11-803 of this Chapter.

b. Either Student Conduct or the student may request to appeal a hearing outcome to the Appellate Officer.

c. The accused student or Student Conduct may appeal an Administrative Disposition or Disciplinary Decision based only on one or more of the following grounds:
   1. Significant procedural error inconsistent with the processes as outlined in subchapters 11-500 and 11-600.
   2. Discovery of any new information unknown or not reasonably foreseeable to the accused student or Student Conduct at the time of the hearing that was material to and could have reasonably impacted the Disciplinary Decision.
   3. The sanction(s) determined by Student Conduct or the Dean of Students are significantly disproportionate to the violation.

d. The Appellate Officer shall first determine if sufficient grounds for appeal exist under section 11-801(d). The Appellate Officer shall take no more than (5) five days to make this initial determination. If the Appellate Officer is unable to make an initial decision within (5) five days, they shall provide notice of the delay to all parties and the new date for completion.
   1. If sufficient grounds do not exist, the Appellate Officer will deny the request for appeal thereby sustaining the original decision.
   2. If the Appellate Officer determines that sufficient grounds for appeal exist, the Appellate Officer will notify the non-appealing party that they may provide a response to the appeal in no more than five (5) days.
   3. After those five (5) days, the Appellate Officer will review the appeal and any response in full and issue a final decision.

Sec. 11–802. Appeal of Administrative Disposition by Student Conduct

a. An Administrative Disposition, presented in accordance with Sec. 11-501(b)(2), and in which the student agrees to both the finding of responsibility and the sanction(s) assessed by Student Conduct, is final and is not eligible for appeal.

b. In instances where a matter has been determined ineligible for a hearing, in accordance with Sec. 11-505(b)(3), the student may appeal a finding of responsibility and/or sanction(s) assessed by Student Conduct in an Administrative Disposition by submitting a written appeal to the Appellate Officer within five (5) days from the date on which the student signed the Administrative Disposition. Appeals submitted after 5:00 pm will be received the next day. The written appeal must cite at least one of the three grounds for appeal, as outlined in Sec. 11-801(d), and must include any related argument.

c. A student who accepts a finding of responsibility, as determined in an Administrative Disposition, but chooses to contest only the sanction(s) assessed, in accordance with Sec. 11-505(b)(2), may submit a written appeal to the Appellate Officer within five (5) days from the date on which the student signed the Administrative Disposition. Appeals submitted after 5:00 pm will be received the next day. The written appeal may only cite 'Disproportionate Sanctions' (Sec. 11-801(d)(3)) as the basis for the appeal, and must include any related argument. The appeal is restricted to the assessed sanction(s).

d. If the accused student does not submit a written appeal to the Appellate Officer by the deadline, the sanction(s) will become final, and all rights to appeal will be waived.

e. Student Conduct may also submit a written response to the appeal to the Appellate Officer. The response, if any, must be submitted no later than five (5) days after the Appellate Officer informs Student Conduct that the accused student's appeal has adequately raised an appellate issue, in accordance with Sec. 801(d). Student Conduct must provide a copy of the response to the accused student.

f. The appeal of the sanction(s) assessed by Student Conduct will be reviewed solely on the basis of the Administrative Disposition, the student's written appeal submission, and the response to the appeal submitted by Student Conduct, if any. Oral argument will not be considered.

g. The decision of the Appellate Officer will be communicated in writing to the accused student and Student Conduct no more than ten (10) days after Student Conduct's appeal response has been received

by the Appellate Officer. If the Appellate Officer is unable to issue the written decision within ten (10) days, the Appellate Officer shall contact both the accused student and Student Conduct with notice of the delay. Student Conduct will determine a new deadline for completion.

h. An appeal that is granted for the appellant based on Section 11-801(d)(1) (Procedural Error) or Section 11-801(d)(2) (New Information) of the Institutional Rules may be remanded to Student Conduct for reconsideration or further investigation.

i. When an appeal of an Administrative Disposition is granted for the appellant based on Section 11-801(d)(3) (Disproportionate Sanction(s)) of the Institutional Rules, the Appellate Officer may alter the sanction(s) or remand the case with recommendations for reconsideration or further action.

j. The decision of the Appellate Officer shall be final and will conclude the appellate process.

Sec. 11–803. Appeal of the Disciplinary Decisions Resulting from a Hearing

a. Either the accused student or Student Conduct may appeal the disciplinary decision by submitting a written appeal to the Appellate Officer within five (5) days from the date the appealing party was notified of the disciplinary decision. Appeals submitted after 5:00 pm will be received the next day. The written appeal must cite at least one of the three grounds for appeal, as outlined in subsection 11-801(d), and must include any related argument.

b. If Student Conduct submits an appeal, Student Conduct will provide the accused student with a copy of the appeal submitted to the Appellate Officer on the same day that Student Conduct submits the appeal to the Appellate Officer. Following submission of the appeal to the Appellate Officer, the non-appealing party may submit a written response to the Appellate Officer. No later than five (5) days after the Appellate Officer informs the non-appealing party that the appeal has adequately raised an appellate issue, in accordance with Sec. 801(d), the non-appealing party must provide a copy of the response to the other party.

c. The appeal of the disciplinary decision will be reviewed solely on the basis of the hearing record; the written appeal submission; and any documents submitted by the non-appealing party's in response to the appeal, if any. Student Conduct will submit the record from the hearing to the Appellate Officer as soon as it is available to Student Conduct.

d. The decision of the Appellate Officer will be communicated in writing to the accused student and Student Conduct within ten (10) days after receipt of the non-appealing party's appeal response by the Appellate Officer. If the Appellate Officer is unable to issue the written decision within ten (10) days, the Appellate Officer shall contact both the accused student and Student Conduct with notice of the delay. Student Conduct will determine a new deadline for completion.

e. When an appeal that is granted for the appellant based on Section 11-801(d)(1) (Procedural Error) or Section 11-801(d)(2) (New Information) of the Institutional Rules may be remanded to Student Conduct for reconsideration, rehearing, or further investigation.

f. When an appeal of a disciplinary decision is granted for the appellant based on Section 11-801(d)(3) (Disproportionate Sanction(s)) of the Institutional Rules, the Appellate Officer may alter the sanction or remand the case with recommendations to Student Conduct for reconsideration, rehearing, or further investigation.

g. The decision of the Appellate Officer shall be final and will conclude the appellate process.

Sec. 11–804. Effect of Appeal Upon Disciplinary Action

A timely appeal suspends the imposition of the sanction(s) until the appeal is final, but any interim action issued in accordance with Sec. 11-502 will remain in effect while the appeal is being considered. Official transcripts, diplomas, grades, or degrees may also be withheld pending conclusion of the appeal as permitted by subsection 11–703(a).

Subchapter 11–900. Disciplinary Records

Sec. 11–901. Details of Disciplinary Records

a. The definition of a Disciplinary Record is listed in Subchapter 9-300 and Sec. 11-300(12). Disciplinary records are confidential and may not be disclosed in whole or part except as provided in subchapter 9–300 of the Institutional Rules.

b. The Disciplinary Record will be separate from the student's academic record, will be confidential, and will not be revealed except on request of the student or in accordance with applicable state and federal law, or as otherwise provided in subchapter 9-300.

Sec. 11–902. Notice to Administrative Offices

a. Student Conduct will notify the Office of the Registrar and other appropriate administrative offices if a disciplinary sanction restricts a student from being enrolled at the University during the period of the sanction. A bar may be imposed by Student Conduct if one of the following sanctions has been assessed because of violation of a Regents' *Rule* or university rule or regulation:
   1. bar against readmission or bar against reenrollment;
   2. suspension from the University; or
   3. expulsion from the University.

b. Student Conduct will notify the Office of the Registrar and other appropriate administrative offices if any of the following sanctions are imposed: withholding grades, withholding official transcript or degree, denial of degree, or revocation of degree and withdrawal of diploma.

Sec. 11–903. Maintenance of Disciplinary Records

a. Disciplinary Records shall be maintained in accordance with Sec. 9-301 (p. 112).

b. A Disciplinary Record indicating an unresolved case (i.e., where a student has failed to respond to a summons, or where a student has failed to complete all assessed sanctions) shall be maintained by the University until such time as the case is resolved, at which point it will be maintained in accordance with Sec. 9-301 (p. 112).

Relates to *Handbook of Operating Procedures*, 3-3031.
Updated September 2025 to reflect policy changes effective September 1, 2025.

Chapter 12. Counseling and Mental Health Center

Subchapter 12 –100. General Provisions

Sec. 12–101. Purpose

The purpose of the Counseling and Mental Health Center (CMHC) is to assess the needs of students with mental health concerns and connect them to the most appropriate CMHC or community resource. The CMHC provides crisis intervention, individual counseling, group counseling and psychiatric services and medication, if indicated.

Sec. 12–102. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Assistant Vice President" means the assistant vice president of the Counseling and Mental Health Center.
2. "Services" means services provided by the Counseling and Mental Health Center.

3. “University” means The University of Texas at Austin.
4. “Student” means a person enrolled at the University.

Subchapter 12–200. Administration

Sec. 12–201. Duties of the Assistant Vice President

a. The assistant vice president will:
    1. maintain and administer programs and services so they relate meaningfully to the mental health needs of the student body and the consultation or training needs of students, faculty and staff,
    2. appoint assistants and coordinators for various phases of program planning, administration and development, and
    3. designate specific staff members to perform assigned duties in the absence of the assistant vice president.
b. The assistant vice president is responsible for the mission and services of the CMHC and is administratively responsible to and reports regularly to the associate vice president for health and well-being.

Sec. 12–202. Duties of the Directors and Associate Directors

a. The directors and associate directors are responsible for the duties assigned by the assistant vice president.
b. During the assistant vice president's absence, the directors, as designated, will assume the duties of the assistant vice president.

Subchapter 12–300. Services Provided

Sec. 12–301. Services Provided to Students

The services provide general and specific functions which include:

a. brief assessment and referral to determine which CMHC or community resources are most appropriate for the needs of the student;
b. individual counseling,
c. group counseling,
d. psychiatric evaluation and medication services,
e. crisis intervention, triage and 24/7 CMHC crisis line,
f. access to 24/7 real-time virtual counseling available via chat and phone,
g. integrated health services in collaboration with University Health Services,
h. counselors in academic residence (CARE),
i. mental health consultation and workshops,
j. traumatic events responses as requested, and
k. internships, practicum and residency programs for graduate-level, professional and medical students.

Sec. 12–302. Services Provided to the University

CMHC provides mental health consultation services to faculty, staff and administrators regarding student mental health concerns. Upon request, CMHC also responds to traumatic events impacting the campus and provides consultation to students, faculty, staff and administrators about coping with these events. CMHC is also a training facility for university professional and graduate students in counseling psychology, clinical psychology, social work, and medical school.

Subchapter 12–400. Counseling and Mental Health Center Records

Sec. 12–401. Confidentiality of Records

a. All original medical records (whether electronic or paper) and other records of treatment, whether originating within CMHC or another facility or provider, are the property of CMHC.
b. Confidentiality of CMHC records is governed by the laws of the State of Texas and applicable federal law. A notice of CMHC privacy practices is available at https://healthyhorns.utexas.edu/docs/HS-Notice-Privacy-Practices.pdf.
c. With certain exceptions, a student has the right to review, inspect or request copies of their medical record.
d. Many items summarizing patient care are available on the patient portal. Additional information from patient records will be release only with informed written consent.

Subchapter 12–500. Fees, Payment for Services, Eligibility for Counseling and Mental Health Center Services and Medical Withdrawals

Sec. 12–501. Fees

CMHC is funded by student tuition, university subsidies, charges to student clients, and grants and private contributions. Services are currently provided at no charge to students, except for psychiatric services. For more information about CMHC charges and payments go to http://www.cmhc.utexas.edu/charges.html.

Sec. 12–502. Payment for Services

Any student who incurs charges for CMHC services must pay the charges owed. If payment is not received or arrangements for payment are not made within 10 days of the date charges are posted to "What I Owe," a financial hold will be placed on the student's record. Students with a hold can contact the UHS/CMHC Billing and Insurance Office to discuss options that will allow them to register. Diplomas and/or continued registration will be withheld until outstanding charges have been paid. When necessary, CMHC will assist students in making arrangements for payment

Sec. 12–503. Eligibility for Counseling and Mental Health Center Services

An individual may use CMHC if:

a. the person is a currently registered student at the University;
    - Registered students are eligible to use CMHC services following this general eligibility calendar: fall semester eligibility starts August 1 and runs through December 31; spring semester eligibility starts January 1 and runs through the last day of the Maymester; summer eligibility begins the first day after the Maymester ends and runs through summer session graduation day. Specific eligibility dates are given in the Academic Calendar, published in the General Information Catalog and at the registrar website.
b. the person is a student covered by the Texas Student Experience Inter-agency Agreements such as the University of Texas Medical Branch and the University of Texas Health Science Center,
c. the person was registered during the semester immediately preceding the semester when services are requested (excluding University students who have graduated or withdrawn from the University before the twelfth class day of the current semester) and will enroll the semester immediately following the time services are requested,
d. the person has paid the access fee and is a visiting scholar/researcher who is not officially registered for classes at the University, a post-doctoral fellow or a person enrolled in the English as a Second Language Program,
e. the person has withdrawn from the University but was enrolled after the twelfth class day of the current semester,
f. the person is attending an orientation session for new students, but is not registered for the current semester, and requires CMHC crisis services,
g. the person is admitted to the University but is not registered for the current semester and requires CMHC Brief Assessment and Referral (BART) services or
h. the person meets one of the criteria above (a-h), is age 12 to 17 and is able either to consent to their own treatment according to the

State of Texas statute or has appropriate written consent from a parent or guardian.

Sec. 12-504. Medical Withdrawal

Requests for withdrawal from the university due to mental health reasons may be initiated at the request of the student. Applications to request consideration of a medical withdrawal should be submitted to Disability and Access. Disability and Access will involve CMHC as indicated by the student's individual circumstances.

Chapter 13. Speech, Expression, and Assembly

Subchapter 13–100. Governing Principles

Sec. 13–101. Freedom of Speech, Expression, and Assembly

1. The freedoms of speech, expression, and assembly are fundamental rights of all persons and are central to the mission of the University. In accordance with this Chapter, students, faculty members and staff members, have the right to assemble, to speak, and to attempt to attract the attention of others, and corresponding rights to hear the speech of others when they choose to listen, and to ignore the speech of others when they choose not to listen. Generally, University events and programming, and events at University spaces leased or managed by other parties, are outside the scope of this Chapter and are not considered expressive activity under this chapter. These events and activities may be implemented as approved by the appropriate vice president or under the applicable contractual terms.
2. In furtherance of the University's educational mission, the University is a limited public forum open only to the expressive activities of students, faculty and staff, as set forth in this Chapter. Students, faculty and staff may engage in expressive activities at the University in accordance with the rules contained in this Chapter, including applicable "time, place, and manner" rules as described in Subsection 13-304. Student, faculty, and staff organizations may not invite the public at large to events in the Common Outdoor Areas or Dedicated Areas while academic and administrative units may continue to invite the general public to their events.
3. Texas law reserves the authority and discretion to designate areas on campus that may be treated as traditional public forums open to the general public with The University of Texas System Board of Regents. No such areas are designated on campus.
4. Students, faculty, and staff members are free to express their views, individually or in organized groups, orally or in writing or by other symbols, on any topic, in all parts of the campus as permitted by law, and subject to the applicable University rules and policies. Teaching, research, and other official functions of the University will have priority in allocating the use of space on campus. The University's time, place, and manner rules in this Chapter apply to individuals and groups engaging in expressive activity and are necessary to preserve the University's efficient and effective operations and functions.
5. The University will not discriminate on the basis of the political, religious, philosophical, ideological, or academic viewpoint expressed by any person, either in the enforcement and administration of these rules or otherwise. This subsection does not limit the University's ability to enforce provisions involving prohibited conduct or categories of expression described in Subchapter 13–200.
6. The University of Texas at Austin Police Department (UTPD) and any other peace officer with lawful jurisdiction may immediately enforce these rules if a violation of these rules constitutes a breach of the peace, compromises public safety, or violates the law. They may also assist Dean of Students staff or other University officials, as appropriate, when individuals refuse to follow University rules.

Sec. 13–102. Scope of This Chapter and Related Provisions

1. This Chapter protects and regulates on-campus speech, expression, and assembly of students, faculty members, and staff members, regardless of whether those activities are part of the teaching, research, or other official functions of the University or whether they are sponsored by the University or any academic or administrative unit.
2. This Chapter applies to speech and expressive activity by University persons and University organizations defined in Section 13-103 that occur in the Common Outdoor Areas or Dedicated Areas. It also applies to speech made or conducted using university information resources as defined in University policies, regardless of whether the speech or expression was submitted for academic credit. The Dean of Students administers and schedules reservations for the use of temporary exhibit and banner spaces, University tables, and amplified sound because scheduling through a single office is necessary to avoid conflicts.
3. Any program or event sponsored by an academic or administrative unit of the University will have priority in the use of space and facilities over any speech, expression, or assembly that is not sponsored by an academic or administrative unit, except that programs or events sponsored by an academic or administrative unit will not have priority in the use of weekday amplified sound areas defined in Section 13–802. This Chapter does not limit other existing authority of University officials to authorize programs and events sponsored by the University or an academic or administrative unit that are not provided for in this Chapter.
4. Section 13–204 on harassment applies to all speech on campus, to speech made using University resources, and to off-campus speech that materially interferes with a person's education or employment.
5. Additional rules concerning free speech and academic freedom of faculty members are found in the Regents' *Rules and Regulations*, Rule 31004, Paragraph 2, Sections 1 and 2.
6. Additional rules concerning free speech at the University are found in the Regents' *Rules and Regulations*, Rule 40501, Rule 80101, Rule 80103, and Rule 80104. Chapter 13 of the *Institutional Rules* implements those provisions and applies them to UT Austin.
7. Rules requiring University employees to make clear that controversial statements are made in their personal capacity are found in the Regents' *Rules and Regulations*, Rule 10101, Section 7. Rules restricting use of University equipment, supplies, services, and working hours for political activities are found in the Regents' *Rules and Regulations*, Rule 30103.
8. If a deadline stated in this Chapter falls on a Saturday, Sunday, University holiday, or skeleton crew day, that deadline will be moved to the next day that is not a Saturday, Sunday, University holiday, or skeleton crew day.

Sec 13–103. General Definitions—Categories of Speakers and Users

In this Chapter, unless the context requires a different meaning, the following definitions apply.

1. "Academic or administrative unit" means any office or department of the University.
2. "Event" means something that occurs in a certain place during a particular interval of time. Events include but are not limited to presentations by guest speakers, assemblies, and other speech activities, which may include the distribution of literature or the use of exhibits, tables, or signs.
3. "Faculty member and staff member" includes any person who is employed by the University.
4. "Limited Public Forum" refers to the University's status as a place for University students, faculty, and staff to engage in expressive

activity pursuant to the reasonable restrictions on the time, place, and manner of expressive activities as set out this Chapter. This forum is not open to the general public for their expressive activity.

5. "Off-campus person or organization" and "member of the public" mean any person, organization, or business that is not an academic or administrative unit, a registered student, faculty, or staff organization, or a student, faculty member, or staff member.
6. "Registered faculty or staff organization" means a faculty organization or staff organization under the Regents'-*Rules and Regulations*, Rule 40201 and Handbook of Operating Procedures 4-1110-PM that has completed the University's registration process in Handbook of Operating Procedures 4-1110_PM.
7. "Registered or sponsored student organization" means a registered student organization or a sponsored student organization under Subchapter 6–200 of the *Institutional Rules*.
8. "Student" means a person who is currently enrolled at the University, or has been enrolled at the University in a prior semester or summer session and is eligible to continue enrollment in the semester or summer session that immediately follows.
9. "University person or organization" includes academic or administrative units, registered or sponsored student organizations, registered faculty or staff organizations, and individual students, faculty members, and staff members.

Sec. 13–104. Other General Definitions

In this Chapter, unless the context requires a different meaning, the following definitions apply.

1. "Amplified Sound" means sound whose volume is significantly increased by any electric, electronic, mechanical, or motor-powered means customarily used at large assemblies This includes public address systems, megaphones, microphones, and speakers. It does not include individual use of a cell phone or other small personal electronic device. Shouting, group chanting, and acoustic musical instruments are exempt from this definition and are not subject to the special rules on amplified sound, but are subject to general rules on disruption.
2. "Common Outdoor Area(s)" means outdoor space that is not regularly used for dedicated University business and its primary purpose is not an educational function or a research function. This space is generally open for use and enjoyment by University community members in the regular course of their days, pursuant to applicable rules. It does not include the outside surfaces of a University building, surfaces associated with or connected to a University building, a University structure, spaces dedicated to temporary outdoor banners, spaces dedicated to temporary outdoor exhibits, or any other Dedicated Areas. It is a Limited Public Forum not open to the general public for their expressive activities.
3. "Dean of Students" means the Dean of Students of The University of Texas at Austin or any delegate or representative of the Dean of Students.
4. "Dedicated Areas" means the University property, both indoors and outdoors, that is not the Common Outdoor Area. This includes the outside surfaces of a University building, surfaces associated with or connected to a University building, a University structure, spaces dedicated to temporary outdoor banners, spaces dedicated to temporary outdoor exhibits, and residential outdoor spaces managed by University Housing and Dining, including Jester Spanish Oaks Terrace, San Jacinto Amphitheatre, Honors Quad, Duren Courtyard, the Blanton Museum's outdoor Plaza and Art Garden, the Union Building Patios, the William C. Powers Jr. Student Activity Center patios, Goldsmith Hall, the pedestrian bridge adjoining the Graduate School of Business, Moody Pedestrian Bridge, and the Cronkite Plaza. These spaces are also part of the Limited Public Forum. This forum is not open to the general public for their expressive activity.
5. "Main Mall" means the area bounded by the south wall of the Main Building, the west walls of Garrison Hall, the north edge of Inner Campus Drive, the south wall of the Dorothy L. Gebauer Building and the east wall of Battle Hall. The Main Mall includes the south steps and south porches of the Main Building.
6. "Room or Space" includes any Room or Space, indoors or outdoors, owned or controlled by the University.
7. "Temporary Banner Space" means designated outdoor or indoor display area reserved for University persons and University organizations' use, as managed by the Dean of Students, where a University person or organization's temporary banner may be affixed for multiple days as permitted by Subsection 13–503. These areas are Dedicated Areas.
8. "Temporary Exhibit Space" means an outdoor display area, designated and managed by the Dean of Students, where an authorized person or organization may erect a temporary exhibit as permitted by Subsection 13–503. These areas are Dedicated Areas.
9. "University" means The University of Texas at Austin.
10. "Vice President" means the Vice President for Student Affairs at The University of Texas at Austin.

Sec. 13-105. Prohibited Items or Actions

The following restrictions apply to a person's expressive activities and are intended to protect the health and safety of all persons on campus, to maintain the free flow of pedestrian traffic in and out of University buildings, and to protect the educational mission of the University.

1. The following items are prohibited on campus:
   a. A mask, facial covering, or disguise that conceals the identity of the wearer that is calculated to obstruct the enforcement of these rules or the law, or to intimidate others, or hinder or interrupt a University official, UTPD officer, or other person in the lawful performance of their duty;
   b. The possession, use, or display of firearms, facsimile firearms, ammunition, explosives, or other items that could be used as weapons, as determined by University staff, including but not limited to sticks, poles, clubs, swords, shields, or rigid signs that can be used as shields, without prior written permission from the Dean of Students, unless authorized by federal, state or local laws;
   c. Body armor or makeshift body armor, helmets and other garments, such as sporting protective gear, that alone or in combination could be reasonably construed as weapons or body armor, without prior written permission from the Dean of Students; and
   d. Open flame, unless approved in advance by The University of Texas at Austin Fire Marshal with notice of that approval provided in advance to the Dean of Students.
2. The following activities are prohibited on campus:
   a. Engaging in expressive activities using Amplified Sound in a manner that is calculated to obstruct the enforcement of these rules or the law, to intimidate others, to hinder or interrupt a University official, UTPD officer, or other person in the lawful performance of their duty, or to interfere with the operation of the educational mission of the University;
   b. Camping, erecting tents, or constructing other living accommodations;
   c. Lowering a flag of the United States of the State of Texas owned or maintained by the University with the intent to raise the flag of or representing another nation, an organization, or a group of people;
   d. Engaging in expressive activities in Common Outdoor Areas or outdoor spaces in the Dedicated Areas in a manner that materially and substantially disrupts the functioning or education

mission of the University. This may include using Amplified Sound, drums, or other musical or percussive instruments (including makeshift instruments), engaging in coordinated group chanting and yelling, or presenting Guest Speakers in a manner that results in distracting or intrusive sounds that can be heard in an academic, administrative, or residential building. The time, day, and point in the semester all may impact whether an activity in a specific location is disruptive. For example, events in the evening during the last two weeks of the fall or spring semesters may disrupt course review sessions and studying for or taking final exams. At other points in the semester, the same activity in that location may not cause a disruption if academic activity is not occuring.

3. No person or organization may engage in expressive activity within a ten-foot clearance around points of entry and the perimeter of all University buildings. In some instances, as determined by University staff and based on specific circumstances, a greater perimeter may be required to prevent disruption to events occurring inside buildings.
4. Students and employees of the University must present proof of identity and status at the University on request by a University official on campus engaging in an official duty.
5. No University person or organization, other than an academic or administrative unit, may invite Off-campus persons or organizations to attend their events in the Common Outdoor Area.

Subchapter 13–200. Prohibited Expression

Sec. 13–201. Obscenity

No person or organization will distribute or display on the campus any writing or visual image, or engage in any public performance, that is obscene. A writing, image, or performance is "obscene" if it is obscene as defined in Texas Penal Code, Section 43.21 or successor provisions, and is within the constitutional definition of obscenity as set forth in decisions of the United States Supreme Court.

Sec. 13–202. Defamation

1. No person shall publish to a third party any statement that defames any other person.
2. A statement defames another person if it is: (i) published to a third party other than the subject of the statement or their legal representative; (ii) of and concerning that person; (iii) is a false statement of fact; (iv) that holds the person up to hatred ridicule or contempt; (v) is made negligently, if the person is a private figure or, if the person is a public official or public figure, with knowledge of falsity or reckless disregard of the truth; (vi) which proximately causes damages; and (vii) is not privileged.

Sec. 13–203. Incitement to Imminent Violations of Law

No person will make, distribute, or display on the campus any threat to engage in unlawful activity or any statements directed to inciting or producing imminent violations of law under circumstances such that the statements are likely to actually and imminently incite or produce violations of law.

Sec. 13–204. Harassment

1. No person will engage in conduct that constitutes harassment of another person or make, distribute, or display on the campus or through University information resources any statement that constitutes harassment of any other person. This Section applies to all speech at UT Austin, all speech made using University resources, including speech that is part of teaching, research, or other official functions of the University whether in person or not, and whether oral, written, or symbolic, and off-campus speech that materially interferes with a person's education or employment.
2. "Harassment" means hostile or threatening conduct or speech, whether oral, written, or symbolic, that (1) is sufficiently severe, pervasive, and objectively offensive to create an objectively hostile or threatening environment that interferes with or diminishes the victim's ability to participate in or benefit from the services, activities, or privileges provided by the University; and (2) personally describes or is personally directed to one or more specific individuals. When harassment is sex or gender based, the definitions for quid pro quo and hostile environment harassment, set out in Handbook of Operating Procedures 3-3031(V)(B), apply over this policy's harassment provision.
3. To make an argument for or against the substance of any political, religious, philosophical, ideological, or academic idea is not harassment, even if some listeners are offended by the argument or idea.
4. Verbal harassment may consist of threats, insults, epithets, ridicule, personal attacks, or the categories of harassing sexual speech set forth in Policy 3-3031 of the Handbook of Operating Procedures.
5. Harassment can also consist of nonverbal conduct, such as hazing, practical jokes, damage to property, and physical assault. In the case of sexual harassment and other sex-based misconduct, sexual conduct is often central to the offense. These forms of harassment are prohibited by Policy 3-3031 of the Handbook of Operating Procedures, and by the Regents' *Rules and Regulations*, Rule 30105. Some forms of harassment violate the Prohibition of Campus Violence, Policy 8-1010, in the Handbook of Operating Procedures. Harassment directed at an individual or group of individuals because of race, sex, or certain other characteristics is prohibited by Handbook of Operating Procedures 3-3020. For enhanced sanctions for disciplinary offenses motivated by the race, color, or national origin of a student harmed by the offense, see Subsection 11–701(b) of the *Institutional Rules*. To the extent of any conflict in the definition of verbal harassment, the more detailed definition in this Section controls.
6. An essential part of higher education is to learn to separate substantive argument from personal offense. Inherent in freely exploring ideas and engaging in educational inquiry is discussion where controversial and offensive ideas may be expressed and even welcomed in furtherance of free inquiry and pursuit of knowledge. We strive as a university community to express even the deepest disagreements in a manner that reflects mutual respect, understanding, and sensitivity within the University and in the larger society. These are community norms, even though they cannot be enforced by disciplinary rules. Sometimes community members may engage in a manner that falls short of the desired norms, but this failure does not convert the communication at issue to harassment or a conduct violation.
7. This policy should be interpreted as narrowly as need be to preserve its constitutionality.
8. Members of the University community are encouraged to report harassment and in some cases are required to do so by law. See Handbook of Operating Procedures 3-3031 and 3-3020 for more information. Investigation of the information provided, and any remedial or disciplinary proceedings, will proceed under the procedures set out in the appropriate policy.

Sec. 13–205. Solicitation & Commercial Speech

1. General Rules.
   a. Except as expressly authorized by Subsection 13-205(2), by Section 13-403, or by the Regents' *Rules and Regulations*, no person--including a University person, a University organization, or a member of the public shall make or display any statements that:
      i. promote, offer, or advertise a product or service for sale or lease;

ii. include commercial identifiers, like logos, trademarks, or service marks, associated with a for-profit entity; or

iii. request gifts or donations unless it's specifically authorized under University rule or policy, or Regents' Rules.

b. Words or symbols on personal apparel, or on decals or bumper stickers affixed to a vehicle by an owner of that vehicle, are not solicitation within this definition.

c. Unadorned acknowledgments or thanks to donors are not solicitation within this definition.

2. Rules specific to campus community members.

a. A registered or sponsored student organization or a registered faculty or staff organization may advertise or sell merchandise, publications, food, or nonalcoholic beverages, or request contributions: for the benefit of the registered or sponsored student organization or registered faculty or staff organization; for the benefit of another registered or sponsored student organization or registered faculty or staff organization; or for the benefit of an organization that is tax-exempt under Section 501(c)(3) of the Internal Revenue Code. No organization may sell items obtained on consignment. No organization may request contributions for an off-campus tax-exempt organization for more than fourteen days in any fiscal year.

b. Registered or sponsored student organizations, registered faculty or staff organizations, and academic or administrative units may sell, distribute, or display literature that contains advertising, subject to the limits in Section 13–403. Individual students, faculty members, and staff members may distribute or display such literature, but may not sell it.

c. Individual students, faculty members, and staff members may post advertisements for roommates, subleases, and sales of used goods that the seller has personally owned and used, but only on a bulletin board or website designated for that purpose by an academic or administrative unit in space that the unit occupies or controls. Any unit that designates a bulletin board or website for this purpose may regulate that bulletin board or website under the procedures set forth in Section 13–504.

d. A resident of a University residence hall or apartment building may occasionally invite one or more salespersons to come to the resident's room or apartment, and in that room or apartment, the salesperson may offer products or services for sale to other residents of that residence hall or apartment building.

e. A registered or sponsored student organization or a registered faculty or staff organization may collect admission fees for programs scheduled in advance in accordance with Subchapter 10–200 of the *Institutional Rules*.

f. A registered or sponsored student organization or a registered faculty or staff organization may collect membership fees or dues at meetings of the organization scheduled in advance under Subchapter 10–200 of the *Institutional Rules*.

g. A registered student organization that is a qualified organization as that term is defined in the Texas Charitable Raffle Enabling Act, Texas Occupations Code, Chapter 2002 or successor provisions, may sell charitable raffle tickets pursuant to that act.

h. A registered or sponsored student organization or a registered faculty or staff organization may host a public performance of a film scheduled in advance in accordance with Subchapter 10–200 of the- *Institutional Rules*. In accordance with the Regents' *Rules and Regulations*, Rule 80103, admission fees may be collected. All registered or sponsored student organizations or registered faculty or staff organizations that exhibit films on campus must obtain a Public Performance License for the individual film(s) from a licensing agent. This license is required even if the exhibition of the film is offered to the public for free and is educational in nature. Registered or sponsored student organizations and registered faculty or staff organizations will be required to follow the process prescribed by the film distributor to obtain approval to exhibit the film. Federal copyright laws generally protect all films viewed in public areas, regardless of format. However, registered or sponsored student organizations and registered faculty or staff organizations may exhibit a film publicly if:

i. the film is in the public domain; or

ii. the organization has written permission from the film's producer or other holder of the right to grant such permission; or

iii. the film is obtained from a company that provides a Public Performance License with the purchase or rental of the film.

3. More detailed regulation of solicitation appears in the Regents' - *Rules and Regulations*, Rule 80103.

Sec. 13–206. Antisemitic and other discriminatory conduct.

1. "Antisemitism" means a certain perception of Jews that may be expressed as hatred toward Jews. The term includes rhetorical and physical acts of antisemitism directed toward Jewish or non-Jewish individuals or their property or toward Jewish community institutions and religious facilities.

2. Any incitement of violence, incitement of imminent violation of law, harassment, property damage, disruption of a university activity, or any other violation of state or federal law or university policy that was committed because of antisemitism or the offender's bias or prejudice against a group identified by race, color, disability, religion, national origin or ancestry, age, gender, or sexual preference will be subject to discipline, up to and including possible termination/ expulsion.

3. Any registered student group that engages in incitement of violence, incitement of imminent violation of law, harassment, property damage, disruption of a university activity, or any other violation of state or federal law or university policy because of antisemitism or bias or prejudice against a group identified by race, color, disability, religion, national origin or ancestry, age, gender, or sexual preference, is subject to discipline, up to and including possible loss of recognized status for the registered student group.

4. The University's Nondiscrimination Policy, Handbook of Operating Procedures 3-3020, separately prohibits subjecting individuals or groups to discrimination or harassment because of their race, color, sex, pregnancy, gender, gender identity, sexual orientation, gender expression, religion, age, national origin, ethnicity, veteran status, disability, genetic information, military status, or any other legally protected basis.

Subchapter 13–300. General Rules on Means of Expression

Sec. 13–301. Disruption

1. Except as expressly authorized in Section 13–802, or by an authorized University official responsible for a program or event sponsored by an academic or administrative unit, no speech, expression, or assembly may be conducted in a way that disrupts or interferes with:

a. Any teaching, research, administration, function of the University, or other authorized activities on the campus;

b. The free and unimpeded flow of pedestrian and vehicular traffic on the campus; or

c. Any public assemblies, distribution of literature, guest speakers, or use of signs, tables, exhibits, or approved amplified sound by the University or another person or organization acting under the rules in this Chapter.

2. Scope

a. The term “disruption” and its variants, as used in this Rule, are distinct from and broader than the phrase “disruption of activities,” as used in the Regents’ *Rules and Regulations,* Rule 30103, Number 2, Section 2, and the phrase “disruptive activities,” as used in the Regents’ *Rules and Regulations*, Rule 40502. This Rule is concerned not only with deliberate disruption, but also with scheduling and coordination of events to manage or minimize the inevitable conflicts between legitimate events conducted in close proximity, and to preserve the University’s ability to execute its functions.

b. In determining whether speech or expressive activity constitutes "disruption" as used in this Rule, University authorities shall exercise their reasonable discretion to protect the rights of University persons to engage in speech and expressive activities while preserving the University's ability to execute is function. In making this assessment, University officials shall not be influenced by the viewpoint of the speaker or by the viewpoint of any person objecting to allegedly disruptive expression.

c. During the period of final exams and the week immediately preceding final exams, the use of Amplified Sound, drums, or other musical or percussive instruments (including makeshift instruments) in the Common Outdoor Areas or outdoor spaces of the Dedicated Areas is in fact disruptive of University students' ability to prepare for and take their final exams if the activity produces distracting or intrusive sound that can be heard in an academic, administrative, or residential building. During this two week period, the University prohibits these activities and other expressive activites in the Common Outdoor Areas or outdoor spaces of the Dedicated Areas, including presentations by guest speakers, if they result in distracting or intrusive sound that can be heard in an academic, administrative, or residential building. During this time, persons may still engage in other expressive activity permitted by this Chapter. This provision does not limit the University's ability to hold University events during this time period.

d. If amplified sound is authorized for an event under this Chapter, the sound must be turned off by 10:00 p.m. that day.

e. Drums or other musical or percussive instruments (including makeshift instruments) without amplified sounds may be used except when they become disruptive whether because of volume, repeated sound audible in academic or administrative buildings, or any other appropriate basis as determined by the University official charged with managing disruption during the public assembly.

f. As part of the University's educational mission, the University provides dormitories and other living spaces for its students and employees. The University strives to create living spaces that permit a resident to live comfortably, including providing quiet hours to ensure residents have conditions conducive to adequate study, rest, and sleep. With this in mind, any expressive activity in the Common Outdoor Area and outdoor spaces of the Dedicated Areas is deemed disruptive if the sound created by the activity can be heard from a University residence after 10:30 p.m. and before 8:00 a.m. the following morning.

3. Potentially disruptive events can often proceed without disruption if participants, administrators, and law enforcement officials cooperate to avoid disruption without stopping the event. In cases of marginal or unintentional disruption, administrators and law enforcement officials should clearly state what they consider disruptive and seek voluntary compliance before stopping the event or resorting to disciplinary charges or arrest.

4. The University is responsible for safety on campus. During periods of disruption as determined by the president, president's delegate, dean of students, or other university official charged with managing activities, events, or space, staff may ask an individual to briefly open a cooler, ice chest, or other receptacle to allow a visual inspection for the presence of weapons or other prohibited items. If a person declines to open the container, they may not remain in the area with the container capable of holding weapons or other prohibited items. Before staff can conduct visual inspections, it must contact the Office of the Vice President for Legal Affairs to ensure the course of action is reasonable, considering the circumstances, and does not violate the law, including but not limited to the Fourth Amendment to the United States Constitution. This provision does not modify, limit, or supersede security measures and policies concerning student housing, athletic events, performances in University venues, or other officially sanctioned events.

5. No assembled groups or individuals may refuse the direction of a University official or police officer to disperse or to cease conduct because it is a disruption to University functions or the educational environment.

Sec. 13–302. Impermissible Use of and Damage to Property

1. No speech, expression, or assembly may be conducted in a way that damages, defaces, marks (including by chalking), discolors, or alters in any way property of the University or of any person who has not authorized the speaker to damage or deface his or her property.
2. No person may damage, deface, mark, discolor, alter, or interfere with any sign, table, or exhibit posted or displayed by another person or organization acting under the rules in this Chapter.
3. No person may affix a sign, banner, hammock or other item on University property unless otherwise permitted by this Chapter.
4. No person may use or access University property, whether in the Common Outdoor Areas or the Dedicated Areas, in a manner outside of its intended or approved use or access. For example, this provision prohibits persons hanging items from University statues and outdoor art installations and from climbing, hanging from, or otherwise accessing University property in a way that is not otherwise permitted by this Chapter or other University policy. This prohibition also includes, but is not limited to, the activities prohibited by Section 11-402(12)(A-D) of Chapter 11 of the Institutional Rules on Student Services and Activities.

Sec. 13–303. Coercing Attention

1. No person may attempt to coerce, intimidate, or badger any other person into viewing, listening to, or accepting a copy of any communication.
2. No person may follow another person or persist in requesting or demanding the attention of any other person after that other person has attempted to walk away or has clearly refused to attend to the speaker’s communication.

Sec. 13–304. Other Rules with Incidental Effects on Speech

1. Other generally applicable or narrowly localized rules, written and unwritten, incidentally limit the time, place, and manner of speech, but are too numerous to compile or cross-reference here. For example, libraries typically have highly restrictive rules concerning noise; laboratories and rooms containing the electrical and mechanical infrastructure of the University typically have safety rules and rules excluding persons without specific business there; fire and safety codes prohibit the obstruction of exits and limit the constriction of hallways. Speech within classrooms is generally confined to the subject matter of the class; the right to attend a class at all is subject to registration and payment of tuition; individual professors may have rules of decorum in their classrooms. These “time, place, and manner” rules limit the rights of persons to enter and speak in the places to which these rules apply.
2. Reasonable and nondiscriminatory “time, place, and manner” rules generally control over the rights of free speech guaranteed in this

Chapter. But even "time, place, and manner" rules are subject to the constitutional right of free speech. Accordingly, such rules must be viewpoint neutral and cannot regulate speech more restrictively than they regulate other activities that cause the problems to be avoided by the rule, or more than is reasonably necessary to serve their purpose. Such rules cannot ban unobtrusive forms of communication with no potential for disruption even in the specialized environment subject to the localized rule. Thus, for example, means of silent expression or protest confined to the speaker's immediate person, such as armbands, buttons, and T-shirts, are nearly always protected because they are rarely disruptive in any environment.

3. While the University's Common Outdoor Areas are generally available to its students, faculty, and staff, for expressive activity, subject to the rules herein, the primary purpose and function of the University is an institution of higher education. In order to protect the core functions inherent to such an institution and its students, faculty, and staff, the Common Outdoor Area is generally open for expressive activity from 8:00 a.m. through 10:00 p.m., subject to this Chapter. Individuals and groups engaging in expressive activity outside of this permitted time period that is disruptive under Section 13-301 are subject to University discipline, removal, and/or arrest by law enforcement. University events and programming are not expressive activity subject to this curfew or other limitations in this rule.

Subchapter 13–400. Distribution of Literature

Sec. 13–401. General Rule on Distribution of Literature

1. "Literature" means any printed material, including any newspaper, magazine, or other publication, and any leaflet, flyer, or other informal matter, that is produced in multiple copies for distribution to potential readers.
2. Registered or sponsored student organizations, registered faculty or staff organizations, and academic or administrative units may sell, distribute, or display literature on campus, subject to the rules in this Subchapter and to the general rules in Subchapter 13–200 and Subchapter 13–300. Individual students, faculty members, and staff members may distribute or display literature, subject to the rules in this Subchapter and to the general rules in Subchapter 13–200 and Subchapter 13–300, but may not sell it. In either case, no advance permission is required.

Sec. 13–402. Not-for-Profit Literature Only

1. Except as expressly authorized by the Regents' *Rules and Regulations* or by contract with the University, no person or organization may sell, distribute, or display on campus any publication operated for profit. A registered or sponsored student organization or a registered faculty or staff organization may sell publications operated for profit as part of a fundraiser authorized by, and subject to the limits of, Subsection 13–205(b)(1).
2. A publication is operated for profit if any part of the net earnings of the publication, or of its distribution, benefits any private shareholder or individual.

Sec. 13–403. Limits on Advertising

Literature distributed on campus may contain the following advertising:

1. advertising for a registered or sponsored student organization, a registered faculty or staff organization, or an academic or administrative unit;
2. advertising for an organization that is tax exempt under Section 501(c)(3) of the Internal Revenue Code;
3. paid advertising in a publication primarily devoted to promoting the views of a not-for-profit organization or to other bona fide editorial content distinct from the paid advertising; and
4. other advertising expressly authorized by the Regents' *Rules and Regulations* or by contract with the University.

All other advertising in literature distributed on campus is prohibited.

Sec. 13–404. Clean Up of Abandoned Literature

Any person or organization distributing literature on campus will pick up all copies dropped on the ground in the area where the literature was distributed.

Subchapter 13–500. Signs, Banners, and A-Frames

Sec. 13–501. General Rule on Signs

1. "Sign" means any method of displaying a visual message to others, except that transferring possession of a copy of the message is distribution of literature and not a sign.
2. Subject to the rules in this Subchapter and to the general rules in Subchapter 13–200 and Subchapter 13–300, a University person or organization may display a sign by holding or carrying it, by displaying it at a table (see Subchapter 13–600), or by posting it on a bulletin board or other designated location, as permitted in the specific location. Signs may not be staked in the ground or posted in any other location except for those areas allowed by Subsections 13–304(a)-(b) and 13–504(a). Subject to viewpoint-neutral size requirements, University Housing and Dining has designated the windows and doors of a residence hall room as locations where the resident(s) of that room may post signs. Section 13–504 lists other designated locations.

Sec. 13–502. Hand-Held Signs

1. A University person or University organization may display a sign on campus by holding or carrying it by hand or attaching it to their person. No advance permission is required. Signs on sticks or poles or otherwise attached to any device are prohibited.
2. Hand-held signs constructed of materials that create a hazard to other people are not permitted. Signs constructed of rigid materials, including sticks, poles, wood, metal, hard plastic, or other materials that could be construed as a hazard are not permitted.
3. Any person holding or carrying a sign will exercise due care to avoid bumping, hitting, or injuring any other person.
4. Any person holding or carrying a sign at a speech, performance, or other event will exercise due care to avoid blocking the view of any other person observing the speech, performance, or event. Depending on the venue, this may mean that signs may be displayed only around the perimeter of a room or an audience.
5. A law enforcement officer, the Dean of Students, or an usher or other University employee (if authorized by officials responsible for managing the venue), may warn any person that his or her sign is being handled in violation of Subsections 13–502(a), (b), (c) or (d). If the violation persists after a clear warning, the law enforcement officer, Dean of Students, authorized usher, or other authorized employee may confiscate the sign. A law enforcement officer may take any appropriate action necessary to keep the peace, including but not limited to requiring the person to leave the area, issuing a criminal trespass warning to, or arresting the violator.

Sec. 13–503. Banners

"Banner" means an affixed, stationary sign hung from a structure or building or between two buildings, structures, or poles. Banners on poles may not be carried by individuals.

1. Hand-held banners. University persons and University organizations are permitted to display a hand-held banner carried by two or more individuals without poles, in accordance with Rule 13–502 above, in the Common Outdoor Areas.
2. Temporary banner space designations.

a. The Dean of Students will designate temporary banner spaces where banners may be hung in outdoor locations not occupied or controlled by any other academic or administrative unit.
b. Other academic or administrative units may designate one or more temporary banner spaces where banners may be hung in indoor or outdoor locations that the unit occupies or controls.

3. Space priority.
   a. Academic or administrative units, registered or sponsored student organizations, and registered faculty or staff organizations may hang banners in locations designated under Subsection 13–503(b). The Dean of Students may set reasonable limits on the number of banners that any unit or organization may hang at one time.
   b. Advance permission is required from the unit administering the location; usually, advance reservations are required. Academic or administrative units advertising official University events or programs may be given priority. In locations administered by academic or administrative units other than the Dean of Students, organizations affiliated with the unit administering the location may be given priority.
4. Time limits.
   a. In locations administered by the Dean of Students, each banner may be hung with a minimal commitment of one week. After the initial week reservation, the banner may be renewed from week to week, for up to four weeks, if space is available.
   b. Other units administering a location for banners may limit the time each banner may hang. Any such time limit will be applied without discrimination to all organizations, except that academic or administrative units may be given preference.
5. The Dean of Students will maintain, on a website or on a flyer or pamphlet available at the Dean of Students' office:
   a. a list of outdoor temporary banner spaces where banners may be hung;
   b. the academic or administrative unit that administers this banner policy at each outdoor location; and
   c. a current description of the rules and procedures for reserving a temporary banner space in order to hang a banner in locations administered by the Dean of Students.
6. The unit administering a banner location may require that the physical work of hanging the banners be performed only by Department of Facilities Services employees or other appropriate University personnel.
7. A law enforcement officer, a dean of students staff member, or other University official charged with managing activities, events, or spaces may confiscate banners handled or affixed in violation of this Policy or in instances that create a safety concern.

Sec. 13–504. Signs in Other Designated Locations (Including Departmental Bulletin Boards)

1. Each academic or administrative unit may authorize the posting of signs in spaces that unit occupies and controls. Such authorization may be granted by general rule, by stamping or initialing individual signs, or by longstanding tradition.
2. Signs in spaces occupied by academic or administrative units may be:
   a. confined to bulletin boards or other designated locations;
   b. subjected to viewpoint-neutral rules limiting the size of signs, limiting how long they may be posted, requiring each sign to show the date it was posted and the name of the person or organization who posted it, and similar rules designed to facilitate fair and equal opportunities to post signs; and
   c. confined to official statements or business of the unit, or to certain subject matters of interest within the unit, or to signs posted by persons or organizations affiliated with the unit.
3. confined to bulletin boards or other designated locations; Each academic or administrative unit will post on or near each bulletin board or other designated location that it administers:
   a. either the rules applicable to that bulletin board or location, or a particular office or website where the rules applicable to that bulletin board or location may be found; and
   b. if a stamp or initials are required on signs before they are posted on that bulletin board or location, the name and office location of the person whose stamp or initials are required. This notice will be posted in the upper left corner of each bulletin board or other designated location for posting signs, or conspicuously in another nearby location. If no such notice is posted, then the only applicable rules are those contained in Subchapter 13–200 and Sections 13–301 to 13–304.
4. Within the scope of the subject matters permitted on a particular bulletin board or other designated location, no academic or administrative unit will discriminate on the basis of the political, religious, philosophical, ideological, or academic viewpoint expressed on a sign.
5. This Section does not apply to any enclosed bulletin board or display case that is accessible only to authorized personnel for official University business.

Subchapter 13–600. Tables

Sec. 13–601. General Rule on Tables

University persons and University organizations may set up tables to display literature, disseminate information and opinions, and raise funds, subject to the location restrictions and other rules in this Subchapter and to the general rules in Subchapter 13–200, Subchapter 13–300, and Subchapter 13–1000. University persons and University organizations do not need advance permission to set up tables but are encouraged to reserve tabling space on the West Mall and in other high-demand areas where tabling spaces are designated and limited.

Sec. 13–602. Locations

1. Subject to the restrictions elsewhere in these rules, including in Subsection 13–602(b) and the rules on disruption of other functions and interference with vehicular and pedestrian traffic (see Section 13–301), University persons and University organizations may set up tables on impervious surfaces in the Common Outdoor Areas on the campus. University persons and University organizations may set up tables in University buildings in any large, open, indoor location as permitted by the specific building protocols and with permission of the academic or administrative unit controlling the space. In some buildings, tabling may be prohibited completely. The Main building is not available for tabling at any time
2. Additional restrictions.
   a. Tables may not be set up on the Main Mall between 8:00 a.m. and 5:00 p.m. on weekdays, or on the west side of any portion of Speedway at any time.
   b. Tables may not be set up in areas covered by grass, landscaping, or other pervious substances.
   c. Tables may not be set up inside any library, classroom, laboratory, performance hall, stadium, or office, or in any hallway less than ten feet wide, without permission from the academic or administrative unit that controls the space, or from the faculty member or staff member who controls the space at a particular time.
   d. An academic or administrative unit may further specify these rules by restricting tables to reasonable locations in spaces occupied by that unit. Academic and administrative units are encouraged to state any such rules clearly in writing and to

publish those rules on a website or on a flyer or pamphlet available at the chief administrative office of the unit.

e. Tabling space on the West Mall or on the east side of Speedway between 21st Street and the south edge of Gregory Plaza may be reserved by University persons and University organizations by submitting a request using the appropriate form on HornsLink.org. University persons and University organizations are not required to have a reservation to table on the West Mall or on the east side of Speedway between 21st Street and the south edge of Gregory Plaza, but are encouraged to secure a reservation. Tabling space on the West Mall or on the east side of Speedway between 21st Street and the south edge of Gregory Plaza may be reserved up to four weeks in advance by University persons or organizations.

f. Tables must be attended at all times. Unattended tables and their contents may be confiscated by University personnel.

3. If any table is set up in a prohibited or disruptive location, any University employee pointing out the violation is encouraged to also point out other locations, as nearby as is reasonably possible, where the table is permitted.

Sec. 13–603. Tabling Cleanup

Every person or organization sponsoring a table will remove their table, items used during tabling, and any litter from the area around the table before vacating the space.

Sec. 13–604. Sources of Tables

University persons and organizations may supply their own tables. In addition, the Dean of Students maintains a supply of tables for registered or sponsored student organizations that may be checked out for use on campus in designated areas. The Dean of Students will maintain on a website a current description of the rules and procedures for checking out tables. University persons and organizations, other than registered or sponsored student organizations, must supply their own tables.

Subchapter 13–700. Exhibits

Sec. 13–701. General Rule on Exhibits

1. "General exhibit" means an object or collection of related objects, designed to stand on the ground or on a raised surface, which is not a table, is designed for temporary display, and is not permanently attached to the ground including, but not limited to floor decals, flags, outdoor decorations, and panels.
2. "A-frame exhibit" means a movable and self-supported sign board designed to stand on the ground and remain overnight in a temporary outdoor exhibit space. A-frame exhibits may not exceed five feet in height or width. Structures that do not meet these criteria will be considered general exhibits and will be subject to the rules governing general exhibits.
3. Academic or administrative units, registered or sponsored student organizations, and registered faculty or staff organizations may erect general exhibits and A-frame exhibits, subject to the rules in this Subchapter and to the general rules in Subchapter 13–200, Subchapter 13–300, and Subchapter 13–1000. Advance permission is required from the Dean of Students, except that an academic unit may authorize indoor exhibits in a space that it occupies and controls. A-frame exhibits may not be erected on the Main Mall at any time. Individual students, faculty, or staff may not erect general exhibits, but may—with permission from the Dean of Students—erect A-frame exhibits in approved locations, subject to the rules in this Subchapter and the general rules in Subchapter 13–200, Subchapter 13–300, and Subchapter 13–1000.

Sec. 13–702. Application Process

Requests for approval of, or reservation of space for, outdoor general exhibits and A-frame exhibits may be submitted via the appropriate form on HornsLink.org.

Sec. 13–703. Approval Process

1. General exhibits.
   a. The Dean of Students will designate temporary outdoor exhibit spaces where academic or administrative units, registered or sponsored student organizations, and registered faculty or staff organizations may place general exhibits upon approval by the Dean of Students. Applications must, where feasible, be submitted at least fourteen days in advance of the beginning of the requested display period. The Dean of Students will approve a general exhibit described in a completed and timely application under Section 13–702 unless the Dean of Students disapproves the application under the criteria in Section 10–203 of the Institutional Rules, or for other good cause. The Dean of Students will, if possible, advise the applicant how to correct any conditions that preclude approval of the application.
   b. The Dean of Students will consider the totality of the circumstances, including safety concerns, as part of the approval process.
2. A-frame exhibits.
   a. The Dean of Students will designate locations where A-frame exhibits may be placed. If an academic or administrative unit, a registered or sponsored student organization, or a registered faculty or staff organization wishes to place an A-frame exhibit in a location that is not one of the designated A-frame exhibit locations, then the structure will be considered a general exhibit under this Subchapter and may be placed, if approved, only in a designated temporary outdoor exhibit space. Individual students, faculty, or staff may not erect A-frame exhibits outside of the designated A-frame exhibit locations.
   b. The Dean of Students will maintain, on a website, a current description of the rules and procedures for reserving a space for A-frame exhibits on campus. Space for A#frame exhibits may be reserved up to four weeks in advance by University persons or organizations and up to three weeks in advance by members of the general public. The Dean of Students may establish reasonable limits on the number of times per semester or per academic year an individual or organization may reserve space for an A-frame exhibit.
   c. The Dean of Students may establish reasonable limits on the number of A-frame exhibits that an individual or organization may display in a designated area, or on campus, at any time.

Sec. 13–704. Time Limits

1. General exhibits.
   a. In locations administered by the Dean of Students, each exhibit may be displayed for up to fourteen consecutive days. The exhibit may be renewed for an additional fourteen days if space is available.
   b. The exhibit may be displayed no earlier than 8:00 a.m. and must be removed by 10:00 p.m. each day and may be re-erected each morning during the permit period. Requests to display exhibits overnight will be considered on a case-by-case basis and subject to Subsection 13–703.
   c. If an exhibit is displayed without permission, including outside the permit period, the exhibit may be removed by the Department of Facilities Services at the expense of the person or organization sponsoring the exhibit.
2. A-frame exhibits.
   a. Each A-frame exhibit may be placed for up to fourteen consecutive days and remain overnight. The A-frame exhibit may be renewed for an additional fourteen consecutive days if space is available.
   b. If an A-frame exhibit is left on campus without permission, including outside the permit period, the exhibit may be removed

by the Department of Facilities Services at the expense of the person or organization sponsoring the exhibit.

Sec. 13–705. Exhibit Cleanup

The person or organization sponsoring an exhibit will remove the exhibit and any litter from the area around the exhibit before vacating the space.

Sec. 13–706. Liability

The person or organization sponsoring an exhibit assumes full responsibility for the exhibit, including all injuries or hazards that may arise from the exhibit. The University will not be liable for any damage that may occur to the exhibit, and the person or organization sponsoring the exhibit will indemnify the University for any claims arising from the exhibit's presence on campus.

Subchapter 13–800. Amplified Sound

Sec. 13–801. General Rule on Amplified Sound

University persons and organizations may use amplified sound on campus at designated times and locations, subject to the rules in this Subchapter and to the general rules in Subchapter 13–200 and Subchapter 13–300. Advance permission is required. Academic and administrative units need not obtain permission from the Dean of Students to use amplified sound in areas under their control, but should provide advance notice to the Dean of Students when feasible so that the Dean of Students can coordinate timing and help units avoid conflicts. This Subchapter creates limited exceptions to the general rule on disruption in Section 13–301. An Amplified Sound Areas Map may be found here.

Sec. 13–802. Location and Times of Weekday Amplified Sound Areas

1. Winship Circle Amplified Sound Area.
   a. The Winship Circle Amplified Sound Area is the grassy area east of the East Mall Fountain, west of Waller Creek, and south of Winship Hall.
   b. University persons and University organizations may use amplified sound in this area from 8:00 a.m. to 5:00 p.m. on weekdays.
2. Battle Oaks Amplified Sound Area.
   a. The Battle Oaks Amplified Sound Area is the area bounded by the north wall of Hogg Auditorium, by an extension drawn northward from the east wall of the Texas Union, by the south edge of the sidewalk on the south side of 24th Street, and by the west edge of the sidewalk on the west side of Inner Campus Drive.
   b. University persons and University organizations may use amplified sound in this area from 8:00 a.m. to 5:00 p.m. on weekdays.
3. Mustangs Amplified Sound Area.
   a. The Mustangs Amplified Sound Area is the area bounded by the sidewalk on the east side of San Jacinto Boulevard, by the west wall of the Texas Memorial Museum, and by the outer edge of the two stairways on either side of the lawn.
   b. University persons and University organizations may use amplified sound in this area from 8:00 a.m. to 5:00 p.m. on weekdays.
4. San Jacinto Street Amplified Sound Area.
   a. The San Jacinto Street Amplified Sound Area is the area bounded by the south wall of the Art Building, by the east edge of the sidewalk on the east side of San Jacinto Boulevard, by the north edge of the sidewalk on the north side of 23rd Street, and by the west edge of the sidewalk on the west side of Trinity Avenue.
   b. University persons and University organizations may use amplified sound in this area from 8:00 a.m. to 5:00 p.m. on weekdays.
5. LBJ Fountain Amplified Sound Area.
   a. The LBJ Fountain Amplified Sound Area is the area bounded by the east edge of Robert Dedman Drive, by the first sidewalk north of the LBJ Fountain, by a line drawn tangent to the west side of the LBJ Fountain and parallel to Robert Dedman Drive, and by the base of the hill on the south side of the LBJ Fountain.
   b. University persons and University organizations may use amplified sound in this area from 8:00 a.m. to 5:00 p.m. on weekdays.
6. 2609 University Avenue Courtyard Amplified Sound Area.
   a. The 2609 University Avenue Courtyard Amplified Sound Area is the area bounded by the 2609 University Avenue Building on the north, south and east sides, and by the east edge of the sidewalk on the east side of University Avenue.
   b. University persons and University organizations may use amplified sound in this area from 8:00 a.m. to 5:00 p.m. on weekdays.
7. Creekside Residence Hall Lawn Amplified Sound Area.
   a. The Creekside Residence Hall Lawn Amplified Sound Area is the area bounded by Dean Keeton Street on the north, by Waller Creek on the east and south, and by San Jacinto Boulevard on the west and south.
   b. University persons and University organizations may use amplified sound in this area from 8:00 a.m. to 5:00 p.m. on weekdays.

Sec. 13–803. Regulation and Scheduling of Weekday Amplified Sound

1. The Dean of Students may prescribe rules concerning scheduling, sound levels, the location of speakers and the direction in which they are pointed, and other rules to facilitate the use of weekday amplified sound areas, to mediate any conflict with University functions and other nearby activities, and to manage environmental impact. All such rules will be reasonable and nondiscriminatory.
2. Reservations.
   a. University persons and University organizations wishing to use a weekday amplified sound area must reserve a particular area at a particular time. Reservations by University persons and University organizations must be made with the Dean of Students on the appropriate form on HornsLink.org prescribed by the Dean of Students. The Dean of Students will approve a properly completed application to reserve an amplified sound area, unless the application or request must be disapproved under the criteria in Section 10–203 of the *Institutional Rules* or under rules promulgated by the Dean of Students under the authority of this Section.
   b. The Dean of Students may limit the number or frequency of reservations for each applicant to ensure reasonable access for all persons and organizations desiring to use amplified sound on weekdays.
   c. When amplified sound areas are not reserved for use for an assembly including amplified sound, they are available to University persons and University organizations without reservation, for permitted expressive activities that do not involve amplified sound. Permission to use such areas without a reservation does not include permission to use amplified sound without a reservation. Any University person or University organization using or occupying the space without a reservation must yield control of the space in time to permit any user with a reservation to begin using the space promptly at the beginning of the reserved time.
3. Amplified sound in the West Mall Sound Area is in fact disruptive of teaching, administration, and research in the Main Building, in the Flawn Academic Center, in Goldsmith Hall, in the West Mall Office Building, and in Battle Hall. Amplified sound in the Winship Circle Amplified Sound Area is in fact disruptive of teaching, administration, research and performance in College of Liberal Arts Building, the

Laboratory Theatre and Winship Hall. The disruption inherent in this use of amplified sound is expressly authorized, but no other disruption is authorized. Disruption is permitted to this extent because otherwise, it would be necessary to ban all use of amplified sound in and near the center of campus during working hours.

4. University persons and University organizations using amplified sound are responsible for maintaining a passageway for pedestrians that is adequate to the volume of pedestrian traffic passing through the area. Should the size of the assembly exceed the maximum number of participants that is safe for a given location, participants will be directed by campus authorities to relocate to a space that is better suited to the size of the assembly.
5. The amplified sound locations are maintained on the Amplified Sound Areas Map. Any designations of additional areas, any additional rules regulating the designated areas, and the rules and procedures for reserving the use of a designated area, will be clearly stated on a Dean of Students site.

Sec. 13–804. Amplified Sound on Evenings and Weekends

1. With advance permission, University persons and University organizations may use amplified sound in any location in the Common Outdoor Areas of campus, including the weekday amplified sound areas designated in Section 13–802, after 5:00 p.m. on weekdays, and after 8:00 a.m. on weekends.
2. If amplified sound is authorized for an event , the sound must be turned off by 10:00 p.m.
3. The Dean of Students may prescribe reasonable and nondiscriminatory rules concerning scheduling, sound levels, the location of speakers and the direction in which they are pointed, and other rules to facilitate the use of amplified sound on evenings and weekends, to mediate any conflict with University functions and other nearby activities, and to manage environmental impact.
4. Use of amplified sound on evenings and weekends requires advance permission from the Dean of Students. Reservations by University persons and University organizations must be made with the Dean of Students on the appropriate form on HornsLink.org prescribed by the Dean of Students. The Dean of Students will authorize amplified sound as described in a completed application unless the Dean of Students finds that the application or request must be disapproved under the criteria in Section 10–203 of the *Institutional Rules* or under rules promulgated by the Dean of Students under the authority of this Section. The Dean of Students will advise each applicant or requestor how to correct, if possible, any conditions that preclude approval of its application.

Sec. 13–805. Amplified Sound Indoors

University persons and University organizations may use amplified sound indoors. Amplified sound sufficient to be heard throughout the room may be used in any room in any building, but the Dean of Students or the administrative head of the academic or business unit managing the space may limit or prohibit sound that would be disruptive outside the room. Reservations may be required. Rules concerning use of University buildings are contained in Chapter 10 of the *Institutional Rules*.

Subchapter 13–900. Public Assemblies

Sec. 13–901. General Rule on Public Assemblies

1. "Publicly assemble" and "public assembly" include any gathering of persons, including discussions, rallies, and demonstrations. The rules in Subchapter 13–800 apply to any use of amplified sound at a public assembly.
2. University persons and University organizations may publicly assemble on campus in any place where, at the time of the assembly, the persons assembling are permitted to be. This right to assemble is subject to the rules in this Chapter and to the rules on use of University property in Chapter 10 of the *Institutional Rules*. No advance permission is required in the Common Outdoor Areas.
3. University persons and organizations, other than academic and administrative units may not invite Off-campus persons or organizations to attend their events in the Common Outdoor Area.
4. Registered and sponsored student organizations and registered faculty and staff organizations may invite Off-campus persons or organizations to attend their events in Dedicated Areas only after coordinating with staff in the Office of the Dean of Students, Office of the Executive Vice President and Provost, or Office of the Chief Operating Office, to obtain appropriate approvals.
5. Academic and administrative units may invite Off-campus persons or organizations to attend their events in the Dedicated Areas following the units' usual processes for event planning and management.

Sec. 13–902. Reservation of Space

1. Common Outdoor Areas reservations. The following provisions apply in the Common Outdoor Areas:
   a. University persons and University organizations may, but are not required to, reserve a space to assemble in the Common Outdoor Areas, as defined by this Chapter. This is in addition to the amplified sound areas which are also available for reservation. Reservations by University persons and University organizations must be made with the Dean of Students on the appropriate form on HornsLink.org prescribed by the Dean of Students. Applications and requests for a reservation for such assemblies will be approved pursuant to Subchapter 10–200 of the *Institutional Rules*.
   b. If the expected attendance at an assembly is twenty-five or more people, advance notice of no less than two weeks is recommended. Persons and organizations are encouraged to seek a reservation of a space that is suited to their assembly's anticipated size.
2. Dedicated Area reservations. The following provisions apply in the Dedicated Areas:
   a. Registered student organizations, sponsored student organizations, registered faculty or staff organizations, and academic or administrative units may reserve a space to assemble in permitted Dedicated Areas, as defined by this Chapter.
   b. Registered and sponsored student organizations and registered faculty and staff organizations inviting Off-campus persons or organizations to attend their event in Dedicated Areas must first secure a space reservation and event approval through the process required by the Office of Dean of Students, Office of the Executive Vice President and Provost, or Office of the Chief Operating Office. This coordination ensures appropriate planning for logistics and avoidance of disruption to the University and the planned event.
   c. The Dean of Students will receive applications for reservations of a space within the Dedicated Areas. Applications for a reservation for such assemblies will be processed under the provisions in Subchapter 10–202 of the *Institutional Rules*. Individual faculty, staff, and students may not reserve space under the provisions in Chapter 10 in Dedicated Areas but may reserve space in the Common Outdoor Areas.
   d. If the expected attendance at an event with a guest speaker is twenty-five or more people, advance notice of no less than two weeks is required.
3. Any person or organization with a reservation has the right to the reserved room or space for the time covered by the reservation. Any person or organization using or occupying the room or space without a reservation must yield control of the room or space in time to

permit any user with a reservation to begin using the room or space promptly at the beginning of its reserved time.

4. Should the size of any assembly exceed the maximum number of participants that is safe for a given location, including a reserved space, assembly participants will be directed by campus authorities to relocate to a space that is better suited to the size of the assembly to the extent relocation is practicable.
5. While reservations are not always required, they are strongly encouraged. Without a reservation, a person or organization may find the facility locked or the space in use by another person or organization.
6. In some buildings, public assemblies unrelated to the purpose of the building may be prohibited completely. University persons and organizations seeking to engage in a public assembly inside a building are responsible for confirming such assembly is permitted in a given building. To avoid disruption of University operations, the Main Building may not be used for such public assembly at any time.

Sec. 13–903. Notice and Consultation

1. University persons and University organizations may publicly assemble on campus in any place where, at the time of the assembly, the persons assembling are permitted to be.
2. University persons or University organizations that are planning a public assembly in a Common Outdoor Area with an expected attendance of more than twenty-five participants, including potential counter-demonstrators, are encouraged to provide advance notice of no less than two weeks to the Dean of Students to help the University improve the safety and success of the expressive activity. However, advanced notice and consultation is not required in these areas, If there is uncertainty about applicable University rules, the appropriateness of the planned location, or possible conflict with other events, University persons and organizations are encouraged to consult the Dean of Students. Should the size of the assembly exceed the maximum number of participants that is safe for a given location, participants will be directed by campus personnel to relocate to a space that is better suited to the size of the assembly.
3. University organizations planning an event in the Dedicated Areas with an expected attendance of more than twenty-five participants, are required to provide advanced notice of no less than two weeks to the Dean of Students to help the University improve the safety and success of the expressive activity. Notice will be provided on the appropriate form on HornsLink.org prescribed by the Dean of Students.
4. The notice and consultation requirements of this Subchapter do not apply to academic or administrative units.
5. The notice periods of this Subchapter may be waived by the Dean of Students or his or her designee.
6. Registered student organizations, sponsored student organizations, and registered faculty or staff organizations are afforded privileges not available to individual faculty, staff, and students. Individuals may not reserve space on campus in Dedicated Areas.

Subchapter 13–1000. Guest Speakers

Sec. 13–1001. Definitions

"Guest speaker" means a speaker or performer who is not a student, faculty member, or staff member.

Sec. 13–1002. Who May Present

1. Subject to the rules in this Chapter, University organizations and academic and administrative units may present guest speakers in Common Outdoor Areas of the campus. No advanced permission or notice is required.
2. Registered student organizations, sponsored student organizations, registered faculty or staff organizations, and academic or administrative units may present guest speakers in Dedicated Areas. In the case of registered student organizations and sponsored student organizations, advance permission from the Dean of Students is required. Registered faculty organizations are required to seek advance permission from the Executive Vice President and Provost. Registered staff organizations are required to seek advance permission from the Vice President and Chief Operating Officer.
3. Individuals may not present a guest speaker on University property.

Sec. 13–1003. Location and Form of Presentation

1. No reservation or prior approval is necessary in the Common Outdoor Area, but notice and reservations are encouraged for assemblies of twenty-five or more people. Only academic and administrative units may invite Off-campus persons or organizations to attend their guest speaker event in the Common Outdoor Area.
2. In Dedicated Areas, a guest speaker may present a speech or performance, or lead a discussion of specified duration, at a time announced in advance, in a fixed location approved by the Dean of Students or the appropriate academic or administrative unit. A guest speaker may distribute literature indoors only immediately before, during, and immediately after the normal course of his or her speech, presentation, or performance, and only to persons in attendance. Only literature that complies with Subchapter 13–400 may be distributed.
3. A guest speaker may not:
   a. accost potential listeners who have not chosen to attend the speech, performance, or discussion; or
   b. staff a table or set up exhibits. However, the registered or sponsored organization's guest speaker may conduct their guest speaking engagement while seated at the organization's table. University organization members shall not leave their guest speaker alone at their tabling location to conduct the speaking engagement without members of the organization also remaining present throughout the speaking event.
4. No University organization may present a guest speaker in violation of the prohibitions against solicitation in Section 13–205 or co-sponsorship in Chapter 10, Section 13–304 of the Institutional Rules.

Sec. 13–1004. Application for University Building or Facility Space for Presentation of Guest Speakers

In accordance with Regents' *Rules and Regulations*, Rule 40501, Section 3.5, all registered student organizations, sponsored student organizations, and registered faculty or staff organizations that wish to present a guest speaker in Dedicated Areas will apply through a prescribed process, at least two weeks before the scheduled event or any planned advertising for the event, whichever is earlier.

1. A registered or sponsored student organization that wishes to present a guest speaker will apply to the Dean of Students, through a process prescribed by the Dean of Students, at least two weeks before the scheduled event or any planned advertising for the event, whichever is earlier. The application will be combined with an application under Section 10–202 of the- *Institutional Rules*- to reserve the use of a University room or space for the event. The Dean of Students will approve an application properly made under Subsection 13–1004(a) unless it must be disapproved under the criteria in Chapter 10, Section 10–203 of the *Institutional Rules*.
2. A registered faculty organization that wishes to present a guest speaker will apply to the Executive Vice President and Provost through a process prescribed by the Executive Vice President and Provost, at least two weeks before the scheduled event or any planned advertising for the event, whichever is earlier. The application will be combined with an application under Chapter 10, Section 10–202 of the *Institutional Rules* to reserve the use of a University room or space for the event. The Executive Vice President and Provost will approve an application properly made

under Subsection 13–1004(a) in consultation with the Dean of Students unless it must be disapproved under the criteria in Chapter 10, Section 10–203 of the *Institutional Rules*.

3. A registered staff organization that wishes to present a guest speaker will apply to the Vice President and Chief Operating Officer through a process prescribed by the Vice President and Chief Operating Officer, at least two weeks before the scheduled event or any planned advertising for the event, whichever is earlier. The application will be combined with an application under Chapter 10, Section 10–202 of the *Institutional Rules* to reserve the use of a University room or space for the event. The Vice President and Chief Operating Officer will approve an application properly made under Subsection 13–1004(a) in consultation with the Dean of Students unless it must be disapproved under the criteria in Chapter 10, Section 10–203 of the *Institutional Rules*.

Sec. 13–1005. Obligations of Presenting Organization

A registered student organization or registered faculty or staff organization that presents a guest speaker University property must make clear that:

1. the organization, and not the University, invited the speaker;
2. the views expressed by the speaker are his or her own and do not necessarily represent the views of the University, The University of Texas System, or any System institution; and
3. Off-campus persons or organizations may not be invited to attend the guest speaker's presentation except in conformance with parameters set out in this Policy.

Subchapter 13–1100. Responding to Speech, Expression, and Assembly

Sec. 13–1101. General Rule on Responding

Persons and organizations may respond to the speech, expression, or assembly of others, subject to all the rules in this Chapter.

Sec. 13–1102. Applications of Section

1. Responders may not damage or deface signs or exhibits, disrupt public assemblies, block the view of participants, or prevent speakers from being heard.
2. Means of response that are permitted in many locations and without advance permission or reservation, such as signs, distribution of literature, and public assembly without amplified sound, may be used immediately and in any location authorized in this Chapter.
3. Means of response that require advance permission or reservation, such as temporary banners, A-frames exhibits, general exhibits, and amplified sound, may be used as soon as the needed permission or reservation may be arranged. Temporary banner space, temporary outdoor exhibit space, and some amplified sound areas may be unavailable on short notice because of earlier reservations, but the Dean of Students will, where feasible, expedite approval of available temporary banner spaces, available temporary outdoor exhibit spaces, and amplified sound areas where necessary to permit appropriate response to other speech, assembly, or expression.
4. Means of response that are confined to authorized locations, such as banners, exhibits, and amplified sound, may be used only in those locations. It is not possible to respond to amplified sound with amplified sound in the same location; similarly, if an exhibit or public assembly is in a location where amplified sound is not permitted, it is not possible to respond with amplified sound in that location. In either case, it is possible to respond with amplified sound in another location and to use signs or distribution of literature to advertise the response at the other location.

Subchapter 13–1200. Enforcement and Appeals

Sec. 13–1201. Police Protection

1. It is the responsibility of the University to protect the safety of all persons on campus and to provide police protection for speakers, public assemblies, persons staffing or viewing exhibits, and other events. The normal patrolling of officers during regular duty in the area of such events will be at the cost of the University. When the magnitude, timing, or nature of an event in a University building, University facility, Common Outdoor Area or other Dedicated Areas requires overtime hours from police officers (including contract hours for officers hired from other departments or private security agencies), the University will, to the extent specified in Subsection 13–1201(b) and Subsection 13–1201(c), charge the cost of overtime or contract officers to the person or organization sponsoring the event or exhibit that requires overtime police protection. The purpose of Subsection 13–1201(b) and Subsection 13–1201(c) is to charge for police overtime where reasonably possible, but not to charge for police overtime made necessary by the content of speech at the event or by the controversy associated with any event.
2. University persons or organizations planning such events should budget for the cost of police protection. A reasonable and nondiscriminatory fee for overtime police work will be charged to the registered student organization, sponsored student organization, or faculty or staff organization for events in a University building, University facility, other Dedicated Area, or the Common Outdoor Area that require overtime police protection, and
   a. charge a price for admission; or
   b. have a paid speaker, band, or other off-campus person or organization for services at the event.
3. The University will have the sole power to decide, after reasonable consultation with the person or organization planning the event, whether and to what extent overtime police protection is required. No fee will be charged for officers assigned because of political, religious, philosophical, ideological, or academic controversy anticipated or actually experienced at the event. All fees will be based on the number of officers required for an uncontroversial event of the same size and kind, in the same place and at the same time of day.
4. Nothing in this Section applies to any interdepartmental charge or transfer among units or accounts funded by the University.

Sec. 13–1202. Response to Violations

1. Students wishing to make a grievance regarding a violation of Texas Education Code § 51.9315 may report it via the University compliance and ethics hotline by emailing compliance@austin.utexas.edu.
2. A student who violates a prohibition in this Chapter may be disciplined under the procedures in Chapter 11 of the *Institutional Rules*. A registered student or sponsored student organization that violates a prohibition in this Chapter may be disciplined under the procedures in Chapter 6 of the *Institutional Rules*.
3. A faculty member who violates a prohibition in this Chapter may be disciplined under applicable procedures provided by other rules. If no such procedures exist, violations by faculty members will be referred to the Office of the Executive Vice President and Provost for handling.
4. A staff member who violates a prohibition in this Chapter may be disciplined under applicable procedures provided by other rules. If no such procedures exist, violations by staff members will be referred to Human Resource Services for handling.
5. Authorized University personnel may prevent imminently threatened violations, or end ongoing violations, of a prohibition in this Chapter, by explanation and persuasion, by reasonable physical intervention, by arrest of violators, or by any other lawful measures. Alternatively

or additionally, they may initiate disciplinary proceedings under Subsection 13–1202(2), or Subsection 13–1202(3), or other applicable rule. Discretion regarding the means and necessity of enforcement will be vested in the Chief of Police, or in University personnel designated by the President, as appropriate, but such discretion will be exercised without regard to the viewpoint of any speaker.

6. University persons and University organizations on the campus will comply with instructions from University administrators and law enforcement officials at the scene. A University person or University organization that complies with an on-the-scene order limiting speech, expression, or assembly may test the propriety of that order in an appeal under Section 13–1203.
7. Off-campus person(s) or organization(s) on the campus who violate a prohibition in this Chapter may be subject to criminal trespass charges, arrest, or other lawful measures.

Sec. 13–1203. Appeals

1. A person or organization that is denied permission for an activity requiring advance permission under this Chapter may appeal the denial of permission.
2. A University person or organization that complies with an on-the-scene order limiting speech, expression, or assembly may, on or before the fifth business day after complying with the order, file an appeal to determine the propriety of the order limiting the speech, expression, or assembly. The question on appeal will be whether, under the circumstances as they reasonably appeared at the time of the order, the appellant's speech, expression, or assembly should have been permitted to continue. Such an appeal may be useful to clarify the meaning of a rule, or to resolve a factual dispute that may recur if the appellant desires to resume the speech, expression, or assembly that was limited by the order.
3. An appeal authorized by this Section will be heard under the procedures set out in Subchapter 10–400 of the *Institutional Rules*.

Chapter 14.

Chapter 14 has been removed from this catalog effective August 22, 2024.

Appendix D: Policy on Sex Discrimination, Sexual Harassment, Sexual Assault, Sexual Misconduct, Interpersonal Violence, and Stalking

This policy is no longer published in the university catalog and is now included as part of HOP 3-3031: Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination, effective fall 2020.
See the University Policy Office's website for for current and archived versions of this policy at https://policies.utexas.edu.

Appendix E: Policy on Sexual Misconduct

This policy is no longer published in the university catalog and is now included as part of HOP 3-3031: Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination, effective fall 2020.
See the University Policy Office's website for for current and archived versions of this policy at https://policies.utexas.edu/.

Appendix F: Policy on Consensual Relationships

I. Policy Statement

The University of Texas at Austin ("University") is committed to maintaining an academic community (including associated teaching, research, working and athletic environments) free from conflicts of interest, favoritism, and exploitation. This policy addresses romantic relationships and/or sexual interactions that, although consensual, may create actual and perceived conflicts of interests, and create the possibility for exploitation or favoritism.
Except as expressly permitted herein, this policy prohibits consensual relationships between:

- employees (including faculty) or University affiliates ("affiliates") and undergraduate students;
- employees (including faculty) or affiliates and any graduate student whom that individual teaches, manages, supervises, advises, or evaluates in any way;
- Intercollegiate Athletics coaches, affiliates, or athletics employees and student-athletes;
- student employees and any student whom that student employee teaches, manages, supervises, advises, or evaluates in any way; and
- employees (including faculty) and/or affiliates where one teaches, manages, supervises, advises, or evaluates the other in any way, unless the person in the position of greater authority or power notifies appropriate University offices and a mitigation plan (as defined below) is in place.

II. Reason for Policy

The University recognizes that consenting individuals associated with the University should be free to enter into personal relationships of their choice. At the same time, such relationships must not put at risk the fundamental interest of every member of the University community to participate in University activities free from conflicts of interests, favoritism, and/or exploitation. Romantic relationships between certain categories of individuals affiliated with the University risks undermining the essential educational purpose of the University and can disrupt the workplace and learning environment.

III. Scope and Audience

This policy applies to all University employees (including faculty), student employees, students, and affiliates. This policy is applicable regardless of the sex/gender of the individual with managerial, supervisory, teaching, evaluation, coaching or advisory authority, and/or the sex/gender of the individual who is managed, supervised, taught, coached, advised, or evaluated in any way.

IV. Definitions (specific to this policy)

Coach: Any person serving in the capacity as an Intercollegiate Athletics head coach, associate head coach, assistant coach, graduate assistant coach, coaching intern, volunteer coach, or any individual exercising coaching responsibilities.
Consensual Relationship: A romantic relationship and/or sexual interaction agreed to by the involved parties.
Employee: Except as specifically stated herein, employee includes faculty, classified staff, administrative and professional staff, post-doctoral positions, and employee positions requiring student status.

Mitigation Plan: A written plan developed as provided in this policy that mitigates the conflict of interest and the potential for exploitation or the appearance of exploitation or favoritism created by the consensual relationship and which plan is acknowledged and signed by the parties involved.
Student-Athlete: Any student (undergraduate or graduate) who is currently participating as a member of an intercollegiate varsity sport sponsored by the University.
Supervisee: Any individual whose terms and conditions of employment, student, student-athlete, or affiliate status are controlled or affected by a supervisor, as defined by this policy.
Supervisor: An employee (including faculty), student, or affiliate who:

- teaches, manages, supervises, advises, coaches, or evaluates in any way other employees, students, student- athletes, or affiliates; and/or
- has a position of power, control, or the ability to influence decisions with regard to other individuals in the learning, intercollegiate athletics, or working environment of the University.

University Affiliate: An individual associated with the University in a capacity other than as a student or employee who has access to University resources through a contractual arrangement or other association that has been reviewed and approved in accordance with guidelines established by Human Resources ("HR"), the Executive Vice President and Provost ("EVPP"), or the Vice President for Research. Examples of a University Affiliate may include, but are not limited to:

- employees of contractors hired to conduct repair work at the University;
- employees of vendors engaged to provide training to University administrators;
- health care providers retained by the University to provide medical services to students/staff;
- volunteers in academic and/or operational units within the University; and
- post-doctoral positions who receive external funding;
- researchers or recent graduates who are self-funded or independently funded, but utilize University facilities to further the University's research endeavors.

Additional information regarding other types of University Affiliates may be found at: http://www.utexas.edu/business/erp/hrms/help/UniversityAffiliateTypes.php

V. Website (for policy)

https://secure2.compliancebridge.com/utexas/public/getdoc.php?file=3-3050

VI. Contacts

Department of Investigation and Adjudication (DIA)
Phone: 512-471-3701
Website: https://compliance.utexas.edu/department-investigation-and-adjudication
Email: dia@austin.utexas.edu

University Risk and Compliance Services (URCS)
Phone: 512-232-7055
Website: https://compliance.utexas.edu/

Human Resources - Strategic Workforce Solutions
Phone: 512-475-7200 or 512-232-3523
Website: https://hr.utexas.edu/current/services/
Email: hrs.sws@austin.utexas.edu

Employee Assistance Program
Address: UTA, Room 2.304, 1616 Guadalupe, Austin, TX 78701
Phone: 512-471-3366
Website: http://hr.utexas.edu/eap/
Email: eap@austin.utexas.edu

Office of the Dean of Students - Student Emergency Services
Phone: 512-471-5017
Website: http://deanofstudents.utexas.edu/emergency
Email: studentemergency@austin.utexas.edu

UT Counseling and Mental Health Center
Phone: 512-471-3515
Website: https://cmhc.utexas.edu/

Intercollegiate Athletics - Human Resources
Phone: 512-232-1276
Website: http://texassports.com/HR

Office of the Executive Vice President and Provost
Phone: 512-471-4363
Website: https://provost.utexas.edu/

VII. Responsibilities and Procedures

A. Prohibited Consensual Relationships
The following consensual relationships, even if a single interaction, are prohibited and cannot be mitigated by a mitigation plan.

1. Considering the potential for exploitation or the appearance of exploitation or favoritism and the inherent differential in authority, the University prohibits any employee (including faculty) or affiliate of the University from engaging in a consensual relationship with any student currently enrolled as an undergraduate at the University.*

*_Note_: "Employee"; as used in Section VII.A.1 does not include student employees. See Section VII.A.4 below for prohibitions applicable to University student employees. Also, for purposes of this policy, the term "undergraduate" does not include any individual who is considered an undergraduate at the University solely because the individual is taking course(s) through the Staff Educational Benefit offered to University employees.

2. Considering the potential for exploitation or the appearance of exploitation or favoritism and the inherent differential in authority between graduate students and their educators, advisors, supervisors, and others holding positions of authority over them, the University prohibits any employee (including faculty) or affiliate of the University from engaging in a consensual relationship with any graduate student whom they teach, manage, supervise, advise, or evaluate in any way.

3. Considering the potential for exploitation or the appearance of exploitation or favoritism and the inherent differential in authority, the University prohibits consensual relationships between Intercollegiate Athletics coaches, employees, or affiliates, with any student-athlete or student assigned to or associated with Intercollegiate Athletics, such as interns and student employees.

*_Note_: "Employee" as used in Section VII.A.3 does not include student employees except for those

who teach, manage, supervise, advise, coach, or evaluate any student-athlete or student assigned to or associated with Intercollegiate Athletics.

4. Considering the potential for exploitation or the appearance of exploitation or favoritism and the inherent differential in authority, the University prohibits any student employee (including resident life advisors/assistants, assistant instructors, teaching assistants, graduate research assistants, etc.) from engaging in a consensual relationship with any student whom they teach, manage, supervise, advise, or evaluate in any way.

B. Reporting Requirements

1. Considering the potential for exploitation or the appearance of exploitation or favoritism and the inherent differential in authority, the University prohibits consensual relationships between employees (including faculty) and/or affiliates where one teaches, manages, supervises, advises, or evaluates the other in any way unless the person in the position of greater authority or power notifies appropriate University offices (as detailed in Section VII.B.2.a of this policy) and a mitigation plan is put in place that mitigates the conflict of interest and the potential for exploitation or the appearance of exploitation or favoritism.

2. In the event a consensual relationship exists between employees (including faculty) and/or affiliates, the following steps ***must immediately*** be followed by the person in the position of greater authority or power:

   a. report the consensual relationship to the appropriate dean and the EVPP (when the relationship involves a faculty member), and/or the appropriate unit head and HR (when the relationship involves a staff member and/or affiliate);
   b. report any relationship that currently exists prior to the effective date of this policy to the University offices specified above as soon as possible and cooperate in the development of a mitigation plan as outlined in Section VII.C, below;
   c. cooperate in the development of a mitigation plan designed to reduce or eliminate the conflict of interest and the potential for exploitation or the appearance of exploitation or favoritism.

3. If a consensual relationship exists between employees of the University and one of those employees is presented with the opportunity to teach, manage, supervise, advise, or evaluate the other in any way, the existing relationship must be reported by the individual in the position of greater authority or power to the appropriate University offices designated above as soon as possible and prior to the individual accepting a role that would create a conflict of interest and the potential for exploitation or the appearance of exploitation or favoritism, and a mitigation plan must be developed.

4. Departments and offices that receive reports of consensual relationships as outlined in this policy will notify the applicable VP, Dean, or the EVPP, each of whom will, in turn, notify DIA of the relationship and provide DIA a copy of the mitigation plan for record keeping purposes.

C. Mitigation Plan

1. If the conflict of interest and the potential for exploitation or the appearance of exploitation or favoritism can be successfully mitigated and managed, a written mitigation plan will be produced within ten (10) business days of the report (unless there are reasonable grounds for additional time) by the appropriate chair, dean, and EVPP (when the relationship involves a faculty member) or the appropriate unit head, DIA, and HR (when the relationship involves a staff member and/or University affiliate) in collaboration with both parties to the consensual relationship.

2. If the mitigation plan is not agreed to by all parties to the plan, resolution of the disagreement will be handled through consultation with the appropriate vice president of the individual(s) opposing the plan and DIA. In the case of a relationship involving individual(s) associated with Intercollegiate Athletics, the consultation will involve the Office of the Senior Vice President and Chief Financial Officer and DIA.

3. If the conflict of interest and potential for exploitation or the appearance of exploitation or favoritism created by the consensual relationship cannot be successfully mitigated and managed, then the consensual relationship is prohibited.

4. The mitigation plan will:

   a. provide an alternative means for managing, supervising, teaching, evaluating and/or advising of the supervisee or otherwise mitigate the conflict;
   b. give priority to the interest of the supervisee;
   c. be in writing and signed by both parties to the consensual relationship;
   d. provide notice of HOP 3-3031 - Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination; and
   e. be reassessed on an annual basis (or sooner if circumstances warrant) by the parties, and the applicable department/unit for necessary modification.

D. Exemptions

Exemptions to any of these provisions will be considered on a case-by-case basis and will be approved by the Associate Vice President for Investigation and Adjudication, with input from the supervisor(s) of the individual(s) involved. Questions about the application or effect of this policy to an existing or potential relationship should be directed to DIA, HR and/or the EVPP. This policy is not intended to apply to marriage relationships. Refer to HOP 5-1260 - Employment of Close Relatives (Nepotism), for information concerning these types of relationships.

E. Reporting Alleged Violations

An employee (including faculty) or affiliate who is notified, or becomes aware of, an alleged violation of this policy has an obligation to report it timely. Report Here

F. Investigation and Discipline

1. Alleged violations of this policy, including concerns of conflicts of interests, favoritism, and/or exploitation will be investigated by DIA in collaboration with the Office of the Vice President for Legal Affairs.
2. If there is a complaint of sexual harassment/sexual misconduct relating to a relationship covered by this policy, and the relationship has not been disclosed and no Mitigation Plan is in place, the responsibility will be on the person in the position of greater authority or power to explain the failure to comply with this policy. Such failure will be a factor in determining whether the relationship was consensual and free of sexual harassment/ misconduct.
3. Disciplinary action against faculty and staff will be handled under the University's policies for discipline and dismissal of faculty and staff. Disciplinary actions may include, but are not limited to, written reprimands, the imposition of conditions, reassignment, suspension, and dismissal. Affiliates in violation of this policy may be disciplined as appropriate under the circumstances.

G. Safe Harbor

It is critical the University receive notification of consensual relationships covered by this policy so as to prevent conflicts of interest, favoritism, and exploitation. Unreported consensual relationships pose a significant risk to the University community. With this in mind, if the person in the consensual relationship who is in the position of greater authority or power ***immediately notifies*** appropriate University offices of the development of a consensual relationship covered by this policy and cooperates to mitigate the effects of the consensual relationship, then a conduct/ discipline investigation may not be pursued. Unreported consensual relationships will be considered more severe violations of this policy.

**Note*: This safe harbor provision does not apply to potential violations of HOP 3-3031 - Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination.

H. Retaliation Prohibited

Retaliation against a person who reports a potential violation under this policy, assists someone with a report of a violation, or participates in any manner in an investigation or in the resolution of a complaint made under this policy is strictly prohibited and will not be tolerated. Retaliation includes, but is not limited to threats, intimidation, reprisals and/or adverse actions related to an individual's employment or education. The University will take appropriate steps to assure a person who in good faith reports, complains about, or participates in an investigation pursuant to this policy will not be subjected to retaliation. Individuals who believe they are experiencing retaliation are strongly encouraged to lodge a complaint with DIA and/or URCS.

I. Counseling

Confidential counseling services are available to employees through the Employee Assistance Program at 512-471-3366 and to students through the UT Counseling and Mental Health Center at 512-471-3515.

VIII. Forms and Tools

The Department of Investigation and Adjudication (DIA): File a Complaint with DIA

University Risk and Compliance Services (URCS): Compliance and Ethics Hotline

For a mitigation plan template, contact DIA: dia@austin.utexas.edu

IX. Frequently Asked Questions

None

X. Related Information

University Affiliates

HOP 3-3031 Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination

For Employees - Employee Assistance Program

For Students - UT Counseling and Mental Health Center

UTS184 Consensual Relationships

Regents' *Rules and Regulations,* Rule 30105 Sexual Harassment, Sexual Misconduct, and Consensual Relationships

HOP 3-1022 Protection from Retaliation for Suspected Misconduct Reporting (Whistleblower)

HOP 5-1260 Employment of Close Relatives (Nepotism)

XI. History

Original effective date: November 1, 2001

Revision date: January 3, 2017

Editorial revisions: August 2, 2022

Editorial Revisions: May 31, 2023

Previously PM 4.110, HOP 4.A.2

Policy Website: *Handbook of Operating Procedures*, 3-3050

Appendix G: Policy on AIDS and HIV Infection

Background

The University of Texas at Austin recognizes human immunodeficiency virus (HIV) as a serious public health threat and is committed to promoting an informed, educated and responsive University community regarding HIV and the associated Acquired Immune Deficiency Syndrome (AIDS). This policy provides the framework for managing risks associated with HIV and AIDS in compliance with state laws and in the context of the medical, educational, legal, administrative, and ethical issues involved.

The reason for this policy is to provide the roles and responsibilities for responding to specific situations involving persons with AIDS or HIV infections in compliance with Texas Administrative Code (Title 25, part 1, chapter 96, Bloodborne Pathogen Control) and Texas Education Code (Sec. 51.919 HIV and AIDS Policy; Information Dissemination) covering areas of administrative policy, residence life, health education, testing, confidentiality, and patient care.

Throughout this appendix, "HIV infection" denotes the total spectrum of the disease, from HIV seropositive but asymptomatic infection to fully developed AIDS.

General Policies

1. **Institutional committee.** The University establishes the Bloodborne Pathogens Control Committee (BPCC) authorized to annually review and update the University's written Bloodborne Pathogens Exposure Control Plan. The committee will be minimally comprised of representatives from the Environmental Health & Safety

(EHS) department, University Health Services (UHS), the HealthPoint Occupational Health Program and representation from departments that employ workers with reasonable anticipation of exposure to bloodborne pathogens, including HIV.

2. **Admissions.** The existence of HIV infection will not be considered in admissions decisions unless current scientific information indicates required academic activities may expose others to risk of transmission.
3. **Employment.** The existence of HIV infection will not be used to determine suitability of applicants for employment by the University. An HIV-infected employee will remain employed as long as he or she is able to perform the essential functions of the job and is able to meet the job performance standards.
4. **Class attendance.** A student with HIV infection will be allowed to attend all classes without restrictions, as long as the student is physically and mentally able to participate and perform assigned work, and poses no health risk to others.
5. **Facilities Access.** A person with HIV infection will not be denied access to any University facility on the basis of HIV-positive status.
6. **Residential housing.** The University residential housing staff will not exclude HIV-positive students from University housing, and will not inform other students that a person with HIV infection lives in University housing.
7. **Safety precautions.** The University has guidelines for health care workers and students in the health professions concerning the prevention of transmission of bloodborne pathogens, which includes HIV among others. Training requirements are detailed in the University's Bloodborne Pathogens Exposure Control Plan.
8. **Education, Risk Management and Safety.**
    a. **Education on HIV prevention provided to students.** The University will routinely offer education to students based on HIV education and prevention programs. These programs will be developed in conjunction with federal and state health agencies and other health authorities and will be tailored to students' cultural, educational, language, and developmental needs. UHS will provide information to students pertaining to HIV infection on a variety of related topics. UHS will also make referrals for anonymous HIV counseling and testing services.
    b. **Laboratory courses.** Department managers/heads of departments offering lab courses or operating labs where possible risk of exposure to material that has potential for transmitting HIV must develop written, lab safety protocol using standard precautions for handling such material. This written protocol must be distributed to students and staff members prior to such exposure in accordance with the Bloodborne Pathogens Exposure Control Plan.
    c. **Education of students entering health professions.** Each college or school offering medical, dental, nursing, allied health, counseling, and/or social work degree programs must ensure its program curricula contains information about:
        1. methods of transmission and methods of prevention of HIV infection;
        2. federal and state laws, rules, and regulations concerning HIV infection and AIDS; and
        3. the physical, emotional, and psychological stress associated with the care of patients with incurable illnesses.
    d. **Education of employees where risk of exposure to HIV may be part of their employment duties.** Departments requiring employees to perform employment duties where risk of exposure to HIV is possible will provide training about HIV transmission specific to their employment duties and methods to minimize or eliminate that risk by following standard precautions. Standard precautions includes an overview of the engineering controls, administrative controls, and personal protective equipment used to minimize or eliminate risk of exposure. The University's Bloodborne Pathogens Exposure Control Plan includes information specific to HIV and standard precautions.
9. **Confidentiality of Records.** Except where release is required or authorized by law, information concerning the HIV or AIDS status of students, employees, or patients, and any portion of a medical record will be kept confidential and will not be released without written consent. Information concerning HIV or AIDS status held in non-medical records will be limited to that which is necessary to determine reasonable accommodations, if applicable, or to investigate an occupational exposure. Non-medical records containing personal health information (PHI) will follow privacy standards established by federal and state law.
10. **HIV testing and bloodborne pathogens post-exposure testing.** In the event of a work-related bloodborne pathogens exposure, the employee must contact the HealthPoint Occupational Health Program as soon as practical for guidance on post-exposure testing services, available at no cost to the employee. Refer to the University's Bloodborne Pathogens Exposure Control Plan for details. Students may obtain HIV testing services from UHS.
11. **Unemployment compensation benefits.** When applicable, the University will inform employees that state law provides that an individual will be disqualified for unemployment compensation benefits if the Texas Workforce Commission finds the employee left work voluntarily rather than provide services included within the course and scope of employment to an individual infected with a communicable disease, including HIV. This disqualification applies if the University provided facilities, equipment, training, and supplies necessary to take reasonable precautions against infection.
12. **Health benefits.** No University student or employee will be subjected to impermissible discrimination under a health benefits plan endorsed by the University on the basis of a positive HIV test result.

Policy Website: Excerpted from the *Handbook of Operating Procedures*, 3-1310

Appendix H: Prohibition of Sexual Assault

This policy is no longer published in the university catalog and is now included as part of HOP 3-3031: Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination, effective fall 2020.
See the University Policy Office's website for for current and archived versions of this policy at https://policies.utexas.edu/.

Appendix I: Nondiscrimination Policy

I. Policy Statement

The University of Texas at Austin (University) is committed to providing an educational and working environment for students, faculty, and staff that is free from discrimination and harassment based on race, color, sex, pregnancy, gender, gender identity, sexual orientation, gender expression, religion, age, national origin, ethnicity, veteran status, disability, genetic information, military status, or any other legally protected basis[1]. This Policy prohibits such conduct.
This Policy also prohibits retaliation against someone because the individual reported under this Policy, opposed an unlawful practice, participated in an investigation, or requested supportive measures. Finally, this Policy prohibits failing to cooperate in good faith, filing false complaints or providing materially false information, interfering with this Policy's processes, abusing the investigation process, or failing to report

incidents reasonably believed to constitute discrimination, harassment, or retaliation.

This Policy does not cover prohibited conduct of a sexual nature. Procedures for reporting sexual assault, interpersonal violence, stalking, and sexual harassment, are addressed by Handbook of Operating Procedures (HOP) 3-3031. While these are forms of sex discrimination, their sexual nature removes them from the purview of this Policy.

Inquiries regarding this Policy may be directed to the Department of Investigation and Adjudication (DIA) at 512-471-3701 or dia@austin.utexas.edu. (dia@austin.utexas.edu)

II. Who this Policy Applies To

This Policy applies to all University faculty, staff, employees, students, student organizations, visitors, contractors, University affiliates, and applicants for admission to or employment with the University and others conducting business on campus. Reports and Complaints against individuals subject to this Policy are processed according to the parameters set out below. Reports and Complaints against individuals not subject to this Policy are processed to provide support resources to the affected individual where appropriate.

III. Where this Policy Applies

This Policy applies to conduct that occurs on campus, in University-owned housing, or in an education program or activity. Campus means any building or property owned or leased by the University that is used in direct support of the University's educational purposes. An education program or activity means locations, events, or circumstances over which the University exercises substantial control, and includes any building owned or controlled by a registered student organization. This Policy applies to off-campus conduct when the conduct substantially affects a person's education or employment with the University or poses a risk of harm to members of the University community.

IV. Policy Violations

The following are categories of conduct that violate this Policy. Individuals who believe they have been subjected to conduct that violates this Policy are encouraged to file a Complaint with the University using the procedures described below (See Section VII.B.1). Any person found in violation of this Policy is subject to disciplinary action, up to and including termination or expulsion, or losing affiliate status.

(A)

Discrimination: Conduct directed at an individual or group of identifiable individuals that subjects them to treatment that creates a materially adverse impact to their employment or education because of their race, color, sex, pregnancy, gender, gender identity, sexual orientation, gender expression, religion, age, national origin, ethnicity, veteran status, disability, genetic information, military status, or any other legally protected basis.

(B) Harassment: Verbal or physical conduct that is directed at an individual or group because of their race, color, sex, pregnancy, gender, gender identity, sexual orientation, gender expression, religion, age, national origin, ethnicity, veteran status, disability, genetic information, military status, or any other legally protected basis. This conduct must be sufficiently severe or pervasive so as to have the purpose or effect of interfering with the impacted individual's academic or work performance. Constitutionally protected speech or expression is not considered Harassment under this Policy [2]. Harassment that is not based on the protected characteristics set out here is governed by Chapter 13 of the Institutional Rules (See Section 13-204). Sexual harassment is governed by HOP 3-3031.

When examining whether behavior was sufficiently severe or pervasive or materially adverse, DIA will look to how an objectively reasonable person would have experienced or viewed the behavior.

(C) **Retaliation**: Any action taken to cause a materially adverse effect in the terms or conditions of an individual's academic experience or employment with the University, or other institutional status of a student, employee, University affiliate, visitor, or applicant for admission or employment with the University, because an individual has in good faith reported or brought a complaint under this Policy, opposed an unlawful practice, participated in an investigation, or requested supportive or protective measures. Examples of retaliation include, but are not limited to, denial of an educational opportunity, experience or promotion; non-selection/refusal to hire; denial of job benefits; demotion or negative impact on grades or academic status; suspension; discharge; reprimands; negative evaluations; harassment; or other adverse treatment that is likely to deter reasonable people from pursuing their rights.

Retaliation may be found even when an underlying Report or Complaint made in good faith was not substantiated.

(D) Investigation Participant Violations:

(1) Failing to Cooperate

Everyone who is subject to this Policy must cooperate in good faith with University investigations. Failing to cooperate in good faith is a violation of this Policy. Good faith cooperation includes, but is not limited to:

- providing full and truthful answers during the investigation;
- identifying witnesses to the alleged conduct or other relevant witnesses;
- providing full and complete documents relevant to the alleged conduct;
- responding to requests for interviews or information from DIA or any other University administrator; and
- appearing for scheduled meetings or interviews.

(2) Filing of False Complaints and Providing Materially False Information

It is a violation of this Policy to knowingly and intentionally file a false Complaint or Report under this Policy or to knowingly and intentionally provide materially false information about an alleged violation under this Policy. A Complaint or Report that is ultimately unsubstantiated is not a false Complaint or Report unless it was filed in bad faith. Bad faith is an intent to harm or deceive. Information is materially false if it is untrue and would tend to influence the outcome of an investigation of an alleged violation under this Policy.

(3) Investigation Process Interference

Any person who intentionally interferes with the administration of this Policy commits a violation of this Policy. Interference may include, but is not limited to:

- attempting to coerce, compel, or prevent an individual from providing testimony or relevant information;
- removing, destroying, withholding, or altering documentation relevant to the Complaint or Report; or
- knowingly providing false or misleading information to DIA or any other University administrator or encouraging others to do so.

(4) Abuse of Investigation Process

This Policy prohibits individuals from abusing the investigative process. DIA will determine whether conduct is an abuse of the process by assessing the totality of the circumstances. Abuse of the investigation process is a pattern of behavior that overburdens DIA staff and resources, including but not limited to:

- repeatedly refusing to specify Complaint or Report allegations;
- repeatedly failing to timely schedule or appear at investigative interviews or meetings, without good cause; or
- filing multiple Complaints or Reports on the same or substantially similar events

(E) Failing to Report Known Incidents of Discrimination, Harassment, and Retaliation: Every supervisor, administrator, University official, or other employee who has the authority to take action to redress an alleged violation, *must* promptly report to DIA any incidents reasonably believed to constitute discrimination, harassment, or retaliation in violation

of this Policy that come to their attention during the course of their employment.

(F) Failing to Implement an Approved Academic Accommodation for a Disability: The failure to implement, or hinder the implementation of a student's approved academic accommodation(s) from Disability and Access, is a violation of this Policy.

V. Website (for policy)

https://secure2.compliancebridge.com/utexas/public/getdoc.php?file=3-3020

VI. Contacts

Department of Investigation and Adjudication:

Phone: 512-471-3701 **Website:** https://compliance.utexas.edu/programs/dia **Email:** dia@austin.utexas.edu

University Risk and Compliance Services:

Phone: English: 877-507-7321 Español: 800-216-1288 **Website:** https://compliance.utexas.edu/ **Email:** compliance@austin.utexas.edu

VII. Responsibilities & Procedures

A. Definitions

1. **Complainant:** The individual who is alleged to be the victim of any prohibited conduct under this Policy.
2. **Complaint:** Information, including oral statements (if appropriately acknowledged), submitted to DIA by a Complainant, alleging a violation of this Policy.
3. **Notification:** Notification under this Policy occurs on the date any document is sent by electronic mail and/or facsimile, when properly addressed. Notification may also occur two days after the date of posting of any document in the United States mail, properly addressed, or upon the date of receipt of any document, when placed in the campus mail, properly addressed. DIA will use the address included in the Complaint or the last known address contained in DIA's file.
4. **Parties:** The "Complainant" and the "Respondent" under this Policy.
5. **Preponderance of the Evidence:** The greater weight of the credible evidence. Preponderance of the evidence is the standard for determining allegations of conduct that violate this Policy. This standard is satisfied if the action is deemed more likely to have occurred than not.
6. **Relevant:** Evidence that has (i) any tendency to make a fact more or less probable than it would be without its existence, and (ii) the fact is of consequence in determining if a policy violation has occurred.
7. **Report:** Information, including oral statements (if appropriately acknowledged), submitted to DIA by a Reporter, alleging a violation of this Policy.
8. **Reporter:** An individual, other than a Complainant, making a Report of an incident(s) under this Policy.
9. **Respondent:** The individual and/or organization reported to be the alleged perpetrator of conduct that violates this Policy.

B. General Procedures

The University recognizes the rights of Parties to report an incident to the University and to receive a prompt and equitable resolution of the Report.

1. Reporting Incidents. Any person may report an incident under this Policy to DIA—via email at dia@austin.utexas.edu, (dia@austin.utexas.edu) via mail at 100 W. Dean Keeton, Suite 4.102, Mail Code D9250, by calling 512-471-3701, or via https://compliance.utexas.edu/programs/dia—regardless of whether the person reporting is the person alleged to be subject to the complained-of behavior. Any person may report incidents anonymously via the online reporting form found at DIA's website. A person who believes that they have experienced discrimination, harassment, or retaliation should promptly report the incident to any official, administrator, supervisor, or employee with the authority to redress an alleged violation. They are also encouraged to report such incidents to DIA directly. No person is required to report Discrimination or Harassment to the alleged offender.

2. Complaints and Reports. A Complaint or Report alleging a violation of this Policy shall be submitted to DIA. The Complaint or Report should contain the following information:

- Name and UT EID of the Complainant(s);
- Contact information, including address, telephone, and e-mail;
- Name of person(s) directly responsible for alleged violation(s);
- Date(s) and place(s) of alleged violation(s);
- Nature of alleged violation(s) as defined in this Policy;
- Detailed description of the defined conduct that is the basis of the alleged violation(s);
- Copies of any documents about the alleged violation(s);
- Names of any witnesses to the alleged violation(s) and witnesses' contact information;
- Action requested to resolve the situation; and
- Any other relevant information.

While an initial review or formal investigation may begin on the basis of a verbal Complaint or Report, the University strongly encourages individuals to file a written Complaint or Report with DIA via email (dia@austin.utexas.edu) or via DIA's online reporting system (https://compliance.utexas.edu/programs/dia).

If the Complaint or Report is not in writing, DIA will prepare a statement of what it understands the allegations to be and seek to obtain verification from the Complainant or Reporter.

3. Time Limit. Individuals must file a Complaint or Report within 180 calendar days of the most recent unlawful act. DIA may extend the 180-day filing deadline when good cause supports the extension.

4. Acknowledgement. Within five business days after receipt of a Complaint or Report, excluding University holidays and closures, DIA will send the Complainant or Reporter a brief acknowledgment of the Complaint or Report, and may request to schedule an intake interview to gather more information regarding the allegation(s). DIA's acknowledgement will include a copy of this Policy.

C. Initial Review and Assessment Procedures

1. Purpose. DIA will conduct an initial review of all Reports and Complaints. This initial review is to assess whether a Complaint or Report describes in sufficient detail the conduct that is the basis of the Complaint, whether the alleged conduct (if true) implicates this Policy, and whether a formal investigation is warranted.

2. Intake Review. DIA will conduct an intake review, which may include interviews to gather more information regarding the allegation(s). DIA will determine whether the Complaint or Report should be dismissed and referred to an appropriate department for resolution or for dispute resolution. If additional information is needed to evaluate the Complaint or Report, DIA will conduct a due diligence inquiry.

3. Due Diligence Inquiry. A due diligence inquiry is not a formal investigation but includes all appropriate steps to properly and thoroughly evaluate a Complaint or Report. DIA will take appropriate steps to gather sufficient information to determine whether a formal investigation is warranted.

4. Potential Outcome/Resolution of Complaints or Reports. DIA will ultimately determine whether the Complaint or Report should be (i) dismissed due to insufficient evidence or information; (ii) dismissed because the Respondent is not a University faculty, staff, student, student organization, visitor, contractor, University affiliate, or applicant for admission or employment; (iii) dismissed and referred to the appropriate department for informal resolution;

(iv) dismissed and referred for dispute resolution; or (v) elevated to a formal investigation. Additionally, if a Complaint or Report is withdrawn, DIA may choose to initiate a due diligence inquiry if the alleged conduct implicates this Policy.

Complaints and Reports that are dismissed may be re-opened if additional information is later available and it is still within the 180 calendar day limitations period.

5. Notification of Results. If DIA determines that a Complaint or Report should be dismissed, DIA will provide a dismissal notice to the Complainant and Respondent (if interviewed during the initial review and/or DIA has reason to believe that Respondent is aware of the Complaint) that includes a brief summary of the Relevant known information and a brief explanation for DIA's determination. DIA will submit the dismissal notice to the appropriate vice president, dean, or designee and departments based on a need-to-know basis.

6. Appeal of the Initial Review Outcome. If DIA dismisses a Complaint or Report and determines that it will not proceed with a formal investigation, a Party may appeal to the University's Chief Compliance Officer within 10 business days of receiving Notification. The appeal must be in writing and describe in sufficient detail the basis for the appeal. An appeal may be based upon any of the following:

- A procedural irregularity that affected DIA's determination;
- There is new, relevant evidence that was unavailable at the time of DIA's dismissal that could affect the outcome of the matter; or
- The DIA investigator had a conflict of interest or bias for or against a Party that affected the outcome of the matter.

A disagreement with DIA's determination, without more, is not a sufficient basis for appeal. Appeal requests should be submitted electronically at dia@austin.utexas.edu or via mail or in person at 100 W. Dean Keeton, Suite 4.102, Mail Code D9250. The Chief Compliance Officer will determine within 10 business days whether DIA's decision was in error. If the Chief Compliance Officer upholds DIA's determination, the decision is final. If the Chief Compliance Officer overturns DIA's determination, the Complaint or Report will be sent back to DIA for further investigation.

D. Informal Resolution Procedure

DIA may determine in its discretion whether informal resolution is appropriate and, if so, will refer the Complaint or Report to the appropriate department.

Methods for informal resolution may include, but are not limited to:

- coaching the person on how to directly address a situation which is causing a problem;
- mediating the dispute with the Parties;
- aiding in the modification of a situation in which the offensive conduct occurred;
- assisting a division with the resolution of a real or perceived problem; or
- arranging a documented meeting to discuss the University's requirements for behavior.

The University will document any informal resolution. DIA will retain this documentation and keep it confidential to the extent permitted by law.

E. Option for Dispute Resolution

The University recognizes that in some circumstances, pursuing facilitated dispute resolution in lieu of the formal investigation process is preferable to the Parties involved. When appropriate, the University supports and encourages the benefits available through this alternative method.

Dispute resolution may be an appropriate means of addressing some incidents reported under this Policy. DIA within its discretion, may recommend this alternative to address some incidents reported under this Policy that have not been elevated to a Formal Investigation.

F. Formal Investigation Procedures

1**. Investigation Responsibility.** DIA is responsible for conducting formal investigations of Complaints and Reports involving possible violations of this Policy. DIA will initiate a formal investigation if a Complaint is within the scope of this Policy and articulates sufficient specific facts, which, if determined to be true, would support a finding that this Policy was violated.

Notwithstanding the above, DIA may initiate an investigation at the request of Human Resources representatives, deans, directors, department or unit heads, or vice-presidents, or at DIA's sole discretion when the facts or circumstances warrant such [3]. Additionally, if a Complaint/Report is withdrawn, DIA may choose to initiate a formal investigation if the alleged conduct implicates this Policy.

2. Delegation in Certain Circumstances. If a Complaint or Report is directed against an individual who would otherwise play a role in investigating or resolving the Complaint, or there is any other conflict of interest present, the function assigned to that person by these procedures will be delegated to another person, as determined appropriate by the Chief Compliance Officer, in consultation with the Vice President for Legal Affairs.

3. Notice of Investigation. If a formal investigation is warranted, DIA will provide the Parties a written Notice of Investigation (NOI). The NOI will include:

- A statement of the allegation(s) to be investigated;
- A statement notifying the Respondent that they have an opportunity to submit a written response to the allegation(s) within seven calendar days of receiving the NOI, unless unusual circumstances warrant additional time;
- A statement advising the Parties that Retaliation is prohibited and that engaging in Retaliation will result in appropriate disciplinary action;
- A statement notifying the Parties that they have a right to an advisor during the investigation process;
- A statement requesting confidentiality by the Parties to preserve the integrity of the investigation;
- A statement regarding the Parties' duty to cooperate;
- Information regarding resources available to the Parties; and
- Contact information for the DIA investigator assigned to the formal investigation

4. Investigative Process—Gathering of Evidence

a. Respondent Statement. Within seven calendar days of receiving the NOI, the Respondent has an opportunity to submit to DIA a written response to the allegations. DIA may extend this deadline if it determines circumstances warrant it.

b. Notice of Meetings. DIA will notify the Parties and witnesses of the date, time, location, participants, and purpose of any meeting. DIA will also notify them of their right to be accompanied by an advisor.

c. Interviews. During a formal investigation, DIA may interview the Complainant(s), Respondent(s), and persons that have Relevant information related to the Complaint or Report. Parties should submit the name(s) and contact information for any witnesses they would like to be interviewed and a brief explanation of the witness' relevance to the investigation. In most cases, DIA will not interview character witnesses.

d. Evidence. The Parties may present any information or evidence that may be Relevant to the investigation. DIA may also gather Relevant evidence from witnesses or other departments as appropriate.

e. Findings. DIA will use the Preponderance of the Evidence standard to determine if a policy violation has occurred.

5. Investigation Report and Referral

a.

Preliminary Investigation Report and Access to Evidence. After completion of the investigative process, DIA will provide the Parties a Preliminary Investigation Report (PIR) and access to Relevant evidence. The PIR will outline each of the allegations that potentially constitutes a violation of this Policy, provide the timeline of the investigation, and fairly summarize the Relevant evidence, participant statements, responses to questions, and documentary evidence. The PIR will also include a statement of finding of violation or no finding of violation and the related rationale.

DIA will redact student identifiable information and other information that is confidential by law. DIA also reserves the right to redact the names of witnesses for confidentiality and privacy reasons, as well as to mitigate a perceived risk of Retaliation.

DIA will provide a copy of the PIR and access to the Relevant evidence to the appropriate vice president, dean, or designee.

b. Opportunity to Respond. The Parties and their advisors will have 10 business days to review, inspect, and submit a written response to the PIR and the Relevant evidence. The written response should include any additional fact(s) or witnesses who may provide Relevant information. DIA will review and consider the responses received from the Parties, if any, and determine whether further investigation is warranted.

c. Discipline Decision-maker Review of PIR. The PIR will be provided to the appropriate discipline decision-maker, who may consult with DIA before the report is finalized regarding the investigation process, evidence collected, and the rationale provided for the determination of a finding or no finding of violation.

d. Completed Investigation Report and Referral. After the Parties have an opportunity to respond to the PIR, DIA will provide a Completed Investigation Report (CIR) and access to the Relevant evidence to the Parties and the appropriate vice president, dean, or assigned designee. Within 10 business days of receiving the CIR, the appropriate vice president, dean, or designee should discuss the findings with DIA, and review the record, along with any comments and proposed corrections submitted by the Complainant and Respondent, if necessary.

If there is a finding of violation, the CIR will be provided to the appropriate discipline decision-makers for disciplinary determinations as follows:

- If the Respondent is a student, it will be referred to the Dean of Students for discipline decision, in accordance with University's student disciplinary procedures;
- If the Respondent is faculty, it will be referred to the Executive Vice President and Provost for discipline decision, in accordance with the University's policies for discipline and termination of faculty; and
- If the Respondent is staff, it will be referred to the Associate Vice President of Human Resources for discipline decision, in accordance with the University's policies for discipline and termination of staff.

The vice president, dean, or designee will inform the Parties, DIA, and the appropriate department head in writing of the decision.

e. Privacy. As required by federal law, any disclosure of the findings and decision of the Office of the Dean of Students will be governed by the provisions of the Family Educational Rights and Privacy Act and other applicable law.

G. Right to Advisor

The Complainant(s) and the Respondent(s) may be accompanied by an advisor, who may be an attorney, to any meeting or interview with DIA. No advisor may examine witnesses or otherwise actively participate in a meeting or interview. An individual may only have one advisor present at a time.

H. Submission of Evidence

During an initial review or formal investigation, the Complainant(s) and the Respondent(s) should provide DIA with all relevant evidence in their care, custody, or control. They should also identify any witnesses that they believe have Relevant information. Any witness list should include a summary of the information the witness can provide regarding the issues raised in the Complaint.

I. Miscellaneous

1. Grievance of a Disciplinary Action

a. Any employee disciplined pursuant to this Policy, except faculty, teaching assistants, assistant instructors or members of the University of Texas Police Department (each of whom are subject to separate procedures [4]), may grieve that action by submitting a written grievance, within 10 business days of the imposition of the disciplinary action, to the President's Office. Ordinarily, the President will assign responsibility for review and action on the appeal of the vice president's action to another vice president; however, when required by unusual circumstances, the President may review and handle a grievance pursuant to this Policy.

b. If the disciplinary action that is being grieved does not involve termination, demotion, or suspension without pay, the vice president will thoroughly review and finally decide the matter within 30 calendar days of its receipt unless unusual circumstances require more time.

c. If the disciplinary action that is being grieved involves the termination, demotion or suspension without pay of an employee who is covered by HOP 5-2420 the vice president who is assigned to review the grievance will follow the procedures for appealing such actions contained in that section. Complainants will be required to appear and testify at hearings that may be a part of such proceedings.

d. Any student disciplined under this Policy has the right to appeal as provided in General Information Catalog, Appendix C, Chapter 11-Institutional Rules on Student Services and Activities.

2. Effect on Pending Personnel Actions

The filing of a Report or Complaint under this Policy will not stop or delay any personnel/academic actions including: (1) any evaluation or disciplinary action relating to a person who is not performing up to acceptable standards or who has violated University rules or policies; (2) any evaluation or grading of students participating in a class, or the ability of a student to add/drop a class, change academic programs, or receive financial reimbursement for a class; or (3) any job-related functions of a University employee. Nothing in this section shall limit the University's ability to take interim action or execute an emergency removal.

3. Relationship of Complaint Process to Outside Agency Time Limits

The filing of a Discrimination or Harassment Complaint does not excuse the Complainant from meeting deadlines set by law or an outside administrative agency.

4. Time Frames

DIA may extend the time frames mentioned in this Policy at its discretion.

5. Documentation and Confidentiality

The University will maintain documents related to Complaints under this Policy as required by law. The Office of the Dean of Students will be responsible for records related to Complaints against students.

DIA will be responsible for records related to Complaints against non-students. The confidentiality of a Complaint under this Policy and all documents, correspondence, interviews and discussions relating to the investigation of the information contained in a Complaint will be maintained on a need-to-know basis to the extent

permitted by law. Any person who knowingly and intentionally makes an unauthorized disclosure of confidential information contained in a Complaint or otherwise relating to the investigation of a Complaint under this Policy is subject to disciplinary action. The University may release information in the event of a lawsuit, official inquiry, or administrative action.

For Assistance: Questions regarding this policy should be directed to DIA.

Sources: Titles VI and VII of the Civil Rights Act of 1964, as amended; Age Discrimination in Employment Act of 1967, as amended; Age Discrimination Act of 1975; Americans with Disabilities Act of 1990; Equal Pay Act of 1963; Title II of the Genetic Information Nondiscrimination Act of 2008; Veterans Readjustment Act of 1974; Executive Order of 11246; Sections 503 and 504 of the Rehabilitation Act of 1973; Title IX of the Education Amendments of 1972; Texas Labor Code, Chapter 21; BOR 2.I.6; Previous policies: HOP 7.01 and 7.16

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[1] Pregnancy discrimination involves treating a person unfavorably because of pregnancy, childbirth, or a medical condition related to pregnancy or childbirth.

[2] See Section 13-204 of the Institutional Rules on Student Services and Activities (Appendix C to the *General Information Catalog)* for further information concerning harassment; and Sec.11-701(b) for information concerning enhanced student penalties for offenses motivated by race, color, or national origin.

[3] The president or designee who is specifically designated by the president for this purpose may authorize an independent investigation into matters that fall under this Policy. In these instances, the investigators may be asked to perform any task related to an investigation under this Policy and, if so directed, may Report directly to the president and/or the designee.

[4] Complaints of full-time faculty, including professional librarians with academic titles, who are notified that they will not be reappointed, or that the subsequent academic year will be their terminal appointment, and who contend that such decisions were made for unlawfully discriminatory reasons will be referred to the Office of the Executive Vice President and Provost for handling pursuant to Rule 31008 of the Rules and Regulations of the Board of Regents of The University of Texas System.

VIII. Resources

A. Behavior Concerns Advice Line (BCAL)
(512) 232-5050
Allows members of the University community to discuss their concerns about an individual's behavior (available 24-hours a day)
https://bcal.utexas.edu/

B. Counseling and Mental Health Center
(512) 471-3515
24-hour crisis line at (512) 471-CALL (2255) http://healthyhorns.utexas.edu/cmhc/

C. Deputy Title IX Coordinator for Faculty/Staff
Department of Investigation and Adjudication (512) 471-3701
https://compliance.utexas.edu/programs/dia

D. Deputy Title IX Coordinator for Students
Office of the Dean of Students (512) 471-5017
http://titleix.utexas.edu/

E. Human Resources
(512) 471-4772
hrsc@austin.utexas.edu
http://hr.utexas.edu

F. University Ombuds
For students and staff: (512) 471-3825
For Faculty: (512) 232-1889 https://ombuds.utexas.edu/staff
Provides a neutral, informal, and independent space for information about University resources and processes for students, staff and faculty

G. Disability and Access
(512)-471-6259
access@austin.utexas.edu
https://disability.utexas.edu/

H. Student Outreach and Support in the Office of the Dean of Students
(512) 471-5017
Provides referrals within the University and in the Austin area when necessary http://deanofstudents.utexas.edu/sos/index.php

I. University Risk and Compliance Services
English: 1-877-507-7321 Español 1-800-216-1288
compliance@austin.utexas.edu
http://compliance.utexas.edu/compliance-and-ethics-hotline

J. University Health Services
Appointments: (512) 471-4955
24-hour Nurse Advice Line: (512) 475-6877
Longhorn Wellness Center: (512) 475-8252
http://healthyhorns.utexas.edu

K. University of Texas Police Department
Emergencies: 911
Non-emergencies: (512) 471-4441, enter "9"
https://police.utexas.edu/

L. University Title IX Coordinator
University Risk and Compliance Services
(512) 232-3992
titleix@austin.utexas.edu
http://titleix.utexas.edu/

IX. Frequently Asked Questions

HOP 3-3020 FAQ's (.doc)

X. Related Information

Students:

Institutional Rules on Student Services and Activities, Appendix C, Chapter 11 (Student Conduct and Academic Integrity)

Institutional Rules on Student Services and Activities, Appendix C, Chapter 13 (Speech, Expression, and Assembly)

Institutional Rules on Student Services and Activities, Appendix D (Policy on Sex Discrimination, Sexual Harassment, Sexual Assault, Sexual Misconduct, Interpersonal Violence, and Stalking)

Institutional Rules on Student Services and Activities, Appendix I (Nondiscrimination Policy)

Handbook of Operating Procedure HOP 8-1010 (Prohibition of Campus Violence)

University Faculty and Staff:

Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination (HOP 3-3031)

Policies and Procedures for Discipline and Dismissal of Employees (HOP 5-2420)

XI. History

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Appendix J: Prohibition of Campus Violence

The University of Texas at Austin is committed to creating and maintaining an environment that is free from threatening and violent behavior. Such behavior while on University owned or controlled property, or while engaged in official University business, will not be tolerated. The University encourages students, faculty, staff, visitors and contractors to promptly report any emergency or crime to University Police (UTPD). The University will respond promptly, positively, and aggressively to deal with threatening and violent behavior.

I. **General Policy Guidelines**

A. **Scope**
This policy applies to the conduct of any person on University premises or at University sponsored activities, including faculty, students, staff, visitors or contractors while on University owned or controlled property, or while engaged in official University business.

B. **Definitions**
Violent behavior includes any behavior, whether intentional or reckless, which results in bodily injury to one's self, another person and/or damage to property.
Threatening behavior includes any behavior, whether intentional or reckless, that by its nature would be interpreted by a reasonable person as an intent to harm one's self, another person or damage property belonging to another. Threats may be oral, written, or communicated through conventional mail, electronic, fax, or telephonic means and may be direct or implied.
Campus violence encompasses threatening and violent behavior. Campus violence can include, but is not limited, to the following:

- Physically assaulting a person, including slapping, hitting, punching, pushing, poking or kicking; or physical threats to inflict physical harm;
- Arson, sabotage, equipment vandalism, damaging or destroying property, throwing or hitting objects;
- Displaying a weapon or an object which appears to be a weapon in a threatening manner; carrying a firearm of any kind onto University-owned or University-controlled property (except those permitted by state law or University policy 8-1060, Campus Concealed Carry, of the Handbook of Operating Procedures); or using a weapon to harm someone
- Using greater physical size/strength to intimidate another; intimidating or threatening gestures, bullying, or hazing
- Intimidating, threatening, hostile, or abusive language directed toward another person that communicates the intention to engage in violence against that person and leads a reasonable person to expect that violent behavior may occur
- Stalking another person

C. **Campus Violence Prohibited**
Any person who engages in campus violence while on University owned or controlled property, or while engaged in official University business, may be removed and/or barred from the premises pending the outcome of an investigation.

II. **Procedures**

A. **Reporting Immediate Emergencies or Crimes**
Any individual who experiences, is aware of, or witnesses campus violence, or who has reason to suspect that campus violence is occurring that may be of a criminal nature or poses clear and present danger should immediately dial "911." The emergency dispatcher will direct the call to the University of Texas Police Department or the Austin Police Department as appropriate. In addition, the university department head where the incident occurred should be informed.

B. **Reporting Less Immediate Threats**
Every supervisor, administrator and university official is responsible for responding promptly and thoroughly to allegations of campus violence and for reporting such behavior through normal lines of administrative responsibility. For assistance the incident may also be reported directly to the Behavior Concerns Advice Line (BCAL) at (512) 232-5050 or at the website. The caller will be advised how to proceed and/or will be routed to the appropriate resource.

- Incidents involving staff members shall be directed to the Associate Vice President for Human Resources. The Associate Vice President for Human Resources will contact the appropriate officials and department personnel to address the potential campus violence.
- Incidents involving students shall be directed to the Office of the Dean of Students. The Office of the Dean of Students will contact the appropriate officials and department personnel to address the potential campus violence.
- Incidents involving faculty members should be directed to the Office of the Executive Vice President and Provost. The Provost's Office will contact the appropriate officials and department personnel to address the potential campus violence.

C. **Protective or Restraining Orders**
Any member of the University community who takes out a protective or restraining order against another person, or receives a protective or restraining order which lists University owned or leased premises as a protected area, shall provide their supervisor and The University of Texas at Austin Police Department with a copy of such order along with a photograph of the person against whom the order has been issued when possible.

D. **Sanctions**
Individuals who violate this policy may be removed from campus, arrested and be subject to legal action. University employees and students who violate this policy may also be subject to disciplinary action up to and including dismissal.

E. **Filing of False Reports**
Any person who knowingly and intentionally files a false report shall be subject to disciplinary action that may include dismissal, expulsion, and/or legal action.

F. **Documentation and Confidentiality**
The University shall document the report and the investigation. Such documentation shall be retained by The University of Texas at Austin Police Department or the appropriate office listed in II.B. above. Subject to the provisions of the Texas Public Information Act, Chapter 552, Texas Government Code, the University will maintain the confidentiality of the report and the identity of the reporting person during the investigation. The identity of the reporter and perpetrator may become apparent, or disclosed, as a result of the actions taken to resolve the investigation.

G. **Retaliation Prohibited**
A faculty, student, or staff member who retaliates in any way against an individual who has brought a complaint in good faith pursuant to this policy or participated in good faith in an investigation of such a complaint, is subject to disciplinary action, including dismissal.

For assistance: Questions regarding campus violence should be directed to Human Resource Services or the Office of the Dean of Students.

Appendix K: Student Travel Policy for University-Organized or Sponsored Events

A. **Policy Statement**
It is the policy of The University of Texas at Austin to promote safe travel by students to and from certain events and activities covered by this policy.

B. **Scope**
This policy applies to the travel of enrolled undergraduate or graduate students to attend activities or events that are organized and/or sponsored by The University of Texas at Austin and occur more than 25 miles from the University campus or an event that has a duration of 24 hours or more.
The types of activities and events covered by this policy include course-related field trips, Recreational Sports club trips, the activities of sponsored student organizations, and meetings of academic organizations where a student is officially representing the University.
The policy does not apply to travel undertaken by students to attend out of town athletic events, or to engage in student-teaching, internships, practicums, observations or research, unless the research is organized by a University employee.

C. **Definitions**
1. An **organized event** is one that is initiated, planned, and arranged by a member of the University's faculty or staff, or by the members of a sponsored student organization, and is approved by an appropriate administrator.
2. A **sponsored event** or activity is one that the University endorses by supporting it financially, or by sending students to participate in it as official representatives of the University.
3. An **enrolled student** is one who has been admitted to and is attending classes at the University.
4. An **appropriate administrator** is a dean, department chair, or director of an administrative unit, or their delegate.

D. **Travel Authorization**
In order to assure that the events or activities that involve student travel are within the course and scope of the University's mission, and that student safety issues have been addressed, travel undertaken pursuant to this policy must be authorized in advance by an appropriate administrator.
1. To request authorization, members of the faculty, staff or sponsored student organizations who organize activities covered by this policy must submit a completed Student Travel Request Authorization form, along with the required documents and information, to the appropriate administrator for approval. The request must be submitted at least five business days in advance of travel to the activity or event.
2. The following information/documents must be submitted along with the Travel Authorization Request form:
   a. A list of participants including their names and EID.
   b. The name, phone number, and address of lodgings, if applicable.
   c. The date and time of the arrival and departure from lodgings, if applicable.
   d. The date and time of the departure and return to campus.
   e. The name and phone number for the responsible University employee(s) who will be available to the students at all time during the travel and activity.
   f. Copies of valid operators' licenses for any students who will operate vehicles.
   g. A schedule for the trip that includes travel, planned activities, meals, and sleep period(s). Organizations utilizing personal vehicles for travel must allow for travelers to have at least six hours of sleep before driving.
3. When leading group trips, faculty or staff must collect and take a copy of the following documents and information with them while on the trip:
   a. A list of the names, phone numbers, and the name and number of an emergency contact for each participant;
   b. Copies of valid operators' licenses for any participants who will operate vehicles; and
   c. Copies of current medical insurance certificates or a copy of both sides of an insurance group membership card for each person who wishes to participate in the activity or event. Purchase of a reasonably priced, short-term special events policy can be arranged by Student Activities on behalf of students who do not have, or cannot verify, current medical coverage. Information concerning this coverage is available from Student Activities, (512) 471-3065.
   d. Completed and signed Release and Indemnification Agreements for each participant.
   e. Completed and signed Authorization for Medical Treatment forms for each participant.
4. Faculty who teach courses that involve frequent field trips can collect the following information from students at the beginning of each semester and keep it on file with the appropriate administrator for use throughout a semester.
   - Proof of current medical insurance
   - Completed and signed medical authorization forms
   - Completed and signed release and indemnification agreements (a single release and indemnification agreement may be used if a single description fits all the proposed trips)
   - Proof of a valid vehicle operator's license for students who will operate vehicles
5. One-time approval can be provided for multiple trips led by faculty or staff that involve the same locations and same participants.
6. The Travel Authorization Request, the Authorization for Medical Treatment, and the Release and Indemnification Agreement forms are available from the Office of the Vice President of Student Affairs or can be downloaded from the Student Travel website.

E. **Travel by Motor Vehicle**
1. **Compliance with Laws and Policies**
   a. Motor vehicles used for travel covered by this policy shall have a current proof of liability insurance card and a state inspection certification.
   b. Travel undertaken by means of 15 passenger vans must comply with the requirements of The University of Texas System's Business Procedure Memorandum 16.5.2.
2. **Vehicle Operator Requirements**
   a. All students who will operate vehicles while engaged in travel covered by this policy must have a valid operator's license and be trained as required by law to drive the vehicle that will be used.
   b. Operators shall comply with all laws, regulations and posted signs or directions regarding speed and traffic control.
   c. Operators shall take a mandatory 30-minute rest break every four hours.

d. Operators shall drive no more than 10 hours in any 24 hour period.

e. Trips requiring more than 10 hours driving time to reach a point of destination shall require overnight lodging.

f. A navigator shall be assigned for all trips scheduled to take more than two hours. The navigator must stay awake while on duty.

3. **Safety Requirements for Both Operators and Passengers**

a. **Seat Belts.** Occupants of motor vehicles shall use seat belts or other approved safety restraint devices required by law or regulation at all times when the vehicle is in operation.

b. **Alcohol and Illegal Substances.** Occupants of motor vehicles shall not possess, consume, or transport any alcoholic beverages or illegal substances.

c. **Passenger Capacity.** The total number of passengers in any vehicle at any time it is in operation shall not exceed the manufacturer's recommended capacity, or the number specified by University policy, or federal or state law or regulations, whichever is lowest.

4. **Travel by Rental Vehicle**

Rentals of vehicles to use for travel to activities or events covered by this policy are governed by the following guidelines:

a. **Vehicle Reservations**

The University is a participant in the State Travel Management Program, which has negotiated favorable vehicle rental rates with a number of car rental companies. While use of one of the University's travel agencies is not required, doing so will help assure that: 1) vehicles are rented pursuant to the State Travel Management plan whenever possible; 2) that vehicle rental agreements are valid; and 3) that necessary insurance coverage has been purchased. Information concerning those agencies is available from the University Travel Management Services website.

b. **Payment of Costs for Rental Vehicles**

Vehicle rental charges can be a) billed centrally to University Travel Management Services; or b) billed directly to those Departments or Divisions that have uniquely numbered accounts with state contract car rental companies. If the rental costs are to be centrally billed, it will be necessary for the driver to obtain a voucher from the University's Travel Management Services prior to picking up the rental vehicle.

If necessary, personal credit cards may be used to rent vehicles for travel covered by this policy, and cardholders will be reimbursed for appropriate and approved costs. If rentals are from companies that are not under the state contract, the reimbursement amount will be limited to that which would have been incurred for equivalent state contract rentals.

F. **Insurance Coverage**

1. **Rentals from companies participating in the State Travel Management Program.** Loss/Damage Waiver and Primary Liability insurance coverage are automatically included in the rates charged by companies participating in the State Travel Management Program. That protection does not cover injuries to persons or possessions inside a rental vehicle. Therefore, it is suggested that the personal injury insurance protection and the personal effects insurance protection offered by rental companies be purchased for student travel covered by this policy, particularly if there will be numerous passengers in the vehicle. The cost of the extended coverage is reimbursable only from funds held in 18, 19, 26, 29, and 30 accounts.

2. **Rentals from non-state contract rental companies.**

If no state contract cars are available and it is necessary to rent vehicles from non-contract companies, then both the Loss/Damage Waiver and Primary Liability Coverage must be purchased unless the rental is charged to a University issued Diner's Club card. It is suggested that the personal injury insurance protection and the personal effects insurance protection offered by rental companies be purchased for student travel covered by this policy, particularly if there will be numerous passengers in the vehicle. The cost of the extended coverage is reimbursable only from funds held in 18, 19, 26, 29 and 30 accounts.

3. **Travel by Means of a Vehicle Owned or Leased Long-Term by the University**

In addition to complying with the general rules set out above, travel by means of a vehicle that is owned or leased long-term (for a period of more than one year) by the University must comply with the following requirements:

a. **Proof of Insurance, Inspection, and Safety Devices**

Vehicles used for travel activity covered by this policy must:

1. Have a current proof of liability insurance card;
2. Have a valid state inspection sticker;
3. Have all devices or equipment required by federal or state law or regulations and any applicable UT System policy; and
4. Comply with any other applicable federal or state law or regulation and any applicable UT System policy.

b. **Service and Maintenance**

A University-owned or long-term leased vehicle used for student travel under this policy must be subject to scheduled periodic service and maintenance by qualified persons and comply with all applicable requirements of any UT System policy.

c. **Employee Operators**

All operators of vehicles described in this section shall be on the payroll of The University of Texas at Austin. All operators must have a valid license for the operation of a particular vehicle; must be authorized to operate the vehicle in accordance with UT System policy; and have a current BMDRIV rating on file. Human Resources or the Controller's Office can be contacted for information on how employees may obtain a rating.

4. **Travel by Privately Owned Vehicles**

The use of personal vehicles by students for travel to events covered by this policy is strongly discouraged.

a. When requesting authorization for travel that involves the use of personally owned vehicles, the requestor, in addition to submitting the information described in Part D.2., shall also submit a copy of a current liability insurance certificate for any vehicle to be used for the proposed travel.

b. The persons responsible for the proposed activity and travel shall inform students who will drive their privately owned vehicles that their personal liability insurance policy will be looked to first to cover any liability that may result from the use of the vehicle for the proposed travel.

5. **Volunteer Drivers and Passengers**

Non-student/non-employee drivers and passengers who accompany students on travel covered by this policy must sign the Release and Indemnification and the Authorization for Medical Treatment forms prior to the trip. Forms can be downloaded at the Student Travel website.

For assistance: Questions regarding this policy should be directed to the Office of the Vice President for Student Affairs.

Source: Texas Education Agency Code 51.494; UT System Regental Student Travel Policy
Previously HOP 12.B.2

Policy Website: *Handbook of Operating Procedures*, 9-1420

Appendix L: Student Travel Policy for Registered Student Organizations

1. **Policy Statement**
   It is the policy of The University of Texas at Austin to promote safe travel by members of its registered student organizations to certain events and activities.
2. **Scope**
   This policy applies to the travel of student members of a registered student organization when the registered student organization requires or coordinates an activity or event for its student members and the activity or event occurs overnight or more than twenty-five miles from the campus of the University. For all international travel, also refer to Appendix N. For travel by sponsored student organizations, please refer to Appendix K (p. 154) HOP 9-1420, Student Travel Policy for University Organized or Sponsored Events.
3. **Trip Approval Requirements**
   A. Registered student organizations that organize events or activities covered by this policy must obtain prior authorization.
   B. To obtain authorization to travel, the registered student organization must apply through a process prescribed by the Assistant Vice President of Student Life. The application must be submitted at least ten days prior to the proposed trip.
   C. Students must follow guidelines and processes set forth by the Assistant Vice President of Student Life for all travel. Specific information of the process and requirements is available on the university website at https://deanofstudents.utexas.edu/safetyed/registered-student-organization-travel.php.
4. **Travel by Motor Vehicle**
   A. **Compliance with State Law**
   Each motor vehicle must have a current proof of liability insurance card and state inspection certification, be equipped with all safety devices or equipment required by federal or state law or regulation, and comply with all other applicable requirements of federal or state law or regulations and any applicable UT System policy.
   B. **Vehicle Operator Requirements**
      i. All students who will operate vehicles while engaged in travel covered by this policy must have a valid operator's license, valid insurance, and be trained as required by law to drive the vehicle that will be used, and comply with applicable requirements of The University of Texas Systemwide Policy UTS 157, Automobile Insurance Coverage for Officers and Employees and General Requirements for the Use of Vehicles.
      ii. Operators of motor vehicles shall comply with all laws, regulations, and posted signs or directions regarding speed and traffic control.
      iii. Operators shall drive no more than two hours without a minimum rest stop of thirty minutes.
      iv. Operators shall drive no more than ten hours in any twenty-four-hour period.
      v. Members must assign a navigator for trips if more than one member is traveling. The navigator shall remain awake while on duty. The navigator's responsibility is to assist with way finding and route planning.
      vi. Trips requiring more than ten hours of driving time shall include overnight lodging.
   C. **Safety Requirements for Both Operators and Passengers**
      i. **Seat Belts.** Occupants of motor vehicles shall use seat belts or other approved safety restraint devices required by law or regulation at all times when the vehicle is in operation.
      ii. **Alcohol and Illegal Substances.** Occupants of motor vehicles shall not possess, consume, or transport any alcoholic beverages or illegal substances.
      iii. **Passenger Capacity.** The total number of passengers in any vehicle at any time it is in operation shall not exceed the manufacturer's recommended capacity, or the number specified by University policy, UT System Policy 157, or federal or state law or regulations, whichever is lowest.
5. Non-Compliance
   Any organization that fails to comply with this policy may result in the Office of the Dean of Students initiating disciplinary proceedings under subchapter 6-500 and/or subchapter 11-500 of the *Institutional Rules*.

For assistance: Questions regarding this policy should be directed to the Office of the Dean of Students, studentorgtravel@austin.utexas.edu.

Appendix M: Use of E-mail for Official Correspondence to Students

A. **Policy Statement**
Electronic mail (email), like postal mail, is a mechanism for official University communication to students. The University will exercise the right to send email communications to all students, and the University will expect that email communications will be received and read in a timely manner.

B. **Scope**
This policy applies to all admitted and enrolled students of The University of Texas at Austin. Official communications using email can include email to a group, such as all admitted students, or an email message to only one student.

C. **E-mail Addresses**
All current students are provided with an official UT Microsoft 365 email address before they start their first semester at the University. Incoming students will receive an email confirmation when their UT Microsoft 365 is created. While a current student, all University email communication will be routed to the Microsoft 365 email address. More information about using the official UT Microsoft email address is available at the Official Student Email Help Page.
Every student must also provide the University with an up-to-date personal email address using the online update form in UT Direct. The personal email address will be used to send communication once the student has departed from the University.
Students may elect to forward email from their official UT Microsoft 365 email address to their personal email address, if they choose. However, when doing so students accept all risks associated with email not being delivered by their personal email address provider. Email returned to the University with "User Unknown" is not an acceptable excuse for missed communication. Note that students who are also employees are not permitted to forward email to their personal email address while they are a UT employee.

D. **Expectations Regarding Frequency of Reading E-mail**
Students are expected to check email on a frequent and regular basis in order to stay current with University-related communications,

recognizing that certain communications may be time-critical. It is recommended that email be checked daily, but at a minimum, twice per week. Regular email management will also minimize the risk that the inbox will be full, causing the email to be returned to the sender with an error. Undeliverable messages returned because of either a full inbox or use of a spam filter will be considered delivered without further action required of the University.

E. **Privacy and Confidentiality**
Official University communications sent by email are subject to the same public information, privacy, and records retention requirements and policies as other official University communications.

F. **Instructional Uses of E-mail**
Faculty members retain autonomy in determining how email or other forms of electronic communication will be used in their classes, but they must specify the requirements in the course syllabus. Faculty may expect that students are checking email regularly, and faculty members may use email for their courses accordingly.

G. **Authoritative Source**
The authoritative source on this policy and responsibility for its implementation rest with the Chief Information Officer.

H. **For Assistance**
Contact the UT Service Desk for technical support at (512) 475-9400 or send email to the help@utexas.edu (%20help@utexas.edu).

Appendix N: Student Travel Policy for International Locations

A. **Policy Statement** It is the policy of The University of Texas at Austin to promote safe international travel for students participating in activities and/or events covered under this policy. Under this policy, the University reserves the right to cancel any international activity and/or require UT students to depart their international location due to health, safety and/or other concerns, to include academic and disciplinary misconduct. Current international travel policy and Restricted Region travel information can be found on the Texas Global website.

B. **Scope**
This policy applies to the travel of enrolled undergraduate, graduate, or professional students attending activities and/or events (whether required or optional) that occur in an international location (including U.S. protectorates and insular areas). This policy applies to UT-affiliated student travel with or without university funding.
The types of activities and events covered by this policy include:

- trips organized and/or sponsored by The University of Texas at Austin that are part of or contribute to an academic course or degree program, including internships, practicums, and research;
- academic-related international service learning, internships, practicums, research, and volunteer opportunities organized and/or sponsored by The University of Texas at Austin;
- travel by members of a registered student organization regardless of whether or not the organization requires its student members to attend the activity or event;
- other trips organized and/or sponsored by The University of Texas at Austin, including the activities of sponsored student organizations;
- travel to meetings of academic-related, professional associations including conferences; and
- official education abroad programs.

C. **Definitions**
1. An **organized event** is one that is initiated, planned, and arranged by a member of the University's faculty or staff, or by the members of a sponsored student organization, and is approved by an appropriate administrator.
2. A **sponsored event** or activity is one that the University endorses by supporting it financially, or by sending students to participate in it as official representatives of the University.
3. An **enrolled student** is one who has been admitted to and is attending classes at the University.
4. An **appropriate administrator** is a dean, department chair, or director of an administrative unit, or their delegate.

D. **Travel Authorization and Registration**
In order to ensure that events or activities which involve student international travel are within the course and scope of the University's mission, and that student safety issues have been addressed, international travel undertaken pursuant to this policy must be authorized in advance by an appropriate administrator and registered as described below:

1. Acceptance into an officially recognized exchange, affiliate or faculty led program. Students participating in approved education abroad programs are registered in the MyAbroad portal.
2. Receive group travel authorization through the Safety Assessment for an International Group Experience (SAIGE).
3. All travel outside the scope of approved education abroad programs must register through the UT Austin International Travel Registry.
4. If applicable, obtain approval to travel to a Restricted Region. All travelers are responsible for ensuring compliance with Restricted Regions travel approval policy, as set forth by the International Oversight Committee (IOC).

Participant Category	Signature Required
Individual Student	Department Chair for Restricted Region
Group Travel with Accompanying Faculty	Department Chair
Registered Student Organization	Student Activities – Student Organization Travel, Office of the Dean of Students (and Department Chair for Restricted Region)
Sponsored Student Organization	Sponsoring Department (and Department Chair for Restricted Region)

E. **Non-Compliance**
This applies to any individual, organization or group travel that falls within the scope of this policy. Failure or refusal to comply with this policy may result in the Dean of Students initiating disciplinary proceedings under subchapter 6-500 and/or subchapter 11-500 of the *Institutional Rules*.
If a faculty or staff member administratively responsible for the program fails or refuses to comply with policy directives, Texas Global will inform the appropriate chair and dean. Sanctions could result in the withholding of reimbursement for travel expenses.
If a student fails to obtain Restricted Regional approval for travel from the IOC they will not be reimbursed for costs from the sponsoring college/school department or unit.
If the University incurs expenses on behalf of the student, faculty/staff, organization, or program, the individual or corresponding

college/school, department or unit will be held financially responsible.

Appendix O: Preventing Discrimination Against Pregnant & Parenting Students

This policy is included as HOP 3-3021: Preventing Discrimination Against Pregnant & Parenting Students. See the University Policy Office's website for current and archived versions of this policy at https://policies.utexas.edu/.

Statistical Summaries

Degrees conferred, 1884-2025 [1]

	Conferred in 2024-2025[2]			Total Conferred, 1884-2025		
	Men	Women	Both	Men	Women	Both
Graduate School[3]						
Doctor of Audiology	1	12	13	19	135	154
Doctor of Education	7	14	21	369	256	625
Doctor of Musical Arts	16	9	25	807	556	1,363
Doctor of Nursing Practice	3	10	13	18	138	156
Doctor of Pharmacy[4]	0	0	0	176	255	431
Doctor of Philosophy	429	354	783	26,361	14,365	40,726
Master in Professional Accounting	106	115	221	5,265	5,089	10,354
Master of Advanced Architectural Design	2	1	3	6	6	12
Master of Architecture	19	31	50	1,308	864	2,172
Master of Arts	109	184	293	16,909	18,510	35,419
Master of Business Administration	338	167	505	20,558	6,574	27,132
Master of Education	53	121	174	3,386	7,907	11,293
Master of Fine Arts (or Master of Fine Arts in Drama)	29	41	70	1,200	1,427	2,627
Master of Journalism	0	0	0	89	45	134
Master of Global Policy Studies	16	27	43	291	406	697
Master of Interior Design	1	11	12	9	64	236
Master of Landscape Architecture	6	6	12	69	167	236
Master of Library and Information Science	0	0	0	1,018	3,183	4,201
Master of Music	21	20	41	1,617	1,730	3,347
Master of Public Affairs	33	50	83	2,047	2,604	4,651
Master of Public Leadership	5	14	19	15	24	39
Master of Science	0	0	0	22	14	36
Master of Science in Accounting	2	1	3	17	13	30
Master of Science in Aerospace Engineering (or Aeronautical Engineering)	0	0	0	182	3	185
Master of Science in Applied Physics	0	0	0	17	4	21
Master of Science in Architectural Engineering	0	0	0	99	2	101
Master of Science in Architectural Studies	0	0	0	37	63	100
Master of Science in Architecture	0	0	0	14	2	16
Master of Science in Artificial Intelligence	34	6	40	34	6	40
Master of Science in Business Analytics	81	58	139	539	370	909
Master of Science in Ceramic Engineering	0	0	0	9	0	9
Master of Science in Chemical Engineering	0	0	0	493	3	496
Master of Science in Civil Engineering	0	0	0	432	2	434
Master of Science in Communication Engineering	0	0	0	3	0	3
Master of Science in Community and Regional Planning	13	14	27	717	732	1,449
Master of Science in Computational and Applied Mathematics	0	0	0	89	25	114
Master of Science in Computational Science, Engineering, and Mathematics	15	5	20	170	44	214
Master of Science in Computer Science	264	57	321	2,013	508	2,521
Master of Science in Data Science	248	88	336	503	152	655
Master of Science in Economics	5	3	8	403	200	603
Master of Science in Electrical Engineering	0	0	0	625	4	629
Master of Science in Energy and Earth Resources	4	8	12	104	93	197
Master of Science in Engineering	365	132	497	15,673	3,514	19,187
Master of Science in Engineering Mechanics	0	0	0	74	0	74
Master of Science in Environmental Health Engineering (or Sanitary Engineering)	0	0	0	191	3	194
Master of Science in Finance	51	25	76	569	243	812
Master of Science in Geological Sciences	13	4	17	422	291	713
Master of Science in Health Behavior and Health Education	2	0	2	7	18	25
Master of Science in Health Care Transformation	5	4	9	88	118	206
Master of Science in Health Education	0	0	0	1	7	8
Master of Science in Historic Preservation	1	0	1	19	96	115
Master of Science in Home Economics	0	0	0	3	167	170

Master of Science in Identity Management and Security	0	0	0	19	12	31
Master of Science in Information, Risk, and Operations Management	0	0	0	89	62	151
Master of Science in Information Security and Privacy	14	3	17	66	23	89
Master of Science in Information Studies	30	87	117	535	1,671	2,206
Master of Science in Information Technology Management	20	22	42	135	115	250
Master of Science in Kinesiology	2	4	6	100	84	184
Master of Science in Landscape Architecture	0	0	0	0	1	1
Master of Science in Management	1	2	3	26	17	43
Master of Science in Marine Science	1	1	2	32	56	88
Master of Science in Marketing	16	52	68	124	309	433
Master of Science in Mechanical Engineering	0	0	0	459	0	459
Master of Science in Medicine	0	0	0	2	0	2
Master of Science in Neuroscience	1	0	1	8	7	15
Master of Science in Nursing	8	58	66	301	2,486	2,787
Master of Science in Nutritional Sciences	4	40	44	28	188	216
Master of Science in Operations Research and Industrial Engineering (or Industrial Engineering)	0	0	0	50	4	54
Master of Science in Petroleum Engineering	0	0	0	299	1	300
Master of Science in Pharmaceutical Sciences	1	4	5	22	47	69
Master of Science in Pharmacy	0	0	0	232	189	421
Master of Science in Social Work	21	124	145	1,186	6,434	7,620
Master of Science in Speech, Language, and Hearing Sciences	2	22	24	8	128	136
Master of Science in Statistics	4	2	6	100	103	203
Master of Science in Sustainable Design	3	3	6	34	54	88
Master of Science in Technology Commercialization (or Science and Technology Commercialization)	33	6	39	1,044	281	1,325
Master of Science in Textile and Apparel Technology	0	0	0	6	14	20
Master of Science in Urban Design	4	9	13	41	71	112
Total	2,462	2,031	4,493	110,04	83,348	193,390

School of Architecture[5]

Bachelor of Architecture	16	31	47	3,343	996	4,339
Bachelor of Architecture in Regional and City Planning	0	0	0	11	1	12
Bachelor of Interior Architecture	0	0	0	3	8	11
Bachelor of Science in Architectural Studies	1	5	6	176	210	386
Bachelor of Science in Architecture	0	0	0	78	18	96
Bachelor of Science in Interior Design[6]	0	15	15	15	263	278
Total	17	51	68	3,626	1,496	5,122

College of Arts and Sciences[7]

Bachelor of Arts	0	0	0	20,744	19,664	40,408
Bachelor of Literature	0	0	0	89	101	190
Bachelor of Science	0	0	0	178	67	245
Bachelor of Science in Architectural Studies	0	0	0	88	9	97
Bachelor of Science in Chemistry	0	0	0	683	173	856
Bachelor of Science in Geology	0	0	0	1,528	33	1,561
Bachelor of Science in Home Economics	0	0	0	65	3,309	3,374
Bachelor of Science in Medical Technology	0	0	0	11	146	157
Bachelor of Science in Medicine	0	0	0	190	5	195
Bachelor of Science in Naval Science and Tactics	0	0	0	60	0	60
Bachelor of Science in Nursing	0	0	0	0	11	11
Bachelor of Science in Physics	0	0	0	788	18	806
Total	0	0	0	24,424	23,536	47,960

Red McCombs School of Business

Bachelor of Business Administration	630	617	1,247	60,295	32,743	93,038
Bachelor of Science in Naval Science and Tactics	0	0	0	26	0	26
Total	630	617	1,247	60,321	32,743	93,064

Moody College of Communication

Bachelor of Journalism[8]	37	131	168	4,676	9,048	13,724
Bachelor of Science in Advertising	61	215	276	3,795	7,821	11,616
Bachelor of Science in Communication and Leadership	27	68	95	136	354	490

Bachelor of Science in Communication Sciences and Disorders	0	3	3	156	2,835	2,991
Bachelor of Science in Communication Studies (or Speech)	37	125	162	2,795	7,831	10,626
Bachelor of Science in Public Relations	16	142	158	539	3,229	3,768
Bachelor of Science in Radio-Television-Film	122	163	285	7,807	5,707	13,514
Bachelor of Science in Speech, Language, and Hearing Sciences	4	95	99	5	213	218
Total	304	942	1,246	19,909	37,038	56,947
College of Education						
Bachelor of Science in Applied Learning and Development	15	121	136	1,153	8,533	9,686
Bachelor of Science in Athletic Training	3	7	10	78	139	217
Bachelor of Science in Education	5	55	60	2,094	8,556	10,650
Bachelor of Science in Elementary Education	0	0	0	194	8,246	8,440
Bachelor of Science in Kinesiology[9]	0	0	0	2,481	2,461	4,942
Bachelor of Science in Kinesiology and Health	184	212	396	2,016	2,132	4,148
Bachelor of Science in Nursing Education	0	0	0	0	33	33
Total	207	395	602	8,016	30,100	38,116
Cockrell School of Engineering						
Bachelor of Engineering Science	0	0	0	450	47	497
Bachelor of Science in Aerospace Engineering (or Aeronautical Engineering)	79	23	102	4,185	566	4,751
Bachelor of Science in Architectural Engineering	34	20	54	2,541	683	3,224
Bachelor of Science in Biomedical Engineering	56	81	137	1,084	858	1,942
Bachelor of Science in Ceramic Engineering	0	0	0	112	0	112
Bachelor of Science in Chemical Engineering	83	63	146	6,244	1,987	8,231
Bachelor of Science in Civil Engineering	75	47	122	6,045	1,987	7,390
Bachelor of Science in Computational Engineering	17	10	27	127	42	169
Bachelor of Science in Electrical and Chemical Engineering	0	0	0	121	44	165
Bachelor of Science in Electrical and Computer Engineering	200	55	255	200	55	255
Bachelor of Science in Electrical Engineering[34]	103	19	122	14,353	1,647	16,000
Bachelor of Science in Electrical and Utility Engineering	0	0	0	4	0	4
Bachelor of Science in Environmental Engineering	16	43	59	97	174	271
Bachelor of Science in Geosystems Engineering and Hydrogeology[10]	5	0	5	95	48	143
Bachelor of Science in Mechanical Engineering	215	60	275	11,926	1,594	13,520
Bachelor of Science in Mechanical and Industrial Engineering	0	0	0	4	0	4
Bachelor of Science in Meteorology	0	0	0	40	2	42
Bachelor of Science in Naval Science and Tactics	0	0	0	48	0	48
Bachelor of Science in Petroleum Engineering (or Petroleum Production Engineering)	54	15	69	4,655	582	5,237
Civil Engineer	0	0	0	172	0	172
Civil Engineer (five-year course)	0	0	0	9	0	9
Electrical Engineer	0	0	0	119	0	119
Electrical Engineer (five-year course)	0	0	0	11	0	11
Engineer of Mines	0	0	0	16	0	16
Total	937	436	1,373	52,537	9,630	62,167
College of Fine Arts						
Bachelor of Arts	8	41	49	36	222	258
Bachelor of Arts in Art[11,33]	0	0	0	882	2,561	3,443
Bachelor of Arts in Dance[12]	0	0	0	23	123	146
Bachelor of Arts in Drama[13]	0	0	0	181	310	491
Bachelor of Arts in Music[14]	7	15	22	377	440	817
Bachelor of Arts in Theatre and Dance	10	26	36	416	1,065	1,481
Bachelor of Fine Arts	20	101	121	3,088	6,391	9,479
Bachelor of Music	32	23	55	1,617	2,053	3,670
Bachelor of Science in Arts and Entertainment Technologies	38	34	72	269	269	538
Total	115	240	355	6,889	13,434	20,323
Division of General and Comparative Studies[15]						
Bachelor of Arts	0	0	0	686	612	1,298
Bachelor of Science in Architectural Studies	0	0	0	49	8	57
Total	0	0	0	735	620	1,355
John A. and Katherine G. Jackson School of Geosciences						
Bachelor of Arts in Geological Sciences[16]	2	3	5	47	48	95
Bachelor of Science in Environmental Science[32]	2	9	11	36	61	97

Bachelor of Science in Geological Sciences[16]	16	15	31	484	349	833
Bachelor of Science in Geosciences	2	2	4	2	2	4
Total	22	29	51	569	460	1,029
College of Humanities[17]						
Bachelor of Arts	0	0	0	1,312	2,186	3,498
Total	0	0	0	1,312	2,186	3,498
School of Information						
Bachelor of Arts	1	4	5	2	6	8
Bachelor of Science in Informatics	37	42	79	52	79	131
Total	38	46	84	54	85	139
School of Law						
Doctor of Jurisprudence[18]	144	164	308	25,728	9,666	35,394
Master of Comparative Jurisprudence	0	0	0	107	26	133
Master of Laws	12	14	26	607	504	1,111
Total	156	178	334	26,442	10,196	36,638
College of Liberal Arts[19]						
Bachelor of Arts	923	1,669	2,592	49,983	58,623	108,606
Bachelor of Science in Architectural Studies[20]	0	0	0	44	29	73
Bachelor of Science in Behavioral and Social Data Science	2	3	5	2	3	5
Bachelor of Science in Economics	104	49	153	151	70	222
Bachelor of Science in Environmental Science[32]	1	3	4	29	58	87
Bachelor of Science in Psychology	43	165	208	689	1,884	2,573
Total	1,073	1,889	2,962	50,898	60,667	111,566
Dell Medical School						
Doctor of Medicine	17	28	45	117	164	281
Total	17	28	45	117	164	281
College of Natural Sciences[21]						
Bachelor of Arts[22]	13	6	19	11,424	8,329	19,753
Bachelor of Science and Arts	323	683	1,006	4,433	7,440	11,873
Bachelor of Science in Astronomy	13	17	30	204	111	315
Bachelor of Science in Biochemistry	48	70	118	1,540	1,204	2,744
Bachelor of Science in Biology	140	255	395	3,866	4,896	8,762
Bachelor of Science in Botany	0	0	0	8	11	19
Bachelor of Science in Chemistry	30	30	60	1,493	875	2,368
Bachelor of Science in Clinical Laboratory Science[23]	0	0	0	32	90	122
Bachelor of Science in Computer Science	304	120	424	3,152	798	3,950
Bachelor of Science in Computer Sciences	0	0	0	3,388	559	3,947
Bachelor of Science in Environmental Science[32]	2	17	19	60	127	187
Bachelor of Science in Geological Sciences[24]	0	0	0	1,106	422	1,528
Bachelor of Science in Home Economics	0	0	0	108	3,475	3,583
Bachelor of Science in Human Development and Family Sciences (or Child Development and Family Relationships)[25]	0	43	43	153	2,285	2,438
Bachelor of Science in Interdisciplinary Science	0	0	0	1	2	3
Bachelor of Science in Interior Design[25, 26]	0	0	0	31	296	327
Bachelor of Science in Mathematics	189	69	258	3,615	1,740	5,355
Bachelor of Science in Medical Laboratory Science	2	12	14	36	112	148
Bachelor of Science in Medical Technology[27]	0	0	0	78	330	408
Bachelor of Science in Microbiology	0	0	0	170	216	386
Bachelor of Science in Neuroscience	35	70	105	212	356	568
Bachelor of Science in Nutrition[28]	8	37	45	366	2,217	2,583
Bachelor of Science in Physics	66	19	85	1,823	338	2,161
Bachelor of Science in Public Health	41	172	213	351	1,224	1,575
Bachelor of Science in Textiles and Apparel[28]	8	39	47	109	1,623	1,732
Bachelor of Science in Zoology	0	0	0	493	377	870
Total	1,222	1,659	2,881	38,252	39,453	77,705
School of Nursing[29]						
Bachelor of Science in Nursing	17	102	119	602	6,060	6,662
Total	17	102	119	602	6,060	6,662
College of Pharmacy						
Bachelor of Science in Pharmacy	0	0	0	5,098	2,521	7,619
Doctor of Pharmacy[30]	33	73	106	997	2,135	3,132
Graduate in Pharmacy	0	0	0	558	71	629
Total	33	73	106	6,653	4,727	11,380
College of Social and Behavioral Sciences[31]						
Bachelor of Arts	0	0	0	5,367	4,226	9,593
Total	0	0	0	5,367	4,226	9,593
Steve Hicks School of Social Work						

Bachelor of Social Work	4	51	55	403	2,809	3,212
Total	4	51	55	403	2,809	3,212
Total number of degrees conferred in all colleges and schools	7,254	8,767	16,021	410,402	354,960	765,363

1. Figures are given by academic year for the years complete at the time of publication. The number of degrees conferred is accurate as of the date of publication. Changes to the data, if any, will be reflected in the "Total Conferred" columns of the next General Information.
2. Beginning for the long session 2009-2010, information about degrees conferred is provided by the Institutional Reporting, Research, and Information Systems.
3. Through the session 1905–1906, the master's degree was given in the Department of Literature, Science, and Arts; then through the session 1909–1910, in the College of Arts. Prior to the 1923–1924 session, the master's degree in engineering, with designation of the branch in which given, was awarded in the College of Engineering. Branch designations were discontinued in 1978.
4. Prior to 1998–1999, the Doctor of Pharmacy was conferred in the Graduate School. In 1998–1999, the degree was awarded in both the Graduate School and the College of Pharmacy; thereafter it was awarded in the College of Pharmacy.
5. Prior to the long session 1951–1952, the School of Architecture was a part of the College of Engineering.
6. Prior to 2000–2001, the Bachelor of Science in Interior Design was conferred in the College of Natural Sciences. In 2000–2001, the degree was awarded in both the College of Natural Sciences and the School of Architecture.
7. After the long session 1970–1971, degrees previously conferred by the College of Arts and Sciences were awarded in the Colleges of Humanities, Natural Sciences, and Social and Behavioral Sciences and the Division of General and Comparative Studies. Beginning with the spring semester 1979, the degrees for the Colleges of Humanities and Social and Behavioral Sciences and the Division of General and Comparative Studies have been awarded in the College of Liberal Arts.
8. Prior to the long session 1965–1966, the Bachelor of Journalism degree was conferred in the College of Arts and Sciences. Total numbers of Bachelor of Journalism degrees conferred up to that time were: men, 911; women, 850; both, 1,761. These totals are now listed in the College of Communication and are not included in the totals for the College of Arts and Sciences.
9. Prior to 1990–1991, the Bachelor of Science in Kinesiology was designated the Bachelor of Science in Physical Education.
10. The Bachelor of Science in Geosystems Engineering and Hydrogeology is offered jointly by the Cockrell School of Engineering and the Jackson School of Geosciences.
11. Prior to February 1969, the Bachelor of Arts in Art was designated Bachelor of Science in Art.
12. In spring 1997, the Bachelor of Arts in Drama and the Bachelor of Arts in Dance were replaced by the Bachelor of Arts in Theatre and Dance.
13. Prior to February 1969, the Bachelor of Arts in Drama was designated Bachelor of Science in Drama. In spring 1997, the Bachelor of Arts in Drama and the Bachelor of Arts in Dance were replaced by the Bachelor of Arts in Theatre and Dance.
14. Prior to February 1969, the Bachelor of Arts in Music was designated Bachelor of Science in Music.
15. Beginning in summer 1971, the degrees formerly conferred in the College of Arts and Sciences were conferred instead in the College of Humanities, the College of Natural Sciences, the College of Social and Behavioral Sciences, and the Division of General and Comparative Studies. In spring 1979, degrees in the College of Humanities, the College of Social and Behavioral Sciences, and the Division of General and Comparative Studies were moved to the College of Liberal Arts.
16. The Bachelor of Arts with a major in geological sciences and the Bachelor of Science in Geological Sciences were conferred in the College of Natural Sciences through summer 2006; in fall 2006, they were conferred in both the College of Natural Sciences and the Jackson School of Geosciences; since spring 2007, they have been conferred only in the Jackson School.
17. Beginning in summer 1971, the degrees formerly conferred in the College of Arts and Sciences were conferred instead in the College of Humanities, the College of Natural Sciences, the College of Social and Behavioral Sciences, and the Division of General and Comparative Studies. In spring 1979, degrees in the College of Humanities, the College of Social and Behavioral Sciences, and the Division of General and Comparative Studies were moved to the College of Liberal Arts.
18. Prior to April 1969, this degree was designated Bachelor of Laws.
19. Prior to the summer session 1971, degrees in the Colleges of Humanities and Social and Behavioral Sciences and the Division of General and Comparative Studies were conferred in the College of Arts and Sciences. Beginning with the spring semester 1979, these degrees have been awarded in the College of Liberal Arts.
20. Prior to 1987–1988, the Bachelor of Science in Architectural Studies was conferred in the College of Liberal Arts. In 1987–1988, the degree was conferred in both the School of Architecture and the College of Liberal Arts. Since 1988–1989, the degree has been awarded in the School of Architecture.
21. Prior to summer session 1971, degrees now in the College of Natural Sciences were conferred in the College of Arts and Sciences.
22. The Bachelor of Arts with a major in geological sciences was conferred in the College of Natural Sciences through summer 2006; in fall 2006, it was conferred in both the College of Natural Sciences and the Jackson School of Geosciences; sice spring 2007, it has been conferred only in the Jackson School.
23. In fall 2000, the Bachelor of Science in Clinical Laboratory Science replaced the Bachelor of Science in Medical Technology.
24. The Bachelor of Science in Geological Sciences was conferred in the College of Natural Sciences through summer 2006; in fall 2006, it was conferred in both the College of Natural Sciences and the Jackson School of Geosciences; since spring 2007, it has been conferred only in the Jackson School.
25. Prior to the summer session 1992, this degree was designated Bachelor of Science in Home Economics.
26. Prior to the summer session 1992, this degree was designated Bachelor of Science in Home Economics. Through 1999–2000, the Bachelor of Science in Interior Design was conferred in the College of Natural Sciences; in 2000–2001, it was awarded in both the College of Natural Sciences and the School of Architecture.
27. In fall 2000, the Bachelor of Science in Medical Technology was replaced by the Bachelor of Science in Clinical Laboratory Science.
28. Prior to the summer session 1992, this degree was designated Bachelor of Science in Home Economics.
29. Between 1929 and 1943, the Bachelor of Science in Nursing degree was conferred in the College of Arts and Sciences. Eleven women graduated in the program.
30. Prior to 1998–1999, the Doctor of Pharmacy was conferred in the Graduate School. In 1998–1999, the degree was awarded in both the Graduate School and the College of Pharmacy; thereafter it was awarded in the College of Pharmacy.
31. Prior to summer session 1971, degrees in the Colleges of Humanities, Natural Sciences, and Social and Behavioral Sciences and the Division of General and Comparative Studies were conferred in the College of Arts and Sciences. Beginning with the spring semester 1979, the degrees for the Colleges of Humanities and Social and Behavioral Sciences and the Division of General and Comparative Studies have been awarded in the College of Liberal Arts.
32. The degree is offered by the Jackson School of Geosciences with a major in geological sciences, by the College of Liberal Arts with a major

in geographical sciences, and by the College of Natural Sciences with a major in biological sciences. The degree programs share common prescribed work, but each major has its own specific requirements.

33. In fall 2018, the Bachelor of Arts in Art was replaced in the College of Fine Arts by the Bachelor of Arts.

34. In fall 2023, the Bachelor of Science in Electrical Engineering was replaced in the Cockrell School of Engineering by the Bachelor of Science in Electrical and Chemical Engineering.

Summary of Enrollment in Residence

	Men	Women	Both
Fall semester 2023	23,184	29,898	53,082
Spring semester 2024	22,193	28,583	50,776
Summer session 2024	6,840	9,187	16,027

Enrollment in Residence, 1883-2024 [1]

For the period prior to 1983–84, enrollment is given for every fifth year. Annual enrollment for the years 1883–84 through 1932–33 is given in the 1951–52 edition of *General Information*; annual enrollment for 1933–34 through 1982–83 is given in the 2007–08 edition.

	Fall Semester	Summer Session
1883–1884	221	
1888–1889	278	
1893–1894	355	
1898–1899	594	186
1903–1904	837	285
1908–1909	1,533	741
1913–1914	2,254	980
1918–1919	2,812	1,592
1923–1924	4,672	3,145
1928–1929	5,863	3,155[2]
		3,449
1933–1934	6,652	4,673
1938–1939	10,114	6,062
1943–1944	6,532	4,929
1948–1949	17,035	9,713
1953–1954	14,101	7,643
1958–1959	17,895	8,115
1963–1964	22,385	11,082
1968–1969	32,155	16,226
1973–1974	40,611	19,643
1978–1979	43,095	19,216
1983–1984	47,631	22,545
1984–1985	47,973	22,419
1985–1986	47,838	20,582
1986–1987	46,140	20,606
1987–1988	47,743	21,148
1988–1989	50,107	21,599
1989–1990	50,245	20,672
1990–1991	49,617	21,065
1991–1992	49,961	21,491
1992–1993	49,253	20,362
1993–1994	48,555	19,353
1994–1995	47,957	18,691
1995–1996	47,905	18,879
1996–1997	48,008	17,843
1997–1998	48,857	18,004
1998–1999	48,906	17,611
1999–2000	49,009	17,871
2000–2001	49,996	17,511
2001–2002	50,616	18,399
2002–2003	52,261	18,606
2003–2004	51,426	18,002
2004–2005	50,377	17,506
2005–2006	49,696	16,409
2006–2007	49,697	16,004
2007–2008	50,170	15,420
2008–2009	49,984	15,336
2009-2010	50,995	16,137
2010-2011	51,195	16,193
2011-2012	51,112	15,660
2012-2013	52,186	15,809
2013-2014	52,059	14,934
2014-2015	51,313	13,740
2015-2016	50,950	13,483
2016-2017	51,331	13,049
2017-2018	51,525	12,759
2018-2019	51,832	12,085
2019-2020	51,090	17,039
2020-2021	50,476	15,351
2021-2022	51,991	15,569
2022-2023	52,384	15,515
2023-2024	53,082	16,027

1. Prior to the session of 1929–1930, the summer session figures are grouped with the following fall semester and the extension year used is the September 1–August 31 year preceding the fall semester. Beginning with the session of 1929–1930, statistics are given for the academic year (September 1–August 31), the summer session being grouped with the preceding fall semester, and the extension year used being the September 1–August 31 year concurrent with the fall semester and summer session indicated.

2. Because of the change in the method of recording enrollment figures, as explained in footnote 1, the figures for the 1929 summer session and the 1928–1929 extension year are given separately.

Texas Common Course Numbering System

To help students transfer credit from one institution to another, Texas community colleges employ a statewide numbering system for their courses. The Texas Common Course Numbering system (TCCN) is a standard set of four-character abbreviations for academic disciplines and four-digit course numbers. The first digit of the number represents the academic level of the course (0 for subfreshman, 1 for freshman, and 2 for sophomore); the second represents the semester credit hour value of the course. Texas public universities, and some private ones, cross-reference their courses with TCCN.

Listed below are TCCN course designations and their University transfer credit evaluations. In the University's three-digit numbering system, the first digit indicates the semester credit hour value of the course. The suffixes *A* and *B* indicate the first and second parts of a course; credit for each part is half the value indicated by the first digit.

TCCN Course	The University of Texas at Austin Evaluation
ACCT 2301	ACC 311
ACCT 2302	ACC 312
ACCT 2401	ACC 411[1]
ACCT 2402	ACC 412[1]

ANTH 2301	ANT 301
ANTH 2302	ANT 304
ANTH 2351	ANT 302
ANTH 2401	ANT 401[1]
ARAB 1411	ARA 406[3]
ARAB 1412	ARA 407[3]
ARAB 2311	ARA 312K[3,4]
ARAB 2312	ARA 312L[3,4]
ARCH 1301	ARC 318K
ARCH 1302	ARC 318L
ARCH 1311	ARC 308[6]
ARTS 1301	ARH 301
ARTS 1303	ARH 302
ARTS 1304	ARH 303
ARTS 1311	ART 312C
ARTS 1312	ART 313C
ARTS 1316	ART 311C
ARTS 1317	ART 315K
ARTS 2316	ART 311K
ARTS 2323	ART 316K
ARTS 2326	ART 313K
ARTS 2333	ART 310P
ARTS 2356	ART 317K
ASTR 1103	AST 103L
ASTR 1104	AST 1 Lab
ASTR 1303	AST 301
ASTR 1304	AST 309S
ASTR 1403	AST 301 + AST 103L
ASTR 1404	AST 309S + AST 1 Lab
BCIS 1305	MIS 310
BCIS 1405	MIS 410[1]
BIOL 1106	BIO 106M
BIOL 1107	BIO 106N
BIOL 1306	BIO 311C[2]
BIOL 1307	BIO 311D[2]
BIOL 1308	BIO 302E[2]
BIOL 1309	BIO 302D[2]
BIOL 1322	NTR 306
BIOL 1406	BIO 311C + 106M[2]
BIOL 1407	BIO 311D + 106N[2]
BIOL 1408	BIO 302E + BIO 1 Lab[2]
BIOL 1409	BIO 302D + BIO 1 Lab[2]
BIOL 2120	BIO 1 Lab[2]
BIOL 2120	MIC 116L[4] (for Nursing students)
BIOL 2121	BIO 1 Lab[2]
BIOL 2121	MIC 119K[4] (for Nursing students)
BIOL 2301+2101	BIO 3 SOPH[2] + BIO 1 LAB[2]
BIOL 2302+2102	BIO 3 SOPH[2] + BIO 1 LAB[2]
BIOL 2320	BIO 3 Soph[2]
BIOL 2320	MIC 316[1,4] (for Nursing students)
BIOL 2321	BIO 3 Soph[2]
BIOL 2321	MIC 319[4] (for Nursing students)
BIOL 2401	BIO 4 SOPH[2]
BIOL 2402	BIO 4 SOPH[2]
BIOL 2420	BIO 3 Soph[2] + BIO 1 Lab[2]
BIOL 2420	MIC 316[1,4] + MIC 116L[4] (for Nursing students)
BIOL 2421	BIO 3 Soph[2] + BIO 1 Lab[2]
BIOL 2421	MIC 319[4] + MIC 119K[4] (for Nursing students)
CHEM 1109	CH 104M
CHEM 1111	CH 104M
CHEM 1112	CH 104N
CHEM 1309	CH 301
CHEM 1311	CH 301
CHEM 1312	CH 302
CHEM 1411	CH 301 + CH 104M
CHEM 1412	CH 302 + CH 104N
CHEM 2123	CH 110K
CHEM 2125	CH 110L
CHEM 2323	CH 320M
CHEM 2325	CH 320N, CH 310N[4]
CHEM 2423	CH 320M + CH 110K
CHEM 2425	CH 320N + CH 110K, CH 310N[4]
CHIN 1411	CHI 406[3]
CHIN 1412	CHI 407[3]
CHIN 2311	CHI 312K
CHIN 2312	CHI 312L
COMM 1307	J 308S
COMM 1316	COM 316
COMM 2302	J 301F
COMM 2366	RTF 306
DANC 1151	T D 112P
DANC 1241	T D 212F[3]
DANC 1245	T D 212C[3]
DANC 2151	T D 112P
DANC 2241	T D 212G[3]
DANC 2245	T D 212D[3]
DRAM 1120	T D 114P[3]
DRAM 1121	T D 114P[3]
DRAM 1310	T D 301
DRAM 1330	T D 314C
DRAM 1351	T D 313C
DRAM 1352	T D 313D
DRAM 2120	T D 114P[3]
DRAM 2121	T D 114P[3]
DRAM 2331	T D 314M
DRAM 2336	T D 303C
DRAM 2361	T D 317C
DRAM 2362	T D 317D
DRAM 2366	RTF 306
ECON 2301	ECO 304L
ECON 2302	ECO 304K
EDUC 1100	EDP 104[3]
EDUC 1200	EDP 204[3]
EDUC 1300	EDP 304
ENGL 1301	RHE 306
ENGL 1302	RHE 309J
ENGL 2311	RHE 317
ENGL 2321	E 316L

ENGL 2322	E 316L
ENGL 2323	E 316L
ENGL 2326	E 316M
ENGL 2327	E 316M
ENGL 2328	E 316M
ENGL 2331	E 316N
ENGL 2332	E 316N
ENGL 2333	E 316N
ENGL 2341	E 314L
ENGL 2351	E 314V (Topic 3)
ENGR 1204	M E 210
ENGR 1304	M E 310[1]
ENGR 2301	E M 306
ENGR 2302	E M 311M
ENGR 2305	ECE 302
ENGR 2332	E M 319
ENGR 2401	E M 406[1]
ENGR 2402	E M 411M[1]
ENGR 2405	ECE 402[1]
ENVR 1301	GEO 302P
ENVR 1401	GEO 302P + GEO 1 Lab
FREN 1411	FR 406
FREN 1412	FR 407
FREN 2311	FR 312K
FREN 2312	FR 312L
GEOG 1301	GRG 301C
GEOG 1302	GRG 305
GEOL 1301	GEO 302K
GEOL 1302	GEO 302K
GEOL 1303 + 1103	GEO 401
GEOL 1304 + 1104	GEO 405
GEOL 1305	GEO 302P
GEOL 1345	MNS 307
GEOL 1347	GRG 301K
GEOL 1401	GEO 302K + GEO 1 Lab
GEOL 1402	GEO 302K + GEO 1 Lab
GEOL 1403	GEO 401
GEOL 1404	GEO 405
GEOL 1405	GEO 302P + 1 Lab
GEOL 1445	MNS 307 + MNS 1 Lab
GEOL 1447	GRG 401K[1]
GERM 1411	GER 406[3]
GERM 1412	GER 407[3]
GERM 2311	GER 312K
GERM 2312	GER 312L
GOVT 2305	GOV 305C[5]
GOVT 2306	GOV 306C[5]
HECO 1322	NTR 306
HIST 1301	HIS 315K
HIST 1302	HIS 315L
HIST 2311	HIS 309K
HIST 2312	HIS 309L
HIST 2321	HIS 301F
HIST 2322	HIS 301J
HIST 2327	HIS 317L
HIST 2328	HIS 314K
HIST 2381	HIS 317L
HIST 2382	HIS 317L
HUMA 1315	F A 310
ITAL 1411	ITL 406[3,4]
ITAL 1412	ITL 407[3,4]
ITAL 2311	ITL 312K[4]
ITAL 2312	ITL 312L[4]
JAPN 1411	JPN 406[3]
JAPN 1412	JPN 407[3]
JAPN 2311	JPN 312K[3]
JAPN 2312	JPN 312L[3]
KINE 1306	KIN 313 (Topic 1)[1]
KINE 1308	KIN 319K (Topic 2)[1]
KINE 1321	KIN 319K (Topic 1)[1]
KINE 1331	KIN 314
KINE 2356	KIN 312 (Topic 2)
KORE 1411	KOR 406[3]
KORE 1412	KOR 407[3]
KORE 2311	KOR 312K
KORE 2312	KOR 312L
LATI 1411	LAT 406[3]
LATI 1412	LAT 407[3]
LATI 2311	LAT 311
LATI 2312	LAT 312K
MATH 1314	M 301
MATH 1316	M 304E[4]
MATH 1324	M 303D
MATH 1325	M 303K[3]
MATH 1332	M 302
MATH 1342	SDS 301
MATH 1350	M 316K
MATH 1351	M 316L
MATH 1414	M 401[1]
MATH 1442	SDS 401[1]
MATH 2305	M 325K
MATH 2312	M 305G
MATH 2313	M 308K[3]
MATH 2313	M 308N[3]
MATH 2314	M 308L
MATH 2314	M 308S[3]
MATH 2315	M 308M
MATH 2318	M 311[4]
MATH 2320	M 327K[3]
MATH 2412	M 405G[1]
MATH 2413	M 408K
MATH 2413	M 408N
MATH 2414	M 408L
MATH 2414	M 408S
MATH 2415	M 408M
MATH 2418	M 411[1,4]
MATH 2420	M 427K

MUAP	Applied music performance courses transfer as generic semester hour credit in an appropriate instrument. Degree and prerequisite applicability for music majors is determined by the Butler School of Music.
MUEN	Music ensemble courses transfer with appropriate University course numbers where applicable, otherwise as generic semester hour credit in ensemble (ENS). Degree and prerequisite applicability for music majors is determined by the Butler School of Music.
MUSI 1181	MUS 101M[3]
MUSI 1182	MUS 101N[3]
MUSI 1306	MUS 302L
MUSI 1310	MUS 307
MUSI 1311	MUS 605A
MUSI 1312	MUS 605B
MUSI 2116	MUS 211A[3]
MUSI 2117	MUS 211B[3]
MUSI 2181	MUS 110J[3]
MUSI 2182	MUS 110K[3]
MUSI 2311	MUS 612A
MUSI 2312	MUS 612B
PHED 1306	KIN 313 (Topic 1)[1]
PHED 1308	KIN 319K (Topic 2)[1]
PHED 1321	KIN 319K (Topic 1)[1]
PHED 1331	KIN 314
PHED 2356	KIN 312 (Topic 2)
PHIL 1301	PHL 301
PHIL 2303	PHL 312
PHIL 2306	PHL 318
PHIL 2307	PHL 318K
PHIL 2316	PHL 301K
PHIL 2321	PHL 305
PHYS 1101	PHY 102M
PHYS 1102	PHY 102N
PHYS 1103	AST 103L
PHYS 1104	AST 1 Lab
PHYS 1105	PHY 1 Lab
PHYS 1107	PHY 1 Lab
PHYS 1301	PHY 302K
PHYS 1302	PHY 302L
PHYS 1303	AST 301
PHYS 1304	AST 309S
PHYS 1305	PHY 309K
PHYS 1307	PHY 309L
PHYS 1401	PHY 302K + PHY 102M
PHYS 1402	PHY 302L + PHY 102N
PHYS 1403	AST 301 + AST 103L
PHYS 1404	AST 309S + AST 1 Lab
PHYS 1405	PHY 309K + PHY 1 Lab
PHYS 1407	PHY 309L + PHY 1 Lab
PHYS 2125	PHY 103M
PHYS 2126	PHY 103N
PHYS 2325	PHY 303K
PHYS 2326	PHY 303L
PHYS 2425	PHY 303K + PHY 103M
PHYS 2426	PHY 303L + PHY 103N
PORT 1411	POR 406[4]
PORT 1412	POR 407[4]
PORT 2311	POR 312K[4]
PORT 2312	POR 312L[4]
PSYC 1100	EDP 104[3]
PSYC 1200	EDP 204[3]
PSYC 1300	EDP 304
PSYC 2301	PSY 301
PSYC 2306	PSY 306
PSYC 2308	PSY 304
PSYC 2316	PSY 309
PSYC 2317	PSY 317
PSYC 2319	PSY 319K
PSYC 2330	PSY 308
RUSS 1411	RUS 406
RUSS 1412	RUS 407
RUSS 2311	RUS 312K
RUSS 2312	RUS 312L
SGNL 1301	ASL 306[3,4]
SGNL 1302	ASL 307[3,4]
SGNL 1401	ASL 406[3,4]
SGNL 1402	ASL 407[3,4]
SGNL 2301	ASL 312K[4]
SGNL 2302	ASL 312L[4]
SOCI 1301	SOC 302
SOCI 1306	SOC 307E
SOCI 2301	SOC 307C
SOCI 2326	PSY 319K
SOCW 2361	S W 310
SPAN 1411	SPN 406[3,4]
SPAN 1412	SPN 407[3,4]
SPAN 2311	SPN 312K[4]
SPAN 2312	SPN 312L[4]
SPCH 1315	CMS 305[4]
SPCH 1318	CMS 315M
SPCH 1321	CMS 306M
SPCH 2333	CMS 310K
TECA 1303	HDF 304
TECA 1354	HDF 313

[1] This is a modified course number with a higher credit value than is normally offered at the University. The higher value does not affect the course's prerequisite or degree applicability.

[2] Lower-division biology courses may transfer as generic credit, without a specific University course number. The terms "Frmn" and "Soph" identify freshman- and sophomore-level lecture credit. "Lab" identifies lower-division laboratory credit. For students in the School of Biological Sciences, such credit is applicable toward prerequisite and degree requirements only with department approval. For students in other degree plans that require specific biology courses, such credit is applicable only with the approval of the student's academic dean. Introductory major-track lecture credit (TCCN BIOL 1406, 1407, 1306,

or 1307) generally transfers as BIO 311C and BIO 311D. Major-track laboratory credit (TCCN BIOL 1106, 1107, or the lab components of 1406 and 1407) generally transfers with the modified course numbers BIO 206LA and 206LB.
Nonmajor lecture credit (TCCN BIOL 1408, 1409, 1308, or 1309) generally transfers as BIO 302E and BIO 302D. Nonmajor laboratory credit (TCCN BIOL 1108, 1109, or the lab components of 1408 and 1409) transfers generically, because the University does not offer nonmajor lab courses.

[3] This is a modified course number with a lower credit value than is normally offered at the University. In many cases, such transfer credit may be counted toward prerequisite or degree requirements in place of the higher-value University course; however, such substitution is at the discretion of the student's academic dean.

[4] This is a course no longer offered at the University but still used in awarding transfer credit and still applicable toward certain degree requirements. For students in the School of Nursing, BIOL 2420, 2421, 2320, 2321, 2120, and 2121 transfer as retired Microbiology (MIC) courses.

[5] Texas community colleges do not offer direct equivalents of The University of Texas at Austin's GOV 310L, GOV 312L. or GOV 312P. GOVT 2305+2306 together fulfill the core 070 requirement. Either GOVT 2305 or 2306 combines with GOV 310L (but not with GOV 312L or GOV 312P) to fulfill the core 070 requirement.

[6] For School of Architecture students, ARCH 1311 transfers as generic architecture credit and ARC 308 must be taken in residence.

Courses

The University offers courses in the following fields of study. The abbreviations are used in catalogs, course schedules, and student records. For Medical courses, please see the courses section in the Medical School Catalog. For Law courses, please see the courses section in the Law School Catalog.
Not all courses are taught each semester. Consult the Course Schedule to determine which courses and topics will be offered during a particular semester. The Course Schedule reflects changes made to the course inventory after the publication of this catalog.
A full explanation of course numbers is given in the Credit Value and Course Numbers (p. 59) section.

A I - Artificial Intelligence

Artificial Intelligence: A I

Lower-Division Courses

Upper-Division Courses

Graduate Courses

A I X80E. Ethics in Artificial Intelligence.
Examine important responsibilities and ethical challenges faced by an AI professional. Identify design decisions with ethical implications and consider the perspectives of users and other stakeholders when making ethically significant design decisions.

A I X80H. Artificial Intelligence in Healthcare.
Explore health IT systems, ranging from data semantics, data interoperability, diagnosis code, to workflow in clinical decision support systems. Discuss how AI innovations are transforming healthcare systems by focusing on AI in drug discovery, AI in medical image diagnosis, explainable AI for health risk prediction, and ethics of AI in healthcare.

A I X88. Natural Language Processing.
Explore computational methods for syntactic and semantic analysis of structures representing meanings of natural language; study of current natural language processing systems; methods for computing outlines and discourse structures of descriptive text.

A I X88J. Optimization.
Explore the background on convex sets and functions, linear programming, convex programming, and iterative first-order and second-order methods.

A I X88K. Online Learning and Optimization.
Explore algorithms for convex optimization and algorithms for online learning. Focus on algorithms for large scale convex optimization. Discuss problems in machine learning. Apply these ideas to online learning.

A I X88U. Planning, Search, and Reasoning Under Uncertainty.
Introduction to three key foundational problems in AI: planning, search, and reasoning under uncertainty. Investigate how to define planning domains, including representations for world states and actions, covering both symbolic and path planning. Study algorithms to efficiently find valid plans with or without optimality, and partially ordered, or fully specified solutions.

A I X89L. Automated Logical Reasoning.
Explore automated reasoning techniques for propositional logic, first-order logic, linear arithmetic over reals and integers, theory of uninterpreted functions, and combinations of these theories. Examine automated logical reasoning both from a theoretical and practical perspective, including building useful tools, such as SAT and SMT solvers.

A I X91L. Machine Learning.
Explore computing systems that automatically improve their performance with experience, including various approaches to inductive classification such as version space, decision tree, rule-based, neural network, Bayesian, and instance-based methods; as well as computational learning theory, explanation-based learning, and knowledge refinement.

A I X91M. Case Studies in Machine Learning.
Explore major concepts, techniques, algorithms, and applications in machine learning. Evaluate machine learning methods and discuss practical case studies to produce solutions for real-world data analysis problems.

A I X94D. Deep Learning.
Explore the basic building blocks and intuitions behind designing, training, tuning, and monitoring of deep networks. Examine both the theory of deep learning, as well as hands-on implementation sessions in pytorch. Explore a series of application areas of deep networks in: computer vision, sequence modeling in natural language processing, deep reinforcement learning, generative modeling, and adversarial learning.

A I X94R. Reinforcement Learning: Theory and Practice.
Introduction to the theory and practice of modern reinforcement learning, with emphasis on temporal difference learning algorithms.

A I X95T. Topics in Artificial Intelligence.

A I X98. Thesis.

Professional Courses

AAR - Applied Archaeology

Applied Archaeology: AAR

Lower-Division Courses

Upper-Division Courses

Graduate Courses

AAR X80. Topics in Applied Archaeology.

Professional Courses

AAS - Asian American Studies

Asian American Studies: AAS

Lower-Division Courses

AAS X01. Introduction to Asian American Studies.
Introduces the interdisciplinary study of Asian immigrants and Asian Americans in the United States. Explores key concepts, including immigration history, identity and community formation, cultural representation, and the intersections of race, class, gender, and sexuality.

AAS X02. Immigration and Ethnicity.
Examine the changing population of the United States from colonial times to present.

AAS X03. Introduction to the Asian Diaspora.
Examine the global dispersal of Asian populations from the mid-1800s to the present.

AAS X10. Introductory Topics in Asian American Studies.
An introduction to Asian American studies through a variety of disciplines.

AAS X10.1. Psychological Perspectives on Asian American Identity.
Examines the unique culturally-influenced psychologies of various Asian American groups, including such concepts as identity formation, enculturation, assimilation and resistance, and racial and psychological normativity.

AAS X10.2. Race, Politics, and Identity in Asian America.
An introduction to Asian American politics. Subjects include the American political process, and the historic and contemporary role of Asian Americans within that process.

AAS X10.3. Mixed Race Identities.
Analyzes the historical and contemporary significance of issues of race" and "mixing" in a North American context. Subjects include the situation of "mixed race" people throughout United States history; historical policies that have shaped racial formation in the United States; comparative conceptions of "mixed" people transnationally; and racial, ethnic, and cultural identity.

AAS X10.4. Asian American Creative Arts.
Issues and identities shaped by issues of race, ethnicity, gender, immigration status, and family dynamics. These subjects are explored through production of literary, artistic, performance, or other creative projects.

AAS X10.5. Race, Immigration, and Family.
Introduction to family systems in the United States in a post-WWII framework with a central focus on Asian Americans. Students will investigate how gender, race, and ethnicity intersect and inform our understanding of the institution of the family.

AAS X10.6. Asian American Film History.

AAS X12. Introduction to Asian American History.
Introduces students to the national and transnational histories of Asian Americans in the United States. Explores a wide range of themes related to the Asian American experience.

AAS X14. Asian American Literature and Culture.
Explores how authors and artists over the course of the past century have imagined what it means to be Asian American. Covers a diverse range of Asian immigrant histories and the formation of Asian American identities according to ethnicity, gender, sexuality, class, and citizenship.

AAS X18Q. Supervised Research.
Supervised, student-derived research in Asian American studies.

AAS X19S. Topics in Asian American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Asian American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

AAS X20C. Contemporary Asian American Novels.

AAS X20D. Asian American Media Cultures.
Examine popular and critical roles, representations, and politics of Asian Americans in U.S. media including Hollywood cinema, U.S. network and cable television, Asian American independent film, and online media.

AAS X20F. Documenting Difference.
Explore the theory, history, practice and poetics of minority documentary, as well as the related fields of oral history and archiving with a particular emphasis on Asian American examples.

AAS X20G. Race, Internet, and Social Media.
Explores the critical, theoretical and practical analysis of race and new media.

AAS X20J. Japanese Popular Culture: Anime, Manga, and the Otaku.
Examine a wide variety of Japanese popular media within the historical context during which these unique cultural forms developed. Focus on the popular manga and anime Japan has exported since becoming an economic superpower in the 1980s, the utopian/dystopian expression in Japanese sci-fi narratives of this era, and the complex interplay of gender and technology in the new post-human societies these narratives envision.

AAS X20K. Theorizing the Human.
Trace the continuities and transformations in constructions of populations as more or less human, from settler-colonial conquest to the post-Trump era. Examine what logics mark racialized populations as disposable during the colonization of the Americas, and which systematically condition racialized subjects to a state of enduring siege.

AAS X25C. The Chinese in Diaspora.
Explores narratives of migration, race, ethnicity, and a wide range of experiences of acculturation and assimilation from the perspective of a sending society--China--which has one of the longest and most diverse histories of sending people overseas. Over the last millennia, Chinese have migrated around the world and made homes under a great range of adversity and opportunity, producing many stories of human differences and commonalities.

AAS X25D. The Chinese in the United States.
History of the Chinese in the United States from their first arrival in significant numbers during the California Gold Rush of the mid-nineteenth century to the present.

AAS X25E. Taiwan: Colonization, Migration, and Identity.
Explores issues of ethnicity, empire, and modernization in East Asia from the sixteenth century to the present, as seen through encounters between Taiwan and aborigines, Han Chinese, Dutch, Portuguese, the imperial Qing, Japanese, mainland Chinese Nationalist Party (KMT), and the United States.

AAS X25F. The Two Koreas and the United States.
The political, social, and cultural relationship between North and South Korea, and between the Koreas and the United States, since 1945.

AAS X25G. History of the Southeast Asian Diaspora in the United States.

AAS X25J. South Asian Migration to the United States.
Examine the South Asian diaspora in the United States.

AAS X25K. Refugees in Twentieth-Century United States.
Explores the history of refugees in the twentieth century, with special attention to the United States and its engagement in the international arena of refugee politics.

AAS X25L. Global Economies: Asia and the United States.
Examines key trends in the economies of the United States and Asia, with emphasis on the links between these two major trading blocs.

AAS X25M. Political Economy of Development in Postwar Korea.
Explore the political economy of South Korean development during the postwar period. Examine the history, society, and culture of South Korea. Discuss compressed modernity, developmental state, social movements, gender politics, financial crisis, urbanization, migration, and recent globalization of Korean popular culture.

AAS X25N. Asian American Jurisprudence.
Examine the historical development of United States law and its relationship to Asian Americans, and of Asian American jurisprudence as an independent field of legal scholarship.

AAS X25O. Greater China and United States Economic Relations.
Explore contemporary interconnections between the United States and Greater China. Examine economic frameworks (for example, state-led, market-led, mixed, etc.); the economies of the PRC including Hong Kong as well as Taiwan and the Chinese diaspora; and linkages such as investments, supply chains, tech transfer, non-profit cooperation, and the globalized workforce.

AAS X29S. Topics in Asian American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Asian American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AAS X30C. Racism and Antiracism.
Examines the theories and definitions of racism across several fields: anthropology, sociology, psychology, cultural studies, postcolonial studies, and gender/sexuality studies. Also includes a section that focuses on anti-racist activism, particularly within people of color and immigrant communities.

AAS X30D. Blacks and Asians: Race and Social Movements.
Examines the relations between Asians and Blacks in the United States.

AAS X30E. The Sociology of Race and Work.
Critical examination of work in the United States over the twentieth and twenty-first centuries through a gendered, Asian American lens, using a comparative race perspective. Subjects include the sociological examination of concepts such as labor markets, globalization, care work, and gender/racial segregation in the workplace along with the ways race and gender shape how and where individuals are fitted into the workplace, how skills are evaluated, and how labor markets emerge.

AAS X30F. Transnational Korea.
Recent and contemporary manifestations of the Koreas in the world and the world in the Koreas. Subjects include labor and marriage migration, educational sojourning, transnational adoption, tourism, international sport, corporate expatriation, and media flows.

AAS X30G. Urban Unrest.
Analysis of the roots of urban unrest, exploring a range of origins: joblessness, state violence, white flight, backlash against civil rights gains, new immigration, and interracial strife. Beyond race and class, subjects include exploring unrest as a mode of pushing the normative boundaries of gender and sexuality in public space. Course material will draw from film, literature, history, geography, and anthropology.

AAS X30I. Asian Diaspora on Indigenous Lands.
Explore Indigenous and Asian entanglements and solidarities on Turtle Island (North America) and the Pacific. Examine settler colonialism, racial capitalism, war and militarism, racism and power, and environmental change.

AAS X30J. Asian Mobilities.
Explore alternative research methods and spatialities, in an attempt to produce new understandings of how people live in an increasingly mobile world.

AAS X30K. Asian Americans in the South.

AAS X30L. Anthropology of the Himalayas.
Examine the history and culture of the Himalayan region, including Northeast India, sections of Pakistan and Afghanistan, Tibet, and especially Nepal.

AAS X30M. Reproductive Justice and Race.
Examine the links between reproductive care and social inequality, and explore reproductive outcomes for women in the context of social justice.

AAS X30N. Migration Crisis.

AAS X35. Topics in Asian American Studies.

AAS X35.1. Bridging Community Through Service Learning.
Explores culture in community life and how it affects the collaboration of service providing entities. Through service learning, students will take what they learn in the classroom and apply those theories and techniques within the community. Special emphasis will be given to the understanding of the Asian/Asian American community and multiculturalism in community services.

AAS X58Q. Supervised Research.
Supervised, student-derived research in Asian American studies.

AAS X77. Capstone Seminar.

AAS X78. Community Internship.
Supervised internship in a community, civic, or government organization or program that facilitates the economic, political, and social development of the Asian American community.

AAS X79. Conference Course in Asian American Studies.
Supervised individual study of selected problems in Asian American studies.

AAS X79H. Honors Tutorial Course.
Supervised individual reading for one semester, followed by a semester of research and writing to produce a substantial paper on a specific topic in Asian American studies.

Graduate Courses

AAS X81. Topics in Asian American Studies.
Theoretical and methodological training through key texts in Asian American studies.

AAS X91C. Conference Course.
Designed to expand the graduate student's opportunity for individual consultation. Complements courses fulfilling the Asian American studies graduate portfolio.

Professional Courses

ACC - Accounting

Accounting: ACC

Lower-Division Courses

ACC X10F. Foundations of Accounting.
An introduction to financial and managerial accounting, with emphasis on the content, interpretation, and uses of accounting reports. Discussion of the determination and reporting of net income and financial position, and the theories underlying business financial statements; consideration of managerial accounting topics designed to extend the student's knowledge to the planning and controlling of the operations of the firm.

ACC X11. Fundamentals of Financial Accounting.
Concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements.

ACC X11H. Fundamentals of Financial Accounting: Honors.
An exploration of concepts and their application in transaction analysis and financial statement preparation; and analysis of financial statements.

ACC X12. Fundamentals of Managerial Accounting.
Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing.

ACC X12H. Fundamentals of Managerial Accounting: Honors.
Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing.

ACC X19S. Topics in Accounting.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Accounting. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ACC X26. Financial Accounting--Intermediate.
Theoretical foundation, concepts, and principles underlying financial statements; current assets; current liabilities; property, plant, and equipment; short-term investments; present value analysis.

ACC X27. Financial Statement Analysis.
Study of financial statements and their related footnotes; tools and procedures common to financial statement analysis; the relationships among business transactions, environmental forces (political, economic, and social), and reported financial information; and how financial statement information can help solve certain business problems.

ACC X28. Management Accounting.

ACC X29. Managerial Accounting and Control.
The origination, processing, reporting, and use in business operations of accounting information for management purposes.

ACC X29S. Topics in Accounting.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Accounting. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ACC X31. Intermediate Accounting I.

ACC X32. Intermediate Accounting II.

ACC X32F. Topics in Foundations of Accounting.

ACC X34M. Healthcare Accounting.
Identify and analyze healthcare revenues, expenses, management problems, and ethical dilemmas, applying theories and tools to recommend strategic solutions.

ACC X40S. Topics in Accounting.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Accounting. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.

ACC X51. Accounting Careers Exploration.
Presentations by professional accountants and managers.

ACC X52. Master in Professional Accounting Distinguished Speaker Lyceum.
Discussion of current issues confronting the accounting profession.

ACC X55. Introduction to Taxation.
The role of taxes in contemporary society and their impact on individuals and business.

ACC X56. Financial Accounting Concepts and Research.
Conceptual framework of financial accounting; research methods in financial reporting; and financial reporting institutions and regulations.

ACC X58C. Auditing and Other Assurance Services.
Information quality assurance, auditing, and control, considered from the perspective of a business manager who must decide the type and amount of assurance to acquire.

ACC X59. Managerial/Cost Accounting.
Analysis of manufacturing costs, development of cost estimates, and preparation of relevant information for management decision making.

ACC X62. Auditing and Control.
Professional practice standards and procedures of auditing: ethics, legal liability, sampling methods, control systems, control design, and control evaluation.

ACC X64. Fundamentals of Taxation.
Introduction to the role of taxes in contemporary society and their impact on individuals and business entities; emphasis on federal income taxation.

ACC X66C. International Accounting and Transfer Pricing.
Discover how to price transactions between subsidiaries of multinational corporations buying and selling goods, services, intellectual property and other assets in light of tax obligations and other considerations.

ACC X66P. Accounting Practicum.
Students apply skills in their major area and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise.

ACC X67P. Internal Auditing Practicum.

ACC X70C. Financial Statement Analysis Capstone.

ACC X71T. Topics in Accounting.
Study selected accounting topics.

ACC X72T. Topics in Accounting.
Study selected accounting topics.

ACC X72T.1. Oil and Gas Accounting and Sustainability.

ACC X72T.11. Financial Planning for Wealth Management.
Introduction to basic concepts of personal wealth management and financial planning, including insurance and risk management, investment management, tax planning, estate planning, and retirement planning. Designed for upper-level finance and accounting majors interested in a career in financial services or students pursuing master in professional accounting with interest in this area of the accounting profession.

ACC X72T.12. Global Business Sustainability.
Explore the role of sustainability in the corporate sector. Examine how businesses partner with others for sustainability goals, how to value sustainable business practices, and how to report on corporate sustainability.

ACC X72T.13. Taxation of Real Estate Investments.
Identify accounting practices in the real estate industry.

ACC X72T.6. Corporate Sustainability.
Explore corporate sustainability focused on the management of environmental, social, and governance (ESG) issues, with an emphasis on ESG identification, measurement, and reporting. Designed for upper-level accounting and finance majors interested in a career in professional accounting or financial services with interest in corporate sustainability.

ACC X79C. Independent Research in Accounting.

Graduate Courses

ACC X80C. MPA Distinguished Speaker Lyceum.
Discussion of current issues confronting the accounting profession.

ACC X80D. Advanced Topics in Financial Reporting.
Examines issues in financial reporting from a user's perspective, including how important economic transactions of large public companies are reflected in financial statements.

ACC X80J. Financial Statement Analysis for Executives.
Explore an overview of the skills executives will need in order to analyze a company's performance and financial position in the context of the company's industry and strategic environment.

ACC X80K. Contemporary Accounting Topics.
In-depth study of selected accounting topics.

ACC X80K.1. Financial Accounting Standards and Analysis I.
ACC X80K.10. Tax Factors in Business Management.
ACC X80K.11. Introduction to Taxation.
ACC X80K.12. Computer Auditing and Systems Security.
ACC X80K.13. Information Technology for Accounting and Control.
ACC X80K.14. Managing Information.
ACC X80K.15. Business and Systems Change.
ACC X80K.16. Cross-Functional Integrated Systems.
ACC X80K.17. Cross-Functional Project Management.
ACC X80K.18. Project Management in Fast-Cycle Environments.
ACC X80K.19. International Accounting Policies and Procedures.
ACC X80K.2. Financial Accounting Standards and Analysis II.
ACC X80K.20. International and European Accounting Standards.
ACC X80K.21. Global Teams.
ACC X80K.23. Accounting Issues in Measurement and Valuation.
Examines the predictive analytics of financial statement numbers and how these accounting forecasts, estimates and judgments are made in practice, and how external auditors evaluate them. Insights from financial economics, psychology, and statistics provide a foundation for exploring accounting and auditing measurement challenges such as customer behavior analytics for loan default or loyalty award redemption; actuarial methods for establishing product warranty or insurance reserves; fair value models for brand names, trade secrets, and customer relationships; and other applications involving uncertain accounting numbers.
ACC X80K.24. Financial Planning for Wealth Management.
Introduction to basic concepts of personal wealth management and financial planning, including insurance and risk management, investment management, tax planning, estate planning, and retirement planning. Designed for upper-level accounting and finance majors interested in a career in financial services and MPA students with interest in this area of the accounting profession.
ACC X80K.25. Accounting in the Entertainment Industry.
Explores challenges and rewards of accounting in the entertainment industry. Covers the requisite skills needed to account for film and television production costs, while utilizing the latest software.
ACC X80K.26. Government and Not-for-Profit Accounting.
ACC X80K.27. Taxation of Real Estate Investment.
Exposure to accounting practices in the real estate industry.
ACC X80K.28. Corporate Sustainability.
Introduction to corporate sustainability focused on the management of environmental, social, and governance (ESG) issues with an emphasis on ESG identification, measurement, and reporting. Designed for MPA and MBA students interested in a career in professional accounting or financial services with interest in corporate sustainability.
ACC X80K.29. Tax Factors for Financial Planning.
Develop a fundamental understanding of the principles of taxation and financial planning.
ACC X80K.3. Financial Reporting Institutions and Regulations.
ACC X80K.31. Coding and Data Analysis in Accounting.
Explore data analytics with an emphasis on finding, collecting, cleaning, and drawing business- and accounting-related inferences from large and often messy datasets using Python. No prior experience in Python is required or expected.
ACC X80K.32. International Accounting and Transfer Pricing.
Discover how to price transactions between subsidiaries of multinational corporations buying and selling goods, services, intellectual property and other assets in light of tax obligations and other considerations.
ACC X80K.33. Healthcare Accounting and Finance.
Explore the nuances of finance and accounting using case-based studies in the healthcare industry to prepare for careers in healthcare finance, managerial accounting, or careers adjacent to those fields.
ACC X80K.34. Merger and Acquisition Advisory Services.
Explore services provided by advisory firms to clients seeking to add value in merger, acquisition, and other significant corporate transactions.
ACC X80K.35. Oil and Gas Accounting.
Examine accounting and financial practices across the energy sector, with a focus on oil and gas operations, sustainability and ESG reporting, and the emerging role of renewable energy.
ACC X80K.36. Fraud and Folly in Financial Markets.
Examine the frameworks and models by which investors and practitioners detect and analyze fraud in the capital markets.
ACC X80K.4. Auditing and Other Assurance Services.
ACC X80K.5. Introduction to Management Advisory Services.
ACC X80K.7. Financial Statement Analysis.
ACC X80K.9. Accounting Research Fundamentals and Applications.
Evaluate, formulate, and conduct scholarly research in financial reporting. Discuss advantages of archival, experimental, and theoretical methods, evaluating validity of design, and overcoming research barriers.
ACC X81. Financial Accounting.
Concepts and issues involved in the preparation and interpretation of financial statements; the use of financial information to evaluate and control an organization.
ACC X81M. Financial Accounting Issues in Business Decisions.
An integrative and intensive examination of financial accounting, with emphasis on management's alternative reporting strategies and investors' decisions.
ACC X81N. Managerial Accounting and Financial Statement Analysis.
Surveys the strategic uses of the most important elements of internal accounting systems, including cost accounting systems and management control systems used for planning and budgeting, and the use of publicly available financial accounting information to evaluate past performance, forecast future performance, and estimate the value of debt and equity securities.
ACC X81P. Performance Management and Control for Executives.
Examine accounting information and tools executives need to plan and evaluate personnel and operations of the firm. Explore a framework that provides a better understanding of when and why executives need specific types of accounting information to both facilitate their own decisions and influence the decisions of their employees.
ACC X82K. Topics in Accounting Information Systems.
Quantitative and/or computerized applications to business problems; computer-based accounting information systems; analysis of optimizing models; simulation of important functional activities; large-scale simulation of the firm.
ACC X82K.1. Principles of Systems Analysis.
ACC X82K.2. Computer Auditing.
ACC X82K.3. Topics in Accounting Systems and Control.
ACC X82K.4. Database Management in Accounting.
ACC X82K.5. Topics in Information Systems.
ACC X83K. Topics in Auditing.
Professional and technical aspects of practice; ethics and legal responsibilities; review of fieldwork, emphasizing materiality, sampling, and working papers; reporting problems, including long-form and special purpose reports; fraud examination and audit methods.

ACC X83K.3. Auditing and Control, MBA Program.
ACC X83K.4. Fraud Examination.
ACC X83K.5. Topics in Auditing.
ACC X83K.6. Practicum in Accounting.
ACC X83K.7. Internal Auditing Practicum.
ACC X83K.8. Advanced Auditing.
ACC X84. Topics in Research and Planning in Federal Taxes.
Study selected accounting topics in taxation.
ACC X84.1. Tax Research Methodology.
ACC X84.10. Corporate Tax.
Focus on taxation of C corporations and their shareholders.
ACC X84.11. Flow-through Entities Tax.
Focus on flow-through entities, including partnerships.
ACC X84.12. Multijurisdictional Tax.
Focus on the main systems for taxing transactions involving more than one jurisdiction, as well as how these systems mitigate double taxation and approaches to preventing abuses of the system.
ACC X84.13. Tax Practicum.
Work with the Tax Help Program that partners with the IRS to implement the Volunteer Income Tax Assistance (VITA) program for low-income filers.
ACC X84.4. Tax Planning for Business Entities.
ACC X84.5. Family Tax Planning--Estates, Trusts, and Gifts.
ACC X84.7. Fundamentals of Taxation--Advanced Topics.
ACC X84.8. Miscellaneous Tax Topics.
ACC X84.9. Oil and Gas Taxation.
An analysis of the United States federal income taxation of domestic oil and gas operations and transactions. Examines taxation associated with the operational life cycle of oil and gas operations including exploration, development, production, and abandonment, as well as transactions involving oil and gas interests analysis acquisition, disposition, structuring and investment.
ACC X86E. Topics in Accounting.
ACC X86K. Topics in Accounting Theory.
Financial accounting theory; current pronouncements on theory; problems of income determination; accounting research and research methodology applied to accounting issues.
ACC X86K.1. Contemporary Accounting Topics.
ACC X86K.2. Introduction to Research Methodology in Accounting.
ACC X86K.3. Empirical Research in Accounting.
ACC X86K.4. Analytical Research in Accounting.
ACC X86K.5. Behavioral Research in Accounting.
ACC X86K.6. Doctoral Research Topics.
ACC X86K.7. Foundations of Financial Accounting Research.
ACC X87. Topics in Profit Planning and Control.
The use of accounting information by managers within the organization for decision making, planning, and the design of control systems for implementing the organization's strategy. Topics include long-range planning, annual profit planning, activity-based costing, cost prediction, strategic control systems, and performance evaluation. Case studies are used.
ACC X87.1. Introduction to Managerial Accounting.
ACC X87.2. Topics in Profit Planning and Control.
ACC X87.3. Strategic Cost.
ACC X87.4. Strategic Control Systems.
ACC X87.5. Performance Management and Control.
ACC X87.6. The Strategic Chief Financial Officer.
Explore how to think and function as the Chief Financial Officer (CFO) of an enterprise. Discuss CFO responsibilities, interactions with the Board of Directors, the Chief Executive Officer (CEO), and other top-level executives, and how a CFO can maximize their effectiveness.
ACC X91S. Independent Study.
ACC X92N. Master in Professional Accounting Internship.
Focus on academic and professional development through valuable work experience and the integration of accounting knowledge by working with public or private enterprises. A minimum of 320 hours of work, a daily work-related journal, and paper are needed for internship credit.
ACC X98. Thesis.
ACC X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
ACC X99W. Dissertation.

Professional Courses

ACF - Actuarial Foundations

Actuarial Foundations: ACF

Lower-Division Courses

ACF X10C. Conference Course.
Supervised study of selected subjects by individual arrangement with department and instructor.
ACF X12M. Actuarial Laboratory on Probability and Statistics.
Problems and supplementary instruction in probability and statistics, especially as required for the Society of Actuaries and Casualty Actuarial Society Exam 110.
ACF X19S. Topics in Actuarial Foundations.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mathematics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ACF X29D. Introductory Actuarial Financial Mathematics.
Introductory analysis of financial derivatives. Covers the financial derivatives portion of the syllabus for the professional actuarial exam on financial mathematics.
ACF X29S. Topics in Actuarial Foundations.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mathematics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

Professional Courses

ADV - Advertising

Advertising: ADV

Lower-Division Courses

ADV X03. Advertising and Popular Culture.
An introduction to the role advertising plays in American society, and the values and relationships offered in the messages that are delivered.
ADV X05. Fundamentals of Advertising.
Fundamentals and practices of advertising in relation to economies, societies, and mass communication.
ADV X05S. Introduction to Integrated Communication for Sports.
Examination of the mass media industry in relation to the field of sports. Focus on the "off-the-field" industries of advertising, marketing, and public relations that impact sports; rights fees contracts; pre-game shows; gameday production; in-stadium activities; and press coverage.

ADV X09R. Introduction to Advertising and Public Relations Research.
Introduction to concepts and methods of statistics, with emphasis on analyzing personal and group behaviors. Includes exploratory data analysis, correlation and regression, descriptive statistics, sampling distributions, confidence intervals, and hypothesis testing.

ADV X11. Topics in Advertising.

ADV X14. Social and Ethical Issues.
Designed to identify, analyze, and respond to social and ethical issues in advertising and public relations. Covers race, ethnicity, and gender identity.

ADV X15. History and Development of Advertising.
The evolution and development of advertising in the United States in a social, historical, economic, and cultural context.

ADV X16. Creativity and American Culture.
A cross-disciplinary view of the creative process and creative products. The conceptual core of film, fine arts, advertising, architecture, and literature.

ADV X18J. Introduction to Integrated Brand Communication.
The functions of advertising and public relations; role in marketing/communications mix; economic and social influence; advertising and public relations institutions and media; campaigns and appropriations; retail and business-to-business aspects.

ADV X19. Psychology of Advertising.
A review of basic findings of the behavioral sciences dealing with perception, personality, group behavior, psychological appeals, and their application to advertising, public relations, and marketing as persuasive communication.

ADV X19S. Topics in Advertising.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Advertising and Public Relations. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ADV X20. Integrated Communication for Nonprofit Organizations.
Explores integrated communication and branding in a variety of nonprofit settings. Examines the strategic, integrated use of multiple communication approaches, including advertising, public relations, new media, promotions, sponsorships, and special events.

ADV X21. Leadership and Ethics.
Explores leadership, communication, ethics, and the ability to lead others ethically and effectively. Examine concepts and frameworks related to skills that are integral to ethical, effective leadership.

ADV X22. Health Communication: Messages, Campaigns, and the Media.
Covers the development of effective health messages, the design of health campaigns, and investigate the role of the media in influencing people's health and perceptions of health.

ADV X23. Public Communication of Science and Technology.
Explores the rapidly growing field of science communication. Examines the intersection of science, media, and society, focusing on media's impact on how people come to understand, perceive, and act relative to scientific issues. Special attention will be directed toward the strategic communication of science and maximizing scientists' engagement with public audiences.

ADV X24. Communicating Sustainability.
Focuses on persuasion in the context of environmental attitudes and behaviors. Explores how humans think about and interact with the environment, paying particular attention to climate change. Drawing on theory and examples, examines the challenges and opportunities that arise when people try to communicate about the environment and change individual attitudes and behaviors.

ADV X25. Introduction to Advertising Creativity.
Introduction to the theory and practice of creativity, basic elements and principles of design and software applications as they relate to the development of advertising.

ADV X27. Account Planning.
Explores the role of account planning in an agency environment. Covers how to understand the business the client is in, the customers of the client, general environment of that business and all aspects of marketing practice that might affect the overall performance of the client's business.

ADV X28. Psychology of Video Game Advertising.
Explores communication components (broadly defined) within game play and apply understanding of communication processes within game play to better understand how advertisers can leverage games to reach consumers.

ADV X29S. Topics in Advertising.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Advertising. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ADV X30. Strategic Science Communication.
Using insights from strategic communication and social science, explore how to design effective science communication. Examine the crucial roles that strategic thinking plays in maximizing science communication's ability to achieve positive behavioral impacts. Investigate case studies and focus on how to evaluate the effectiveness of science communication efforts.

ADV X31. Environmental Communication Campaigns.
Combine discussions of environmental current events with hands-on agency/client experience to understand how to develop authentic communication strategies and tactics that can protect the environment and advance cutting-edge sustainability technologies.

ADV X32. Technology Marketing and Advertising.
Explores case histories, interviews with leading technology advertising and marketing executives, and latest trends in digital advertising, both mobile and social, as well as its impact across marketing segments and industries.

ADV X32C. New Media Entrepreneurialism.
Covers real life experience/exposure with a series of interviews with real-life practitioners from social media, venture capital, and others with expertise in the field. Explores important trends in digital content and digital business models; a primer for those who wish to learn about entrepreneurialism, technology, and it's intersection with media.

ADV X32D. Entrepreneurialism in Communication.
Project-oriented exercise where small teams conceptualize a business idea in communications, curate the insights and opinions of fellow team members, and ultimately develop a business plan around their new endeavor. A panel of local entrepreneurs will provide feedback and critique.

ADV X34. International Advertising.
Major issues in international advertising and advertising directed at cultural minorities within countries.

ADV X36. Topics in Multicultural Issues in Advertising and Public Relations.
Special topics exploring the impact of the major social, economic, and cultural aspects of advertising and public relations on ethnic and cultural groups in the United States.

ADV X38K. Digital Creative Portfolio.
Examines the digital landscape in advertising and beyond. Examines existing advertising work and producing an advertising project. Present

and describe digital projects in collaborative group settings using terms clients will value.

ADV X38L. Copywriting.

Explore concepts, formats, and skills relevant to the work of copywriters in the field of advertising, including writing, editing, and creating a voice for brands.

ADV X39K. Digital Graphic Communication.

Introduction to the fundamentals of good graphic design, as well as production basics. Develops digital design skills using industry-standard software, from print (Adobe InDesign, Photoshop, Illustrator) to motion (Adobe Premiere, AfterEffects) and interactive (HTML, CSS, WordPress). Assumes no prior knowledge.

ADV X39L. Brand Storytelling.

Examination of how classic elements of storytelling, semiotics, and symbolism can be used to create and manage a modern brand's story and 'meaning'. Create visual, verbal, and video examples of brand storytelling that go beyond traditional advertising and public relations.

ADV X41S. Research in Sports Communication and Media.

An introduction to advertising and public relations research and methodology for sports.

ADV X43K. Portfolio I.

Basic advertising art direction and copywriting skills, including indications for graphics, headlines, and body copy.

ADV X44K. Advertising and Public Relations Research.

Introduction to social science research methods as used in advertising and marketing; emphasis on survey research and secondary data.

ADV X45J. Advertising and Public Relations Media Planning.

An investigation of media-market measurements and strategies across the full spectrum of the industry; development of media communications plan.

ADV X47C. Art Direction.

Explore concepts, formats, and skills relevant to the work of art directors in the field of advertising, including color theory, typography, layout, and software expertise.

ADV X48S. The Business of Sports Media.

Examination of the business of sports-related media, including over-the-air television, cable, satellite television, print, radio, social media, and internet-based media, and the impact of such media on sports presentation and development, professional franchises, colleges, and conferences. Emphasis on how the business of sports media generates revenue and content, and the business models for each type of media, the challenges to such models, and the likely future changes to them.

ADV X50. Advertising Internship.

Practical work experiences in advertising sales, creative management, and research with advertisers, agencies, media, or auxiliary services.

ADV X50S. Internship in Sports Media.

Practical work experience in sports media. Internship to be arranged by student and approved by instructor.

ADV X51. Advertising Practicum.

ADV X53. Advertising and Public Relations Law and Ethics.

ADV X61. Creativity in Artificial Intelligence.

Explore the intersection of artificial intelligence (AI) and creative processes. Examine how AI can enhance and augment human creativity in various domains such as art, music, writing, and design. Analyze the ethical implications and societal impacts of AI-driven creativity. Learn the knowledge and skills used to harness the power of AI to push the boundaries of human creativity.

ADV X63. Immersive Media Lab.

Explore the space of immersive technology. Conduct experimental projects over short periods of time and learn through discovery and sharing findings with others.

ADV X64. Immersive Experiences.

Develop an understanding of an audience, the language of development, and awareness of the affordances of each medium to use them effectively in designing immersive user experiences. Work on a real-world client project, which will also be prepared for entry into an immersive storytelling competition.

ADV X65. Audience Development and Engagement.

Examine the latest methods used to better understand audiences and their motivations. Explore new approaches and tools for engaging audiences in different content strategies, and what metrics can be used to measure their engagement in ways that prove valuable to content creators, marketers, and audiences.

ADV X66. Special Topics in Advertising.

ADV X67. Experimental Storytelling.

Working with real-world clients, examine design thinking and human-computer interaction techniques while ideating, synthesizing concepts, creating user experiences, and developing a proof of concept (PoC) exemplary towards becoming an experience designer.

ADV X68C. Topics in Advertising Senior Seminar.

ADV X68K. Portfolio II.

Designed for aspiring art directors and copywriters in the context of building a creative advertising portfolio. Focus on learning how to pitch creative ideas. Receive evaluations on portfolios by industry professionals.

ADV X68L. Portfolio III.

Designed for aspiring art directors and copywriters in the context of building a creative advertising portfolio. Focus on the development of a personal brand, networking with professional contacts, and submission of creative work to industry competitions. Receive evaluations on portfolios by industry professionals.

ADV X69. Social Media.

Introduction to social networking platforms and their application in relation to media plans, brand building, and insights.

ADV X70J. Integrated Communications Management.

Cases and problems dealing with the management of advertising and promotional programs; media and creative strategies; consumer, retail, industrial, and public service applications.

ADV X73. Integrated Communications Campaigns.

Concept of media mix; matching product, consumer, media profiles; conception, research, planning, and execution of advertising campaigns; special emphasis on advanced copywriting, layout, and production for print and broadcast media.

ADV X75. Portfolio IV.

Focus on more sophisticated execution, integrated campaign development, and submission of creative work to industry competitions. Receive evaluations on portfolios by industry professionals.

ADV X77. Advertising Media Topics.

ADV X77.1. Advanced Media Strategies.

An in-depth dive into independent and group work with insights and strategies.

ADV X77M. Topics in Media Studies.

Topics in media and its effects on advertising and public relations strategies.

ADV X77M.1. Advanced Media Research.

Development of data analysis skills using various analytical techniques.

ADV X77M.10. Media Showcase.

Research and project-based, designed to help remove the traditional and new barriers faced in the fields of media.

ADV X77M.3. Digital Metrics.

An exploration of the evolving scope of digital metrics and analytics by looking at the three dimensions colliding in interactive media: business, communications, and technology.

ADV X77M.5. Media Metrics.

ADV X77M.7. Media Negotiations.

ADV X77M.8. Digital Insights.

Exploration of the terminology, measurement methods, and tools necessary for developing actionable management insights for digital content creation, promotion, and public relations.

ADV X77M.9. Media Investments.
An examination of media investments and negotiations, from both a buying and selling perspective. Investigates the activation role from all sides; the agency, vendor, and client.

ADV X78. Advanced Topics in Advertising.

ADV X78.15. Creative Project: Writing.

ADV X78.21. Semester in Los Angeles: Entertainment Promotion, Press, and Public Relations.
Consider the core disciplines of research, creative, distribution, advertising, publicity, and promotion as they apply to entertainment.

ADV X78.26. Consumer Psychology and New Media.

ADV X78.27. Advanced Media Research, Insights, and Analysis.

ADV X78.37. Social Enterprise Branding.
Focus on the development of strategic branding and communication for businesses focused on balancing purpose and profit. Explore components of brand identity and implementation as they relate to the success or failure of companies enacting social impact across a number of industries.

ADV X78.38. Influencer Marketing.
Identify, analyze, approach, manage, and measure business goals. Differentiate between attention and influence.

ADV X78.39. Pop Star Activism.
Engage with issues of diversity, political activism, public relations, and marketing communication through the lens of popular music.

ADV X78.4. Direct Marketing.

ADV X78.41. Advertising Intelligence.
Analyze how insights enhance decision making in advertising and public relations in areas such as campaign development, segmentation, positioning, product development, and promotion. Review advertising and public relations problems and processes in ways that will benefit from informed decision making.

ADV X78.42. Issues in Black American Advertising and Public Relations.
Explore cultural critiques of the advertising and public relationship industry related to historical and contemporary challenges involving representation, systemic injustice, stereotypes, and social responsibility involving the Black American experience.

ADV X78.43. Digital Social Media Analytics.
Explore cutting edge technologies that enable public relations and advertising professionals to better understand online conversations and audience behaviors. Examine how to recommend creative solutions for engaging key stakeholders. Determine how data, creative, and strategy intersect.

ADV X78.44. Digital Social Media Production.
Explore the required skills to plan, capture, edit, and produce digital social media content.

ADV X78.45. 360 Video Production.
Examine the required skills to plan, capture, edit, and produce 360 videos.

ADV X78.46. Television and Film Publicity.
Examine the different roles within the entertainment business. Explore key industry terms, events, companies, and other entities. Survey vital entertainment news sources and publications, engaging press, and full campaign execution.

ADV X78.47. Social Issues.
Explore a brief history and a contemporary look at social issues in advertising and public relations in New York. Discuss corporate and social responsibility, social issues in personal and influencer branding, strategic communication for advancing social change, and crisis communication spanning the contexts of organizational and global crises. Examine how social issues come to bear on advertising and PR in specific industries that are an integral part of the New York market, including healthcare, fashion, non-profits, and finance.

ADV X78.48. Sustainability Communication Research.
Examine the core principles of designing, implementing, and reporting an applied research project. Discuss conceptual development, literature review, research design, ethical considerations, and fieldwork skills.

ADV X78S. Special Topics in Sports Media.
Topics in sports media related to issues in traditional and new media as they effect sports and entertainment advertising and public relations.

ADV X78S.1. Advertising and Public Relations for Sports.

ADV X78S.10. Leadership and Administration in Sports Organizations.
Designed to develop marketing skills related to events, programs, products, and facilities in the sports management field.

ADV X78S.11. Sports and Social Media.
Designed to provide an understanding of and experience with the components and best practices of social media, marketing, and communications as they relate to sports entities and the sports field as a whole.

ADV X78S.12. Sports Audiences.
An exploration of marketing innovations in sports to attract audiences, and the use of sports media by advertisers, sponsors, and other entities to target various customer groups.

ADV X78S.13. Business of Sports Television.

ADV X78S.2. Legal Aspects of Sports and Media.

ADV X78S.3. Return on Investment of Sports Media.

ADV X78S.4. Analysis of Sports and Entertainment Audiences.

ADV X78S.5. Ethics and Social Issues in Sports Branding.

ADV X78S.6. Sports Audiences and Nontraditional Media.

ADV X78S.7. Contributions of Sports and Entertainment to Education and Health.

ADV X78S.8. College Sports Media.
An examination of the history of college sports media, with an emphasis on the evolution of sports coverage from NCAA-controlled limited broadcasting of football and basketball,to present day intercollegiate athletics coverage available via multiple outlets.

ADV X78S.9. Sports Contract Negotiation Techniques.
Strategies and techniques for successfully negotiating contracts, with a special emphasis on the negotiation of sports contracts.

ADV X79. Integrated Communication for Sports and Entertainment.

ADV X79H. Honors Tutorial Course.
Conference course of intensive study, planned by the Advertising Honors Committee; research and the writing of a substantial paper on a special advertising topic.

ADV X79J. Topics in Advertising Problems.

ADV X79J.1. Supervised Individual Special Studies.
Supervised individual special studies for which separate courses are not available.

ADV X79J.2. Supervised Individual Creative Studies.
Supervised individual creative studies for which separate courses are not available.

ADV X79J.3. Supervised Individual Media Studies.
Supervised individual media studies for which separate courses are not available.

Graduate Courses

ADV X81. Consumer Behavior.
An interdisciplinary study using behavioral science concepts to explain consumer motivation, information processing, and consumption behavior; sociological and psychological factors affecting the consumption process and the marketing/advertising of goods and services.

ADV X82. Quantitative and Qualitative Research.
An introduction to advertising research designs and procedures.

ADV X82J. Topics in Theories of Persuasive Communication and Consumer Decision Making.
Communication and behavioral science theories as they relate to contemporary advertising practices.
ADV X83. Topics in Supervised Individual Creative Studies.
ADV X83.1. Art Directors' Seminar.
Explore concepts, formats, and skills relevant to the work of art directors in the field of advertising, including color theory, typography, layout, and software expertise.
ADV X83.2. Portfolio I.
Introduction to conceptual thinking and art direction/copywriting skills in the context of building a creative advertising portfolio. Receive evaluations on portfolios by industry professionals.
ADV X83.3. Portfolio II.
Designed for aspiring art directors and copywriters in the context of building a creative advertising portfolio. Focus on learning how to pitch creative ideas. Receive evaluations on portfolios by industry professionals.
ADV X83.4. Portfolio III.
Designed for aspiring art directors and copywriters in the context of building a creative advertising portfolio. Focus on the development of a personal brand, networking with professional contacts, and submission of creative work to industry competitions. Receive evaluations on portfolios by industry professionals.
ADV X83.5. Portfolio IV.
Focus on more sophisticated execution, integrated campaign development and submission of creative work to industry competitions. Receive evaluations on portfolios by industry professionals.
ADV X85. Topics in International Advertising.
Study of the managerial, economic, legal, and cultural aspects of multinational advertising.
ADV X85.1. Strategic Advertising Principles.
ADV X85.2. Account Planning.
ADV X85.3. Media Management.
ADV X85.4. Strategic Advertising Management.
ADV X85.5. Multicultural Advertising: Theory and Research.
ADV X86. Experimental Storytelling.
Working with real-world clients, examine design thinking and human-computer interaction techniques while ideating, synthesizing concepts, creating user experiences, and developing a proof of concept (PoC) exemplary towards becoming an experience designer.
ADV X87. Creative Strategies.
The process of developing creative concepts and their effective execution.
ADV X88C. Research Problems: Doctoral Examination Preparation.
Research and reading in preparation for doctoral examinations.
ADV X88J. Principles of Advertising Management.
The study of planning, organization, and control of the advertising functions.
ADV X88K. Integrated Communications Management.
The application of management principles to the solution of integrated communications management problems.
ADV X89. Topics in Problems in Specialized Fields of Advertising.
Research project chosen from the area of the student's major interest; a written report or creative project is required.
ADV X89.1. Computer Graphics--Creative Sequence.
ADV X91K. Topics in Seminar in Advertising.
Survey and analysis of current advertising issues and practices.
ADV X91K.1. Interactive Advertising.
ADV X91K.10. Business to Business Integrated Communication Management.
Cases and problems dealing with the management of business to business integrated communication, advertising and promotional programs; media and creative strategies; consumer, retail, industrial, and public service applications.
ADV X91K.2. Advanced Account Planning.
ADV X91K.4. Audiences for Nonprofit Organizations.
ADV X91K.5. Integrated Communication for Sports.
ADV X91K.6. Media Research.
ADV X91K.7. Public Relations Theory.
ADV X91K.8. Quantitative Models in Advertising.
ADV X91L. Invisible Global Market.
ADV X92. Topics in Advertising Theory and Research.
Examination of important current areas in advertising research and theory.
ADV X92.2. Advanced Advertising Theories I.
ADV X92.3. Advertising Research I.
ADV X92.4. Advanced Advertising Theories II.
ADV X92.5. Advertising Research II.
ADV X95. Advertising Internship.
Practical work experience in advertising sales, creative management, and research with advertisers, agencies, media, or auxiliary services.
ADV X98. Thesis.
ADV X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
ADV X98T. Student Teaching in Advertising.
ADV X99W. Dissertation.

Professional Courses

AED - Art Education

Art Education: AED

Lower-Division Courses

AED X19S. Topics in Art Education.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

AED X20. Exploring Objects, Spaces, and Meaning.
Explore a broad range of historical and contemporary works, artifacts, and environments, and their implications for understanding imagery and objects in visual and material culture.
AED X21C. Children's Artistic Development.
Examine how arts-based learning strategies can be used to promote inquiry into the world.
AED X29S. Topics in Art Education.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
AED X30. Introduction to Art Education.
Introduction to art education. Examine philosophy, current trends, instructional methods, evaluation, and advocacy. Explore careers in art education, museum education, and cultural or social educational settings.
AED X41C. Learners and Instructional Sites.
Explore instructional procedures, observations, and evaluation of early childhood through grade twelve classroom- and community-based art instruction.

AED X51C. Art Materials, Techniques, and Processes.
Explore and apply basic materials, techniques, and processes in art production used in early childhood through grade twelve classroom- and community-based art instruction.

AED X61C. Criticism and Conversation about Art.
Explore individual and professional evaluations of visual imagery, artifacts, and artistic production in a variety of settings.

AED X71C. Topics in Art Education.

AED X72. Art, Resilience, and Trauma.
Examine the connection between art, resilience and trauma, with emphasis on the impact of psychological trauma on academic and social emotional well-being. Explore strength-based approaches for fostering resilience through hands-on engagement in the creative arts.

AED X73. Public Art, Civic Engagement, and Responsive Communities.
Explore historic and global perspectives of art in the public realm, with a focus on art in the local community, cultural production, and its relationship to civic education and engagement as well as concepts of site-specificity, interactivity, and intervention.

AED X76C. Independent Study.
Complete individual projects under faculty supervision.

AED X79S. Advanced Topics in Art Education.

Graduate Courses

AED X81G. Foundations of Art Education.
Explores foundational writings and beliefs, past and present literature, and perspectives within art education.

AED X81K. Contemporary Issues in Art Education.
The role of art education in education and society, including technology, multiculturalism, gender studies, contemporary art, visual and material culture, interdisciplinary connections, media studies, and community-based art education.

AED X82G. Introduction to Research in Art Education.
Explores diverse approaches and methodologies for conducting research in art education.

AED X82H. Thesis Proposal and Preparation.
Focuses on the preparation of a graduate thesis proposal, with emphasis on the student's identification of a central research question.

AED X82L. Applied Project in Art Education.
Research based applied project in Art Education.

AED X83J. Museum Education: History and Theory.
Historical and philosophical development of American art museum education.

AED X83K. Museum Education: Practice and Application.
The practice and application of museum education within the context of art museums.

AED X83L. Issues in Museum Studies.
Survey major issues in the field of museum studies.

AED X84. Special Topics in Art Education.
Readings, discussion, and research relevant to major current trends in art education.

AED X85. Independent Study in Art Education.
Student-initiated study with an art education faculty member covering the topic of student's research focus.

AED X86. Internship and Field Study.
Supervised observation and research in art education related to the candidate's area of emphasis.

AED X87C. Case Studies in Community-Based Art Education.
Students review examples of community-based art programs to understand their histories, philosophies, purposes, organization, funding, operation, evaluation, and redevelopment; and discuss issues affecting the successful creation, preservation, and development of such programs.

AED X87D. Program Development in Community-Based Art Education.
Students examine the process of establishing an exemplary community-based art program; conduct ethnographic research and write grant proposals toward the creation of an ideal community-based art program or the improvement of an existing program; and develop operational activities and explore various approaches to art production to prepare for implementing a program.

AED X88C. Art Instruction through Arts-Based Research.
Students observe teaching and learning styles in early childhood through grade twelve art classrooms and review and evaluate their observations using class discussions, journals, creative reports, and other arts-based research techniques.

AED X88D. Art and the Creation of Meaning.
Discussion, analysis, and hands-on use of the materials, techniques, and processes used to create artwork in early childhood through grade twelve classrooms.

AED X88E. Art and Critical Discourse.
Focuses on personal and professional critiques of artifacts and artistic products. Students explore and justify their responses to artwork in written and verbal discussion.

AED X88F. Curriculum Development in Art Education.
Examine major movements in art education/general education curriculum theory and development in order to understand current trends in curricular design and implementation. Apply these understandings to museums, schools, and community settings in art education.

AED X88G. Art in Public Places.
Explore historic and global perspectives of art in the public realm, with a focus on art in the local community, its social, cultural and economic significance, and its relationship to civic education and community engagement.

AED X88H. Objects, Spaces, and Meanings.
Investigate meanings of objects and spaces that surround us, focusing attention on a range of objects residing both inside and outside the museum, and structures and constructed environments that make up our lives.

AED X88I. Art, Resilience, and Trauma.
Examine the connection between art, resilience and trauma, with emphasis on the impact of psychological trauma on academic and social emotional well-being. Explore strength-based approaches for fostering resilience through hands-on engagement in the creative arts.

AED X98. Thesis.

AED X98T. Supervised Teaching in Art Education.
Teaching under the close supervision of the course instructor for one semester; weekly group meetings with the instructor, individual consultations, and reports throughout the teaching period.

Professional Courses

AET - Arts and Entertainment Technologies

Arts and Entertainment Technologies: AET Lower-Division Courses

AET X04. Foundations of Arts and Entertainment Technologies.
Explore the industries, practices, and concepts defining arts and entertainment technologies in the twenty-first century.

AET X10. Foundations of Creative Coding.
Explore applied computational thinking and logical processes for solving creative problems with technical solutions using the graphics language Processing.

AET X10T. Topics in Innovative Design.
Exploration of innovative topics in design.

AET X11. Media and Motion.
Introduction to effective visual storytelling with 2D and 3D digital content.

AET X12. Games and Interactivity.
Introduction to user-centered design process, interactivity, and game design.

AET X13. Code and Fabrication.
Introduction to building interactive physical projects with hands-on code, microcontrollers, and cardboard.

AET X14. Sound and Space.
Introduction to dynamic sound, lighting, and video projection for screens and spaces.

AET X19. Topics in Arts and Entertainment Technologies.

AET X19S. Topics in Arts and Entertainment Technologies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Design and Creative Technologies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

AET X20F. Immersive Audio.
Use spatial audio systems to create public sound installations and immersive experiences. Explore designing novel multichannel audio systems, binaural audio mixing, and combining spatial audio and visual tech to design immersive installations.

AET X20L. Generative Music.
Explores algorithmic music systems including procedural techniques, genetic algorithms and cellular automata.

AET X20M. Live Music Coding.
An exploration of techniques for live, real-time music programming and sound production in performance settings.

AET X20P. Sound Design.
Explore the techniques and tools used in the creation of sound for film, television, and video games. Learn about the history of sound design, the role of the sound designer, and the process of creating a soundtrack from concept to final mix.

AET X21C. Audio Processing.
Explores the use of sound-shaping tools, convolution reverb, noise reduction, pitch and time editing to make precise corrections to audio files.

AET X21J. Introduction To Game Audio.
Explore the sound design, foley, and audio implementation in video games.

AET X21K. Advanced Game Audio.
Examine audio practices used in the video game industry.

AET X22K. Introduction To Audio Coding.
Explore programming methods for MIDI and audio signal processing in the visual interface language Max/MSP. Examine how to manage audio signal flow and communications with external devices such as keyboard controllers, pedals and other sensors. Discuss the creation of systems for musical interactivity in live performance and immersive sound installation applications and integration with Ableton Live.

AET X22L. Advanced Audio Coding.
Explore complex connections in audio signal flow and communication with external devices using signal processing and Max/MSP.

AET X23D. Interactive Music.
Create real-time interactive music using Ableton Live and Musical Instrument Digital Interface (MIDI) controllers.

AET X23G. Generative Audio Programming.
Use real-time, generative audio coding tools.

AET X24. Themed Entertainment Design.
Explore best practices behind the design of themed entertainment experiences through a variety of lectures, group projects, and individual study.

AET X24D. Principles of Animation.
An introduction to the principles of animation for 2D and 3D systems. Use various techniques to convey a sense of weight, emotion, and story for simple and complex objects in both 2D and 3D.

AET X24J. Visual Storytelling.
Explore graphic communication, visual storytelling, and digital visualization of objects, spaces, environments, information, and data. Utilize pre-rendered realme, and procedural systems to explore 2D and 3D previsualization techniques, infographic design, data processing, and rendering systems.

AET X24P. Advanced Production Laboratory.

AET X26E. 3D Animation and Rigging.
An introduction to 3D animation techniques and rigging systems.

AET X26G. Realtime VFX.
An introduction to creating visual effects for games and realtime engines.

AET X29J. Digital Fabrication.
Explores common and emerging digital fabrication technologies for artists and designers.

AET X29S. Topics in Arts and Entertainment Technologies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Design and Creative Technologies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AET X30C. Business of Entertainment.
Explore the fundamentals of producing entertainment from inspiration to execution as well as all aspects involved in producing live stage and on screen commercial productions.

AET X30T. Topics in Innovative Design.
Exploration of innovative topics in design.

AET X33. Topics in Video Game Development.
Topics in video game development.

AET X33D. Video Game Production.
Explores the creation and execution of plans and roadmaps to strategize how game development is executed, organized, scheduled, budgeted, and managed.

AET X34. Video Game Character Animation.
Examine the process of creating 3D gameplay animations, techniques to improve animation workflow, and how to implement animations into the Unreal Engine.

AET X34C. Level Design.
Design and build interactive 2D or 3D game levels (game maps) using an industry standard tool such as Unity or Unreal. Explore the design pipeline for creating levels from concept and layout, to whiteboxing, creating and integrating environment art and sound, worldbuilding, and adding simple scripted interactions, animations, sound effects, and VFX. Examine the different design process for small indie games compared to big AAA games.

AET X34E. Video Game Art Pipeline.
An introduction to creating and working with game ready assets in 2D and 3D.

AET X34F. Video Game Scripting I.
Introduction to scripting interactive content for games using an industry-standard scripting language and game engine.

AET X34J. Multiplayer Video Game Design.
Examination of the design and technical requirements for developing multiplayer games in different genres.

AET X34K. Video Game Prototyping.
Explore rapid prototyping techniques for video game art and design using ideation, storyboarding, pitching, prototyping, testing, and documentation.

AET X34L. User Interface/User Experience for Video Games.
An introduction to user interface (UI) and user experience (UX) design for video games.

AET X34M. Video Game Systems Design.
Create and apply play systems which establish the framework for user experience (UX) and level design.

AET X34N. Interactive Storytelling.
Apply cross-disciplinary methods to create immersive narratives for interactive experiences.

AET X34P. User Interfaces.
Explore a synthesis of data visualization and user interface design for games, simulation, and digital environments. Discuss infographics, accessibility, and user centered design.

AET X34R. Technical Art I.
Examine technical aspects of game content creation including shaders, automation, tool creation, and special effects.

AET X34S. Technical Art II.
Explore advanced technical art projects for games.

AET X35D. Realtime Visualization.
An introduction to using game engines and realtime graphics systems for architectural, automotive, and other types of product visualization.

AET X35F. Video Game Scripting II.
Advanced scripting of interactive content for video games using an industry-standard scripting language and game engine.

AET X35J. Live Video Game Design.
An introduction to design methods for video games as a service and persistent multiplayer video game worlds.

AET X35K. Virtual Reality for Video Games.
Explores design and creation of virtual reality (VR) content for games, and deploying and testing on VR hardware.

AET X35M. 2D Animation For Games.
Learn the tools and comprehensive knowledge to create beautiful, functional, and dynamic art for video games.

AET X35V. Introduction to Mixed Reality.
Introduction to mixed reality platforms and hands-on development of XR experiences. Explore creative AR interactions with 3D models, animated characters, sound assets, and visual effects, to promote learning opportunities and branded marketing.

AET X36C. Video Game History and Culture.
Analyze the history of video games from their origins in computer labs, to their surge in popularity that has significantly impacted modern society. Examine the evolution of video games, their influences on culture and laws, controversies in gender politics and minority representation, and how the medium developed both commercially and as a form of artistic expression.

AET X37. Writing for Interactive Games.
Exploration of game creation as a multi-threaded narrative story. Students create, write, edit, and refine game stories and game dialogue and build small game scenarios using a variety of game design software platforms.

AET X37D. Narrative Design.
Explore establishing, communicating, and assimilating a cohesive narrative into all aspects of interactive and immersive media experiences through a cross-disciplinary lens.

AET X37N. Introduction To Narrative.
Explore the origins, formal elements, and best practices of good storytelling across multiple mediums through study, analysis, and writing practice.

AET X39. Advanced Topics in Arts and Entertainment Technologies.
Advanced topics in arts and entertainment technologies.

AET X40D. Interactive Installation Design.
Explore the skillsets and collaborative processes involved in creating interactive installations. Learn interactive technology, physical computing, and user engagement to create immersive and participatory experiences.

AET X41D. Digital Musicianship.
Explore harmony, chord progressions, and song structure in the MIDI grid.

AET X42C. 3D Modeling and Texturing.
Utilize hard surface and organic modeling workflows, modern texturing techniques, and physically-based shaders to create efficient assets based on clear content goals.

AET X42D. 3D Materials And Lighting.
Explore 3D game models using state of the art workflows and tools.

AET X44D. 3D Previsualization for Live Entertainment.
Instructs students on how to bring an idea from concept to fully rendered pitch-ready environment by utilizing 2D and 3D technical drafting tools in Vectorworks, and a lighting visualizer.

AET X44F. Design Skills: Projection.
Introduction to the creative and technical design process in the field of projection design for live performances.

AET X46C. Video Game Modding.
Focus on modifying existing video games to experiment with gameplay ideas and create unique play experiences.

AET X46F. Video Game Design Challenges.
Focuses on the creation of unique play experiences under extreme constraints.

AET X48. Concert and Event Lighting.
Explore methodologies utilized in live event lighting.

AET X48G. Media Design and Technology.
Investigate design challenges in-depth, in the field of Media and Projection Design.

AET X48K. 3D Projection Mapping.
Explore common 3D mapping techniques and applications that include architectural mapping, dome projection and Cave automatic virtual environments (CAVE) projection.

AET X48L. Advanced System Engineering.
Study common signals (digital and analogue), data communication protocols, synchronization, show control as well as layout and contingency considerations for professional entertainment systems.

AET X50C. Advanced Creative Coding.
Explore advanced computational concepts and their application to more diverse creative media domains including; audio, video, music, and the web.

AET X51C. Audio Production Lab.
Individual or team projects in audio production for live performance.

AET X51E. Do It Yourself Synthesizer Lab.
Projects to design and build microprocessor-based synthesizers and special effects (SFX) components and systems.

AET X53. Advanced Topics in Video Game Development.
Advanced topics in game development.

AET X54C. Cross Platform Storytelling.
Focus on the future of storytelling and experience design across multiple platforms and services.

AET X55D. Mobile Game Design.
Design and develop games specifically for mobile devices. Learn about the best practices for production and deployment.

AET X57. Solo Studio.
Build creative confidence through a range of methodologies including iterative design and prototyping, exploring research strategies, and exercising critical reflection.

AET X58. Topics in Collaborative Studio.
Focus on team based projects that culminate in large events, presentations, or performances.

AET X58.1. Next Level Arcade.
Produce a custom arcade game; create game designs, art, sound, and the physical enclosure and controls.
AET X58.2. Collaborative Music Project.
Produce collaborative projects in advanced sound processing and synthesis and audio-visual systems.
AET X58.3. Engineering for Live Events.
Examine advanced concepts, methods, and systems utilized in the fields of live entertainment and immersive artistic practices. Explore core technologies and illuminate how each area of work within projection, lighting, sound and interactivity relates and is connected to others.
AET X58.4. Indie Game Studio.
Learn how to navigate the indie game industry from a business perspective, including marketing strategies, community engagement, publishing on digital platforms, and exploring funding options.
AET X58.5. Event Management and Production.
Develop and deploy skillsets to plan and execute the operational and management details related to live events and conference type events.
AET X58.6. Immersive Environments.
Capture real time motion data and build immersive experiences with light, sound, and projection in the Lab for Immersive Media (LIM).
AET X58.7. Games for Good.
Utilize game design skills to create experiences that improve lives. Learn about transformational game development that will support therapy, advance scientific research, bolster mental health, and revolutionize education.
AET X61C. Physical Computing.
Introduces concepts and methods of physical computing, including the creation, building, and programming of small devices and the integration of external devices and objects.
AET X70. Research Methods Proseminar.
Explore research methods and the preparation of a thesis topic and senior thesis proposal.
AET X74. Independent Study.
Independent study or research in arts and entertainment technologies.
AET X75. Portfolio.
Focus on portfolio development, showcasing professional skills, and preparation for the demands of industry.
AET X76. Game Capstone: 2-D.
Work in small teams from different disciplines to develop 2D games.
AET X77. Game Capstone: 3-D.
Work in small teams from different disciplines to develop 3D games.
AET X78H. Honors Senior Thesis.
Participate in a large scale senior project.

Graduate Courses

Professional Courses

AFR - African and African Diaspora Studies

African and African Diaspora Studies: AFR

Lower-Division Courses

AFR X01. African American Culture.
Survey of African American culture in the United States from the 1600s to the present. Subjects include the circumstances and responses of blacks during North American enslavement, the Civil War, Reconstruction, the Great Migration, the Harlem Renaissance, the civil rights movement, and contemporary contexts.
AFR X02D. Analyzing Social Data.
Subjects include conceptualization and operationalization in quantitative measurement, the calculation and interpretation of descriptive statistics and statistical relationships, the application of statistical techniques to understand social phenomenon, and techniques for presenting results from quantitative analysis.
AFR X03. Introduction to Black Studies.
Introduction to canonical black studies literature, themes, and theories.
AFR X04. Introduction to the Study of Africa.
Examines the complex histories, intellectual entanglements, and enduring hierarchies of Africa and African studies. Explores the evolution of African studies (both intellectually and institutionally), particularly in regards to the emergence of black studies.
AFR X05. Public Policy and Black Communities.
Examine how public policy has both advanced and hindered opportunities for Black people and communities from the Constitutional era to the present, addressing such areas as education, health, housing, and policing.
AFR X10. Introductory Topics in African and African Diaspora Studies.
AFR X10K. Introduction to Modern Africa.
Introduction to modern Africa, with focus on colonial and postcolonial development in political organization, economics, sociolinguistics, and literature.
AFR X10L. Introduction to Traditional Africa.
Introductory, interdisciplinary course on the peoples and cultures of Africa.
AFR X10S. Introduction to Yoruba Religions.
Introduction to the cosmological world of the Yoruba of southwestern Nigeria, covering history, societal organization, myths, legends, customs, and cultural traditions.
AFR X11C. Performance, Feminism, and Social Change.
Exploration of the ways that engaged performance and feminist practice generate space for social change, including the basic principle that social transformation requires individual awareness, and that awareness necessitates a rigorous examination of race, gender, class, and sexuality.
AFR X14C. Art and Architecture of Ancient Egypt.
Introduction to the complex and intriguing culture of ancient Egypt and to its legacy in society through the examination of its art and archaeology.
AFR X15. Afro-Brazilian Diaspora.
AFR X15E. The Revolution Will Be Dramatized.
AFR X15F. Toni Morrison and August Wilson.
AFR X15G. The United States and Africa.
History of political, economic, and cultural relations between the United States and Africa from the early origins of the slave trade to the present.
AFR X15I. Introduction to African American Women's History.
AFR X15K. Introduction to African American History.
AFR X15L. Anthropology of Race and Ethnicity: An Introduction.
Examines the social importance of race and ethnicity both in America and around the world.
AFR X15N. The Black Power Movement.
Examines the major organizations, key figures, and ideologies of the Black Power movement from the late 1960s and early 1970s.
AFR X15O. The Politics of Black Identity.
Explore the idea that black progress is undermined by the activities and practices of certain black celebrities, leaders, and intellectuals whose attitudes, behavior, and politics differ from the black majority. Examine the history of labels that make reference to black identity, including "Uncle Tom," "Negro," "sellout," and various other denigrating names.
AFR X15P. Introduction to Black Women's Studies.
Interdisciplinary examination of the complexities of black womanhood in America through an investigation of history, identity, popular culture, and black feminism/womanism, as well as social and political activism.
AFR X15Q. Black Queer Art Worlds.
Exploration of over two decades of work produced by and about black queer subjects throughout the circum-Atlantic world. Provides an introduction to various artists and intellectuals of the black queer

diaspora, as well as an examination of the viability of black queer aesthetic practice as a form of theorizing.

AFR X15R. Diaspora: Race, Nation, and Resistance.
Subjects include makings and meanings of diaspora, the differences and similarities between diaspora and related concepts such as race, nation, and cultural identity. Focuses on the making of the black Atlantic world, and comparative analysis between black diasporic life and that of other global dispersals, particularly among Asian and indigenous populations, and how resistance serves as a key link.

AFR X15S. Liberation in the African Diaspora.
Examination of liberation and freedom struggles in the African diaspora, focusing on common intellectual, political, and social currents among the diaspora's various groups. Course focuses on three major themes: abolitionism, Pan-Africanism and national liberation, and hip hop. Particular emphasis will be on the ideas associated with these movements, and the major organizations and intellectual currents in all three.

AFR X15T. African American Literature and Culture.
Explores texts, drawn from a variety of genres and periods, that indicate the range of African American experiences and how those experiences are influenced by issues such as class, ethnicity, gender, sexuality, and race.

AFR X15U. Music of African Americans.
Introduction to the variety of modes of expression of African American culture in music and other related genres.

AFR X15V. African Diaspora Archaeology.

AFR X15W. Race, Sex, and Tourism.

AFR X16C. Rights in Modern America.

AFR X16E. Blackness and Comics.
Examine the relationship between race and the sequential aesthetics of comic books and comic strips. Explore comics strips, underground comics, and superhero comics from the colonial period to the present day.

AFR X16F. Black and Latinx Intersections.
Examine the complex relationships between and among Black and Latinx communities and the political and structural forces and contexts that shape their interactions. Explore Black identity within the Latinx population, racial politics, coalitions of Black American and Latinx groups, race among Latinxs, racial inequality, and the politics of immigration.

AFR X16G. Police, Prisons, and Inequality.
Explore the ethical issues related to inequality and the United States criminal legal system. Examine the experiences of the poor, Indigenous people, immigrants, racial minorities, women, sexual minorities, and gender-nonconforming people.

AFR X16K. Introduction to Religions of Latin America.
Examine a survey of religious practice across Latin America and the Caribbean.

AFR X19S. Topics in African and African Diaspora Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AFR X29S. Topics in African and African Diaspora Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

AFR X19S. Topics in African and African Diaspora Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AFR X20C. Power and Place: Making Texas History.

AFR X20T. Texas History's History.
Explore evolving ideas and meanings concerning the most significant events, personages, and social processes in Texas' history.

AFR X21. The African Diaspora in the Americas.
Black cultures and societies in the New World, and their African heritage.

AFR X21L. Sociology of Education.
Education as a societal institution, with emphasis on the United States educational system: how the system works; the effects of the system; recent changes.

AFR X22. Introduction to African Prehistory.

AFR X22D. Race and the Digital.
Review of theoretical developments in the sociological study of "race, including an examination of processes of racialization and cultural texts, in order to better understand the ways in which identities are socially produced. Attention will be placed on forms of popular culture, black cultural production, and political action to question how such practices are shaped by migrations within the African diaspora.

AFR X23N. Critical Race Theory and the Novel.

AFR X24E. Racism and Antiracism.
Examines the theories and definitions of racism across several fields: anthropology, sociology, psychology, cultural studies, postcolonial studies, and gender/sexuality studies. Also includes a section that focuses on anti-racist activism, particularly within people of color and immigrant communities.

AFR X25C. Latinx Sexualities.
Examine Latinx sexualities from a historical perspective to comprehend the social, cultural, political, and economic factors, which have shaped these experiences.

AFR X25D. Gender and Translation in the Arab World.
Examine complex politics and poetics behind the translation and marketing of Arab women's writing in the West.

AFR X25S. Statistical Analysis of Social Disparities.
Analysis of racial inequality through social statistics.

AFR X29S. Topics in African and African Diaspora Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AFR X30. Beyonce Feminism and Rihanna Womanism.

AFR X30C. Fashion And Desire.

AFR X30D. Literature of the Harlem Renaissance.

AFR X30E. Gwendolyn Brooks.

AFR X30F. Writing for Black Performance.

AFR X30I. The Arts of Hip Hop.

AFR X30J. Toni Morrison.
An examination of select novels by the Nobel Laureate and Pulitzer Prize-winning novelist focuses on the positional uniqueness that womanism shares with a predominant feminism, which surfaces in historicized familial relationships.

AFR X30K. African American Literature through the Harlem Renaissance.
A survey of African American writing, including autobiography, poetry, fiction, and drama. Authors may include Douglass, Jacobs, Frances E. W. Harper, Chestnutt, Du Bois, Hurston, and Hughes.

AFR X30L. African American Literature since the Harlem Renaissance.
The development of African American poetry, drama, fiction, and nonfiction since the Harlem Renaissance. Authors may include Wright, Ellison, Baldwin, Malcolm X, Baraka, Morrison, Shange, and Charles Johnson.

AFR X30M. Contemporary African American Women's Fiction.

AFR X30N. Self-Revelation in Women's Writing.

AFR X30O. Black Film at the Oscars.

AFR X30P. Writing Slavery.
Explores the controversial rewriting of slavery in a presentist context by contemporary authors. Addresses challenges that archival limitations and revisionist writings about slavery pose for academic disciplines, literary instruction, and/or pedagogy.

AFR X30Q. Caribbean Literature.

AFR X30R. Literature of Black Politics.
Examines the novels, plays, and critical essays of Ralph Ellison, James Baldwin, and Toni Morrison as works of democratic political theorizing and political engagement.

AFR X30S. Danticat and Diaz.

AFR X30T. Diasporic Magic: Literature and Performance.

AFR X30V. Greek Tragedies and Postcolonial Dramas.
Study the adaptation of great dramatic literature of the Greek civilizations to their phenomenal evolution into popular African performances. Putting classical writings from Ancient Greek in dialogue with texts that formed the background of African anti-colonial revolutions, analyze how Africans have used these works to re-shape literary canon and given their world and their histories universal purchase.

AFR X30W. Black Queer Literature and Film.
Analyzes written works, films, and videos by and about lesbians, bisexual, transgender, and gay black people, with an emphasis on understanding the historical and theoretical construction of sexual and gender identities and sexual/cultural practices in black communities.

AFR X31. Early Black Atlantic.

AFR X31C. Expressive Arts of Global Africa.
Explore music, dance, and other artistic forms as modes of political expression and community building.

AFR X31D. Drugs in African American Popular Culture.
Examine the legal, political, and philosophical intersection of blackness, whiteness, and drugs in the late twentieth century through film, music, and literature.

AFR X31E. Black Cops in African American Popular Culture.
Explore the history of black policing in America and representations of black police officers in popular literature and film of late Twentieth Century America.

AFR X31F. Black Horror and Psychoanalysis.
Explore the intersection of race, horror aesthetics, and psychoanalytic theory.

AFR X31G. Contemporary African Writing in English.

AFR X35C. Africana Women's Art.
Analysis of the diverse modes of presentation, mediums, definitions, and influences of Africana women artists in the diaspora. Designed to use critical theory and art history found in oral and written literatures, music, films, and other formal and informal documents.

AFR X35D. Visual Cultures of Africa.
Painting, textiles, ceramics, sculpture, performance, mixed media, photography, films, and the aesthetic ideas behind the production of African visual cultures from the perspectives of rituals, rites of passage, celebrations, initiations, documentations, and expressions.

AFR X35E. Introduction to African Art.
Investigates the lives and works of several artists who have made substantial contributions to the definition, history, and interpretation of the visual arts.

AFR X35F. Visual Arts of the Caribbean.
A look at a wide range of artists from the countries of the Caribbean, including examples of cinema and reggae music packaging.

AFR X35G. Diaspora Visions.
An exploration of border crossing by cultures and groups including Yorubas, Jews, Armenians, Tibetans, Hamish, Pakistanis, and Indians and the production of images by immigrants, exiles, and nomads in alien lands.

AFR X35I. Contemporary British Artists of the African Diaspora.
A look at a wide range of artists, practicing in Britain, who are part of the African diaspora via such factors as the Atlantic slave trade and various patterns of international migration.

AFR X35J. Contemporary Artists of the African Diaspora.
Examines a wide range of artists, practicing in different parts of the world, who are part of the African diaspora via such factors as the Atlantic slave trade and various patterns of international migration.

AFR X35K. Twentieth-Century African American Art.
A survey of visual art produced by people of African descent in the United States with an emphasis on the twentieth century and its sociohistorical framework. Changes in modes of expression, formal concerns, pictorial themes, and the impact of the Black Arts movement, feminism, and Afrocentrism on art are explored, as well as the relationship of the work of black artists to art from West and Central Africa and the visual traditions of European and Euro-American artists.

AFR X35L. The Black Figure in American Art and Popular Culture.
Examine how popular culture and artistic practices facilitate or challenge social constructions of "Blackness" in the United States.

AFR X35M. Art of the Harlem Renaissance.
Examine the factors which gave rise to the Harlem Renaissance, with a particular emphasis on art and artists.

AFR X35N. Black Art, Brown Art.

AFR X35Q. Blackness in the Contemporary Art Museum.
Explore issues related to the acquisition, stewardship, and repatriation of the art of the African Diaspora in the face of an increasingly virtual and market-driven art world.

AFR X35T. Photographs and Blackness in the United States.
Examine issues raised at the intersection of Blackness and photography in contemporary art of the United States.

AFR X38C. Black Perspectives in Jazz.
Explores the social, cultural, political, and artistic relationships between jazz and the black experience, both within the African American context and throughout the diaspora.

AFR X38D. Music of Latin America.
Consider Latin American music within a broad cultural and historical framework. Latin American musical practices are explored illustrating the many ways that aesthetics and society are embodied in and negotiated through performance. Concepts include diaspora, colonialism, mestizaje, hybridity, migration and globalization.

AFR X38E. The Music of the African Diaspora.
The musical legacy of the African slave trade in the Americas, the social contexts in which black musical forms have developed, and their varied forms. Subjects include the shifting meanings of "black music" in various contexts; the notion of hybridity; the uses of African influenced music as a political or oppositional tool; and African ethnic groups represented prominently in the New World, the traditions they brought with them, and the ways they have been adapted to new ends.

AFR X38F. Music of Mexico and the Caribbean.
Introduction to the history of Mexican and Caribbean traditional and commercial music, with some discussion of classical music as well. Attention will be given to music of indigenous, African, European, and mixed origin. Mexico and the Spanish-speaking Caribbean receive special attention. Class meetings will be divided into lecture/discussion segments, videos, listening, and performance instruction/demonstration.

AFR X40. Contemporary African Popular Culture.

AFR X40D. Apartheid: South African History.
A study of the social, political, economic, and cultural history of South Africa to contextualize the rise of apartheid. Primarily focuses on the period since 1948 from the perspectives of women, children, and men of all racial backgrounds who lived through that particular period.

AFR X40E. African Women's History.
Major themes include politics, economics, religion, the family, culture, technology, feminism, colonialism, nationalism, and development in relation to the lives of African women.

AFR X40F. African History in Films and Photographs.
Explore the social, economic, and political challenges of the past fifty years of Africa's history through an examination of several popular films.

AFR X40G. Ancient Egypt.
Discussion of Egypt's culture, language, and history from the prehistorical period (13,000 BC) to the New Kingdom (1069 BC).

AFR X40I. Modern Egypt in Film and Fiction.
Explore the history and culture of modern Egypt through selected readings in twentieth-century film and fiction.

AFR X40J. African Travel Narratives.
Examines histories of Africa and travel through eyewitness accounts. Studies journeys Africans have made within and from the continent alongside accounts of travelers visiting Africa from elsewhere.

AFR X40K. Medicine in African History.
An exploration of how communities have confronted disease throughout Africa's history.

AFR X40L. Historical Imagining of Africa in Films.

AFR X40M. Geographies of International Development in Africa.
Critically examines the major approaches to "Development" in colonial and postcolonial eras, with a focus on a range of African resources: from water to wildlife, forests to farms, airways to rangelands, and including a consideration of African bodies themselves as sites of development and resistance.

AFR X40N. African Queer Studies.
Examines the development of African queer studies as the interdisciplinary study of sexuality on the African continent, and its impact on the academic and activist realm. Focus on intersectional feminist and queer theory and how this field offers tools that can be used to rethink issues of oppression and domination in relationship to race, nation, sex, gender, and sexuality on the African continent. Of particular interest will be LGBTQ activism and the ways in which queer Africans engage and shape their sexuality, and create forms of belonging in their countries and their communities.

AFR X40P. Egyptian Hieroglyphics in Cultural Context.
The vocabulary and grammar of ancient Egypt as a guide to understanding artifacts and monuments from the different periods of Egyptian history, whether in museums, exhibitions, or on site overseas.

AFR X40Q. Daily Life in Ancient Egypt.
Delve into all areas of Egyptian daily life from the dawn of the dynasties to the age of Cleopatra.

AFR X40R. Archaeology of African Thought.
Archaeological, historical, and ethnographic data as they relate to the foundations of contemporary African and African American societies.

AFR X40S. Gender in North and West Africa.
Examines gender discourses through North African and West African literary works by looking at the role(s) played by Islam and Christianity in the creation of the identities of African men and women. Includes discussion of the question of what gender is, and whether it is socially constructed.

AFR X40T. African Religious Culture and Creativity.
Examine religion as an aesthetic practice and explore the inventiveness of the imagination that underlines African religious practices. Study religious practices spanning from the pre-colonial and post-colonial eras to the contemporary period particularly in urban centers.

AFR X40U. Africa and Rome.
Explore the history of Roman Africa with emphasis on what is now Tunisia and northern Algeria.

AFR X40V. Sociology of Africa.
An introduction to the sociological study of sub-Saharan Africa. Major themes include: sources of knowledge about Africa; characteristics of African states and societies, from origin to internal social boundaries (religion, ethnicity, class); kinship and family; and development and change.

AFR X40W. Coloniality in West Africa.
Study the changes and continuities of socio-political categories in African contexts from the period of formal colonial rule to the present day.

AFR X41. African Cities Since 1500.
Explore Africa's past through the story of urbanization beginning with an overview of African cities around 1500--a time of increasing human migration and global trade. Assess African cities in the modern period, focusing on the advent of European colonialism in the 1800s and its aftermath.

AFR X41C. Fashion in Africa.
Examine fashion history through readings, videos, social media, and textile making to provide an immersive experience in African design history. Address the ways in which textiles are tied to class distinctions and politics, wrapped up in the history of trade (including human trafficking and slavery), mixed into revolutionary struggles and post-independent governance, and inspire haute couture and global fashion trends.

AFR X45. History of East Africa.
A survey of the history of Kenya, Tanzania, and Uganda from prehistoric times to the postindependence era.

AFR X45C. History of West Africa.
A history of the West Africa region: the rise and fall of kingdoms, relations with Europe and Asia, the great revolutions of the nineteenth century, colonial administration, decolonization, and the search for economic development and political stability since independence.

AFR X45D. Afro-Luso-Brazilian Worlds.
Examine the myths and realities in the Afro-Luso-Brazilian worlds and the connections and contrasts between them.

AFR X45E. Afro-Latin America.
Examines the historical experiences of people of African descent in Latin America and the Caribbean beginning in the slavery era, and focuses on the histories of Afro-Latin Americans after emancipation.

AFR X45F. Sex and Power in the African Diaspora.
Exploration of various experiences and theories of sex, intimacy, and desire alongside intellectual and artistic engagements with power hierarchies and spirituality across transnational black communities. Subjects include the concept of "erotic subjectivity" from various theoretical and methodological angles, principally within African diasporic contexts.

AFR X45G. Religions of the Caribbean.
Examine the histories and politics of religious practices in the Greater Caribbean, encompassing the islands and Central American coasts as well as the continental diasporas, from Vodou and Rastafari to popular Hinduism.

AFR X45I. Nationalisms in the Caribbean.
AFR X45J. Race, Rebellion and Revolution in the Caribbean.
AFR X45K. Race Against Empire: Americas.
AFR X45M. Reimagining Cuba, 1868-Present.
Explores Cuban-United States relations from the nineteenth century to the present, including issues of empire and transnationalism, and social change engagements between Cuba and the United States before and after the Cuban Revolution.
AFR X45N. Afro-Caribbean Diasporas.
Analysis of the socio-cultural contexts of the African diaspora in the Americas, with a specific focus on the African diaspora in the islands of the Caribbean. Designed to analyze the cultural, social, and philosophical contributions of these diasporic populations and the ways they build social and cultural agency in their specific national or diasporic contexts.
AFR X45O. Debt and Colonialism in the Caribbean.
Examine the role that debt has played in the formation of colonial and neocolonial practices in the Caribbean region. Take a broad approach to the concept of debt in order to explore the financial and monetary dynamics of debt, but also the political and cultural implications of debt. Focus in particular on debt as justification in the furtherance of colonialism throughout the Caribbean. Engage in a historical examination of the United States' colonial projects and military interventions in the region throughout the 20th and into the 21st centuries.
AFR X45P. African Religion in the New World.
Explore the contributions of scholars and artists who engage African diaspora religions in their work through multiple conceptual approaches.
AFR X45Q. Mediascapes: Literature and Media in the Caribbean.
Analyzes the relationship between literature and media technologies in contemporary Caribbean cultures.
AFR X45S. Afro-Latinos: Memory, Literature, Culture.
Discuss the lives and works of Afro-Latinos in the United States from the nineteenth century to the present.
AFR X45T. Afro-Latinidades in the United States and Latin America.
AFR X45U. Race Politics and Caribbeans.
Examine racial and political themes among Spanish-speaking Caribbeans on the islands and in the United States. Explore racial politics in the three countries and compares notions of identity, experiences with racism and anti-racist protest with the United States
AFR X45V. Literature of AIDS in Africa.
Examine the emerging cultural representations of AIDS in sub-Saharan Africa through journalistic, social science, and historical accounts. Explore the difficulty of representing the various aspects of a public-health crisis.
AFR X45W. Global Black Feminisms.
Examine Black feminist theories and practices around the world from a transnational and comparative perspective.
AFR X46C. Cuba in Question.
Explore Cuba's peoples, cultures, ethnicities, and the social and historical processes that go far beyond the common media stereotypes.
AFR X50C. Black Middle Class.
AFR X50D. Politics of Black Life.
AFR X50F. Black Women on Trial.
Using press coverage of historical and contemporary court cases and trials of women ranging from Angela Davis to Marissa Alexander, explores how media shapes public and popular perceptions of race, class, gender, sexuality, and the law.
AFR X50J. HIV and AIDS Activism and the Healing Arts.
AFR X50K. Puerto Rico In Crisis.
AFR X50L. Race And Place.
AFR X50N. Barack Obama and American Democracy.
Focuses on the impact of Barack Obama's watershed presidency on American democracy.
AFR X50P. Urban Slavery in the Americas.
Examines urban slavery in the Americas.
AFR X50Q. African-American Politics.
Explore the evolution, nature, and role of African-American politics within the American political system.
AFR X50R. Global History of Disease.
Introduction to major themes in the history of medicine through the lens of disease. To be considered are the roles governments, medical practitioners, and patients play in the social construction of disease and health.
AFR X50S. The Black Church in African American Politics.
Explore the political role of the Black church in the African American experience.
AFR X50T. Domestic Slave Trade.
Explores the inner workings of the domestic slave trade from the perspectives of slaveholders, speculators, and the enslaved. Analysis of maps, letters, diaries, newspaper advertisements, and legislation relating to the domestic slave trade.
AFR X50U. The Civil Rights Movement from a Comparative Perspective.
Focuses on African American and Mexican American struggles for civil rights. Asian American and Native American movements will also be addressed. Using a comparative approach the student will consider the distinctiveness of each of these struggles while also viewing them in relation to each other.
AFR X50V. Gender and Slavery in the United States.
Examines the gendered experience of chattel slavery in the United States. Includes critical analysis of classic and contemporary texts, films, and songs that focus on slave labor, family, community, sexuality, and the economy.
AFR X51. The Global City.
AFR X51C. Women and Social Movements in the Twentieth-Century United States.
Examines women's participation in well-known and lesser-known social movements during the twentieth century.
AFR X51G. Black Women in America.
Uses primary sources, historical monographs, and essays to provide a chronological and thematic overview of the experiences of black women in America from their African roots to the circumstances they face in the present era.
AFR X51J. Texas Black History.
Surveys the history of blacks in Texas from before American settlement to the present.
AFR X51K. Antebellum Slavery.
Examination of slavery at its maturity during the nineteenth century.
AFR X51L. The United States in the Civil Rights Era.
Examines United States history in the post-World War II era, including how civil rights and other racial issues helped shape the politics, popular culture, and social life of this period.
AFR X51M. African American Social and Political Thought.
Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought.
AFR X51N. Black Political Thought.
Exploration of black social and political thinkers, writers, and reformers, and how their works influence the legacies of slavery, empire, and patriarchy within the United States.
AFR X51O. Slavery across Genres.
Uses nonfictional and fictional narrative accounts of slavery in the United States to examine the political, social, cultural, economic, and psychological aspects of the institution of slavery at different historical moments. Sources may include authors such as Frederick Douglass, Toni Morrison, William Faulkner, Harriet Beecher Stowe, and Edward P. Jones; graphic novels; conceptual art; court records; and bills of sale.

AFR X51P. Atlantic Slavery: History and Memory.
Charts a history of Atlantic slavery by focusing on primary sources detailing crucial events and contexts such as the Zong Massacre, the Haitian Revolution, and Dred Scott vs. Sandford, among others. Considers how historians, memoirists, fiction writers, visual and performance artists and filmmakers have come to terms with that history and its implications.

AFR X51Q. Slavery and Its Legacies.
Explore how slavery has evolved in the United States since the end of the Civil War.

AFR X51R. African American Family in Historical and Contemporary Contexts.
Examine how African Americans managed to maintain a sense of family from the time of slavery to the present trend of mass incarceration.

AFR X51S. Science, Magic, and Religion.
Historical and cross-cultural overview of the constructed concepts of magic, science, and religion through comparative examinations of cultural contexts from the Islamic world, western Europe, the Caribbean, the U.S., and Mozambique.

AFR X51T. Anthropology for Liberation.
Takes a critical look at anthropologists' quests to shifting the legacy of anthropology from the colonial toward freedom and liberation. Explores anthropology's relationship to human rights, violence, questions of race, gender, and sexuality, imperialism and neoliberalism, and the ways that some anthropologists have chosen to use their field work in new and different ways.

AFR X51U. Race, Capitalism, and the Environment.

AFR X51V. Black Slavery in the Atlantic.
Examine the history of slavery in the Atlantic from 1450 to 1865.

AFR X52C. Psychology of Race and Racism.
Review of the history and evolution of the construct of race as a psychological and social phenomenon. Multidisciplinary but primarily social-psychological approach: in addition to readings from psychology, ideas in the areas of anthropology, sociology, and biology will be discussed. Emphasis on theoretical and conceptual approaches toward understanding the psychology of racial thinking.

AFR X52D. Psychology of the African American Experience.
Examination of the psychology of people of African descent using an African-centered liberatory model.

AFR X52E. African Americans in Sports.
Theoretical and practical complexities in issues surrounding African Americans in sports, including the relationship between athletics and higher education. Focuses on racial stereotyping, identity theory, and how practical knowledge of these theories can aid in understanding the current state of athletics.

AFR X52F. Sociocultural Influences on Learning.
Examine human learning in multisocial, multilingual, and multicultural contexts; realities of society and their impact on learning; social concerns such as prejudice, stereotyping, cross-cultural attitudes, bilingual issues, parent and community involvement.

AFR X52G. African American Religions.
Survey the history and variety of religion as practiced by Americans of African descent. Examine the social construction of African religion, black religion, and the black church, within the cultural context of the United States.

AFR X52J. Black Lives in the Archives.

AFR X52K. African-American Women's Political Activism.
Explore Black feminism and African-American women's political participation.

AFR X52L. Africa and Indian Ocean World.
Explore the connected histories of the geographical regions and economic communities that share the littoral space of the Indian Ocean.

AFR X52M. Race, Gender, Sex, and Religion.
Use an intersectional feminist framework to examine the construction and maintenance of normative categories of race, gender, sex, and sexuality within United States religious discourse.

AFR X52N. Technologies of United States Empire.
Investigate the various technologies that the United States has used to maintain imperial geographies at "home" and abroad. Focus on imperial entanglements of global capital, liberalism, and technological systems.

AFR X52O. Queering Black Religions.
Explore the ways Africana religion practitioners disrupt and reframe dominant western discourses of gender and sexuality. Examine concepts of temporality, spirit manifestation, subjectivity, corporeality, and Africana religious epistemologies.

AFR X52P. Food in the Racialized City.
Explore a variety of issues related to producing, accessing, and consuming food in city spaces in the context of racial inequities. Investigate and question constructs such as "food" and "city" as means of exploring different points of view and approaches to studying not only food and cities but also various approaches to food justice.

AFR X52Q. Black Geographies.
Explore the relationship between Blackness and the production of space and place. Examine the tensions and possibilities that emerge when Black people are rendered un-geographic as a fundamental component of racial capitalism while they are simultaneously creating spaces of freedom under constant threats to Black life.

AFR X52R. Rhetoric of Ethnic Studies.
Study the histories of ethnic (and gender) studies in both higher education and K-12 institutions, and the rhetoric of attacks on, and defenses of, ethnic and gender studies through an examination of primary and secondary source materials.

AFR X53C. Mapping Urban Destruction.
Investigates how demolitions have shaped the material and social lives of two compelling, rapidly-changing global cities: Sao Paulo and Austin. Develop technical skills in digital mapping in a supportive environment.

AFR X56D. African American Theatre History: 1950 to Present.
Chronological examination of the history of African American theatre since 1950, through the study of productions, performance theory, play texts, essays, reviews, and manifestos within their sociopolitical contexts, with an emphasis on strategies of resistance that are embedded in aesthetics.

AFR X57C. African American History to 1860.
Review of West African origins; New World settlement patterns, social life, and culture; discussion of the Atlantic slave trade, the development of capitalism and plantation slavery, and the origins of racism.

AFR X57D. African American History since 1860.
Survey of the history of African Americans in the United States from 1860 to the present: Emancipation, Reconstruction politics, migration and urbanization, and the evolution of African American culture; kinds of sources and methods valuable for analyzing African American life and culture.

AFR X58F. Race and Policing: History, Policy, and Practice.
Examine the origins and evolution of policing in the United States, with a focus on the development and impact of policing policies. Analyze how policies have supported or oppressed Black, working-class, and ethnic communities.

AFR X58K. Power and Money in U.S. Education Policy.
Examine how power dynamics and financial forces shape education opportunity, who controls what gets taught, how resources are allocated, the political influences behind educational decisions, and the impact of the decisions upon different groups of students.

AFR X58M. Black Education Policy.
Examine key educational policy moments that have impacted Black communities--including anti-literacy laws, segregation, contemporary funding, and curriculum debates. Explore how Black communities have

responded through institution-building, legal advocacy, and alternative educational practices.

AFR X59N. History of Africa since 1800.
Development of sub-Saharan Africa from the end of the slave trade to independence.

AFR X60. Race, Law, and United States Society.
Examines the intersection of racial ideology and legal culture in the United States.

AFR X60C. Social Media for Social Impact.
Explore the social media universe through the lens of black studies. Discuss traditional black studies issues as they play out in the social media context. Engage in professional development activities and service learning. Interpret black participation in the social media landscape, and examine the possibilities for social media participation as a community benefit.

AFR X60D. Race, Gender, and Surveillance.
Overview of theories in the sociology of social control, with a focus on risk, power, ethics, and surveillance. Examines historical transformations in social control and the distributions of power in the United States and global contexts, with attention to race, gender, and class. Subjects include: the transatlantic slave trade; prisons and punishment; the gaze, voyeurism, and reality television watching; the Internet; travel and state borders; privacy; and biometrics and the body.

AFR X60E. Black Women and the State.
Surveys black women's experiences living with and confronting state oppression around the world. Takes an historical, social, and theoretical look at the roots of this oppression and inequality, and how black women have chosen to respond to it locally and globally.

AFR X60F. Urban Unrest.
Analysis of the roots of urban unrest, exploring a range of origins: joblessness, state violence, white flight, backlash against civil rights gains, new immigration, and interracial strife. Beyond race and class, subjects include exploring unrest as a mode of pushing the normative boundaries of gender and sexuality in public space. Course material will draw from film, literature, history, geography, and anthropology.

AFR X60G. Blacks and Asians: Race and Social Movements.
Examines the relations between Asians and Blacks in the United States.

AFR X60I. Black Freedom Movement.

AFR X60J. Migration Crisis.

AFR X60K. Race and Ethnicity Politics.
Explore racial and ethnic politics throughout the United States with a focus on Black and Latino politics. Examine group identity, racial inequality, policy making, activism, criminal justice system, and immigration.

AFR X60L. Race and United States Social Policy.
Examine the relationship between race and the development of United States social policy. Explore how specific social policies affect racial and ethnic inequality.

AFR X60M. Abolition Medicine.
Examine race-based diagnostics tools and treatment guidelines that reinforce antiquated and scientifically inaccurate notions of biological race. Discuss the upstream structures that enable downstream violence, such as police brutality. Analyze, through an abolitionist lens, various systems of power in medicine, culture, and society to trace the colonial logics, practices, and institutions in the afterlife of slavery pertaining to health, illness and disease, healthcare, and public health in the United States and globally.

AFR X60N. Displacement and Resistance.
Explore technologies of displacement, as well as tactics, digital media work, mapping projects, and activism that communities engage with to resist dispossession. Examine, locally and globally, the displacement and resistance effects of various events including infrastructure projects and gentrification.

AFR X60P. Race and Migration: The Mediterranean.
Examine the history of migration within and from the Mediterranean area.

AFR X60Q. Black Women and Mass Incarceration.
Examine the history of Black women and mass incarceration in America. Explore how race, class, and gender have historically influenced the production of crime and unfair criminal justice policies. Investigate why mass incarceration matters, what its historical legacy is, and how it impacts Black women today.

AFR X60R. Crime and Capitalism in African American Popular Culture.
Examine the intersection of crime and capitalism in black literature, motion pictures and music of late twentieth and early twenty-first Centuries.

AFR X61K. Performing Race: African American Literary Performance.
Study of the criticism and performance of modern African American drama.

AFR X64O. Central Americans in the United States.
Examine the extensive and diverse histories, cultures, social and political movements of Central Americans in the United States, particularly through a Black, Indigenous, and Ethnic Studies framework.

AFR X65C. African American Language.
Introduction to the history and contemporary form of African American Language (AAL). Through readings, examine the linguistic description of essential features, the use of AAL in the creation of culturally and historically influential texts, and AAL as a subject of public discussion.

AFR X70. Topics in African and African Diaspora Studies.

AFR X73. Independent Research.
Supervised individual research on a problem in African and African diaspora studies.

AFR X75. Community Internship.
Internship in a community organization that facilitates the economic, political, and social development of Austin's African American community. Students participate in research projects under the supervision of a faculty member.

AFR X76. Senior Seminar.
A capstone course focusing on black intellectual traditions.

AFR X79H. Honors Tutorial Course.
Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis.

Graduate Courses

AFR X19S. Topics in African and African Diaspora Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AFR X29S. Topics in African and African Diaspora Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AFR X80. Introduction to Policy Research .
Introduction to the tools needed to understand policy issues and analysis with respect to contemporary case examples.

AFR X80C. Marginalized Communities and Policy Development.
An exploration of how different racial groups in the United States have been historically and are presently marginalized through larger political

and social systems, and how these systems have allowed groups to attain and maintain power and privilege in the United States.

AFR X80D. Race, Ethnicity, and Gender Policies.
An exploration of the development of race, ethnicity, and gender theories and their application to social issues, policy development, and policy implementation.

AFR X82. Race and the Urban Crisis.
Examines the roots of the urban crisis, or the decline of U.S. and global cities in the post-World War II era, and begins with the premise that the story of the urban crisis is simultaneously the story of racial crisis. Explores how the origins of themes such as urban unrest, concentrated poverty, the housing crisis, the drug epidemic, and welfare dependency are rooted in race, class, and spatial inequities.

AFR X85C. Topics in Black Studies Humanities.

AFR X85C.1. Reading the Maghreb.
Examine Maghrebi literature and film of both French and Arabic expression, along with works of psychoanalytic and postcolonial theory.

AFR X86C. Topics in Black Studies Social Sciences.

AFR X86C.1. Violence, Sovereignty, and Religion.
Explore the relationships among violence, sovereignty, and religion.

AFR X87C. Topics in Black Studies Fine Arts and Expressive Culture.

AFR X89. Academic Writing for Graduates.
Produce clear, accurate, and well-argued scholarly work, covering a range of commonly used writing styles, including essays, research papers, literature reviews, grant writing, thesis proposals, master's reports, qualifying examinations, and dissertations.

AFR X90. Black Studies Theory I.
An exploration of the innovative, complex, and distinctive African diaspora social structures and cultural traditions, as well as the historical, cultural, political, economic, and social development of people of African descent.

AFR X91. Black Studies Methods.
A survey of seminal black studies texts and methods that have transformed the social sciences, humanities, and fine arts in producing a distinct black studies epistemology. Explores what black studies scholars have done to transform traditional methods and disciplines in pursuit of a distinct black studies methodology.

AFR X95P. Special Subjects in Professionalization in African and African Diaspora Studies.
Advanced seminar designed to introduce students to African and African diaspora studies and the skills needed in this field; including writing and revision, competitive and successful applications for grants and fellowships, and development and preparation of a dissertation proposal.

AFR X95Q. Qualifying Examination Preparation.

AFR X96. Conference Course in Black Studies.
Individual instruction in specialized problems of advanced research in black studies.

AFR X97R. Literature Review.
Preparation of a report to be counted toward the requirement for the master's degree under the report option.

AFR X98. Thesis.

AFR X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

AFR X98T. Supervised Teaching in African and African Diaspora Studies.

AFR X99W. Dissertation.

Professional Courses

AFR X19S. Topics in African and African Diaspora Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AFR X29S. Topics in African and African Diaspora Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AFS - Air Force Science

Air Force Science: AFS

Lower-Division Courses

AFS X00. Leadership Laboratory.
Various leadership techniques, including drill and ceremonies, customs and courtesies, and uniform standards.

AFS X03K. Heritage and Values I.
Introduction to the Department of the Air Force (DAF), including the United States Air Force (USAF) and United States Space Force (USSF). Examine general aspects of the DAF, leadership fundamentals, service benefits, and professional opportunities for officers. Explore military heritage, core values, customs and courtesies, dress and appearance, communication skills, and teamwork, laying the foundation for becoming an Airman or Guardian. Gain a knowledge-level understanding of United States military operations, principles of war, and the employment of airpower and spacepower from an institutional, doctrinal, and historical perspective. Introduction to the military way of life and gain insight into the roles and missions of the USAF and USSF.

AFS X03L. Heritage and Values II.
Continuation of Air Force Science 103K.

AFS X12K. Team and Leadership Fundamentals I.
Examine leadership and team fundamentals within the Department of the Air Force (DAF), building upon the professionalism, core values, and self-development foundations. Emphasize the responsibilities of leaders of character within the profession of arms by shifting focus from individual development to leading and developing others. Explore essential leadership concepts such as listening, followership, problem solving, and interpersonal communication, and apply these principles through team-building activities. Reinforce an understanding of leadership in a military context while developing basic verbal and written communication skills applicable to academic, professional, and personal environments. Gain insight into how effective leaders operate and how cohesive teams contribute to mission success, through discussion and practical application.

AFS X12L. Team and Leadership Fundamentals II.
Continuation of Air Force Science 112K.

AFS X19S. Topics in Air Force Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Air Force Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AFS X20L. Leadership Laboratory.
Leadership laboratory course for upper-division students. Further development of leadership skills through leadership positions within the cadet corps. Includes training of freshman and sophomore students as well as a practicum in Air Force unit operation.

Upper-Division Courses

AFS X23. Leading People and Effective Communication I.
Build upon the leadership and team fundamentals, prepare to assume increased leadership responsibilities within the Air Force ROTC

detachment and the Department of the Air Force (DAF). Emphasize practical leadership application, focusing on effective people management, ethical decision-making, and professional conduct expected of commissioned officers. Develop the tools necessary to lead others, foster organizational effectiveness, and navigate leadership challenges in a military environment. Emphasize written and oral communication, including professional writing and briefing skills, to build confidence and competence in public speaking. Examine leadership and ethics from both institutional and personal perspectives, encouraging self-reflection and continued leadership growth through guided discussion, case studies, and experiential learning.

AFS X24. Leading People and Effective Communication II.
Continuation of Air Force Science 323.

AFS X29S. Topics in Air Force Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Air Force Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AFS X34. National Security, Leadership Responsibilities and Commissioning Preparation I.
Examine national security policy and decision-making processes within the Department of the Air Force (DAF), emphasizing the role of the military in society and the execution of military power in support of national objectives. Study foundational elements of DAF operations, selected domestic and international security issues, and the responsibilities, authority, and functions of Air Force and Space Force commanders. Explore officership, advanced leadership ethics, civilian control of the military, and key provisions of the military justice system. Prepare for active duty service, focusing on the transition from civilian and cadet life to that of a commissioned second lieutenant. Emphasize professional communication skills, critical thinking, and the responsibilities inherent in military professionalism.

AFS X36. National Security, Leadership Responsibilities and Commissioning Preparation II.
Continuation of AFS 334.

Graduate Courses

Professional Courses

AHC - Ancient History and Classical Civilization

Ancient History and Classical Civilization: AHC

Lower-Division Courses

AHC X10. Topics in Introductory Surveys in Premodern History.
Introductory survey of premodern history with emphasis on regions outside of the ancient Mediterranean world.

AHC X10.1. Introduction to the History and Culture of Spain.
The history of Spain from its beginnings in the stone age through the great social and economic upheavals of the twentieth century.

AHC X10.3. The Ancient Middle East.
Survey the history of the Middle East from the beginning of the Neolithic period (9000 BCE) through the invasion of the region by Alexander the Great in 332 BCE and into the pre-Islamic era.

AHC X10.4. The Premodern World.
Survey of world history from human origins to the sixteenth century.

AHC X10.5. The Medieval Millennium in Europe.
Explore new conceptions of medieval Europe by examining how the social practices, ideas, and institutions of the middle ages developed through interactions with Europe's neighbors.

AHC X10.6. Medieval Material Culture.
Explore the history of medieval Europe primarily through the lens of material culture.

AHC X10.7. Gods and Goddesses of India.
Explore a variety of gods and goddesses who have dominated the sacred landscapes of India and beyond, especially North America, from the past until now. Examine various issues relating to patriarchy, power, gender, sexuality, social hierarchy, and devotion.

AHC X19D. The Ancient Mediterranean World.
Survey of the ancient Mediterranean from ca. 3000 BC to AD 476. Focus on the development of ideas and institutions in the Greek and Roman worlds and on the active cultural exchange among the diverse civilizations of the broader region that shaped Greek and Roman history and cultural identity.

Upper-Division Courses

AHC X25. Topics in Ancient History.
Topics in the history of the Greek and Roman empires and the surrounding area.

AHC X25.1. The History of Rome: The Republic.
A survey of Roman history from the founding of Rome to the death of Julius Caesar.

AHC X25.10. Ancient Slavery.
Examine the practices of slavery in the ancient Mediterranean world, focusing on the case of Rome.

AHC X25.13. The Ancient Historians.
Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage.

AHC X25.15. Civil War in Rome.
Examines the sequence of civil conflict in Rome from the struggle of the orders through the rise of Constantine the Great.

AHC X25.16. Romans in Court.
Examine how Roman law operated at three levels of granularity, focusing mainly on attested disputes that made it to court for resolution.

AHC X25.17. Ruling the Roman Republic.
Examine the core question about the way the Late Roman Republic was governed: To what extent and in what ways was the Republic "democratic or not?

AHC X25.2. The History of Rome: The Empire.
A survey of the Roman world from Augustus to Constantine the Great.

AHC X25.6. Alexander the Great and the Hellenistic World.
History of Asia, Egypt, and the Mediterranean world from Alexander's expedition to Asia to Rome's defeat of the last of the Hellenistic monarchs at Actium (ca. 334 to 31 BC).

AHC X25.7. Archaic and Classical Greece.
Survey of Greek history from the emergence of the city-states to the rise of Macedonia.

AHC X25.8. Archaeology of Greek Prehistory.
Explore the development of complex societies in ancient Greece by studying its prehistory through archaeology.

AHC X25.9. Roots of Democracy.
Examine the historical development and ideological underpinnings of Athenian democracy, the first known democracy, from the sixth to fourth centuries BCE. Explore a broad range of primary sources and some secondary scholarships and gain a familiarity with the key principles and practices of this unique participatory government in its political, historical, and intellectual context.

AHC X30. Topics in Premodern History.
Topics in premodern history with emphasis on regions outside of the ancient Mediterranean world.

AHC X30.1. The Dead Sea Scrolls.

AHC X30.2. Epics and Heroes of India.
Focus on India's classical epics, the Mahabharata and the Ramayana, with emphasis placed on understanding the epic characters in relation to the heroic traditions of premodern India, as well as on the role of the epics in contemporary Indian political and religious culture.

AHC X30.4. Lost Languages and Decipherment.
AHC X30.5. The Crusades.
An exploration of the religious encounters between eastern and western Christians, Christian heretics, Jews, Muslims, and polytheists; political, military, and cultural changes of the high middle ages; and the ways that crusading ideas and symbols have been reused in contemporary politics and popular culture.
AHC X30.6. Machiavelli: Politics and Culture.
Through Niccolo Machiavelli's chief writings, consider the local, regional, Mediterranean, European, and global aspects of his work.
AHC X30.7. Great Works In Medicine.
Examine signature works in the history of medicine.
AHC X30.8. Twelfth-Century Renaissance: 1050-1200.
An examination of social, cultural, and intellectual developments in eleventh- and twelfth-century Europe.
AHC X30C. Death and the Afterlife in Ancient China.
Investigate ancient Chinese beliefs and practices surrounding death and the afterlife from the Neolithic era to the arrival of Buddhism. Explore tombs, burial objects, and funeral rites; philosophical essays and historical accounts; medical practices; religious relics, tokens, and talismans; ghost stories; poetry; and paintings.
AHC X78. Topics in Undergraduate Seminar in Ancient History.
Lectures, discussion, reading, and research on selected topics in Greek and Roman history.
AHC X78.1. Roman Law.
Introduction to Roman law with close study of primary sources.
AHC X78.10. Roman Social History.
Examine Roman social history: family structure and demography, gender systems, official social hierarchies, urban/rural interactions and labor. Consideration both of primary evidence and the historiography of the field.
AHC X78.2. Aegean Prehistory.
Traces political, social, economic, and general cultural developments on Crete and the Greek mainland between roughly 2200 and 1100 BCE.
AHC X78.3. Writing Ancient History Today.
Questions that engage ancient historians today and the methods that they use. Some background in ancient Greek history is recommended.
AHC X78.4. The Athenian Empire.
Explores Athenian society, democracy, and empire from the development of Athenian hegemony in the 470s BCE through the break up of the Athenian Empire in 404 BCE.
AHC X78.5. Space and Place.
Multidisciplinary approach to the cultural concepts of space and place using Greek and Roman literary, historical, and archaeological sources.
AHC X78.6. Ancient Sparta.
Examines topics and problems in the social, political and economic history of the ancient city-state of Sparta.
AHC X78.7. Cognitive History of the Ancient World.
Examines aspects of the organization of thought in the ancient world.
AHC X78.8. Herodotus, Ethnography, and Archaeology.
Explore the ethnographic component of the Histories of Herodotus.
AHC X78.9. Literacy, Numeracy, and Visuality.
Analyze literacy, numeracy, and visuality, that is "reading" and writing" by means of visual representations, largely by tracing the history of how modern scholars have analyzed those practices.

Graduate Courses

Professional Courses

AMS - American Studies

American Studies: AMS

Lower-Division Courses

AMS X10. Introduction to American Studies.
An interdisciplinary introduction to the historical exploration of American culture.
AMS X10C. Jewish American Literature and Culture.
Examine Jewish American literature in its cultural contexts with an emphasis on skills and methods. Explore texts, drawn from a variety of genres and periods, that indicate the range of Jewish American experiences and how those experiences are influenced by issues such as citizenship, class, ethnicity, gender, and sexuality.
AMS X10D. North American Borderlands.
Explore the formation of political borders in nineteenth- and twentieth-century North America, their contestation, and the multiple meanings attached to them.
AMS X11C. Latinx Material Culture.
Discuss utilizing material culture as a method of analysis to highlight histories of oppression, struggles towards liberation, and the politics of everyday Latinx life in the U.S..
AMS X11S. Topics in Introductory Seminar in American Studies.
Writing, reading, and discussion on an American studies topic, with emphasis on the evaluation of information, analytical reading, and critical writing.
AMS X12C. Blackness and Comics.
Examine the relationship between race and the sequential aesthetics of comic books and comic strips. Explore comics strips, underground comics, and superhero comics from the colonial period to the present day.
AMS X15. Topics in American Life.
Interdisciplinary exploration of American cultural and intellectual life.
AMS X15.1. Introduction to Asian American Studies.
Introduces the interdisciplinary study of Asian immigrants and Asian Americans in the United States. Explores key concepts, including immigration history, identity and community formation, cultural representation, and the intersections of race, class, gender, and sexuality.
AMS X15.2. Mixed Race Identities.
Analyzes the historical and contemporary significance of issues of race" and "mixing" in a North American context. Subjects include the situation of "mixed race" people throughout United States history; historical policies that have shaped racial formation in the United States; comparative conceptions of "mixed" people transnationally; and racial, ethnic, and cultural identity.
AMS X15.3. Race, Immigration, and Family.
Introduction to family systems in the United States in a post-WWII framework with a central focus on Asian Americans. Students will investigate how gender, race, and ethnicity intersect and inform our understanding of the institution of the family.
AMS X15.5. History of Religion in the United States.
Explores instances of religious dominance and religious diversity in United States history. Moving from the pre-colonial period to the present, it examines the changing circumstances of several religious communities, including American Indians and Puritans, Protestant evangelicals, Mormons, Roman Catholics, Jews, Muslims, and Hindus.
AMS X15.6. American Jews: The Yiddish Experience.
Focuses on over a century of Yiddish-based contributions to American literature, music, and film, including works by Isaac Bashevis Singer, Michael Chabon, Woody Allen, and the Marx Brothers.

AMS X15.7. Asian American Film History.
AMS X15.8. Germany and Globalization.
AMS X15C. Movies Go To War.
A comparison of films from various nations about major twentieth century wars to the historical facts of the conflicts as practicums in critical comparative analysis of histories as representations.
AMS X15D. Anthropology of Race and Ethnicity: An Introduction.
Examines the social importance of race and ethnicity both in America and around the world.
AMS X15F. Native American Literature and Culture.
Studies Native American literature from different regions and cultures and considers this literary tradition in tribal national and United States national contexts.
AMS X15J. Rights in Modern America.
AMS X15K. The Revolution Will Be Dramatized.
AMS X15L. Toni Morrison and August Wilson.
AMS X15N. Latina and Latino Media and Popular Culture.
Explore Latina/o media and popular culture from 1950 to the present.
AMS X15O. Introduction to Native American Histories.
Examine the history of Native American societies in North America from the earliest records to the present.
AMS X15P. Building America: Engineering, Society, and Culture, 1868-1980.
Examines building in American society from the late 1860s to 1980.
AMS X15Q. American Jewish History.
Examine the history of Jews in the United States from the seventeenth century to the present. Explore the formation of a distinct American Judaism and the involvement of Jews in American cultural and political affairs.
AMS X19. Latinx Digital Worlds.
Explore how Latinx communities (traditionally figured as on the wrong side of the "digital divide") have embraced, mobilized, and sometimes usurped emerging digital tools and spaces to forge community and create new forms of culture, memory, and activism.
AMS X19S. Topics in American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
AMS X29S. Topics in American Studies.
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Upper-Division Courses

AMS X19S. Topics in American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
AMS X20C. Jews of the United States, Canada, and Latin America.
Explore the cultural history of Jews in the United States, Latin America, and Canada through a representative sample of short literary texts, film clips, and musical recordings.
AMS X21. Topics in American Societies.
A study of America through its geography, language, government, or cultures.
AMS X21.10. Women and Social Movements in the Twentieth-Century United States.
Examines women's participation in well-known and lesser-known social movements during the twentieth century.
AMS X21.11. The Vietnam Wars.
Introduction to the complex and controversial history of the wars fought in Vietnam from 1941 to the 1980s.
AMS X21.12. Race, Internet, and Social Media.
Explores the critical, theoretical and practical analysis of race and new media.
AMS X21.3. Native American Cultures North of Mexico.
AMS X21.4. America and the Holocaust.
AMS X21.6. Race, Gender, and Surveillance.
Overview of theories in the sociology of social control, with a focus on risk, power, ethics, and surveillance. Examines historical transformations in social control and the distributions of power in the United States and global contexts, with attention to race, gender, and class. Subjects include: the transatlantic slave trade; prisons and punishment; the gaze, voyeurism, and reality television watching; the Internet; travel and state borders; privacy; and biometrics and the body.
AMS X21.7. Social Movements.
Characteristics of crowds, publics, and social movements; their role in social organization and social change.
AMS X21.8. Urban Unrest.
Analysis of the roots of urban unrest, exploring a range of origins: joblessness, state violence, white flight, backlash against civil rights gains, new immigration, and interracial strife. Beyond race and class, subjects include exploring unrest as a mode of pushing the normative boundaries of gender and sexuality in public space. Course material will draw from film, literature, history, geography, and anthropology.
AMS X21.9. The United States in the Civil Rights Era.
Examines United States history in the post-World War II era, including how civil rights and other racial issues helped shape the politics, popular culture, and social life of this period.
AMS X21E. African American History to 1860.
Review of West African origins; New World settlement patterns, social life, and culture; discussion of the Atlantic slave trade, the development of capitalism and plantation slavery, and the origins of racism.
AMS X21F. African American History since 1860.
Survey of the history of African Americans in the United States from 1860 to the present: Emancipation, Reconstruction politics, migration and urbanization, and the evolution of African American culture; kinds of sources and methods valuable for analyzing African American life and culture.
AMS X21G. Native Americans in Texas.
Studies the history of Native Americans in Texas using concepts and evidence from anthropology, history, archaeology, historical geography, and Native American studies.
AMS X21I. Central Europe Goes to Hollywood.
Survey research tools and methods used to study the history of Hollywood film industries and the roles that films and film professionals play; based on films and industry careers connected to Central Europe.
AMS X21J. African American Social and Political Thought.
Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought.
AMS X21K. European Immigration to Texas in the Nineteenth Century.
AMS X21L. German Scholars: US Exile.
Examine the migration of established European intellectuals into the US, due to the Second World War. Explore how they worked against their persecutors for their own cultural heritage and to influence US

intellectual life. Investigate the ethical dilemmas faced in transplanting their lives and projects into new contexts.

AMS X21M. Radical Chic: Revolutions from Europe.
Explore innovative European ideas that reshaped United States history and society: Freud and settlement houses, models for education (from Switzerland to Dewey at the University of Chicago), and the labor movement (Marx to Eugene V. Debs and Mother Jones)

AMS X21O. Debt and Colonialism in the Caribbean.
Examine the role that debt has played in the formation of colonial and neocolonial practices in the Caribbean region. Take a broad approach to the concept of debt in order to explore the financial and monetary dynamics of debt, but also the political and cultural implications of debt. Focus in particular on debt as justification in the furtherance of colonialism throughout the Caribbean. Engage in a historical examination of the United States' colonial projects and military interventions in the region throughout the 20th and into the 21st centuries.

AMS X21P. Race And Place.

AMS X21Q. Writing for Black Performance.

AMS X21R. Politics of Memory: Germany and the United States.
Examine the role that narratives of the past play in politics and policies in both Germany and the United States, by engaging with key theoretical and empirical debates. Focus on the role of memory in German and US immigration politics.

AMS X21S. Cultural Heritage on Display.
Explore the public construction and display of traditional American folk culture by studying popular folklife-oriented tourist sites.

AMS X21T. Asian American Jurisprudence.
Examine the historical development of United States law and its relationship to Asian Americans, and of Asian American jurisprudence as an independent field of legal scholarship.

AMS X21U. Native American Cultures of the Southwest.
Explore the diverse Native cultures of the Southwest, focusing on the philosophical underpinnings and the frameworks of meaning and moral responsibility of indigenous peoples of the American Southwest.

AMS X21V. Religion and Film.
Survey of representations of religious beliefs, practices, persons, and institutions in popular film. Examination of film as a vehicle to reflect how a shared religious imagination shaped the way Americans understand themselves.

AMS X21W. Memories of War.
Consider the ways the wars of the twentieth and twenty-first century are being remembered in Germany and the United States - from poems, novels and films to monuments and the controversial debates about military conflicts that the two countries have been involved in. Utilize theories of social memory, and concepts of individual and social mourning, to analyze how war affects individual lives, how societies mourn, and how remembering war impacts national identity and politics.

AMS X22C. Amending the United States Constitution.
Examine the evolution of the United States Constitution from the founding to the present, with a focus on the major forces and fault lines that have made the Constitution today one of the world's most difficult to amend.

AMS X22D. Mexican American Studies at UT.
Trace the origins and development of Mexican American Studies at the national, regional, and local levels. Collaborate to help preserve and recognize the significance of Mexican American Studies at the University in historical and contemporary contexts.

AMS X22N. American Cultural History of Alcohol and Drugs.
Study of the American use and perception of drugs, including alcohol, and how they have changed over time. Examines significant shifts in American attitudes toward individualism and social control.

AMS X23C. American Dante.
Examine the influence of the Italian poet Dante on American culture from the nineteenth century to the present.

AMS X23O. American Popular Culture, 1682-Present.
Explores the evolution of American popular culture and its relationship to national consolidation, and at times, disunion, over the last 330 years.

AMS X24C. Black Middle Class.

AMS X24D. Black Freedom Movement.

AMS X24E. The Global City.

AMS X24F. Asian Americans in the South.

AMS X24G. Policing Latinidad.

AMS X24I. Chicana Feminisms.

AMS X24J. Austin Jews in the Civil Rights Era.

AMS X24L. Mapping Indigenous Austin.
Explore the histories and presence of indigenous Austin.

AMS X24P. Twentieth-Century United States Lesbian and Gay History.
Examines classic texts and recent and varied writings on LGBT history, focused on experiences, ideas, and conflicts that have shaped modern LGBT identities.

AMS X25C. Popular Music in the United States.
Traces the history of popular music in the United States and its influence on American politics, economics, and culture from the 1880s to present day.

AMS X25E. Music and Religious Identities in the US.
Examine religious music in Christianity and Judaism in relation to communities in religious context of Europe and the United States.

AMS X25F. Painting in America to 1860.
Painting in British colonial North America and the United States prior to the Civil War.

AMS X25G. Painting in the United States, 1860-1913.
Painting in the United States from the Civil War to the Armory Show.

AMS X25I. The Arts of Hip Hop.

AMS X25M. Russia Through American Eyes.
Examine a wide array of American attitudes towards Russia and Russians. Using a variety of political, social, and cultural events and encounters, analyze the ways in which nationalism, imperialism, and geopolitics informed American narratives about Russia and Russians, assessments that range from enthusiasm and curiosity to condemnation and outright hostility.

AMS X25P. Thomas Paine, Liberalism, and the Enlightenment.
Analyze the purpose and philosophy of Thomas Paine's writings in their relation to the political thought and politics of his time.

AMS X26C. Crime and Capitalism in African American Popular Culture.
Examine the intersection of crime and capitalism in black literature, motion pictures and music of late twentieth and early twenty-first Centuries.

AMS X27C. Native American Religions.
Examination of religious developments in Native American communities from the precolonial period through the present day. Focus on the changing forms of ritual practice and the relationship between religion and community life.

AMS X27D. United States Catholic History.
Examine how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latino/as.

AMS X27E. Evangelical Christianity.
An introduction to the intellectual and social sources of evangelical Protestant traditions in the United States, their varieties of belief and practice, and their role in the wider Christian community and American society.

AMS X27F. Religion in the American South.
Examines the social construction and cultural meaning of southern religion using fictional characterizations, philosophical reflections, historical accounts, and theoretical comparisons.

AMS X27G. Religion in the American West.

AMS X27I. Religion and Social Justice in United States.

AMS X27J. Debating the Bible in the Twenty-First Century.
Examine the ways in which individuals, primarily in the United States, have regarded the Bible as relevant or irrelevant to contemporary life. Discuss contemporary controversial issues in which the Bible has played a role and how these relate to earlier controversies, such as the position of the Bible on slavery.

AMS X27K. Science, Magic, and Religion.
Historical and cross-cultural overview of the constructed concepts of magic, science, and religion through comparative examinations of cultural contexts from the Islamic world, western Europe, the Caribbean, the U.S., and Mozambique.

AMS X28C. Latinx Austin.
Explore the city of Austin, the city's importance for Latino communities, and the importance of Latinos for the city.

AMS X28E. Land in America.
Explore how the history of land helps explain the society we live in today and ideas about the human-nature relationship.

AMS X29. Environmental History of North America.
The history of humanity's influence on the plants, animals, microlife, soils, water, and air of North America, and vice versa, from the arrival of the proto-Indians to the contemporary environmental crisis.

AMS X29S. Topics in American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AMS X30. Modernism in American Design and Architecture.
A historical survey of artifacts, buildings, and urban environments, focusing on responses to machine-age civilization.

AMS X30C. Race, Law, and United States Society.
Examines the intersection of racial ideology and legal culture in the United States.

AMS X31C. Jewish Stereotypes in American Literature and Culture.
Examine stereotypes that have come to define Jewishness in American culture by focusing both on the antisemitic tropes perpetuated by non-Jewish representations of 'the Jew' in literary classics and on the archetypes employed as coping mechanisms in cultural representations created by Jews themselves. Analyze how stereotypes become enmeshed in cultural consciousness and investigate ways in which representations of ethnic, religious, and racial minorities are governed by these kinds of one-dimensional archetypes.

AMS X31D. Native American Women's History.
Investigate the histories of Native American women to reaffirm and reclaim their place and role in the histories of Native Americans, indigenous peoples, women, Chican@/xs, Greater Mexico, and the United States. Contemplate how many understandings that center colonization, settler colonialism, genocide, race, and environmentalism are essential to examining Native American women's history. Explore the stories, struggles, and ideas of community-building, sovereignty, and liberation as integral to their genders and sexualities as Native American, Indian, First Nations, indigenous, and red and brown women.

AMS X31E. Black Cops in African American Popular Culture.
Explore the history of black policing in America and representations of black police officers in popular literature and film of late Twentieth Century America.

AMS X33. Blackness in the Contemporary Art Museum.
Explore issues related to the acquisition, stewardship, and repatriation of the art of the African Diaspora in the face of an increasingly virtual and market-driven art world.

AMS X34. Drugs in African American Popular Culture.
Examine the legal, political, and philosophical intersection of blackness, whiteness, and drugs in the late twentieth century through film, music, and literature.

AMS X34C. Hegel and His Heirs: Philosophy That Remade the West.
Explore how Hegel's philosophy contributed to the founding of the modern social sciences and led to innovations in the study of religion, psychology, education, social organizations, and social reform.

AMS X35. Queering Black Religions.
Explore the ways Africana religion practitioners disrupt and reframe dominant western discourses of gender and sexuality. Examine concepts of temporality, spirit manifestation, subjectivity, corporeality, and Africana religious epistemologies.

AMS X36C. Coastal Communities in Early America.

AMS X36D. Women in Postwar America.

AMS X36E. The History of Islam in the United States.
A brief introduction to Islam. Defines the role of Islam and views of Muslims in the early history of the United States, and introduces students to major issues concerning contemporary American Muslims.

AMS X36F. Arts and Artifacts in the Americas.
Surveys the changing material culture of the western hemisphere from pre-Columbian times to the beginning of the industrial revolution.

AMS X36G. The Civil Rights Movement from a Comparative Perspective.
Focuses on African American and Mexican American struggles for civil rights. Asian American and Native American movements will also be addressed. Using a comparative approach the student will consider the distinctiveness of each of these struggles while also viewing them in relation to each other.

AMS X37J. Latinx Sexualities.
Examine Latinx sexualities from a historical perspective to comprehend the social, cultural, political, and economic factors, which have shaped these experiences.

AMS X39M. American Art, 1958-1985.
Survey of major movements from 1958 to 1985, from pop art to graffiti art and new expressionism.

AMS X41C. Americans in Paris.
Examine major social and political trends, events, and debates that have informed the works of artists living and working both at the margins of Parisian society as well as in its most celebrated salons. Interpret texts as artifacts that reflect the historical, social, and cultural circumstances of the environment that inspired their creation and reflect upon their role in the cultural symbiosis between America and France.

AMS X44F. Black Slavery in the Atlantic.
Examine the history of slavery in the Atlantic from 1450 to 1865.

AMS X45C. Eastern Europe on American TV.
Focus on ways Eastern Europe is depicted on American television screen. Use anthropological framework to study multiple types of television shows, including reality tv, network dramas, and miniseries. Analyze ethnic, racial, national, and gender representation and what these constructions tell us about the ways that Eastern Europe is imagined.

AMS X45F. Latinx Legend Tripping.
Explore narrative folklore from diverse traditions across the United States based Latinx diaspora. Focus on supernatural legends and the creation of the female "monster".

AMS X46O. Religion and Food.
Examine the material relationships between religion and food, by comparing the ritual functions of food in religious traditions and the collective constructions of religious identities in traditional foodways.

AMS X47R. Race and Migration: The Mediterranean.
Examine the history of migration within and from the Mediterranean area.

AMS X52R. Rhetoric of Ethnic Studies.
Study the histories of ethnic (and gender) studies in both higher education and K-12 institutions, and the rhetoric of attacks on, and defenses of, ethnic and gender studies through an examination of primary and secondary source materials.

AMS X55. Main Currents of American Culture to 1865.
Traces the development of American culture and society from the colonial era until the end of the Civil War. Major themes include racial conflict, religion, slavery, the development of democracy, and cultural reform.

AMS X56. Main Currents of American Culture since 1865.
Traces the development of American culture and society from the end of the Civil War to the present. Major themes include racial conflict, pluralism, religion, urban development and reform, modernism, government centralization, cultural radicalism, and the rebirth of conservatism.

AMS X58. The United States, 1920-1941.
A history of political, economic, diplomatic, military, social, and cultural developments in the United States between the two world wars.

AMS X60D. German-American Immigration and Ethnicity.
Explore German immigration to the United States from the colonial era to the present. Examine the motivations for migration; settlement patterns; construction of identity through traditions and festivals; German American's economic, social, and cultural contributions to the United States; and challenges to assimilation.

AMS X62N. Memory and Place After the Holocaust.
Examine the literature of Eastern European Jewish Holocaust survivors and their artistic successors. Engage novels, short stories, memoirs, essays, and even song lyrics with questions of memory and of place.

AMS X62P. Transatlantic Memory Cultures.
Explore and compare German and American memory cultures, analyzing the Holocaust, slavery, and colonialism. Analyze the diversity and complexity of (inter)national, local, and indigenous memory cultures while also discussing how Germany and the United States might "learn from each other.

AMS X65G. Black Women and Mass Incarceration.
Examine the history of Black women and mass incarceration in America. Explore how race, class, and gender have historically influenced the production of crime and unfair criminal justice policies. Investigate why mass incarceration matters, what its historical legacy is, and how it impacts Black women today.

AMS X66G. Slavery and Its Legacies.
Explore how slavery has evolved in the United States since the end of the Civil War.

AMS X70. Topics in Seminar in American Culture.
Interdisciplinary seminar on themes in American life.

AMS X70.13. The Culture of Cities.
Examines the social, geographical, and cultural evolution of the United States from a rural and small-town society to an urban and suburban nation. Subjects may include the segregation of public and private space; the formation of urban subcultures organized by gender, work, race, religion, and sexuality; social and spatial divisions between rich and poor and native-born and immigrant; and the increasing importance of cultural capital" in reshaping urban politics and in conflicts over revitalization and gentrification.

AMS X70.17. Postmodern America.
Postmodernity considered as a means of understanding major cultural transformations since 1945 in areas such as architecture, art, criticism, film, journalism, literature, music, philosophy, photography, and political thought.

AMS X70.18. The Beats and American Culture, 1945 to 1990.
Examines writers such as Kerouac, Ginsberg, and Burroughs during the immediate post-World War II era. Considers their historical origins, their representations of society and culture, and their influence from the 1960s through the 1980s on writers and artists in a variety of fields.

AMS X70.19. The Cold War and American Childhood.
Uses childhood as a focus for studying the cultural and political climate of the post-World War II era.

AMS X70.20. Children's Literature and American Culture.
Examines changes in American childhood using children's literature that covers several different time periods.

AMS X70.21. Society, Culture, and Politics in the 1960s.
Various social and cultural movements of the 1960s, including civil rights, the New Left, black power and other ethnic nationalisms, the peace movement, the black arts movement, guerrilla theater, psychedelic arts and the counterculture, women's liberation, gay liberation, the environmental movement, and the conservative movement.

AMS X70.23. Memory and Place.
Explores how cultural memory is produced in its various forms, from memorials, public art, and commodities to popular culture, rituals, and museums, and how public remembering is inevitably anchored in specific geographic places.

AMS X70.26. American Food.
Studies diverse American food cultures from a humanities perspective, exploring connections between global, national, and local communities. Uses scholarship in the field of food studies as well as cookbooks, novels, poetry, photographs, songs, documentaries, and oral histories to investigate the past and present of American food communities.

AMS X70.27. Nature and Gender in America.
Study of the connections between nature and gender in American national narratives. Explores how Americans of differing classes, races, genders, sexual orientations, and ages have shaped and experienced changing ideas of America, wilderness, domestication, and society over time and in different regions of the country.

AMS X70.28. Animals and American Culture.
Explores the role of animals in American history, culture, and society.

AMS X70.29. Women Radicals and Reformers.
Traces traditions of women's radical activism and reform beginning with the Enlightenment and the American Revolution and continuing to the present, with concentration on the twentieth century.

AMS X70.32. Slavery across Genres.
Uses nonfictional and fictional narrative accounts of slavery in the United States to examine the political, social, cultural, economic, and psychological aspects of the institution of slavery at different historical moments. Sources may include authors such as Frederick Douglass, Toni Morrison, William Faulkner, Harriet Beecher Stowe, and Edward P. Jones; graphic novels; conceptual art; court records; and bills of sale.

AMS X70.33. Atlantic Slavery: History and Memory.
Charts a history of Atlantic slavery by focusing on primary sources detailing crucial events and contexts such as the Zong Massacre, the Haitian Revolution, and Dred Scott vs. Sandford, among others. Considers how historians, memoirists, fiction writers, visual and performance artists and filmmakers have come to terms with that history and its implications.

AMS X70.34. American Disasters.
Examines natural and human-made disasters as key turning points in American history. Engages with the politics of disasters, analyzing environmental contexts, grassroots activism, legislative policies, and approaches toward commemoration.

AMS X70.36. Exiles, Expatriates, and Political Pilgrims.
Explores the ways in which foreign experiences formed and re-formed individuals' perspectives on the United States, the nature of their social critiques of the U.S., and Americans' experiences of other nations.

AMS X70.37. The Politics of Creativity.
Interdisciplinary investigation of artists in American society and of the intersection of art and politics.

AMS X70.39. Radical Latinos.
Examines the social positioning and history of Latinas/os in the United States. Analyzes the histories of Latinas/os who have gone against mainstream expectations, or who have challenged or critiqued the status quo in provocative and unexpected ways.

AMS X70.40. Southern Cultures.
Investigation of multiple, fluid, and diverse southern cultures through topics such as NASCAR, biscuits and cornbread, mega-churches, beauty pageants, jazz, country music, southern hip hop, migrant farm cultures, matzo ball soup with collards, the Trail of Tears, Gullah, Tara, Graceland, and more. Includes discussion of stereotypes and the individual truths about women, men, and southern in the context of this discussion.

AMS X70.41. Vienna: Memory and the City.
Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria.

AMS X70.42. Black Political Thought.
Exploration of black social and political thinkers, writers, and reformers, and how their works influence the legacies of slavery, empire, and patriarchy within the United States.

AMS X70.43. Literature of Black Politics.
Examines the novels, plays, and critical essays of Ralph Ellison, James Baldwin, and Toni Morrison as works of democratic political theorizing and political engagement.

AMS X70.45. Feminist Interventions in Borderlands History.
Provides an in-depth understanding of the social, economic, and spatial transformations of the United States/Mexico borderlands in the nineteenth and early twentieth centuries.

AMS X70.47. Language, Culture, and the Texas German Experience.
The evolution of the culture and language of German immigrants to Texas from the 1840s through the present and how they have influenced other ethnic groups in Texas.

AMS X70.50. Sexual Deviance in the Twentieth-Century United States.
Examines the ways that Americans have created and maintained hierarchies of power by casting certain people and sexual behaviors as unnatural and immoral since the turn of the twentieth century.

AMS X70.51. Queer Study in Low Culture.
Examines representations of sexual and gender non-conformity in popular culture since the mid-twentieth century in the United States.

AMS X70.52. Movements for Sexual and Reproductive Justice.
Charts the historical development of various struggles for sexual and reproductive justice in the United States since the nineteenth century.

AMS X70.53. Key Works in American Popular Music.
Examines individual songs as a means to understand larger trends in U.S. cultural history (including various Civil Rights movements, de-industrialization and economic dislocation, cultural polarization, anti-war movements and the backlash, etc.) with an emphasis on rock, pop, punk, rap, disco, and country music in the U.S. since 1945. Explores popular song through the lens of cultural studies, sociology, and history.

AMS X70.54. Rethinking the 1950s: Rebels and Rejects.
Examines how the context of the Cold War influenced American culture and politics, particularly with regard to race, gender, and sexuality. Focuses on the first two decades after the end of World War II.

AMS X70.55. Urban Slavery in the Americas.
Examines urban slavery in the Americas.

AMS X70.56. Puerto Rico In Crisis.

AMS X70.57. Politics of Black Life.

AMS X70.63. Wealth and Poverty in the United States.
Analyze the categories of "wealth" and "poverty." Investigate both how wealth has historically been created, and also how wealth and poverty have been depicted in American history.

AMS X70.64. Global Cities in the United States.
Engage with the history of the global city at various levels, using text from disciplines including history, geography, anthropology, and sociology, as well as primary sources, images, readings, and films. Define the global city in the past and present and explore questions of race, class, gender, the politics of space, the culture of empire, and the changing shape of U.S. capitalism.

AMS X70.65. Energy and United States Capitalism.
Explore the intersecting histories of capitalism and energy in the U.S. in the twentieth century. Examine scholarly secondary literature as well as primary documents, literature, film, and photographs.

AMS X70.66. Art and Data in the Digital Age.
Investigate what shapes data and bodies take in digital environments. Ask how computing cultures and networks have been shaped by data and bodies.

AMS X70.67. Tejana Cultural Studies.
Investigate the history of Tejanas to reaffirm and reclaim their place and role in the histories of Native Americans, women, Chican@/Chicanxs, Greater Mexico, and the United States. Explore how transborderism and transregionalism complicate this history. Contemplate how Tejanas' stories are fundamental to illuminating the struggles, resistance, and liberation of Chicanas, mestizas, and afromexicanas from precontact to decolonization.

AMS X70.68. United States Masculinities.

AMS X70.69. Preserving Austin's Queer History.
Explore Austin's queer history since World War II and write on the practice of oral history and LGBTQ oral history in particular. Build the foundation for an ongoing Austin LGBTQ Oral History Project to be housed at the Briscoe Center for American History.

AMS X70.70. Theorizing the Human.
Trace the continuities and transformations in constructions of populations as more or less human, from settler-colonial conquest to the post-Trump era. Examine what logics mark racialized populations as disposable during the colonization of the Americas, and which systematically condition racialized subjects to a state of enduring siege.

AMS X70.71. Latinidades: Art and Performance.
Contextualize and analyze diverse forms of Latina/o/x artistic expression, including visual art, music, dance, theatre, and film, or Latinidades".

AMS X70.72. Technologies of United States Empire.
Investigate the various technologies that the United States has used to maintain imperial geographies at "home" and abroad. Focus on imperial entanglements of global capital, liberalism, and technological systems.

AMS X70.74. Latina and Latino Spirituality.

AMS X70.76. Black Horror and Psychoanalysis.
Explore the intersection of race, horror aesthetics, and psychoanalytic theory.

AMS X70.77. Photographs and Blackness in the United States.
Examine issues raised at the intersection of Blackness and photography in contemporary art of the United States.

AMS X70.78. The Black Figure in American Art and Popular Culture.
Examine how popular culture and artistic practices facilitate or challenge social constructions of "Blackness" in the United States.

AMS X70.79. Urban Imaginaries.
Use science fiction literature, film, and other cultural artifacts as a platform to launch an examination into the central concept of urban imaginaries. Discuss the politics (and potential) of urban representation

as well as understand how urban imaginaries influence everyday urban life and the ongoing production of urban space and place.

AMS X70.80. Displacement and Resistance.
Explore technologies of displacement, as well as tactics, digital media work, mapping projects, and activism that communities engage with to resist dispossession. Examine, locally and globally, the displacement and resistance effects of various events including infrastructure projects and gentrification.

AMS X71C. Food in the Racialized City.
Explore a variety of issues related to producing, accessing, and consuming food in city spaces in the context of racial inequities. Investigate and question constructs such as "food" and "city" as means of exploring different points of view and approaches to studying not only food and cities but also various approaches to food justice.

AMS X71D. Black Geographies.
Explore the relationship between Blackness and the production of space and place. Examine the tensions and possibilities that emerge when Black people are rendered un-geographic as a fundamental component of racial capitalism while they are simultaneously creating spaces of freedom under constant threats to Black life.

AMS X72. Conference Course.
Supervised individual study of selected subjects in American studies.

AMS X73I. Race, Gender, Sex, and Religion.
Use an intersectional feminist framework to examine the construction and maintenance of normative categories of race, gender, sex, and sexuality within United States religious discourse.

AMS X74C. Contemporary Latinx Visual and Performance Art.
Explore contemporary visual and performance art by Latinx artists working since the 1970's to the present. Examine artists who began to engage with and in civil rights discourse to intervene through their art-making practices; and to align with contemporary trends in the art world that began to expand in the 1970's, such as performance art, installation art, video art, and, later, digital art.

AMS X79H. Honors Tutorial Course.
Individual readings and conferences in connection with an original research paper.

Graduate Courses

AMS X19S. Topics in American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AMS X29S. Topics in American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AMS X85. Cultural History of the United States to 1865.
An interdisciplinary cultural history survey of the United States.

AMS X86. Cultural History of the United States since 1865.
An interdisciplinary cultural history survey of the United States.

AMS X90. Topics in Research Seminar in American Studies.
Research on selected topics in American studies.

AMS X91. Topics in Reading or Research Seminar in American Studies.
Reading or research seminar on topics relevant to American studies.

AMS X92. Conference Course in American Studies.
Individual directed readings and conferences on selected problems or topics in American studies.

AMS X93. Introductory Readings in American Studies.
Seminar designed to acquaint the graduate student with the nature and extent of materials for interdisciplinary research on American culture.

AMS X94. Sources and Methods in American Studies.
Seminar designed to acquaint the graduate student with key sources and methodologies for interdisciplinary research on American culture.

AMS X96. Internship in American Studies.
Practical working involvement with participating nonprofit and research agencies.

AMS X98. Thesis.

AMS X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

AMS X98T. Supervised Teaching in American Studies.
Seminar in the methods of interdisciplinary teaching and professional work in American studies.

AMS X99W. Dissertation.

Professional Courses

AMS X19S. Topics in American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AMS X29S. Topics in American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANS - Asian Studies

Asian Studies: ANS

Lower-Division Courses

ANS X01M. Introductory Topics in Asian Studies.
Discussion of various problems involving language, history, and culture in Asia.

ANS X01M.11. Introduction to Buddhism.
A structural and historical overview of Buddhism through the examination of various schools, doctrines, biographical narratives, and contemporary ethical issues.

ANS X01M.13. Forbidden Romance in Modern Chinese Literature.
Introduction to modern Chinese literature from the late Qing Dynasty (latter half of the nineteenth century) to the present.

ANS X01M.14. East Asian Martial Arts Films.
Explores the concept of "East Asian" from the cinematic perspective, focusing on the martial arts film genre.

ANS X01M.15. Introduction to Islam.
The beliefs, theology, history, and main social and legal institutions of Islam, including the concept of God and society, the role of women, and Islamic government and movements.

ANS X01M.16. Introduction to Japanese Film.
Broad survey of Japanese cinema, including silent films, feature films, documentaries, and anime, that covers the basic history of Japanese cinema. Background in Japanese not required, all films are subtitled in English.

ANS X01M.17. Introduction to Politics in East Asia.
Introduction to politics and political systems of Japan, China, Taiwan, North Korea, and South Korea.

ANS X01M.3. History of East Asia to 1800.
A survey of the traditional history and culture of China, Japan, Korea, and Vietnam.

ANS X01M.4. History of East Asia since 1800.
A survey of the modern history of China, Japan, Korea, and Vietnam.

ANS X01M.6. Asia's Futures.
Current issues, visible trends, and projections for Asia's future.

ANS X01R. History of the Religions of Asia.
Eastern religions: an introduction to the basic forms and the historical development of the religious traditions of India, China, and Japan.

ANS X02C. Introduction to China.
Introduction to Chinese civilization, past and present, including religion, literature, arts, philosophy, and history.

ANS X02D. Introduction to Korean Culture and History.
Introduction to Korea's history, culture, and civilization from antiquity to the present.

ANS X02E. Female Voices in China.
Introduction (in translation) to the most important texts and other sources by, for, and about women in Chinese intellectual, political, social, and cultural history.

ANS X02J. Introduction to Japan.
Introduction to Japanese civilization, past and present, including religion, literature, arts, philosophy, and history.

ANS X02K. Introduction to South Asia.
Introduction to Indian and south Asian civilization, past and present, including religion, literature, arts, philosophy, and history.

ANS X03D. Introduction to the Asian Diaspora.
Examine the global dispersal of Asian populations from the mid-1800s to the present.

ANS X04C. Popular Culture in Modern Japan.
Introduction to the history of popular culture in modern Japan focusing on works of literature, film, and visual culture.

ANS X05C. Korean Literature and Film.
Explore the literature and film of Korea from earliest times to the present.

ANS X07C. Introduction to the History of India.
Survey of the history of the Indian subcontinent from prehistoric times to the present.

ANS X07D. Yoga Past and Present.
Survey yogic practices in South Asian civilization and trace the development of yogic thought and embodied practices in Hindu, Buddhist, and tantric traditions from early history to the modern-day's social and legal complexities and controversies.

ANS X07E. Bangladesh: History, Culture and Politics.
Explore the general aspects of history, culture, and politics in Bangladesh. Examine late colonial and post-colonial history to evaluate the dynamics of national identity formation.

ANS X07F. Gods and Goddesses of India.
Explore a variety of gods and goddesses who have dominated the sacred landscapes of India and beyond, especially North America, from the past until now. Examine various issues relating to patriarchy, power, gender, sexuality, social hierarchy, and devotion.

ANS X19S. Topics in Asian Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANS X29S. Topics in Asian Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ANS X19S. Topics in Asian Studies.
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ANS X20C. Genji to Godzilla: Adaptations of the Japanese Classics.
Examine how premodern, modern, and contemporary classics of Japanese literature, film, and theater get adapted over the centuries, and how culture, politics, gender, genre, and medium influence the adaptation process.

ANS X20D. Classical Indian Literature in Translation.
Explore narrative literature and poetry composed in the three classical languages of India (Old Tamil, Sanskrit, and Prakrit).

ANS X20E. Myth, Legend, and Folklore in China.
Introduction (in translation) to a selection of the most important myths, legends, and folktales in China's various storytelling traditions.

ANS X20F. Classical Chinese Philosophy.
Introduction (in translation) to thinkers, texts, and ideas from the golden age of Classical Chinese philosophy (circa sixth-second centuries BCE), including how to apply their teachings to current sociopolitical issues.

ANS X20G. Chinese Language Cinemas from People's Republic of China and Taiwan.
Survey contemporary Chinese language cinemas from Taiwan and the People's Republic of China.

ANS X20J. The Bhagavad Gita: Interpretation and Ethics.
Explore one of the most influential books in Indian and global contexts, the Bhagavad Gita, through interpretations, commentaries, and scholarly materials. Navigate ethical dilemmas in the Bhagavad Gita and real-life situations.

ANS X20K. Korean Cinema.
Explore Korean cinema, film history, and theory from the early twentieth century to the present.

ANS X20L. Indian Cinemas: Bollywood and Beyond.
Focus on Indian cinema, primarily Hindi popular cinema--many times known as Bollywood. Examine major works of Hindi cinema and explore independent film making and regional cinema.

ANS X21C. Representing Disaster in Japan.
Explore a range of human-made conflicts and natural disasters in Japan from earliest times to the present through literature, film, and new media to consider questions of history, representation, and mourning and memorialization.

ANS X21D. The Environment and East Asia.
Examine the relationship between humans and the environment through the literature, film, and media of East Asia.

ANS X21E. Arts of the Avant-Garde in Modern Japan.
Explore avant-garde works of modern Japanese literature, film, and visual culture. Focus on how these works advanced global trends in avant-garde theory and practice by rebelling against tradition and searching for radically new ways of imagining the purpose and practice of modern art.

ANS X21M. Politics in Japan.
Survey of postwar Japanese politics; the occupation, governmental institutions, interest groups, protest movements, industrial policy, the government-business relationship, and political and economic reform.

ANS X22M. Politics in China.
Survey of twentieth-century China: historical trends; 1911 revolution; Warlord-Nationalist period; Communist revolution; post-1949 issues; new social and political institutions.

ANS X23C. Biomedicine, Ethics, and Culture.
Examines ethical questions such as the allocation of medical resources, stem cell research and cloning, organ transplantation, abortion, human experimentation, prolonging life and the right to die, suicide, euthanasia, and diagnosis and treatment of illnesses, explored from a global perspective.

ANS X24C. Musics of India.
Explore the musical traditions of India, with emphasis on Hindustani and Carnatic musical styles, but including examination of other traditions.

ANS X25C. The Chinese in Diaspora.
Explores narratives of migration, race, ethnicity, and a wide range of experiences of acculturation and assimilation from the perspective of a sending society--China--which has one of the longest and most diverse histories of sending people overseas. Over the last millennia, Chinese have migrated around the world and made homes under a great range of adversity and opportunity, producing many stories of human differences and commonalities.

ANS X25D. Greater China and United States Economic Relations.
Explore contemporary interconnections between the United States and Greater China. Examine economic frameworks (for example, state-led, market-led, mixed, etc.); the economies of the PRC including Hong Kong as well as Taiwan and the Chinese diaspora; and linkages such as investments, supply chains, tech transfer, non-profit cooperation, and the globalized workforce.

ANS X25E. Global Economies: Asia and the United States.
Examines key trends in the economies of the United States and Asia, with emphasis on the links between these two major trading blocs.

ANS X26C. Cultures of Southeast Asia.
Comparative study of the peoples of Indonesia, Burma, Thailand, Malaysia, and other countries.

ANS X29S. Topics in Asian Studies.
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ANS X30C. Anthropology of Travel and Tourism.
Use the tools of cultural anthropology to understand the touristic encounter and the increasing (and decreasing) accessibility of travel and mobility.

ANS X30D. Global Markets and Local Cultures.
Examine contemporary theories of globalization, including materials exploring global governance, international monetary policy, migration regulation, offshoring, and cultural hybridity. Focus on case studies in Asia and elsewhere that reveal how these practices impact particular communities.

ANS X30E. Tourism and Place in the Global South.
Debunk the myth that tourism is inherently desirable by unpacking the mechanisms of violence and inequalities of power embedded in tourism and tourism development.

ANS X30F. Development And Its Critics.
Discuss aspects of the contemporary international aid and development in Asia and beyond. Examine the decision-making within the development industry and the scope of aid as a economic and social force in the contemporary world.

ANS X30G. Food and Religion in Asia.
Use the lens of food to approach study of religious communities, values, and identity formation in Asia's past and present, covering South Asia, China, Japan, Taiwan, South Korea, and Southeast Asia. Explore questions involving what is eaten and what is not, taboo, hunger, anomaly, gender, food security, and recent ethical problems regarding bio-engineered foods (GMOs).

ANS X30J. Asian Mobilities.
Explore alternative research methods and spatialities, in an attempt to produce new understandings of how people live in an increasingly mobile world.

ANS X30K. Culture, Medicine, and Society in Asia.
Analyze health and illness as a lens for exploring Asian cultures and societies. Discuss themes, concepts, and approaches in anthropology to interrogate the interaction between culture, medicine, and society.

ANS X35. Animals in Asia.
Focus on how historical and modern-day philosophy, religious texts, and legal systems in South and East Asia provide the framework for probing the human-animal encounter and the tensions that arise due to human-animal interdependence.

ANS X36C. Central Asian Politics and Economies.
Relate major political and economic issues of post-Soviet Central Asia from Soviet legacy and regime types to state-business relations and investment environment. Learn about the characteristics that unite and distinguish the Central Asian region.

ANS X38L. East Asian International Relations.
Survey of Russian/Soviet, Japanese, Chinese, and American foreign policies of the twentieth century, emphasizing Pacific-region interests; historical policies; intermittent conflicts, such as China versus Japan, Korean War, Indochina Wars; China's emergence as a nuclear power.

ANS X40C. Japanese Religion and Western Imagination.
Examines Japanese religious traditions, with a focus on Zen, through the perspective of people living in non-Japanese societies since the end of World War II. Explores different ways in which non-Japanese have imagined Japanese religious and ethical ideas and both explained Japanese behavior and adopted ideas about Japan into their writings about philosophy and life.

ANS X40D. History of Hindu Religious Traditions.
History of major doctrines, practices, and institutions that shaped the development of Hinduism; how religions adapt to social and cultural change and often provide the catalyst for change.

ANS X40E. History of Indian Buddhism.
The institutional, social, economic, and doctrinal history of Buddhism in India.

ANS X40F. Goddesses in World Religions and Cultures.
Historical and cross-cultural overview of the relationship between feminine and religious cultural expressions through comparative examinations and analyses of various goddess figures in world religions.

ANS X40G. Ritual and Religion in Korea.
Examine major religious traditions of Korea; focus on the recent history and contemporary practice, and the relation between religion and politics during Korea's colonial (1910-1945) and postcolonial eras.

ANS X40I. Saints and Shrines in Islam.

ANS X40J. Jainism: Religion of Non-Violence.
Survey of the history, doctrines, institutions, and practices of Jainism from its origins to the present.

ANS X40L. Post-Mao China: Change and Transformation.
Examines in a historical context the Chinese economy, society, politics, and culture during the reform era that began in the late 1970s. Explores the transformation of rural and urban economies and related social consequences; government systems, political ideologies, and popular values; and China's integration into the global system and its impact on China's role in world politics.

ANS X40M. Modern China.
History of China from the intrusion of the West circa 1500 to the Communist revolution.

ANS X40P. European Expansion in Asia.
European exploration, the commerce of the East India Companies, and the beginnings of empire in South and Southeast Asia from the fifteenth to the early nineteenth century.

ANS X40Q. Sufism: Islamic Thought and Spirituality.
Explore Sufism and other Islamic mystical traditions that color cultural milieus spanning four continents and fourteen centuries. Focus on the historical developments in the Islamic theosophical tradition, as well as the relationship between Sufism and poetics, colonialism, and post-colonial resistance movements.

ANS X40R. European Empires in Asia.
The British in India and Malaya, the Dutch in Indonesia, and the French in Indochina since 1800.

ANS X40S. The Chinese in the United States.
History of the Chinese in the United States from their first arrival in significant numbers during the California Gold Rush of the mid-nineteenth century to the present.

ANS X40T. Taiwan: Colonization, Migration, and Identity.
Explores issues of ethnicity, empire, and modernization in East Asia from the sixteenth century to the present, as seen through encounters between Taiwan and aborigines, Han Chinese, Dutch, Portuguese, the imperial Qing, Japanese, mainland Chinese Nationalist Party (KMT), and the United States.

ANS X40U. Devotional Literature of India.
Discuss the songs of major saints. Examine how holy men and women expressed their religiosity through the medium of songs and poetry over the centuries and consider the role these songs had in shaping the religious communities of India. All works will be studied in translation.

ANS X40V. Religions in Contact.
Critically examine the theories (religious othering, conversion, reinterpretation, appropriation, etc.) of how one religion responds to contact with another. Explore the ways in which religious actors grapple with religious plurality, draw or ignore boundaries, and form religious identities.

ANS X40W. Shia Islam.
Examine how the first century of Islamic history inaugurated debates concerning authority, piety, and justice and how these debates have continued to the present. Explore the social forces and ideologies that shaped Shiism.

ANS X41C. Piracy in East Asia.
Examine how pirates helped bind East Asia together into an integrated zone of economic and cultural exchange. Explore how they formed the leading edge of early modern globalization and linking diverse economies and societies together.

ANS X41K. Origins of Modern Japan.
Japan to the beginnings of the Industrial Revolution, with a focus on the culminating age of samurai rule, the Tokugawa period (1600-1867).

ANS X41M. Imperial Japan.
Japan from the Meiji transformation through war, defeat, and occupation.

ANS X41N. Postwar Japan.
Japan since the war and occupation.

ANS X41P. Shamanism and the Primitive.

ANS X41R. Religion and Family in Japanese Society.
Explores the structures of family, kinship, and religion in Japan since 1868 and their roles in the creation and expression of national and individual identities.

ANS X42D. Political Economy of Japan.
Historical development of the Japanese economy since early modern times.

ANS X42F. Buddhist Thought and Practice.
Explore important themes in Buddhist thought, various ways in which Buddhists practice their religion, and the relationships between religious concepts and practices.

ANS X43C. Gender and Translation in the Arab World.
Examine complex politics and poetics behind the translation and marketing of Arab women's writing in the West.

ANS X43D. Muslim Travelers and Traders.
Introduction to modern Middle Eastern and Islamic history in the broader context of globalization, with a primary focus on the nineteenth century to the present.

ANS X43E. Cultures of Revolution in the Middle East.
Examine the cultural production that surrounds key moments of political and social change in the Middle East.

ANS X43F. Food History of Asia and the Middle East.
Explore the history of food and beverages in the Middle East and Asia, including Palestine/Israel, Egypt, Iran, India, China, and Japan. Investigate themes of identity, capitalism, and globalization to reflect on the role of food consumers in an interconnected world.

ANS X46C. Ancient India.
History and culture of South Asia from its protohistoric beginnings in the Indus Valley through the period of the early empires of the Mauryas and Guptas.

ANS X46D. Medieval India.
History and culture of South Asia from approximately 500 to 1500, with emphasis on religious and political institutions and the emergence of regional cultures.

ANS X46E. Partition of India in History and Memory.
Discover the experiences and memories of many different groups affected by the Partition of British India in 1947 while tracing the effects of the Partition until the present.

ANS X46F. Gandhi and Gandhism.
Explore Gandhi's life, work, philosophy, and influence, as well as his historical and cultural context.

ANS X46G. Gender and Modern India.
Examine gender and the shifting nature of modernity between precolonial and colonial periods in the Indian subcontinent.

ANS X46J. Mughal India in History and Memory.
Focuses on South Asia during the era of the Mughal empire (1550-1750), continuing through the symbolic relevance of the Mughal dynasty in British India and in India today.

ANS X46K. Slavery and South Asian History.
Examine the presence of slavery in the subcontinent in the third century BCE to the twentieth century.

ANS X46M. Early Modern India.
The history and culture of South Asia from approximately 1500 to 1750.

ANS X46N. The Indian Subcontinent, 1750-1950.
Examines the cultural and political movements and events that led to formation of the two nation-states India and Pakistan.

ANS X46P. Indian Philosophies.
Investigate the theories and arguments of major Indian philosophers, considering both their historical positioning and contemporary relevance.

ANS X47C. Business and Society in South Asia.
Examine the long history of commerce and enterprise in the Indian sub-continent up to the present.

ANS X47K. Governments and Politics of South Asia.
A survey of political developments, governmental organization, and economic and social problems in South Asia.

ANS X48D. Anthropology of the Himalayas.
Examine the history and culture of the Himalayan region, including Northeast India, sections of Pakistan and Afghanistan, Tibet, and especially Nepal.

ANS X48E. A Linguistic History of India.
Explore the richly documented linguistic and literary history of languages in the Indian subcontinent, paying attention to linguistic phenomena, contact effects, and language-based movements.

ANS X48F. Formation of Indian Art.
Examine the artistic traditions of South Asia up to the fifth century C.E., with an emphasis on social and religious factors shaping its development.

ANS X48G. Cinematic Cities: Mumbai.
Explore political, social, and artistic transformations of the global city of Mumbai from the early 20th into the 21st century using cinema as the primary text complemented by theoretical, creative, and historical readings.

ANS X48I. Offbeat Asian Cinema.
Explore South Asian cinema, focusing on innovative and boundary-pushing films. Draw from a diverse range of countries including India, Afghanistan, Sri Lanka and Pakistan, and languages like Hindi, Urdu, Marathi, Tamil, Malayalam, and Dari.

ANS X50C. Why Chinese Has No Alphabet.
Introduction to the history and evolution of the Chinese writing system and language. No background in Chinese language, culture, or linguistics is required.

ANS X50E. The History of Chinese Language and Translation.
Explore the Chinese language and culture, focusing on the cultural, social, historical, and political background against which the Chinese language has evolved and continues to evolve.

ANS X51C. Banned in Japan: Censored Art.
Focus on banned works of literature, painting, photography, film, and manga that encountered censorship in Japan from the early eighteenth century to today. Explore the censored texts in-depth alongside the sociopolitical contexts of their banning in order to understand how censorship worked historically and to help us consider how it works in our own time and place.

ANS X55C. Japanese Foreign Policy.
Examine the foreign and domestic determinants of Japanese foreign policy.

ANS X55D. International Relations of East and Southeast Asia.
Examine the international relations of East and Southeast Asia, with particular attention to postwar economic and security issues, the changing political landscape of the post-Cold War period, and the development and functions of regional institutions.

ANS X55E. Political Economy of Asia.
Explore the political economies of East Asia with an emphasis on Japan, China, South Korea, and Taiwan.

ANS X55F. Asian Regionalism and Multilateral Cooperation.
Explore the nature, functional principles, leadership, and policy-making process of contemporary Asian regionalism in comparison to the experiences of European integration.

ANS X55G. Monarchies and Mini-States.
Examine the remarkable variety among the political systems of the 28 remaining monarchies and the survival and thriving of mini-states around the world.

ANS X55I. War and Peace: China, Japan, and Taiwan.
Use the modern theory of war and cutting edge political science research to understand the evolution of war and peace over the past two centuries in East Asia.

ANS X56C. Modernization in East Asia.
Examines the different historical experiences of mainland China and Taiwan in the context of the East Asian model of development.

ANS X58F. The Two Koreas and the United States.
The political, social, and cultural relationship between North and South Korea, and between the Koreas and the United States, since 1945.

ANS X58G. Capitalism, Consumption, and Civil Society in Korea.
Explore contemporary social and political life in urban South Korea, including corporations, factory work, consumption, activism, popular culture, and changing gender systems and roles.

ANS X61. Topics in Asian Studies.
Selected topics in south and east Asian anthropology, economics, history, geography, government, and sociology.

ANS X61.39. Anthropology of Globalization.

ANS X61C. Political Economy of Development in Postwar Korea.
Explore the political economy of South Korean development during the postwar period. Examine the history, society, and culture of South Korea. Discuss compressed modernity, developmental state, social movements, gender politics, financial crisis, urbanization, migration, and recent globalization of Korean popular culture.

ANS X61D. History of Food and Healing in China and Taiwan.
Explore the cultural, historical, philosophical, social, and scientific background against which the connection between food and healing has evolved through Chinese history.

ANS X61E. Urban Experiences In East Asia.
Explores the process of urbanization in East and Southeast Asia focusing on the politics of capital accumulation and distribution.

ANS X61F. Ethnic Politics in Taiwan and Asia.
Explore ethnic politics in Taiwan including some comparison with ethnic politics in neighboring countries.

ANS X61G. State Building in China and Taiwan.
Compare and contrast the state building process in mainland China and Taiwan.

ANS X61J. Development and Social Movement in East and Southeast Asia.
Examine the notions of development and the ways in which development is associated with state building, moral economy, political performance, and accumulation regimes. Explore the development of civil society and social movement in East Asia, and explanations of the mechanisms and drivers of displacement. Conceptualize the "Right to the City", and alternative right-based approaches to land, housing, infrastructure, commons and public resources.

ANS X61K. The Indian Republic Since 1947.
An overview of Contemporary India, a republic that emerged from the British Empire.

ANS X61L. Global Commodities: Asia and the World.
Explore the vital role of commodities in Asian history with a particular focus on East and Southeast Asia.

ANS X61M. Big Asian Histories.
Examines ways in which Asia and other areas of the globe have had connected intellectual, artistic, and social developments with focus on world histories centrally involving Asia from the medieval period to the present.

ANS X61N. Self and Culture in North Korea.
Aims to understand North Korea's historical development and its current workings as a social, cultural, and political/ideological system.

ANS X61P. Africa and Indian Ocean World.
Explore the connected histories of the geographical regions and economic communities that share the littoral space of the Indian Ocean.

ANS X61Q. The Age of the Samurai.
Explore the history of Japan via an examination of the complex and ever-changing figure of the samurai.

ANS X61R. Transnational Asia: From the Middle East to the Far East.
Examine how various groups of people understood, experienced, and imagined concepts such as "the East" and "Asia" with a primary focus on the nineteenth and twentieth centuries.

ANS X62. Research in Asian Studies.
Individual instruction for Asian studies majors and nonmajors. Discussion, research, and the writing of papers about various general and specialized Asian subjects.

ANS X72D. A Tale of Five Chinese Cities.
Explore themes of modernization, migration, international relations, gender, and labor through literary and cinematic texts about Beijing,

Hong Kong, Nanjing, Shanghai, and Taipei. Consider certain historical moments and the notion of Chineseness in an increasingly and culturally deterritorialized world.

ANS X72E. Globalizing East Asian Popular Culture.
Takes the globalization of popular culture as an analytical lens through which to reflect modernity, (trans)nationalism, gender politics, and identity formations in East Asia.

ANS X72F. Veiling in the Muslim World.

ANS X72G. Precolonial India, 1200-1750.
Surveys the history of South Asia during the era prior to British colonial rule.

ANS X72K. Gender, Sexuality, and the Family in Indian Religions and Cultures.
A comprehensive historical overview of gender issues as they are represented in the textual traditions of South Asia.

ANS X72L. Confucianism.
Explore the philosophical and historical context of Confucianism, from its origins in ancient China through the early empire and beyond.

ANS X72M. Taiwan: From Coloniality to Postcoloniality.
Examine how Taiwan has transformed itself since the end of Japanese colonialism in 1945 through literature, films, and other cultural products, such as popular music and arts, in postcolonial Taiwan.

ANS X72N. Japanese Concepts of Body and Self.
Exploration of anthropological literature describing Japanese conceptions of self and body, and analysis of the intersection of these conceptions of self with Japanese ideas about religion, morality, aging, and medicine.

ANS X72P. South Asian Migration to the United States.
Examine the South Asian diaspora in the United States.

ANS X72R. Japanese Popular Culture: Anime, Manga, and the Otaku.
Examine a wide variety of Japanese popular media within the historical context during which these unique cultural forms developed. Focus on the popular manga and anime Japan has exported since becoming an economic superpower in the 1980s, the utopian/dystopian expression in Japanese sci-fi narratives of this era, and the complex interplay of gender and technology in the new post-human societies these narratives envision.

ANS X73C. Decoding Classical Chinese Poetry.
Introduction to the classical Chinese poetic tradition from the seventh century B.C.E. through the ninth century C.E., focusing on the literary, cultural, historical, social, political, philosophical, and religious background against which representative works arose. Conducted in English and all readings will be in English translation. Knowledge of the Chinese language is not required.

ANS X73D. Popular Literature and Culture in Modern China.
Examine modern Chinese literature and culture in the People's Republic of China, Taiwan, and Hong Kong from the popular culture perspective.

ANS X73E. Modern Japanese Literature in Translation.
Conducted in English. Analyze literature written by Japanese authors in the twentieth and twenty-first centuries with attention to a work's content, style, and form, as well as the socio-historical context of its production and reception.

ANS X73F. Suicide in Japanese Fiction.
Conducted in English. Examine Japanese literary and visual culture, including poetry, novels, plays, film, and manga, to analyze how artists grapple with themes of suicide in their works and lives in response to personal and national tragedies.

ANS X73G. Epics and Heroes of India.
Focus on India's classical epics, the Mahabharata and the Ramayana, with emphasis placed on understanding the epic characters in relation to the heroic traditions of premodern India, as well as on the role of the epics in contemporary Indian political and religious culture.

ANS X73J. Chinese Film and Literature.
Analyze selected literary and cinematic texts from China in the last century. Explore how the Chinese people encounter modernity and cope with its consequences.

ANS X74C. Buddhist Art.
Explores the development of Buddhist art in South Asia, the land of its origin as well as its spread elsewhere. Focus on the question of "what is" Buddhist art.

ANS X74D. Gender and Art in the Muslim World.

ANS X74E. Chinese Literati Art.

ANS X75D. Chinese Ethics and Political Philosophy.
Examine Chinese ethical and political philosophy, with an emphasis on the Confucian tradition, through close reading of major works. Analyze ideas from the course both philosophically and historically.

ANS X78H. Honors Tutorial Course.

ANS X79. Topics in Capstone Seminars in Asian Studies.

ANS X79.1. Writing and Authority in Early China.

ANS X79.10. Comparing Religions.
A discussion of major comparative approaches in the study of religion.

ANS X79.11. The Cultural Outsider: Memoirs of East Asia.
Focus is on the cultural outsider's perceptions of East Asia in greater travel" dating from as early as Marco Polo up to works published in contemporary America. Selected memoirs and travelogues are presented from the perspective of the cultural outsider, written by missionaries, colonizers, journalists, POW's, scholars, students, and tourists.

ANS X79.12. Gender and Labor in Global Asia.

ANS X79.13. Cultural Memory and the Classic Chinese Novel.
Examine the metaphors and mythology from Chinese cultural memory that are present in classic novels, within literary and socio-historical contexts. Explore a cross-section of influential works from classical literature and the major founding schools of Chinese thought.

ANS X79.14. Translating Asia.
Explore various ways to define translation in the Asian context through translation theory and translated texts and how translation impacts and represents different Asian identities.

ANS X79.16. Culture and Crisis in Contemporary Japan.
Explore the cultural history of Japan from the 1980s to the present, with particular attention paid to economic and ecological issues represented in literature, film, and visual culture.

ANS X79.17. History and Memory in Japan and Korea.
Explore the fraught and entangled histories of modern Japan and Korea as depicted in literature and film to consider experiences of imperialism, rapid modernization, war, decolonization, and trauma.

ANS X79.18. Death and the Afterlife in Ancient China.
Investigate ancient Chinese beliefs and practices surrounding death and the afterlife from the Neolithic era to the arrival of Buddhism. Explore tombs, burial objects, and funeral rites; philosophical essays and historical accounts; medical practices; religious relics, tokens, and talismans; ghost stories; poetry; and paintings.

ANS X79.3. The Art of the Body in India.

ANS X79.4. Indian Poetry and Religions.
Explores the intersections of religion and poetry in the history of Indian literature as expressed in multiple settings and variations including hymns, chants, bhajans, poetic narratives, and new poetic conventions that deal with caste and gender identities.

ANS X79.5. Science, Technology, and Society in Contemporary Asia.
Introduction to how social forces and interests impact scientific practice, and vice versa, including scientific incommensurability, cultural difference, colonialism, postcoloniality, and methodological issues.

ANS X79.6. Transnational Korea.
Recent and contemporary manifestations of the Koreas in the world and the world in the Koreas. Subjects include labor and marriage migration, educational sojourning, transnational adoption, tourism, international sport, corporate expatriation, and media flows.

ANS X79.8. Radical Religion: Ascetics and Holy Persons.
Explores asceticism and the concepts, practices, and goals associated with this radical way of life through case studies from various religions. Subjects include theories of the body and of culture, as well as issues of social status, gender, devotion, and violence.

ANS X79.9. Art of Autobiography in Japan.
Examines autobiographies written by prominent artists and intellectuals in Japan from the tenth century to the present. Subjects include the authors' lives and legacies, and how these works are informed by both the historical and cultural contexts in which they were written and by the genre itself. All reading, writing, and discussion will be in English.

Graduate Courses

ANS X19S. Topics in Asian Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

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ANS X80C. Conference Course in Asian Studies.
Supervised individual study of selected problems in Asian studies.

ANS X81. Topics in Chinese Culture and Society.
Study of various aspects and periods of Chinese culture and society.

ANS X81.1. Advanced Readings in Chinese Politics.

ANS X82K. Topics in Korean Culture and Society.
Studies of various aspects and periods of Korean culture and society.

ANS X83. Topics in Japanese Culture and Society.
Study of various aspects and periods of Japanese culture and society.

ANS X83.4. Japanese Politics.

ANS X83.5. Japanese Religion.

ANS X84. Topics in South Asian Culture and Society.
Study of various aspects and periods of South Asian culture and society.

ANS X84.2. Communalism in Colonial India.

ANS X84.3. Ethnicity, Religion, and Politics in South Asia.

ANS X84.5. Social and Religious Reform in Modern India.

ANS X84.6. South Asian Diaspora.

ANS X84.7. Middle Indic Languages and Literature.
Survey of the Middle Indic languages of South Asia, the communities that used these languages, and the literature composed in them.

ANS X84.8. The Body in Indian Medicine and Myth.
Examines issues of embodiment in South Asia in various life stages, including conception, infancy, childhood, adulthood, and death drawn from various historical periods, medical traditions, religious narratives, and sociological and anthropological studies.

ANS X84C. Core Studies in South Asia.
An introduction to research methods used in South Asian studies.

ANS X84E. Asceticism.
Examines ascetic contexts of various religious traditions, definitions of asceticism, the relationship between ascetic beliefs and ascetic practices, and the benefits and risks of using a comparative approach to study asceticism.

ANS X84F. Folklore and Oral Performance in South Asia.

ANS X84G. Gender and the Body in South Asian Text and Practice.
An introduction to how gender is used as a category of analysis across the humanities and social science disciplines; and how the body is used as an object for analysis.

ANS X84P. Theatre, Gender, and Performance in South Asia.

ANS X85. Topics in Chinese Language and Literature.
Study of various aspects and periods of Chinese language and literature.

ANS X85.1. Chinese Film and Literature.

ANS X85.3. Modern Chinese Literature.

ANS X85D. Development of the Literary Field in Modern China.
Applies French theorist Pierre Bourdieu's work on cultural production to the study of the development of modern and contemporary literature in China and Taiwan.

ANS X85H. High and Popular Culture in Modern Chinese Societies.
Explores the production and consumption of elitist (high) and popular cultures in modern Chinese societies.

ANS X85M. Modern and Postmodern Chinese Literary Culture.
Examines the complex phenomena of modernism and postmodernism in literature and the arts in China, Taiwan, and Hong Kong.

ANS X85S. Critical Scholarship on Modern Chinese Literature.
Survey of English-language critical scholarship on modern Chinese literature.

ANS X86. Topics in Japanese Language and Literature.
Study of various aspects and periods of Japanese language and literature.

ANS X86.2. Modern Japanese Literature.

ANS X87K. Topics in Korean Language and Literature.
Studies in various aspects and periods of Korean language and literature.

ANS X88. Topics in South Asian Language and Literature.
Study of various aspects and periods of South Asian language and literature.

ANS X88C. Critical Approaches to the Study of South Asian Texts.
Introduction to analyzing South Asian literature through the exploration of Indian "classics" on connoisseurship, reader response, style, and suggestion, as well as modern and contemporary works on literary theory from the West.

ANS X88M. Translating India.
Introduction to literary translation from a wide range of Euro-American and South Asian stances and viewpoints, focusing on the political nature of the act and the art of translation in colonial and post-colonial contexts.

ANS X89C. Topics in Asian History.
Studies in various historical periods of different Asian countries or regions. Topics may be comparative or single-area.

ANS X89C.1. Japan Since 1945.

ANS X89C.2. War and Defeat in Japanese History and Memory.
Interdisciplinary exploration of the Japanese experience and memory of the Pacific War, including topics such as Hiroshima, comfort women, the US occupation, and contemporary controversies surrounding textbooks and the Yasukuni Shrine.

ANS X90. Topics in Asian Studies.
Study of various Asian studies-related topics that do not focus on any single geographic region.

ANS X90.10. Anthropology of East Asia.
Explore contemporary anthropological research on East Asia, with a focus on a set of broad subjects (money, mobilities, cosmologies, media,

etc.), and a consideration of what constitutes "the anthropological approach" to these subjects.

ANS X90.2. Authoritarian Political Systems.
Comparative study of authoritarian and totalitarian patterns of government, past and present, Western and non-Western; special emphasis on Communist and Fascist systems.

ANS X90.6. Intellectual History of Indo-Iranian Islam.

ANS X90.7. Feminist Theory.

ANS X90.8. Asian Modernities.
Theory and criticism in the study of Asia, with particular attention to the origins and rise of modern comparative literary and cultural studies.

ANS X90.9. Space and Place-Making In East Asia.
Examines developmentalism, postcolonialism, neoliberalism, and compressed modernity in East and Southeast Asia.

ANS X90C. Core Readings in Modern East Asia.
Various aspects of East Asian history, culture, and society. Designed for new graduate students in the Department of Asian Studies.

ANS X90D. The Arabic Humanities.
Explore the traditions formed in pre-modern Islamic humanities.

ANS X90E. Middle Eastern Modernities.
Explore how Arabic literature and thought changed over the course of the nineteenth and twentieth centuries through extended studies of poetry and prose written in Arabic. Examine the relationship of modernity to modernist literature in order to define what modernism means in an Arab/ic context.

ANS X90M. Aesthetic Modernism in East Asia.
Examines modernist trends in literature and the arts since the early twentieth century in places such as China, Japan, Taiwan, South Korea, Hong Kong, and Vietnam.

ANS X91. Topics in Asia and the World.
Study of various subjects with Asian studies-related content.

ANS X91.1. Comparative Ethnic Conflict.

ANS X91.3. European Imperialism: British Empire.
Study of the British empire in the Middle East, Asia and Africa.

ANS X91.4. Gender, Ethnicity, and Nationalism.

ANS X91.6. International Business Fellows Seminar.
Multidisciplinary seminar for students in area studies, business administration, law, and public policy. The faculty includes both academics and business leaders.

ANS X91.7. Women in Islamic Societies.

ANS X91.8. Sovereignty in Islam: Theory Practice.
A historical and comparative survey of the concepts and rituals of sovereignty in Muslim societies across the Middle East, Central Asia, and South Asia, with an emphasis on the pre-modern era.

ANS X91C. The Ideas of the East.
Examine the significance of the transnational movement of people, ideas, and goods in the process of constructing geocultural categories such as the West, the East, and Asia; and their subcategories such as the Middle East, Southeast Asia, and East Asia.

ANS X91H. Ethnographies of Global Asia.
Methods and ethnographic study of transnational Asia and the Asian diaspora.

ANS X92. Topics in the Social Science of Asia.
Examination of topics relating to the anthropology, sociology, politics, or economics of one or more Asian countries.

ANS X94. Topics in Tools and Methods in Asian Research.
Study of the major research tools and methods used in current Asian scholarship.

ANS X95. Proseminar: Core Readings and Methods in Asian Studies.
Various theories and methods used in the field of Asian studies, including disciplinary history, controversies, and the diversity of approaches within the field. Designed for new graduate students in the Department of Asian Studies.

ANS X97C. Comprehensive Examination Preparation.

ANS X98. Thesis.

ANS X98L. Pedagogy for Language Instruction.
Individual instruction in language pedagogy.

ANS X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

ANS X98T. Supervised Teaching in Asian Studies.
Teaching under the close supervision of a faculty member. Includes weekly group meetings with the instructor, individual consultation, and reports throughout the teaching period.

ANS X99W. Dissertation.

Professional Courses

ANS X19S. Topics in Asian Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANS X29S. Topics in Asian Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANT - Anthropology

Anthropology: ANT

Lower-Division Courses

ANT X01. Biological Anthropology.
Introduction to the principles and the methods of biological (physical) anthropology. Overview of the study of human beings in an evolutionary context, our relationship to other primates, and to the rest of the natural world. Examines anatomical, behavioral, and genetic similarities and differences among living primates and basic mechanisms of the evolutionary process.

ANT X02. Cultural Anthropology.
The concept of culture; social and political organization; language; the supernatural; elementary cultural theory.

ANT X02H. Cultural Anthropology: Honors.
Explore the concept of culture, social and political organization, language, the supernatural, and elementary cultural theory.

ANT X04. Introduction to Archaeological Studies: Prehistoric Archaeology.
Anthropological study of prehistory, from human beginnings to the appearance of written records.

ANT X04T. Introduction to Texas Archaeology.
Introduces students to Texas archaeology through lectures, interactive virtual labs, and hands-on laboratory sections that emphasize experimentation.

ANT X05. Expressive Culture.
How cultural assumptions affect how we tell and respond to different kinds of stories, including fairy tales, movies, and televised news.

ANT X07. Culture and Communication.
An introduction to the study of culture through communication and the theory of signs.

ANT X10C. Primate Cognition.
Introduction to non-human primate knowledge of the physical world, as well as primate social knowledge. Examines non- human primate cognition within an evolutionary and comparative framework, with

emphasis placed on comparing and contrasting non-human primate cognition with that of humans and other taxonomic groups.

ANT X10D. Introduction to Black Studies.

Introduction to canonical black studies literature, themes, and theories.

ANT X10F. African Diaspora Archaeology.

ANT X10G. Ethics of Space Exploration.

Examine cultural and ethical questions related to the exploration of space and the emerging field of astrobiology.

ANT X10I. Early Mesoamerican Religions.

Introduction to the study of indigenous religions in Mesoamerica, a geographic and cultural area spanning north-central Mexico through western Honduras, from approximately 250 BC - AD 1700. Examine the role of religion and ritual in daily life, as well as the lines of evidence available today for understanding them.

ANT X10J. The New Latinas/os/xs.

Explore the trajectories of various communities many have called the new Latinas/os/xs by identifying how race, gender, sexuality, class, indigeneity, language, migration, and geography influence the lives, identities, and sociopolitical incorporation of new Latinas/os/xs.

ANT X10L. Introductory Topics in Anthropology.

ANT X10L.2. Anthropology of Race and Ethnicity: An Introduction.

Examines the social importance of race and ethnicity both in America and around the world.

ANT X10L.3. Anthropology of Latin America.

Provides a framework for understanding contemporary concerns in Latin America.

ANT X10L.5. Introduction to South Asia.

Introduction to Indian and south Asian civilization, past and present, including religion, literature, arts, philosophy, and history.

ANT X10L.6. Black Queer Art Worlds.

Exploration of over two decades of work produced by and about black queer subjects throughout the circum-Atlantic world. Provides an introduction to various artists and intellectuals of the black queer diaspora, as well as an examination of the viability of black queer aesthetic practice as a form of theorizing.

ANT X10L.7. Diaspora: Race, Nation, and Resistance.

Subjects include makings and meanings of diaspora, the differences and similarities between diaspora and related concepts such as race, nation, and cultural identity. Focuses on the making of the black Atlantic world, and comparative analysis between black diasporic life and that of other global dispersals, particularly among Asian and indigenous populations, and how resistance serves as a key link.

ANT X10M. Mexican American and Latina/o Folkore Across the United States.

ANT X10R. Race, Sex, and Tourism.

ANT X11D. Introduction to Jewish Studies.

ANT X11E. Introduction to Jewish Latin America.

Historical and cultural analysis of how Jews constructed lives and communities in predominantly Hispanic, Catholic countries of Latin America.

ANT X14C. Introduction to Mesoamerican Archaeology.

Introduction to ancient Mesoamerica from the time of emerging social inequality in the formative period until the Spanish conquest of Mexico-Tenochtitlan in the sixteenth century.

ANT X18L. Mexican American Culture.

Mexican American cultural distinctiveness in the areas of social organization, child rearing, food culture, folklore, language, and religion.

ANT X19S. Topics in Anthropology.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANT X29S. Topics in Anthropology.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANT X76P. Research Internship.

Supervised fieldwork in a business or community setting related to the student's career and research interests. Students conduct research and apply anthropological skills to real-world problems.

Upper-Division Courses

ANT X19S. Topics in Anthropology.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANT X20C. American Indian Languages and Cultures.

Explore the myriad of indigenous languages of North America and how they are intertwined with culture.

ANT X20D. Speech Play and Verbal Art.

Examine speech play and verbal art (from puns to lies to songs to stories to poetry) from ethnographic and linguistic perspectives in a host of contexts and languages.

ANT X20E. Invented Languages.

Examine invented languages from pidgin and creole languages to Esperanto or Basic English, and contemporary "conlangs" associated with various science fiction and fantasy series.

ANT X20F. Politics, Polity, and the Power of Words.

Examine the place of language in a variety of different political settings--from oblique oratory in small-scale egalitarian communities to ritual "poetry" in cosmic polities to procedural prose in mass bureaucratic states--to illustrate the power of words. Identify the varied ways language sustains and transforms power relations in different political contexts, and thereby takes on a power of its own. Explore a variety of political situations, different modes of political communication, as well as different theories of the "performative" power of words.

ANT X20G. Endangered Languages.

Examine language rights as a tool for defending small-scale and minority language communities against the spread of national and global languages.

ANT X20I. Talk, Text, and God.

Introduction to the anthropological study of Christianity, particularly in colonial and post-colonial settings.

ANT X20O. New Media and Communication.

Explore anthropological and media studies analyses of technological changes in communications from the nineteenth through the twenty-first centuries.

ANT X20P. Classical Archaeology: Practice and Ethics.

Explore an overview of the history, methods, approaches, and ethics of classical archaeology focusing on case studies of major sites and their excavations.

ANT X21C. Communicating with Non-Humans.

Examine the continuities and transformations in how people have tried to talk to nonhumans in different cultural contexts, whether those be gods, animals, the dead, or machines.

ANT X21P. The Politics of Insult.

Examine how linguistic practices of (im)politeness and verbal aggression shape--and are shaped by--social hierarchies, cultural contexts, and

political dynamics across different contexts, from liberal to anti-liberal. Analyze how seemingly neutral concepts of "civility" and appropriate speech" often mask power relations while exploring how taboo language, conflict talk, and transgressive communication can both challenge and reinforce existing social orders.

ANT X22C. Contemporary African Popular Culture.

ANT X22D. Multicultural Israel.

Examines the complex social fabric that comprises contemporary Israeli society, and that shapes Israeli identity, practice and politics.

ANT X22E. Self and Culture in North Korea.

Aims to understand North Korea's historical development and its current workings as a social, cultural, and political/ideological system.

ANT X22F. Big Asian Histories.

Examines ways in which Asia and other areas of the globe have had connected intellectual, artistic, and social developments with focus on world histories centrally involving Asia from the medieval period to the present.

ANT X22G. Cultural Geographies of Israel.

Examines critical spatial theory, landscape phenomenology, histories of Zionist architecture and urban planning as applied to Israel from the Yishuv period to the present.

ANT X22I. Native American Cultures of the Southwest.

Explore the diverse Native cultures of the Southwest, focusing on the philosophical underpinnings and the frameworks of meaning and moral responsibility of indigenous peoples of the American Southwest.

ANT X22J. Goddesses in World Religions and Cultures.

Historical and cross-cultural overview of the relationship between feminine and religious cultural expressions through comparative examinations and analyses of various goddess figures in world religions.

ANT X22N. History of Hindu Religious Traditions.

History of major doctrines, practices, and institutions that shaped the development of Hinduism; how religions adapt to social and cultural change and often provide the catalyst for change.

ANT X22O. Gender, Sexuality, and the Family in Indian Religions and Cultures.

A comprehensive historical overview of gender issues as they are represented in the textual traditions of South Asia.

ANT X22P. Mexican Immigration Cultural History.

Examines the history of Mexican immigration to the United States, and provides an overview of migratory patterns dating back to the late prehistoric period through contemporary times.

ANT X22Q. Mexican American Indigenous Heritage.

The prehistory, history, and contemporary racial understanding of Mexican Americans.

ANT X22T. Russian Myths and Folktales.

Examination of the Russian folktale, its roots in ancient, pre-Christian Slavic religious tradition, its connections with other forms of folklore such as myth and legend, and its transformation in modern Russian literature. Subjects include the continuing influence of folklore explored through various aspects of Russian culture, including literature, music, ballet, film, and popular culture.

ANT X22U. Anthropology of Travel and Tourism.

Use the tools of cultural anthropology to understand the touristic encounter and the increasing (and decreasing) accessibility of travel and mobility.

ANT X22V. Architecture and Sculpture in the Maya World.

Explore the ancient world of the Maya through the lens of architecture and sculpture.

ANT X22W. Power and Resistance in Putin's Russia.

Introduction to Russian political and protest cultures--beyond the headlines and outside the Kremlin walls.

ANT X23C. Sport, Religion, and Society.

Explore sport as it relates to ritual and religious practice and examine the meaning and nature of sport in cross-cultural perspectives.

ANT X23D. Religions of the Caribbean.

Examine the histories and politics of religious practices in the Greater Caribbean, encompassing the islands and Central American coasts as well as the continental diasporas, from Vodou and Rastafari to popular Hinduism.

ANT X23E. Politics and Performance.

Consider the power struggles of the democratic process by closely attending to language, rhetoric and performance.

ANT X23I. Comparative White Nationalisms.

Consider critical questions about the constructions of whiteness and nationalism across the globe. Examine, through an anthropological lens, how the boundaries of whiteness changed throughout history, and its relationship to far-right political groups, to trace the history of white nationalism and its present-day global resurgence.

ANT X23N. Biomedicine, Ethics, and Culture.

Examines ethical questions such as the allocation of medical resources, stem cell research and cloning, organ transplantation, abortion, human experimentation, prolonging life and the right to die, suicide, euthanasia, and diagnosis and treatment of illnesses, explored from a global perspective.

ANT X23O. Black Geographies.

Explore the relationship between Blackness and the production of space and place. Examine the tensions and possibilities that emerge when Black people are rendered un-geographic as a fundamental component of racial capitalism while they are simultaneously creating spaces of freedom under constant threats to Black life.

ANT X23P. Anthropology of the Himalayas.

Examine the history and culture of the Himalayan region, including Northeast India, sections of Pakistan and Afghanistan, Tibet, and especially Nepal.

ANT X23Q. Contemporary Jerusalem.

Explore what life is like in today's contested, rapidly growing, and increasingly diverse Jerusalem.

ANT X23R. Anthropology of Infrastructure.

Explore how infrastructure creates relationships between resources, energy, built form, information, and people.

ANT X23S. Anthropology of Food.

Explore the cultural dimensions of growing, cooking, and eating food by engaging themes of gender, race, indigeneity, embodiment, hunger, and power.

ANT X23T. Colonial Encounters in Mesoamerica.

Study European-indigenous encounters in Mesoamerica, a geographic and cultural area spanning north-central Mexico through western Honduras, between approximately 1450-1750. Examine strategies of contact, accommodation, and resistance that indigenous communities and European colonizers used to communicate with each other and negotiate the conduct of daily life in colonial society.

ANT X23U. Sensing: Elemental Media.

Explore a sensory ethnographic investigation of urban ecology, organized around air, water, earth, and fire as themes for engaging with the city through media and the senses.

ANT X23V. Maya Art and Architecture.

Introduction to the artistic traditions of the ancient Maya, tracing their development up to the time of European contact. Students will examine various important themes of Maya culture including history, ritual, and cosmology as revealed in sculpture, hieroglyphs, painting, and architectural design.

ANT X23W. Race and Indigeneity in the Pacific.

Examine a multidisciplinary study of sovereignty, settler colonialism, diaspora, and migration in the Pacific.

ANT X24C. Science, Magic, and Religion.

Historical and cross-cultural overview of the constructed concepts of magic, science, and religion through comparative examinations of cultural contexts from the Islamic world, western Europe, the Caribbean, the U.S., and Mozambique.

ANT X24D. Japanese Religion and Western Imagination.
Examines Japanese religious traditions, with a focus on Zen, through the perspective of people living in non-Japanese societies since the end of World War II. Explores different ways in which non-Japanese have imagined Japanese religious and ethical ideas and both explained Japanese behavior and adopted ideas about Japan into their writings about philosophy and life.

ANT X24E. Culture and Health.
Examine the social and cultural foundations of western medicine as well as an introduction to indigenous and alternative health systems.

ANT X24F. Anthropology Of Religion.
Examine a genealogy of the anthropology of religion around the globe from the nineteenth century to the present.

ANT X24G. Environmental Anthropology.
Examine the environment, environmental inequality, and the relationship between culture and ecology.

ANT X24I. Sounding the City.
Explore the significance of sound for urban social life.

ANT X24J. HIV and AIDS Activism and the Healing Arts.

ANT X24L. Topics in Anthropology.

ANT X24L.13. Musics of India.
Explore the musical traditions of India, with emphasis on Hindustani and Carnatic musical styles, but including examination of other traditions.

ANT X24L.17. Nature, Society, and Adaptation.
Long term trajectories of change in human environment relationships, including issues of human evolution and human nature, violence, population, food, agriculture, urbanization, globalizing modernization, and environmental impacts; issues of sustainability, cultural survival, human rights, and environmental protection.

ANT X24L.24. Archaeology of African Thought.
Archaeological, historical, and ethnographic data as they relate to the foundations of contemporary African and African American societies.

ANT X24L.3. Primitive Technology.

ANT X24L.31. Development And Its Critics.
Discuss aspects of the contemporary international aid and development in Asia and beyond. Examine the decision-making within the development industry and the scope of aid as a economic and social force in the contemporary world.

ANT X24L.33. Geographical Information Systems and Remote Sensing for Archaeology and Paleontology.
Designed to give students interested in the fields of archaeology, physical anthropology, and paleontology a foundation in the use of geographical information systems (GIS) and the analysis of remotely sensed data from satellites and aerial photographs.

ANT X24L.39. Theories of Archaeology.
The history of archaeological thought, including the major theoretical trends that have shaped the discipline over time.

ANT X24L.41. Science, Technology, and Race.
Examines the intersections and linkages between race, science, and technology. Review of the array of current anthropological and sociological studies of science, which regard science as an institutionalized set of cultural practices charged with generating objective knowledge of the world.

ANT X24L.42. United States Latino and Latina Ethnographies.
Explores past and present anthropological representations of Latinos and Latinas in the United States.

ANT X24L.43. Creative Nonfiction and Ethnography.
Explores the convergences and divergences between ethnographic and narrative journalistic writing, and their potential for producing powerful, richly textured accounts that capture the depth of human experience and the complexity of social life.

ANT X24L.44. Ethnographic Theory and Practice.
An exploration of the complex relationship between anthropological ideas and ethnographic practice. Introduces a broad spectrum of concepts, issues, and theories of culture, and critically examines how these theories and ideas shape anthropological methods and writings.

ANT X24L.45. Queer Ethnographies.
Anthropological analysis of gender and sexuality that critically evaluates formative concepts and theories that have been subject to recent debates within anthropology, gender studies, and queer theory.

ANT X24L.46. Urban Unrest.
Analysis of the roots of urban unrest, exploring a range of origins: joblessness, state violence, white flight, backlash against civil rights gains, new immigration, and interracial strife. Beyond race and class, subjects include exploring unrest as a mode of pushing the normative boundaries of gender and sexuality in public space. Course material will draw from film, literature, history, geography, and anthropology.

ANT X24L.48. Sex and Power in the African Diaspora.
Exploration of various experiences and theories of sex, intimacy, and desire alongside intellectual and artistic engagements with power hierarchies and spirituality across transnational black communities. Subjects include the concept of "erotic subjectivity" from various theoretical and methodological angles, principally within African diasporic contexts.

ANT X24L.49. Global Markets and Local Cultures.
Examine contemporary theories of globalization, including materials exploring global governance, international monetary policy, migration regulation, offshoring, and cultural hybridity. Focus on case studies in Asia and elsewhere that reveal how these practices impact particular communities.

ANT X24L.51. The Cities of the Middle East.
Anthropological and sociological analysis of space, with a special emphasis on urban theory and culture in the Middle East.

ANT X24L.53. Global Indigenous Issues.
Explores contemporary issues of indigenous peoples around the world through films, literature, and social science readings and focuses on how indigenous peoples are actively working to oppose their oppression and create sustainable futures.

ANT X24L.54. Black Native American Relations in the United States.
Explores the entwined histories, cultures, and identities of African American and Native American people in North America. Subjects include experiences of racial formation, including how race, power, and indigeneity work in different ways for people in contemporary United States society.

ANT X24L.56. Ethnographic Writing.
Writing workshop consisting of a series of exercises to add density and texture to ethnographic description by including attention to scene, character, event, situation, and dialogue.

ANT X24L.57. Archaeology of Climate Change.
Examines why climate changes, the methods for recording climate change, and includes case studies of the varied responses of past human societies to climate change in different geographic regions and time periods with varying socio-political and economic systems.

ANT X24L.58. Digital Data Systems in Archaeology.
Designed to help students understand the basic knowledge and skills needed to operate digital equipment (e.g. GPS and Total Data Stations) commonly used for collecting location data on archaeological sites. Instruction on mapping and grid systems translates into "hands-on instrument operation in simulated archaeological field conditions. Provides an introduction to GIS software and its applications in archaeology as well as an overview of near-surface sensing techniques.

ANT X24L.59. Graffiti and Poster Art in the Islamic World.

ANT X24L.63. Food and Culture.
Examines cultural and linguistic views on eating and how we talk about what we eat in the contemporary era. Combines scholarly literature, videos, and readings about food subjects that circulate in popular culture, and considers how flows of dietary images and discourses shape race/ethnicity, gender, social class, and other identifications.

ANT X24L.64. The Bronze Age and the Iron Age in Atlantic Europe.
Introduction to the archaeology of Atlantic Europe with particular emphasis on the Bronze Age and Iron Age periods. Examines the diversity and commonalities of European adaptations, investigates how geography influenced trade of goods and ideas, as well as the profound changes brought about by a new conceptualization of the world and the innovations of the Bronze and Iron Ages.

ANT X24L.65. Anthropology for Liberation.
Takes a critical look at anthropologists' quests to shifting the legacy of anthropology from the colonial toward freedom and liberation. Explores anthropology's relationship to human rights, violence, questions of race, gender, and sexuality, imperialism and neoliberalism, and the ways that some anthropologists have chosen to use their field work in new and different ways.

ANT X24L.66. Indigenizing Queer Theory.
Introduction to emerging work by indigenous queer theorists, largely from the United States. Examines cultural conflicts between the west and indigenous world views and practices surrounding monogamy and marriage, same-sex marriage, enforced gender binaries, sexual identities and practices, their regulation by the colonial state, and implications for indigenous people.

ANT X24L.68. Creation and Evolution: Human Origins in Scientific and Religious Discourses.
Examines evolutionary theory, intelligent design, and creationism, and how they interact.

ANT X24L.69. Japanese Concepts of Body and Self.
Exploration of anthropological literature describing Japanese conceptions of self and body, and analysis of the intersection of these conceptions of self with Japanese ideas about religion, morality, aging, and medicine.

ANT X24L.7. Introduction to African Prehistory.

ANT X24L.71. Extraterrestrial Intelligence: Culture, Religion, and Imagination.
Focusing primarily on the 20th and 21st Centuries, explores the search for extraterrestrial intelligence (SETI) and considers how these ideas have intersected with other aspects of society, particularly religion, including recent arguments that SETI itself has developed into a religion. Examines meanings and motivations behind issues such as Percival Lowell's quest to prove the existence of canals on Mars and the development of Scientology.

ANT X24L.72. Development, Security, and Society.
Explores the linkages between development, security, and, society. Examines a series of recent transformations that have drawn the relationship between international development and various forms of security together. Through an exploration of recent anthropological work, examines subjects such as: human security, the relationship between development and humanitarian intervention, strategies for planning in the face of climate change, disaster management, and new technologies of warfare and security.

ANT X24L.73. Political Ecology.
Introduction to core tenets of political ecology. Focuses on ethnographic approaches and introduces key debates in the field–such as the relationship between environment and violence, the critique of Malthusian and neo-Malthusian notions of scarcity and limits, the links between conservation and dispossession, and more. Explores the uses of political ecology in key contemporary debates over social and environmental change, from climate change to waste management.

ANT X24L.74. Inca World.
Explores how Inca civilization developed, how the Incas grew from a small highland state into a mighty empire, and how a small number of Spaniards and their allies were able to bring the Inca dynasty to an end. Read accounts of the Incas written in the first years of Spanish colonial rule, and review the latest archaeological discoveries.

ANT X24L.75. Arab Latin Americas.
Examine the ways in which Arab immigrant identities have been negotiated and co-opted socially, but also institutionally, in various countries in the Western Hemisphere.

ANT X24L.76. Indigenous Peoples of Russia and the USSR.
Examine an introduction to theories of colonial critique and visual culture studies. Explore the history of the Indigenous peoples of the Eurasian north.

ANT X24L.77. Blacks and Asians: Race and Social Movements.
Examines the relations between Asians and Blacks in the United States.

ANT X24L.78. Black Women and the State.
Surveys black women's experiences living with and confronting state oppression around the world. Takes an historical, social, and theoretical look at the roots of this oppression and inequality, and how black women have chosen to respond to it locally and globally.

ANT X24L.8. Cultures of Southeast Asia.
Comparative study of the peoples of Indonesia, Burma, Thailand, Malaysia, and other countries.

ANT X24L.9. The African Diaspora in the Americas.
Black cultures and societies in the New World, and their African heritage.

ANT X24N. Muslim Women in Politics.

ANT X24O. Globalization in Latin America.
Critically examine the globalization phenomenon in Latin America, focusing on history and ethnography.

ANT X24P. Gender and Labor in Global Asia.

ANT X24Q. Global Perspectives of Health, Illness, and Inequality.
Use an anthropological framework to think critically and analytically about global past and contemporary issues in health. Examine the root causes of health, illness, and inequality.

ANT X24R. Daily Life in Mesoamerica.
Examine the daily life of people in Mesoamerica, from the earliest inhabitants in the region to the myriad ways that Precolumbian life and archaeology affect the lives of people today.

ANT X24S. The Global City.

ANT X24U. Socialism's Past and Futures.
Examine ordinary people's experience of socialism in the Soviet Union and the plural interpretations of this experience after the USSR's collapse.

ANT X24V. Sexuality in Global Perspective.
Explore the ways in which sexuality intersects with money, intimacy, power, and labor in the context of global economic processes.

ANT X24W. Mapping Indigenous Austin.
Explore the histories and presence of indigenous Austin.

ANT X25C. Cultures of Sustainability.
Examine how ecological concerns are articulated and perceived in different cultural contexts.

ANT X25D. Representation of Jews in the American Public Sphere.
Examines how Jews have been represented and constituted in American public culture as a race, religion, and/or nation through distinct institutions and display practices.

ANT X25E. Ethnographies of Emotion.
Examine concepts such as place, character, objects, subjects, cultural forms, everyday life, and feeling states or structures such as trauma, love, hope, depression, the even keel, and melodrama through a writing workshop. Explore how to articulate structures of feeling with models of culture and the self. Analyze and experiment with modes of ethnographic attention, the importance of telling detail, and methods of participant observation.

ANT X25F. Cultural Heritage on Display.
Explore the public construction and display of traditional American folk culture by studying popular folklife-oriented tourist sites.

ANT X25G. Technoculture.
Analyze social groups using digital methods and a process of self-reflection focused on technological mediations of experience.

ANT X25I. Sonic Ethnography.
Examine sound, themes of listening, noise, silence, audio technology, vibration, and voice.

ANT X25J. The Photographic Image.
Applies concepts and practices from visual ethnography to the study of memory, place, and everyday life. Subjects include developing counterintuitive and subversive approaches to practices of looking and techniques of representation.

ANT X25O. American Jewish Material Culture.
Examines the interplay between material culture and Jewish identity and thought in contemporary America.

ANT X25P. Abolition Medicine.
Examine race-based diagnostics tools and treatment guidelines that reinforce antiquated and scientifically inaccurate notions of biological race. Discuss the upstream structures that enable downstream violence, such as police brutality. Analyze, through an abolitionist lens, various systems of power in medicine, culture, and society to trace the colonial logics, practices, and institutions in the afterlife of slavery pertaining to health, illness and disease, healthcare, and public health in the United States and globally.

ANT X25Q. Practices of Looking.
Explore the development of methodological and analytic tools for the examination of visual culture.

ANT X25R. Cultures and Ecologies.
Examines the anthropology of "nature" and "natural resources," with particular attention to the communities in the arctic and subarctic regions. Use ethnographies to learn about the cultures of peoples who inhabit northern latitudes, especially their cosmological modes of belief and their ecological ways of life.

ANT X25S. Global Black Feminisms.
Examine Black feminist theories and practices around the world from a transnational and comparative perspective.

ANT X25T. Jewish Folklore.

ANT X25U. Austin Jews in the Civil Rights Era.

ANT X25V. Jewish Cuba.

ANT X25W. Shamanism and the Primitive.

ANT X26C. Native Americans in Texas.
Studies the history of Native Americans in Texas using concepts and evidence from anthropology, history, archaeology, historical geography, and Native American studies.

ANT X26D. Native Americans in the Plains.
The ethnohistory of some of the most influential Native American groups on the plains, from the arrival of the Spanish through the reservation period.

ANT X26E. Plains Archaeology: Prehistory and History.
Explores the evidence of human activities on the central and southern plains from prehistoric to historical times (ca. 11,000 BC to ca. AD 1850).

ANT X26F. Great Discoveries in Archaeology.
The stories, myths, and people behind some of the great archaeological discoveries.

ANT X26G. Europe Via Ethnography.
Develop a geographical and historical orientation to Europe and examine the cultural complexity of Europe via ethnography.

ANT X26I. Traveling Culture.
Examine mobility as a point of inquiry into questions of identity, community, belonging, place and landscape, art, representation, cultural difference, experience, and history.

ANT X26J. Historic Artifacts.
Explore the archaeological process of identification and classification of historic artifacts.

ANT X26L. Cultures in Contact.
History of the interactions of the indigenous peoples of the Americas with Africans, Asians, and Europeans over the past five hundred years.

ANT X26M. Sustainable Maya Geographies - Past to Future.
Explore landscapes, conservation, and human-environment dynamics in the Maya region of Central America from more than 10,000 years ago to modern times. Compare sustainable practices from the past with those of indigenous Maya communities today to guide the future.

ANT X26N. Cultural Resource Management.
Explore a thorough overview of Cultural Resource Management (CRM). Designed for students who are interested in pursuing a career in archaeology.

ANT X26O. Empires: Aztec and Spanish.
Examine the daily life of people in the Mexica (commonly known as Aztec) empire after the Spanish conquest.

ANT X26P. Historical Archaeology.
Explore recent theoretical, methodological, and thematic developments in historical archaeology with particular focus in North America and the Caribbean.

ANT X26Q. Archaeological Field and Lab Methods.
Introduction to field and laboratory work in archaeology including survey, excavation, artifact processing and cataloging, and initial artifact or sample analysis.

ANT X26R. Latina/o/x Citizenship.
Explore the concepts of membership, belonging, immigration and citizenship in the Latina/o/x experience. Examine how historically, politically, socially and culturally, Latinas/os/xs have been construed as belonging or not belonging members of the United States society.

ANT X26S. Mesoamerican History and Oral Tradition.
Study Mesoamerican indigenous documents and oral traditions to reconstruct different aspects of the life and culture of the past and present populations of Mesoamerica. Apply a methodological approach to the study of indigenous primary sources from Mesoamerica, written during the Late Postclassic (c. 1200-1524 CE) and the beginning of the Colonial period, including oral tradition. Explore religion, socio-political organization, territory and territoriality, economy, gender roles, and the norms and values of everyday life.

ANT X26T. Displacement and Resistance.
Explore technologies of displacement, as well as tactics, digital media work, mapping projects, and activism that communities engage with to resist dispossession. Examine, locally and globally, the displacement and resistance effects of various events including infrastructure projects and gentrification.

ANT X27D. Colonial Latin American Archaeology.
Focuses on the Spanish colonies in Latin America.

ANT X27E. Ethics in Anthropology.
Explore the complex ethical challenges which arise when studying people, their communities, their languages, and their past. Engage with real-world case studies, ethical frameworks, and debates, flipping the anthropological gaze to focus on the anthropologist's behaviors and decisions.

ANT X27F. Making Florida.
Explore Florida archaeology from the earliest inhabitants to the present day. Focus on the experiences of Indigenous Floridians, the role played by Florida in the Atlantic Slave Trade, and the continuous but highly varied nature of immigration to and from the Sunshine State.

ANT X27M. Animal Studies.
Examine the broad spectrum of animal worlds, particularly as they intersect with human social activities. Analyze various interactions between humans and nonhumans in a variety of social settings.

ANT X27R. Human Remains.
Study samples of what people do with human remains to help understand belief systems, conceptions of death, rituals, and many other aspects of societies, past and present. Examine how anthropologists study human remains to learn about past societies, religion, politics,

economics, diet, health, and other subjects. Learn ethical aspects of handling human remains.

ANT X27S. Science and Society.
Examine the ethical and social implications of scientific discoveries and technological advancements, especially as they have affected disenfranchised populations in the United States and internationally. Use civil discourse to mindfully explore difficult topics and develop intellectual, scientific, and ethical literacy.

ANT X28C. Contemporary Issues in Native American and Indigenous Studies.
Examine structures of settler colonialism and how indigenous peoples resist those structures.

ANT X28D. Popular Culture and Indigenous Futurities.
Examine indigenous creative practices within and in response to mainstream popular culture.

ANT X28E. Decolonial Intersectionality.
Examine the concept of intersectionality within feminist thinking to analyze gender, race, and indigeneity in the context of ongoing colonial formations.

ANT X28F. Religion and Family in Japanese Society.
Explores the structures of family, kinship, and religion in Japan since 1868 and their roles in the creation and expression of national and individual identities.

ANT X28G. Coloniality in West Africa.
Study the changes and continuities of socio-political categories in African contexts from the period of formal colonial rule to the present day.

ANT X28I. Expressive Arts of Global Africa.
Explore music, dance, and other artistic forms as modes of political expression and community building.

ANT X28J. Native Food Sovereignty.
Explore a comparative approach to understanding how and why food is a central component of contemporary sovereignty discourse.

ANT X28N. Culture, Medicine, and Society in Asia.
Analyze health and illness as a lens for exploring Asian cultures and societies. Discuss themes, concepts, and approaches in anthropology to interrogate the interaction between culture, medicine, and society.

ANT X29K. Transnational Korea.
Recent and contemporary manifestations of the Koreas in the world and the world in the Koreas. Subjects include labor and marriage migration, educational sojourning, transnational adoption, tourism, international sport, corporate expatriation, and media flows.

ANT X29S. Topics in Anthropology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANT X29V. Native American Verbal Art.
Examine the verbal artistic traditions such as jokes, story-telling, song, chant, poetry, etc., of Native American peoples.

ANT X30C. Theories of Culture and Society.
Examination of the theoretical approaches that have established the intellectual foundations of contemporary sociocultural anthropology.

ANT X31C. Archaeological Curation: Theory and Practice.
Introduction to to curation and ethics in archaeology largely through hands-on training with various collections and archives housed at the Texas Archeological Research Laboratory (TARL).

ANT X32L. Primate Anatomy.
Comparative and functional anatomy of primates, including humans; emphasis on adaptations and evolution of the various taxa.

ANT X36L. Native American Cultures North of Mexico.

ANT X40C. Ethnographic Research Methods.
Introduction to methods used in conducting ethnographic research; emphasis on research design, analysis, writing, and ethical considerations.

ANT X44K. Films: An Anthropological Perspective.
Films viewed and discussed. How is cultural meaning communicated? What systems of signification are involved? What are possibilities and limitations of ethnographic films?

ANT X45C. Urban Cultures.
The culture of cities, including the distinctive forms of expressive culture, ethnic and racial conflict, and political or economic activity that cities generate.

ANT X45D. The Anthropology of Disinformation and Conspiracy Theories.
Develop an anthropological perspective on disinformation and conspiracy theories and examine how these phenomena are embedded in cultural, social, and political contexts. Explore the ways in which disinformation is constructed, disseminated, and maintained within different media ecologies.

ANT X45E. Eastern Europe on American TV.
Focus on ways Eastern Europe is depicted on American television screen. Use anthropological framework to study multiple types of television shows, including reality tv, network dramas, and miniseries. Analyze ethnic, racial, national, and gender representation and what these constructions tell us about the ways that Eastern Europe is imagined.

ANT X46L. Primate Social Behavior.
Studies primate behavior and why primates do what they do, including basic theoretical principles and the models used to explain primate behavior.

ANT X46M. Comparative Primate Ecology.
The basics of how organisms interact with their environment, focusing on a wide range of primates from a comparative perspective. Discusses how various aspects of ecology are used to conserve primate populations.

ANT X47C. Methods in Primate Biology.
The study of primate behavior and the methods by which animal behavior is observed and documented. Students conduct a research project and write a report.

ANT X48. Human Origins and Evolution.
Detailed examination and analysis of morphological trends evident in the hominid fossil record.

ANT X48C. Sex Violence Power.
Explore the diversity of power relationships and structures across primates, the methods used to document and analyze them, and the theories for why they arise.

ANT X48E. Environmental Epigenetics.
Explore major subjects in anthropology, toxicology, and public health pertaining to the study of environmental exposures and disease/illness in the context of the current understanding of epigenetic processes. Analyze epigenetic mechanisms, gene transcription, the relationship between the environment and the epigenome, and epigenetics, health. Assess the main findings in the field and discuss their relevance to anthropology, public health, medicine, and in general.

ANT X48I. Comparative Primate Development.
Explore "life history theory" and how it pertains to the traits related to growth and reproduction, life, and death in primates.

ANT X48J. Sex and Human Nature.
Provides an introduction to the scientific study of sexual behavior, mate choice, and reproduction in humans from the perspective of evolutionary biology; examines a wide range of genetic, ecological, social, physiological, and behavioral aspects of human sexuality.

ANT X48K. Current Topics in Biological Anthropology.
An in-depth study of current topics, controversies, and literature on the evolution, morphology, genetics, and behavioral ecology of primates, including humans.

ANT X48K.10. Primate Conservation.
The theory and practices of conservation biology as applied to primates. Explores species and community characteristics influencing extinction risk, current threats to primates, and potential conservation strategies.

ANT X48K.11. Early Hominid Evolution.
Examines the early stages of human evolution in Africa starting from the last common great ape ancestor through the origin of the genus Homo, looking at the behavioral and morphological adaptations that characterize the earliest stages of human evolution.

ANT X48K.8. Evolutionary Anatomy of the Head and Neck.
The comparative and functional anatomy of the head and neck in primates and other mammals.

ANT X48M. Molecular Anthropology.
Explore background information and gain hands-on experience with the molecular (DNA extraction, PCR, SNP genotyping) and bioinformatic (principal component analysis, admixture analysis) techniques commonly used in molecular anthropology.

ANT X48P. Primates, Parasites, and Pathogens.
Explore an overview of the major types of parasites and pathogens of primates and other mammals, their natural history, ecology, and population dynamics, and their role as selective agents on aspects of primate physiology, behavior, and sociality.

ANT X48R. Race, Science, and Human Variation.
Explore the patterns of biological variation within and between human populations, including variation in phenotypic, genetic, and behavioral traits. Consider both the microevolutionary and cultural processes that influence that variation. Examine how studies of human variation have impacted society in the past and present. Discuss human biological variation; the history of the concept of race and of eugenics/race science; fundamental principles of genetics and evolution; human genetic and biocultural adaptation; and contemporary issues in human genetics, health, and disease.

ANT X48S. Social and Biological Networks.
Introduction to thinking about, characterizing, and working with relational data in network formats (such as fundamentals of network science, social network analysis, and graph theory) and their applications in the study of social and biological systems.

ANT X49D. Anthropological Genetics.
Basic principles of molecular genetics and population genetics as they relate to the study of humans and other primates.

ANT X50C. Primate Sensory Ecology.
An integrated perspective on the comparative anatomy, physiology, and ecological significance of sensory adaptations in primates.

ANT X51E. Primate Evolution.
Examination of the fossil record for nonhuman primate evolution, including basic concepts of the anatomy, ecology, and systematics of living primates.

ANT X51G. Language, Culture, and the Texas German Experience.
The evolution of the culture and language of German immigrants to Texas from the 1840s through the present and how they have influenced other ethnic groups in Texas.

ANT X53. Archaeological Analysis.
Derivation of chronology and cultural information from archaeological data; the role of archaeology in modern life.

ANT X53E. Archaeological Laboratory Analysis.
The analysis of artifacts, features, architecture, and other remains recovered in the field.

ANT X58F. The Two Koreas and the United States.
The political, social, and cultural relationship between North and South Korea, and between the Koreas and the United States, since 1945.

ANT X58Q. Supervised Research.

ANT X60K. The Civilization of the Maya.
Maya prehistory and history: the archaeological record, codices and inscriptions, and Spanish conquest writings.

ANT X61L. Maya Studies: Past, Present, and Future.
Explore the long history and cultural development of Maya peoples from Mexico and Central America, ranging from the earliest occupation of the Maya territory to the present. Explore several fields of the Maya population, including sociopolitical organization, technology, economy, religion, spirituality, genocides, cultural revitalization, and artistic expressions.

ANT X61M. Maya Collapse.
Explore different aspects of Classic Maya daily life, their relationship with the environment, and the factors that influenced the transformation of the Maya civilization at the end of the Classic period.

ANT X62. Field Archaeology.

ANT X62K. Archaeology of Texas and Vicinity.
Cultural history of Texas and neighboring areas, from early prehistoric times to Anglo-American settlements.

ANT X62M. Archaeological Techniques.
Problems in planning, organizing, and carrying out archaeological surveys and excavations.

ANT X66. Anatomy and Biology of the Human Skeleton.
Comprehensive study of the human skeleton, with special attention to methods of identification.

ANT X66D. Bones: Advanced Identification and Analysis of the Mammalian Skeleton.
Focus on the applied study of the skeleton in humans and other mammals and the methods of analysis used in biological anthropology, forensic anthropology, bioarchaeology, and zooarchaeology.

ANT X73F. Historical Perspectives on the German Language.

ANT X74M. Sociolinguistics.
Explore current interests in sociolinguistic research literature. Examine language and gender; social, regional, and ethnic dialects of American English; language use in African American communities; language and identity in a pluralistic society; and language, literacy, and education.

ANT X76P. Research Internship.
Supervised fieldwork in a business or community setting related to the student's career and research interests. Students conduct research and apply anthropological skills to real-world problems.

ANT X79. Problems in Anthropology.
Supervised individual research on selected problems in anthropology.

ANT X79H. Honors Tutorial Course.
Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis.

Graduate Courses

ANT X19S. Topics in Anthropology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANT X29S. Topics in Anthropology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANT X76P. Research Internship.
Supervised fieldwork in a business or community setting related to the student's career and research interests. Students conduct research and apply anthropological skills to real-world problems.

ANT X80I. Professional Internship in Archaeology.
Conduct research and apply archaeological skills to field research, artifact analysis, or management of archaeological records and collections.

ANT X80J. Conference Course in Archaeology.
Individual instruction in specialized problems of advanced research in archaeology.

ANT X80K. Topics in Archaeological Method and Theory.
A major category of archaeological topics in which the emphasis is on anthropological theory pertinent to archaeological data and its interpretation.

ANT X80K.6. Ethnohistory and Archaeology.

ANT X80P. Professional Practices in Archaeology.
Explore a rotating series of themes of central importance to the professional practice of archaeology. Examine the legal and ethical dimensions of fieldwork, laboratory analysis, and other workplace interactions. Learn about professional practices specific to the state of Texas, as well as formal and informal strategies for engaging with property owners, descendant communities, and other public stakeholders.

ANT X82N. Geo-Archaeology and Environmental History.
Long-term ecology as reconstructed from settlement and land-use histories. Empirical case studies in environmental history from the Mediterranean region, the Near East, and Mesoamerica. Applications to degradation, desertification, sustainability, and global change.

ANT X83M. Topics in Archaeological Techniques and Procedures.
A major category of archaeological topics in which the emphasis is on techniques and procedures pertinent to the analysis of prehistoric data.

ANT X83M.1. Conference Course.

ANT X83M.2. Technological Analysis: Lithics.

ANT X83M.4. Technological Analysis: Ceramics.

ANT X83M.6. Field Projects.

ANT X83N. Field Archaeology.

ANT X84M. Topics in Regional Archaeology.
Prehistoric cultural developments of a major geographical area; comparative cultural developments in ecologically similar areas.

ANT X84M.1. Conference Course.

ANT X86J. Conference Course in Social Anthropology.
Individual instruction in specialized problems of advanced research in social anthropology.

ANT X88. Topics in Biological Anthropology.
Constitutes one of two principal categories of courses in biological anthropology covering substantive studies in primate behavior, primate anatomy and evolution, human evolution, and growth and development.

ANT X88.11. Hominid Paleoecology.

ANT X88.13. Primate Ecology.
An introduction to the biology and ecology of living primates--prosimians, monkeys, apes, and humans.

ANT X88.5. Primate Evolution.

ANT X88.7. Human Evolution.

ANT X88.8. Primate Anatomy.

ANT X88.9. Primate Behavior.

ANT X88C. Applied Data Analysis.
A hands-on, practical overview of methods and tools for applied data science for graduate students and senior undergraduates in the natural and social science disciplines.

ANT X88D. Violence, Sovereignty, and Religion.
Explore the relationships among violence, sovereignty, and religion.

ANT X88J. Conference Course in Biological (Physical) Anthropology.
Individual instruction in specialized problems of advanced research in biological anthropology.

ANT X88K. Topics in General Anthropology.

ANT X88K.2. Anthropology of Education.
A study of social life in contemporary American schools from an anthropological perspective.

ANT X88K.5. Ethnographic and Qualitative Research Methods.

ANT X89. Topics in Unwritten Languages.
Intensive instruction in selected unwritten, usually aboriginal, languages.

ANT X89D. Research and Grant Proposal Writing for Social Sciences and Humanities.
Draft and revise proposals for dissertation research or write-up grants with peer review, learn about research design, methods, data collection, and analysis, as well as strategies for presenting one's project within the genre of grant proposal within the scope of social science and humanities research areas.

ANT X89J. Conference Course in Unwritten Languages.
Individual instruction in specialized problems in selected unwritten, usually aboriginal, languages.

ANT X89K. Topics in Regional Ethnography.
Anthropological surveys and analyses of societies and cultures of distinctive world areas.

ANT X89K.1. Conference Course.

ANT X89K.10. Indo-European Culture and Religion.

ANT X89K.17. Mexican America.

ANT X89K.19. Race and Ethnicity in American Society.

ANT X89K.20. South Asia: History and Ethnography.
Issues in the history and ethnography of the Indian subcontinent. Topics may include class, caste, and ethnicity; communalism and secularism; colonialism and postcolonialism; the state and ethnic violence; anthropology, Indology, and history.

ANT X91. Topics in Social Anthropology.

ANT X91.15. History and Anthropology.

ANT X91.22. Representation and Signification.

ANT X91.27. Consciousness and Resistance.

ANT X91.32. Gender, Ethnicity, and Nationalism.

ANT X91.34. Ethnographies of Global Asia.
Methods and ethnographic study of transnational Asia and the Asian diaspora.

ANT X91.35. Ethnographic Methods for the Study of Religion.
Explore the use of ethnographic research methods for the study of religion.

ANT X91.36. The New Middle East: A Critical Approach.
Examine new analytical approaches to understanding the Middle East, including its social and political dynamics, utilizing an interdisciplinary approach.

ANT X91.37. Gender, Islam and Representation in the Modern Middle East.
Examine representations of women across majority Muslim countries and explore how women producers and consumers navigate within the framework of regulations set by religious and governmental bodies.

ANT X91.4. Cultural Construction of Masculinity.

ANT X91.7. Researching Women in Institutions.

ANT X91C. Anthropology of East Asia.
Explore contemporary anthropological research on East Asia, with a focus on a set of broad subjects (money, mobilities, cosmologies, media, etc.), and a consideration of what constitutes "the anthropological approach" to these subjects.

ANT X91L. Topics in Research Methods in Physical Anthropology.
In this second major category of courses in physical anthropology are listed those that have research techniques as their principal focus.

ANT X91L.6. Analysis of Primate Anatomy.
ANT X91L.8. Primate Sensory Ecology.
An integrated perspective on the comparative anatomy, physiology, and ecological significance of sensory adaptations in primates.
ANT X92C. Core Topics in Anthropology.
ANT X92G. AnthroLab.
ANT X92J. Introduction to Biological Anthropology: Behavior, Genetics, and Variation.
ANT X92K. Introduction to Graduate Archaeology.
Core course.
ANT X92L. Introduction to Biological Anthropology: Primate Morphology and Evolution.
ANT X92M. Introduction to Graduate Social Anthropology.
Core course.
ANT X92N. Introduction to Graduate Linguistic Anthropology.
Core course.
ANT X92P. Introduction to Cultural Forms.
Core course.
ANT X92R. African Diaspora Anthropology.
ANT X92S. Introduction to Graduate Feminist Anthropology.
Core course.
ANT X92T. Mesoamerica and Borderlands.
ANT X93. Topics in Linguistic Anthropology.
Training and individual research in subjects concerning the relations between language and culture.
ANT X93.14. Language and Power.
ANT X93.3. Speech Play and Verbal Art.
ANT X93.7. Discourse Analysis.
ANT X93.8. Ethnography of Speaking.
ANT X93J. Conference Course in Linguistic Anthropology.
Individual instruction in specialized problems of advanced research in linguistic anthropology.
ANT X94J. Conference Course in Cultural Forms.
Individual instruction in specialized problems of advanced research in cultural forms.
ANT X94M. Topics in Folklore, Public Culture, and Cultural Studies.
ANT X94M.13. Cultural Poetics.
ANT X94M.19. Foundations of Ethnomusicology.
ANT X94M.20. Field Methods in Ethnomusicology.
ANT X94M.26. Marxism and Expressive Culture.
ANT X94M.29. Object, Matter, and Desire.
Examines various questions regarding matter and meaning.
ANT X94M.30. Affect.
A survey of theories of affect, including those of Freud, Foucault, and Deleuze, feminist theory, phenomenology, globalization theory, and ethnography.
ANT X94M.31. Public Culture.
Introduction to the theory and ethnography of public culture.
ANT X94M.32. Deleuze.
The major works of Gilles Deleuze, including the study of the ontology of differences and flow, resonance, affect, vitality, lines of flight, and assemblage.
ANT X94M.33. Cultural Critique.
Various forms of cultural critique, including culture jamming, speed theory, experimental ethnographic writing, posthumanism, postpositivism, and the memoir.
ANT X94M.34. New Ethnographic Writing.
Reading and writing new forms of ethnography, including experimental writing, performative writing, new journalism, and the memoir.
ANT X94M.35. Indigenous Cultural Politics.
The worldwide significance of indigenous movements, identities, and cultural forms.
ANT X94M.36. Representational Practices.
Theories of representation and representational practices, including the representation of collective selves and others in colonial and ethnographic narratives, collections, and displays.
ANT X94M.37. Cultural Analysis: The Case of Class.
The development of class analysis in history, sociology, and anthropology, including innovative approaches to the reproduction and performance of class identities.
ANT X94M.38. Cultural Analysis: The Case of Race.
Current uses of cultural analysis across a range of disciplines, focusing on how race is accounted for in a variety of invocations of culture.
ANT X94M.39. Cities in Time and Space.
The difficulties associated with making cities intelligible in terms of their distinctive historical and cultural dynamics.
ANT X94M.4. Anthropology of the Performing Arts.
ANT X94M.40. Anthropology and Mass Media.
Anthropology and mass media both inside and outside the West. Includes television, film, and popular music.
ANT X94M.41. Anthropology of Science.
Anthropological perspective on the position of scientific disciplines within their broader social contexts and the transformations of social orders based on developments of scientific knowledge.
ANT X94M.42. Foucault and Cultural Studies.
Examination of Foucault's major works, including an assessment of his theoretical and methodological contributions to scholarly research and political activism.
ANT X94M.43. Black Queer Studies.
ANT X94M.44. Advanced Topics in Black Feminisms.
Theory and practice of black and Third-World feminisms, including as political space, activist methodology, artistic inspiration, and scholarly choice.
ANT X94M.45. Contemporary Cuban Public Culture(s).
The major preoccupations and tensions of public culture in the state of Cuba and the nation of individual Cubans.
ANT X94M.46. Black Public Culture: Diasporic Texts and Contexts.
Survey of cultural expressions and political moments of African-descended people since the social, cultural, and political upheavals of the 1970s.
ANT X95K. Cultural Adaptation and Change.
A graduate-level introduction to cultural behavior, adaptation, evolution and transformation, with emphasis on demography, diffusion, migration, ethnicity, and institutions.
ANT X97. Conference Course in Anthropology.
Individual instruction for graduate students on specialized problems of advanced research.
ANT X97F. Doctoral Forum.
Development of skills in writing, revision, and presentation of papers and grant proposals, and in job hunting.
ANT X98. Thesis.
ANT X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
ANT X98T. Supervised Teaching in Anthropology.
ANT X99W. Dissertation.

Professional Courses

ANT X19S. Topics in Anthropology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANT X29S. Topics in Anthropology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ANT X76P. Research Internship.
Supervised fieldwork in a business or community setting related to the student's career and research interests. Students conduct research and apply anthropological skills to real-world problems.

ARA - Arabic

Arabic: ARA

Lower-Division Courses

ARA X01C. Intensive Arabic I.
First semester of intensive Arabic language instruction.

ARA X05. Arabic Tutorial.
The basics of the Arabic language.

ARA X06. First-Year Arabic I.
First semester of Arabic language instruction.

ARA X07. First-Year Arabic II.
Continuation of Arabic 506.

ARA X08. Modern Standard Arabic I.
Designed to provide students with basic competence in Modern Standard Arabic, targeting the skills of speaking, reading, writing, and listening.

ARA X09. Modern Standard Arabic II.
Continuation of Arabic 508.

ARA X11C. Intensive Arabic II.

ARA X12K. Second-Year Arabic I.

ARA X12L. Second-Year Arabic II.
Continuation of Arabic 512K.

ARA X19S. Topics in Arabic.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework counted in residence. Transfer credit is awarded for work in an affiliated studies program.

ARA X29S. Topics in Arabic.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ARA X19S. Topics in Arabic.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework counted in residence. Transfer credit is awarded for work in an affiliated studies program.

ARA X21. Introduction to Arabic Dialects.
Introduction to Arabic as spoken throughout the Arab world.

ARA X21K. Intensive Arabic III.

ARA X21L. Intensive Arabic IV.

ARA X22K. Levantine Arabic.

ARA X25K. Egyptian Arabic.
Introduction to the Egyptian dialect of Arabic.

ARA X27K. Advanced Spoken Media Arabic I.
Development of the specialized vocabulary and skills needed in the media or public policy sectors of the Arab-speaking world.

ARA X27L. Advanced Spoken Media Arabic II.
Development of the specialized vocabulary and skills needed in the media or public policy sectors of the Arab-speaking world.

ARA X29S. Topics in Arabic.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ARA X30D. Arabic across Disciplines.
Students read and discuss Arabic language materials related to the subject matter of another designated course.

ARA X31K. Intensive Arabic V.

ARA X31L. Intensive Arabic VI.
Sixth semester of intensive Arabic language instruction.

ARA X60C. Arabic Readings in Classical Islamic Texts.

ARA X60D. Quranic Arabic.

ARA X60E. Contemporary World Challenges.

ARA X60F. Modern Arab Cultures.
Explore the challenges of Arab youth, most notably in the economy, nationalism, and environmental issues. Taught in Arabic.

ARA X60L. Topics in Arabic Language, Literature, and Culture.
Close textual study of prose or poetry in Arabic. Some topics may focus on the cultural impact of literature and language.

ARA X60L.10. Palestine and the Palestinians: A Journey Through Time.

ARA X60L.11. Arabic Voices from Poetry to Rap.
Focuses on contemporary poetry, specifically examining popular poetry, graphic poetry, rap, slam, hip-hop, and Twitter as a poetic genre. Investigates crossings between contemporary and classical forms, as well as Arabic and non-Arabic genres. Analyzes new poetic forms expressed in a variety of dialectics and cultural contexts, addressing the role of music, digital technology, and political developments in shaping new poetry. Explores various texts in Modern Standard Arabic and dialects from across the Arab world.

ARA X60L.2. Arab Women Poets.

ARA X60L.4. Translating Arabic Texts.

ARA X60L.5. Egyptian Culture and Society.

ARA X60L.6. Arab Political Speeches in War and Peace.

ARA X60L.7. The Arab Spring.

ARA X60L.8. Readings in Arabic Literature.

ARA X60M. Arabs and Modernity.
Examine how Arabs have contributed to the global scientific movement in the past and in the present.

ARA X60S. Arts and Literature in Arab Societies.
Explore the role of arts and literature and how it influences Arab societies and politics.

ARA X69. Conference Course in Arabic Language and Literature.
Supervised individual study of selected problems in Arabic language or literature.

Graduate Courses

ARA X19S. Topics in Arabic.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework counted in residence. Transfer credit is awarded for work in an affiliated studies program.

ARA X29S. Topics in Arabic.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ARA X80C. Topics in Arabic Language.

ARA X80C.8. Translating Arabic Texts.

ARA X80C.9. Secrets of Arabic Eloquence.
Examine writings on the aesthetics of the Arabic language.

ARA X81H. Intensive Graduate Language Instruction I.
Intensive cultural and literacy-focused training in Arabic at the beginning level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

ARA X81J. Intensive Graduate Language Instruction II.
Intensive cultural and literacy-focused training in Arabic at the low-intermediate level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

ARA X81K. Intensive Graduate Language Instruction III.
Intensive cultural and literacy-focused training in Arabic at the intermediate level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

ARA X81L. Intensive Graduate Language Instruction IV.
Intensive cultural and literacy-focused training in Arabic at the high-intermediate level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

ARA X81M. Intensive Graduate Language Instruction V.
Intensive cultural and literacy-focused training in Arabic at the advanced level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

ARA X81N. Intensive Graduate Language Instruction VI.
Intensive cultural and literacy-focused training in Arabic at the advanced level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

ARA X82C. Topics in Arabic Linguistics and Philology.

ARA X82C.2. Grammar of the Arabic Language.

ARA X82C.3. Arab Grammarians.

ARA X82C.4. History of the Arabic Language.

ARA X82C.5. The Qur'an: A Linguistic Analysis.

ARA X82C.6. Varieties and Registers of Arabic.
The historical and linguistic development of Arabic varieties and registers, past and present.

ARA X82C.7. Comparative Arabic Dialects.

ARA X82C.8. Introduction to Arabic Linguistics.
Introduction to the major areas of research in Arabic linguistics. Includes formal linguistics and sociolinguistics, and code-switching and dialectology.

ARA X82C.9. The Structure of Palestinian Arabic.
A detailed examination of the syntax of Palestinian Arabic.

ARA X83C. Topics in Arabic Language Teaching, Pedagogy, and Applied Linguistics.

ARA X83C.1. Teaching Arabic as a Foreign Language.
Theory and practice of foreign or second language acquisition, applied to Arabic instruction.

ARA X83C.3. Curriculum Design in Arabic.
Examines three curricular models that are widely used in teaching foreign languages: proficiency-based instruction, task-based instruction, and content-based instruction.

ARA X84C. Topics in Arabic Literature.

ARA X84C.10. Encountering the West in Modern Arabic Literature.
Investigates the representation of the West in Arabic literature from the nineteenth century onward by examining travel narratives, novels, essays, and visual texts.

ARA X84C.11. Survey of Classical Arabic Literature.

ARA X84C.12. Survey of Modern Arabic Literature.

ARA X84C.5. Arab Women Poets.

ARA X84C.6. Classical Arabic Akhbar.
Examines classical Arabic prose from the perspective of the individual khabar or story, which was the basic unit for all humanities works, and works in history, geography, zoology, cosmology, and anthropology.

ARA X84C.9. New Arabic Writings.

ARA X86K. Advanced Spoken Media Arabic I.
Development of the specialized vocabulary and skills needed in the media and public policy sectors of the Arab-speaking world.

ARA X86L. Advanced Spoken Media Arabic II.
Development of the specialized vocabulary and skills needed in the media and public policy sectors of the Arab-speaking world.

ARA X87. Topics in Arab Culture.

ARA X87.1. Contemporary Arabic Cinema.

ARA X88. Research Methods and Bibliography in Arabic Studies.
Arabic classical and modern sources on a variety of subjects, as well as modern scholarship in Arabic studies both in the West and in the Arab world.

ARA X89. Conference Course in Arabic Studies.
Supervised individual study of selected problems in Arabic studies.

ARA X97. Arabic in Focus: Areas and Skills.
Apply language skills to particular areas of focus.

ARA X98. Thesis.

ARA X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

ARA X99W. Dissertation.

Professional Courses

ARA X19S. Topics in Arabic.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework counted in residence. Transfer credit is awarded for work in an affiliated studies program.

ARA X29S. Topics in Arabic.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ARC - Architecture

Architecture: ARC

Lower-Division Courses

ARC X01F. First-Year Interest Group Seminar.
Basic issues in various School of Architecture disciplines.

ARC X01Q. Topics in Architecture.

ARC X08. Architecture and Society.
Introduction to the social contexts, potential, and consequences of architecture and interior design.

ARC X10K. Design I.
An introduction to the forms and methods of design for architects and interior designers, with an emphasis on inhabitation including body, light, and movement. Taught in a studio format by faculty members under the direction of a faculty coordinator.

ARC X10L. Design II.
An introduction to the forms and methods of design for architects and interior designers, with an emphasis on environment, including color, material, and texture. Taught in a studio format by faculty members under the direction of a faculty coordinator.

ARC X11K. Visual Communication I.
Study and application of drawing and other communication skills for designers, including formal and spatial studies, life drawing, and perspective.

ARC X11L. Visual Communication II.
Study and application of drawing and other communication skills for designers, including color, light and shadow, and projections. Employs manual and digital techniques.

ARC X12C. Appropriate Materials.
Examine the underlying material framework of the built environment through the study of buildings, products, and artworks that span time and place. Emphasis is placed on works of architecture.

ARC X12R. Topics in Introductory Design Studies.

ARC X15K. Construction I.
Introduction to building construction, materials, and structures.

ARC X15L. Construction II.
Analysis of building assemblies, envelope design, and structures.

ARC X18K. World Architecture: Origins to 1750.
Comparative study of the architecture of the ancient world, including Asia, Africa, the Americas, and Europe.

ARC X18L. World Architecture: The Industrial Revolution to the Present.

ARC X19S. Topics in Architecture.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the academic advising coordinator in the School of Architecture. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ARC X19T. Topics in International Learning Seminars.
Discuss various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.

ARC X82. Professional Practice.
Ethical, legal, economic, and administrative processes and responsibilities of the practitioner in architecture and allied fields. Topics may include preservation law, community development, participatory design, and other aspects of organizations; methods and roles in design, planning, and preservation of the built environment.

ARC X89. Research in Architecture.
Investigation of problems in architecture, urban design, and development selected by the student with approval of the Graduate Studies Committee.

Upper-Division Courses

ARC X21G. Design VI Intermediate.
Intermediate-level studio emphasizing theory, raison-d'etre, program, and overlaps with other disciplines.

ARC X21K. Visual Communication III.
Introduction to digital modeling as well as principles of digital fabrication. Includes various modes of output such as drawings, renderings, and physical models.

ARC X23D. Design III Intermediate Studio.
Explore tectonic expression through structural systems, construction methods and materiality, and spatial and formal composition at the scale of a building.

ARC X23E. Design IV Intermediate Studio.
Examine the relationship of city and nature, urban issues, housing, landscape, and spatial and formal composition at the scale of the city in a studio setting.

ARC X23F. Design V Intermediate Studio.
Examine theory, raison-d'etre, program, spatial and formal composition, and overlaps with other disciplines in a studio setting.

ARC X26R. Topics in Design and Practice.

ARC X26R.1. Twenty-Second-Century Materials.

ARC X27C. Urban Design History, Theory, and Criticism.
Study of critical theories and practices that affect the built environment.

ARC X27E. Alternative Real Estate Action.
Intersects theory and practice by performing design-build, community service/community engagement as a form of alternative real estate development.

ARC X27F. American Dream: Status Quo and Alternatives.

ARC X27G. Regenerative Architecture.

ARC X27J. Theory of Architecture I.

ARC X27P. Productions.
Designed to explore the relationships between the generation of form, space, experience, and atmosphere in the spatial practices of interior design, architecture, and art.

ARC X27R. Topics in Architectural Theory.
Advanced topics in architecture and associated disciplines to encourage critical and theoretical thinking.

ARC X27R.1. Architectural Criticism.

ARC X27R.10. Energy Modeling and The Design Process.

ARC X27R.11. Global Housing Challenge.

ARC X27R.12. Light and Sustainable Design.

ARC X27R.13. Managing the Design Project.

ARC X27R.14. Place and Historical Imagination.

ARC X27R.15. Poetics of Building.

ARC X27R.16. Smart, Green, and Just.

ARC X27R.17. Solar Geometry/Energy Flow in Building.

ARC X27R.18. Timber Technologies.

ARC X27R.19. Urban Land Institute Workshop.

ARC X27R.2. Architectural Photography.

ARC X27R.20. Introduction to Urban Ecology.

ARC X27R.21. Urban Agricultural Systems.

ARC X27R.23. Computational Design.
Explore the theory and application of computational design. Use of software programs to develop experimental projects that uncover new tactics for the design of buildings and objects. Projects will be evaluated on their spatial and experiential potential and attention to digital craft.

ARC X27R.24. Race and Gender by Design.
Examine the relationship of design relative to the narratives of race, gender, and diversity.

ARC X27R.25. Architecture Computation.
ARC X27R.26. Composition and Architecture.
ARC X27R.27. Sustainable Architectural Design.
ARC X27R.28. Sustainability: Why This Way.
ARC X27R.29. Architectural Interrogations.
ARC X27R.3. City as Form and Idea.
ARC X27R.30. Building Matters.
ARC X27R.31. Spatial Stories.
ARC X27R.4. Community Design Engagement.
ARC X27R.5. Design Firm Leadership.
ARC X27R.6. Design of New Communities.
ARC X27R.7. Design Process.
ARC X27R.8. Designing the Way We Build.
ARC X27R.9. Eileen Gray and E. 1027.
ARC X27U. Technology/Technique Sustainable Design.
ARC X28D. Advanced Drawing.
Focus on personal design methodology by exploring multiple drawing methods, skills and approaches including manual, digital, and hybrid techniques. Refines design communication skills by pairing clearly articulated design intention with compelling drawings, and expressing them via effective verbal presentations.
ARC X28F. Digital Drawing and Fabrication.
Focus on advanced visual communication methodologies necessary for architectural generation, translation, and output.
ARC X28P. Prototype.
Focus on digital fabrication as a link between architecture and product design.
ARC X28Q. Rendering and Animation for the Built Environment.
Digital visualization techniques used to model three dimensional environments and motion with digital media. Includes lectures, software demonstrations, and projects that focus on the digital translation of spatial experience, as well as the visualization techniques associated with rendering texture, character, and environment.
ARC X28R. Topics in Visualization and Fabrication.
Advanced topics in various methods of visual communication.
ARC X28R.1. Building Information Modeling and Representation.
ARC X28S. Global Visual Communication.
ARC X28W. Wood Design.
Practice on basic woodworking skills: tool sharpening, layout, millwork, joinery, gluing, sanding, and finishing.
ARC X29S. Topics in Architecture.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the academic advising coordinator in the School of Architecture. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ARC X33. Site Design.
History, theory, and technique of landscape design, with emphasis on the relationship of a building to its landscape.
ARC X34K. Environmental Controls I.
A survey of acoustics, color, light, illumination, and electrical and information systems in architectural interiors. Includes techniques of documentation.
ARC X34L. Environmental Controls II.
Examine heating, ventilating, air conditioning, vertical transportation, and wiring and plumbing systems in buildings, including techniques of documentation.
ARC X35R. Structures I.
Examine theories of building construction and materials. Explore the analysis and design of structural components.
ARC X35S. Structures II.
Continue to examine theories of building behavior and materials. Explore the analysis and design of structural systems.
ARC X35T. Architectural Details and Materials.
Analyze building envelope, assemblies, detailing, and specifications.
ARC X42C. Mexican Architecture and Urbanism: From Pre-Columbian to Contemporary.
A survey of Mexican architecture and urbanism from its origins in pre-Columbian times to the twenty-first century. Evaluation of architecture as a cultural production intricately connected to its artistic and historical context and the landscape that supports it.
ARC X42E. History and Theories of Landscape Architecture I.
Overview and chronological series of in-depth studies in the history of major garden cultures and designed landscapes of the Western and Eastern worlds. Introduction to methodological approaches to the formal, social, and cultural history of gardens and landscapes, as well as to relevant theoretical frameworks for interpreting these designed landscapes and for use in conceptualizing landscapes, architecture, and urban projects in studio design.
ARC X42F. History and Theories of Landscape Architecture II.
Continuation of Landscape Architecture 342K (and Architecture 342D) through the modern period to contemporary times. Formal and cultural history of gardens, parks, and public landscapes from 1700 to about 1990. Includes comparative material from the contemporary period, 1980 to 2010.
ARC X42R. Topics in the History of Architecture.
Seminars and lecture/seminars on advanced topics in the history of architecture.
ARC X42R.1. Twentieth-Century Latin American Architecture.
ARC X42R.10. Modern American Design.
ARC X42R.11. Modern Landscape Architecture 1900-1970.
ARC X42R.12. Romes Gardens and Landscapes.
ARC X42R.13. History of Architectural Theory.
ARC X42R.14. Professional Design Practice: Baroque Rome.
Explore an overview of the synthetic act of design and a strong interdisciplinary grounding in one of the key historical periods of design and in advanced research methods.
ARC X42R.15. African American Experience in Architecture.
ARC X42R.16. History of American City Building.
ARC X42R.17. Representing Landscape and Architecture, 1500-Present.
Explore the roles of visual representation in design and professional practice from Leonardo da Vinci to the digital age. Review the history of techniques, media, and conventions of representation in architecture and landscape architecture and in their intersections.
ARC X42R.18. Design Logics: Projection and Proportion in Architecture.
ARC X42R.2. American Architecture.
ARC X42R.3. Brazilian Urban.
ARC X42R.4. Central European Architecture, 1648-Present.
ARC X42R.5. German Modernism.
ARC X42R.6. History of Architecture Since 1985.
ARC X42R.7. History of Building Technology.
ARC X42R.8. Hybridity in Landscape/Architecture.
ARC X42R.9. Loos and Mies.
ARC X42S. Modern European Architecture.
ARC X42T. Advanced Architecture History.
ARC X42U. Modern History of Sustainable Architecture.
ARC X50R. Topics in Design Theory.
Advanced topics in architecture and associated disciplines to encourage critical and theoretical thinking.

ARC X50R.1. The Modern American City.
Issues facing residents of United States cities, such as transportation and housing, poverty and crime, metropolitan finance, environmental and architectural design; historical/comparative urban evolution.

ARC X50R.3. Urban Design Practice.

ARC X50R.4. Economy/Value/Quality of Life.

ARC X51R. Topics in Visual Communication.
Advanced topics in various methods of visual communication.

ARC X51R.1. Computer Applications in Design.

ARC X51R.10. Visual Communication Exercises.

ARC X51R.2. Introduction to Computer Applications.

ARC X51R.4. Composition, Presentation, and Portfolio.

ARC X51R.5. Descriptive Geometry.

ARC X51R.6. Drawing Clinic.

ARC X51R.7. Introduction to Computer Imaging.

ARC X51R.8. Seeing Things: General Drawing.

ARC X51R.9. Solid Geometry Drawing.

ARC X57Q. Topics in Architecture.

ARC X61C. Comprehensive Studio.
Comprehensive studio to develop the ability to combine the elements of a thorough building design.

ARC X61E. Advanced Design Studio.
Study advanced problems in architectural design.

ARC X61S. Professional Residency Program Internship.

ARC X61T. Technical Communication.
Produce construction documents.

ARC X61U. Professional Residency Program Internship Technical Communication.
Produce construction documents.

ARC X62. Professional Practice.
Ethical, legal, and administrative responsibilities of the architect; organizations, processes, and roles in architecture.

ARC X62E. Advanced Design Professional Residency Program Internship.

ARC X68R. Topics in the History of Architecture.
Seminars and lecture/seminars on advanced topics in the history of architecture.

ARC X69J. City Architecture.
Introduction to city architecture, urban design, and planning.

ARC X70V. Topics in Digital Technology and Fabrication.

ARC X70W. Topics in Disaster Recovery.

ARC X78R. Bachelor Design Study, Part I.
Independent research, planning, and prep course that must be followed by Architecture 578S.

ARC X78S. Bachelor Design Study, Part II.
An independent studio that follows Architecture 378R.

ARC X79. Architectural Research.
Investigation of problems selected by the student.

ARC X82. Professional Practice.
Ethical, legal, economic, and administrative processes and responsibilities of the practitioner in architecture and allied fields. Topics may include preservation law, community development, participatory design, and other aspects of organizations; methods and roles in design, planning, and preservation of the built environment.

ARC X89. Research in Architecture.
Investigation of problems in architecture, urban design, and development selected by the student with approval of the Graduate Studies Committee.

Graduate Courses

ARC X80. Topics in Architecture.

ARC X80C. Topics in Visualization and Fabrication.
Advanced topics in visualization and fabrication in such media as freehand drawing, modeling, photography, computer graphics, photogrammetry, and measured drawings.

ARC X80C.1. Living Wall: Design and Fabrication.

ARC X80C.2. Reality Capture for Architecture.

ARC X80C.3. Material Info: Design through Fabrication.

ARC X80C.4. Building Information Modeling and Representation.

ARC X80D. Topics in Design and Practice.

ARC X80D.1. Twenty-Second-Century Materials.

ARC X80R. Proseminar in Architecture.
Study of theories related to design, livability, and sustainability in the built environment. Includes collaboration with other students and research.

ARC X80V. Topics in Digital Technology and Fabrication.

ARC X80V.1. Creative Robotics.

ARC X80W. Topics in Disaster Recovery.

ARC X81D. Architectural Drawing.
Visual communication in media, such as freehand drawing, modeling, photography, and measured drawings.

ARC X81E. Introductory Studio.

ARC X81F. Digital Drawing and Fabrication.
Focus on advanced visual communication methodologies necessary for architectural generation, translation, and output.

ARC X81T. Technical Communication.
Studio to provide skills in producing construction documents as they relate to the design and building process.

ARC X81W. Visual Communication Workshop.
Introductory workshop with a focus on developing graphic and basic design skills for the purpose of describing and communicating architectural ideas and form. Exposure to a diverse range of approaches involving freehand drawing, architectural graphic conventions, three-dimensional modeling of ideas, and an introduction to the design process.

ARC X82. Professional Practice.
Ethical, legal, economic, and administrative processes and responsibilities of the practitioner in architecture and allied fields. Topics may include preservation law, community development, participatory design, and other aspects of organizations; methods and roles in design, planning, and preservation of the built environment.

ARC X82P. Professional Residency Program Internship Portfolio.
Under the supervision of a faculty member, students produce a portfolio based on the Professional Residency Program experience.

ARC X82R. Professional Residency Program Internship Paper.
Under the supervision of a faculty member, students produce a research paper based on the Professional Residency Program experience.

ARC X83S. Site Design.
Fundamentals of building and landscape relationships.

ARC X83T. Topics in Site, Landscape, and Urban Studies.
Topics in the history, design, and preservation of building sites, landscapes, and rural and urban communities.

ARC X84F. Environmental Control: Heat, Air, and Water.
Examine thermal comfort, heating, cooling, ventilation, plumbing systems, fire protection, and conveying equipment in buildings.

ARC X84G. Environmental Control: Light, Sound, and Electricity.
Examine light and color fundamentals, daylighting, artificial illumination, acoustics, and electrical and information systems for buildings.

ARC X84T. Topics in Building and Environment Studies.
Topics include daylighting and the history of building technology.

ARC X85Q. Construction.
Introduction to building construction, materials, and structures. Analyze building assemblies and envelope design.

ARC X85R. Structures I.
Examine theories of building construction and materials. Explore the analysis and design of structural components.

ARC X85S. Structures II.
Continue to examine theories of building behavior and materials. Explore the analysis and design of structural systems.
ARC X85T. Topics in Building Construction and Conservation.
ARC X85T.1. Architectural Conservation: Field Methods.
ARC X85T.2. Architectural Conservation: Lab Methods.
ARC X85T.3. Adaptive Reuse and Recycling Buildings.
ARC X86C. Architectural Theory: Contemporary Issues.
Examine how architectural theory has shaped, and been shaped by, architectural practice in the 20th and 21st centuries, with an emphasis on architecture of the after-Modern.
ARC X86D. Architectural Theory: Historical Overview.
Survey architectural theories since the Renaissance.
ARC X86M. Topics in Architectural Theory.
Study of critical theories and practices that affect the built environment.
ARC X86M.10. Eileen Gray and E.1027.
ARC X86M.11. Energy Modeling and the Design Process.
ARC X86M.12. Global Housing Challenge.
ARC X86M.13. Light and Sustainable Design.
ARC X86M.14. Managing the Design Project.
ARC X86M.15. Place and Historical Imagination.
ARC X86M.16. Poetics of Building.
ARC X86M.17. Advanced Theories of Architecture.
ARC X86M.18. Smart, Green and Just.
ARC X86M.19. Solar Geometry and Energy Flow.
ARC X86M.2. Architectural Criticism.
ARC X86M.20. Technology/Techniques Sustainable Design.
ARC X86M.21. Timber Technologies.
ARC X86M.22. Urban Land Institute Workshop.
ARC X86M.25. Preservation Law.
ARC X86M.26. Computational Design.
Explore the theory and application of computational design. Use of software programs to develop experimental projects that uncover new tactics for the design of buildings and objects.
ARC X86M.27. Research Design.
ARC X86M.29. Futures and Cities.
ARC X86M.3. Architectural Photography.
ARC X86M.30. Race and Gender by Design.
Examine the relationship of design relative to the narratives of race, gender, and diversity.
ARC X86M.31. Architecture Computation.
ARC X86M.32. Composition and Architecture.
ARC X86M.33. Regenerative Architecture.
ARC X86M.34. Sustainable Architectural Design.
ARC X86M.35. Sustainability: Why This Way.
ARC X86M.36. Introduction to Urban Ecology.
ARC X86M.37. Graphic Documentation.
ARC X86M.38. National Register of Historic Places.
ARC X86M.39. Architectural Interrogations.
ARC X86M.4. City as Form and Idea.
ARC X86M.40. Inside Utopia.
ARC X86M.41. Designing for Human Behavior.
ARC X86M.42. Building Matters.
ARC X86M.43. Spatial Stories.
ARC X86M.44. Biogenic Materials.
ARC X86M.5. Community Design Engagement.
ARC X86M.6. Design Firm Leadership.
ARC X86M.7. Design of New Communities.
ARC X86M.8. Design Process.
ARC X86M.9. Designing the Way We Build.
ARC X87F. World Architecture: Origins to 1750.
Introduction to architectural types, principles, and building technologies from prehistory to the mid-eighteenth century.
ARC X87G. World Architecture: The Industrial Revolution to the Present.
Examination of architecture types, principles, and building technologies with special attention to cultural transfers.
ARC X88R. Topics in the History of Architecture and Historic Preservation.
Seminars and lecture/seminars on advanced topics in architectural history, historic preservation, and the history of building technology.
ARC X88R.1. 20th Century Latin American Architecture.
ARC X88R.10. Modern American Design.
ARC X88R.11. History of Architectural Theory.
ARC X88R.12. Romes Gardens and Landscapes.
ARC X88R.13. Modern History of Sustainable Architecture.
ARC X88R.14. Modern European Architecture.
ARC X88R.15. Methodologies in Architectural History.
ARC X88R.16. Advanced Architectural History.
ARC X88R.17. Preservation History and Theory.
ARC X88R.18. Preservation Planning and Practice.
ARC X88R.19. Design Logics: Projection and Proportion in Architecture.
ARC X88R.2. American Architecture.
ARC X88R.20. Migratory Urbanism.
ARC X88R.21. Professional Design Practice: Baroque Rome.
ARC X88R.22. Cultural Landscape and Ethnographic Methods.
ARC X88R.23. Borderlands and Mexican Built Environment History.
ARC X88R.24. African American Experience in Architecture.
ARC X88R.25. History of the Profession: Architecture and Capitalism.
ARC X88R.26. Theorizing Space in the Americas.
ARC X88R.27. History of American City Building.
ARC X88R.28. Representing Landscape and Architecture, 1500-Present.
Explore the roles of visual representation in design and professional practice from Leonardo da Vinci to the digital age. Review the history of techniques, media, and conventions of representation in architecture and landscape architecture and in their intersections.
ARC X88R.3. Brazilian Urban Theory.
ARC X88R.4. History of Central European Architecture, 1648-Present.
ARC X88R.5. German Modernism.
ARC X88R.6. History of Architecture Since 1985.
ARC X88R.7. History of Building Technology.
ARC X88R.8. Hybridity in Landscape/Architecture.
ARC X88R.9. Loos and Mies.
ARC X89. Research in Architecture.
Investigation of problems in architecture, urban design, and development selected by the student with approval of the Graduate Studies Committee.
ARC X89R. Architectural Research.
Investigation of problems selected by the student with approval of the supervising faculty member.
ARC X90C. Architecture Practicum.
ARC X90H. Master's Design Studio--Dual Degree.
Advanced study in architecture, addressing complex design problems and issues related to various architectural topics.
ARC X91C. Urban Design History, Theory, and Criticism.
Study of critical theories and practices that affect the built environment.
ARC X91P. Productions.
Designed to explore the relationships between the generation of form, space, experience, and atmosphere in the spatial practices of interior design, architecture, and art.

ARC X92D. Advanced Drawing.
Focus on personal design methodology by exploring multiple drawing methods, skills, and approaches including manual, digital, and hybrid techniques. Refines design communication skills by pairing clearly articulated design intention with compelling drawings, and expressing them via effective verbal presentations.

ARC X92K. Historic Preservation Studio.
Interdisciplinary studio integrating design and other preservation issues at scales from interiors to landscapes and urban districts.

ARC X92P. Prototype.
Focus on digital fabrication as a link between architecture and product design.

ARC X92V. Digital Visualization and the Built Environment.
Digital visualization techniques used to model three dimensional environments and motion with digital media. Includes lectures, software demonstrations, and projects that focus on the digital translation of spatial experience, including the visualization techniques associated with rendering texture, character, and environment.

ARC X92W. Wood Design.
Practice on basic woodworking skills: tool sharpening, layout, millwork, joinery, gluing, sanding, and finishing.

ARC X94. Architectural Design: Vertical Studio.
Design problems dealing with subjective and objective decision making, study and application of drawing and other communication skills for architects, investigation of physical and social contexts, and the practical requirements of sound building.

ARC X94S. Horizontal Studio.

ARC X95C. Mexican Architecture and Urbanism: From Pre-Columbian to Contemporary.
A survey of Mexican architecture and urbanism from its origins in pre-Columbian times to the twenty-first century. Evaluation of architecture as a cultural production intricately connected to its artistic and historical context and the landscape that supports it.

ARC X95D. Frank Lloyd Wright: Design, Method, Theory.
Comprehensive study of Frank Lloyd Wright's life and work with emphasis on the analyses of his concepts of organic architecture, design methods, and theories.

ARC X95E. History and Theories of Landscape Architecture I.
Overview and chronological series of in-depth studies in the history of major garden cultures and designed landscapes of the Western and Eastern worlds. Introduction to methodological approaches to the formal, social, and cultural history of gardens and landscapes, as well as to relevant theoretical frameworks for interpreting these designed landscapes and for use in conceptualizing landscapes, architecture, and urban projects in studio design.

ARC X95F. History and Theories of Landscape Architecture II.
Continuation of Architecture 395E through the modern period and contemporary times. Formal and cultural history of gardens, parks, and public landscapes from 1700 to about 1990. Includes comparative material from the contemporary period, 1980 to 2010.

ARC X95G. The American Home: Identity, Process, and Marketing.
An examination of how American housing is conceived, developed, and marketed, as well as relationships between home buyers and builders.

ARC X95J. Originality Tradition in Baroque Rome: Borromini.
Explores the synthetic act of design and notions of originality and tradition in the arts of Baroque Rome by studying Francesco Borromini and his work through the lenses of professional design practice, the arts, contemporary Galilean science, and papal society.

ARC X95S. Advanced Architectural Design: Integrative Studio.
Advanced studio to develop skills in assimilating concepts into a feasible building design.

ARC X96. Topics in Advanced Architectural Design.
Advanced problems in architectural design to help develop skills in areas of students' and faculty member's choice, including interior architecture and preservation, as well as landscape, urban, and sustainable design.

ARC X96E. Advanced Design Studio.
Study advanced problems in architectural design to help develop skills in chosen areas, including interior architecture and preservation, as well as landscape, urban, and sustainable design.

ARC X97C. Master's Design Studio.
Participate in a forum for advanced study in architecture, addressing complex design problems and issues related to various architectural subjects.

ARC X97K. Topics in Doctoral Research in Architecture.
Conference course for students preparing for the dissertation colloquium.

ARC X98. Thesis.

ARC X98D. Departmental Report.
Preparation of a degree project to fulfill the requirement for the Master of Science in Historic Preservation or other School of Architecture degree program under the departmental report option. May be taken for a single semester (similar to the Professional Report), or two semesters (similar to the Thesis).

ARC X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

ARC X98T. Supervised Teaching in Architecture.
Designed to orient the beginning teacher in effective methods of teaching architecture and related topics.

ARC X99W. Dissertation.

Professional Courses

ARC X82. Professional Practice.
Ethical, legal, economic, and administrative processes and responsibilities of the practitioner in architecture and allied fields. Topics may include preservation law, community development, participatory design, and other aspects of organizations; methods and roles in design, planning, and preservation of the built environment.

ARC X89. Research in Architecture.
Investigation of problems in architecture, urban design, and development selected by the student with approval of the Graduate Studies Committee.

ARE - Architectural Engineering

Architectural Engineering: ARE

Lower-Division Courses

ARE X02. Introduction to Architectural Engineering.
Introduction to architectural engineering as a career by use of case studies.

ARE X07K. Topics in Architectural Engineering.

ARE X17. Computer-Aided Design and Graphics.
Introduction to procedures in computer-aided design and computer graphics used in producing plans and three-dimensional electronic models associated with building design and construction.

ARE X19S. Topics in Architectural Engineering.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Fariborz Maseeh Department of Civil, Architectural, and Environmental Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ARE X20K. Introduction to Design I.
Introduction to design principles, concepts, and problem-solving approaches. Issues addressed by a series of two- and three-dimensional studies.

ARE X20L. Introduction to Design II.
Continuation of Architectural Engineering 320K. Focus on building design.

ARE X23K. Project Management and Economics.
Solving economic problems related to construction and engineering; construction project management techniques; characteristics of construction organizations, equipment, and methods.

ARE X29S. Topics in Architectural Engineering.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Fariborz Maseeh Department of Civil, Architectural and Environmental Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ARE X35. Materials and Methods of Building Construction.
Elements and properties of construction materials and components; fabrication and construction technologies, methods, and processes; engineering systems characteristic of commercial buildings such as foundation, structural, and building envelope systems.

ARE X45K. Masonry Engineering.
Behavior and design of masonry with respect to architectural, economic, and structural criteria.

ARE X46N. Building Environmental Systems.
Analysis and design of building air conditioning systems; heating and cooling load calculations, air side systems analysis, air distribution, building electrical requirements, electrical and lighting systems.

ARE X46P. HVAC Design.
Design and analysis of heating, ventilation, and cooling systems for buildings. Focus on application of fundamental energy and mass transfer principles to HVAC components.

ARE X58. Cost Estimating in Building Construction.
Building construction estimating from plans and specifications, unit prices, lump sum estimates, job sites, overhead, general overhead, and bidding procedures. Estimating methods throughout the design process.

ARE X62L. Structural Design in Wood.
Engineering properties of wood; design of glued-laminated and lumber structural members, connections, and simple systems; introduction to shear walls and diaphragms.

ARE X65. Integrated Design Project.
Design of low-rise buildings, including structural and environmental systems; preparation of contract documents.

ARE X66. Contracts, Liability, and Ethics.
Legal aspects of engineering and construction contracts; contract formation, interpretation, rights and duties, and changes; legal liabilities and professional ethics of architects, engineers, and contractors.

ARE X70. Design of Energy Efficient and Healthy Buildings.
Design and analysis of sustainable buildings, envelopes and facades, and energy and resource use in energy efficient and healthy buildings. Applies building science principles used to avoid moisture problems, minimize sick-building syndrome symptoms, and reduce energy use.

ARE X71. Energy Simulation in Building Design.
Fundamentals of building energy simulations, analytical models for heat transfer in buildings, general numerical methods for solving equations from the analytical models, use of energy simulation tools in building design analysis, and parametric analyses used to study various operational parameters that affect energy use in buildings.

ARE X72. Modeling of Air and Pollutant Flows in Buildings.
Fundamentals of indoor airflow modeling; use of computational fluid dynamics (CFD) for air quality and thermal comfort analyses; application of CFD for analysis of air velocity, temperature, humidity, and contaminant distributions with different ventilation systems.

ARE X76. Building Information Modeling for Capital Projects.
Focuses on the skills and information needed to effectively use an existing Building Information Model for a building construction project. In this project-based course, students gain knowledge on the implementation of BIM concepts throughout the life cycle of a building from planning and design to construction and operations.

ARE X77K. Topics in Architectural Engineering.
Various specified topics or conference course.

ARE X77K.7. Independent Study.
Conduct independent research with a tenure track faculty member in the Fariborz Maseeh Department of Civil, Architectural, and Environmental Engineering. Prepare a project proposal and a final report, each of which is evaluated by the faculty supervisor.

ARE X77R. Internship.

ARE X77S. Emerging Technology: Survey.
Survey of building design technologies in engineering, architectural, and construction firms.

ARE X77T. Emerging Technologies: Technical Elective.
Technical design within engineering, architecture, and construction.

ARE X79H. Undergraduate Honors Thesis.
Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis.

Graduate Courses

ARE X81E. Design of Energy Efficient and Healthy Buildings.
Design of buildings for low energy use and optimal indoor air quality. Includes ventilation, energy efficiency, moisture problems, and prevention by design.

ARE X82. Independent Topics in Architectural Engineering.
Investigation of problems in building construction, selected by the student with approval of the graduate adviser.

ARE X82.1. Construction and Project Management.

ARE X82.2. Structures.

ARE X82.3. Materials and Methods.

ARE X82.4. Environmental Engineering.

ARE X82.5. Design Principles and Procedures.

ARE X83. Research Topics in Architectural Engineering.

ARE X83.1. Construction and Project Management.

ARE X83.2. Structures.

ARE X83.3. Materials and Methods.

ARE X83.4. Forensic Engineering: Materials and Structures.
Methods of forensic analysis; role of the expert witness; methods of dispute resolution; case studies; term project.

ARE X83.5. Advanced Masonry Engineering.
Properties of masonry, differential movement, construction operations, bearing wall systems, and case histories of failures.

ARE X89H. HVAC Design.
Design of heating, ventilation, and air-conditioning systems.

ARE X89T. Indoor Air Quality: Transport and Control.
Transport and control of indoor pollutants. Includes particulate removal and pollutant transport into and within indoor environments.

ARE X89U. Energy Simulation in Building Design.
Fundamentals of building energy simulations including basic analytical models for heat transfer in building elements and general numerical methods for solving system of equations. Use of energy simulation tools for building design analyses including parametric studies.

ARE X89V. Modeling of Air and Pollutant Flows in Buildings.
Fundamentals of indoor airflow modeling, use of computational fluid dynamics (CFD) for air quality and thermal comfort analyses, application of CFD for analysis of air velocity, temperature, humidity, and contaminant distributions with different ventilation systems.

ARE X95P. Topics in Project Automation.
ARE X95P.1. Advanced CAD Procedures.
Introduction to advanced CAD procedures and CAD systems, and their influence on building design and construction.
ARE X95P.2. Introduction to Construction Automation and Integration.
Construction automation and integration activities, methods for opportunity identification and financial analysis of systems, and tools from several disciplines that are used in construction automation and integration; students prepare a project that synthesizes this information.
ARE X95Q. Topics in Project Controls.
ARE X95R. Topics in Project Information Systems.
ARE X95R.5. Data Mining.
Fundamentals of data mining. Techniques for data classification, prediction, clustering, and association rules mining. Data mining as an advanced data analysis method in engineering and construction. Implementation issues.
ARE X95S. Topics in Project Organization.
ARE X95S.4. Project Management.
Overall aspects of project and portfolio management from inception to successful operation: project selection and feasibility, contracting methods, project scheduling, cost control systems, project communications, project scope and quality management, human resource management, partner selection and management, project leadership, project closeout, and global project management.
ARE X95T. Topics in Project Technology.
ARE X95U. General Topics in Construction Engineering and Project Management.
ARE X95U.3. Advanced Legal Concepts.
Contracts, documentation requirements, claims avoidance, and settlement of claims by alternative dispute resolution. Students conduct and present in-depth studies of the most frequent causes of claims (delay, disruption, acceleration, soil conditions, and changes) and consider the way the court establishes causation and determines damages.
ARE X98. Thesis.
ARE X98D. Departmental Report.
Preparation of a report to fulfill the requirement for the Master of Science in Engineering degree under the departmental report option.
ARE X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the Graduate School report option.

Professional Courses

ARH - Art History

Art History: ARH

Lower-Division Courses

ARH X01. Introduction to the Visual Arts.
A broad survey of selected traditions of art with an emphasis upon understanding their visual elements and cultural significance.
ARH X02. Survey of Ancient through Medieval Art.
A study of selected visual works throughout the world from prehistoric time to 1400 CE.
ARH X03. Survey of Renaissance through Modern Art.
A study of selected visual works throughout the world from 1400 CE to the present.
ARH X04. Issues in Visual Culture.
Examines the modern and contemporary history of art and visual culture in relation to a broader set of problems fundamental to visual representation throughout the history of art.
ARH X09D. Special Topics in the History of Art.
ARH X14. Mexico City: Aztec to Modern.
Explores the building of Mexico City, sited in a lake bed surrounded by active volcanoes and tectonic activity, from the time of the Aztecs to the present. Addresses art, architecture, science, and engineering, as well as the role that art and archaeological museums have played in the capital's modern, urban identity.
ARH X19S. Topics in Art History.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ARH X21. Problems in Art Historical Research.
Focus on developing research skills. Introduction to critical analysis in the context of using various resources and primary materials.
ARH X22. Issues in Exhibitions and Collections of Visual Arts.
Examines the histories and practices of collections and exhibitions in the visual arts.
ARH X22C. Textile Arts of the Indigenous Americas.
Explore the textile holdings of the Art and Art History Collection (AAHC) at UT Austin, analyzing ethnographic and historical collections from the Indigenous Americas. Learn about manufacture from weaving and dyeing technologies, social and ritual meaning from symbolism and iconography, and gender, power, and the economic value of hand-crafted cloth in ancient societies, while working with objects from UT's collections. Examine readings on archaeological, anthropological, and iconographic studies of ancient textile traditions, both in the Americas and in comparative global perspective. Develop a critical assessment of the ethical issues concerning exhibitions and collections of Indigenous American textiles.
ARH X22D. Collecting Latin America.
Introduction to the history of collecting Latin America, from pre-Columbian objects to modern art.
ARH X22E. Collecting Contemporary Art.
Examine the histories and practices of collections and exhibitions of contemporary visual art.
ARH X25. Art and Archaeology of the Ancient Near East.
Examines various aspects of material culture, including the rise of monumentality and urbanism; media such as writing and figurative arts; and the history and politics of archaeological research in the area of the Fertile Crescent, Turkey, and Iran.
ARH X26J. The Parthenon Through the Ages.
Examines why the Parthenon is of relevance today for a global audience. Subjects include the postantique lives of this unique monument as a Christian cathedral and pilgrimage site, a mosque, a ruin, and an archaeological icon; the various debates about its restoration and preservation; and the problem of cultural ownership.
ARH X26K. Myth and Images in the Greek and Roman Mediterranean.
Examines various methods of interpretation, such as archaeological and art historical analysis of mythical Greek and Roman narratives as they appear in visual arts of antiquity.
ARH X26L. Visual Cultures of the Mediterranean Islands.
Analysis of material and visual culture and the divergent histories of archaeology and art history in Cyprus, Crete, and Sicily.
ARH X26M. Art and Archaeology of Greek Sanctuaries.
Examines the archaeology of Olympia, Delphi, Dodona, Delos, and Samos, their global relevance today, and the history of archaeological research.
ARH X27N. Art and Politics in Imperial Rome.
Public art of the Roman Empire from Augustus to late antiquity, ca. 31 BC to AD 350.
ARH X27R. Art in the Lives of Ordinary Romans.
Art and architecture from the archaeological sites of Pompeii, Herculaneum, and Ostia as indices of Roman culture, 100 BC to AD 250.

ARH X27S. Art and Politics in Republican Rome.
The art and architecture of republican Rome, ca. 500-44 BCE, when the city established dominance in the Mediterranean and developed an artistic tradition that would flourish into the Empire.

ARH X27T. Art in the Age of Hadrian.
Examines art in Rome under the reign of emperor Hadrian (117-138), who inherited the empire at its greatest geographical extent.

ARH X27U. Love, Beauty, and Protection.
Examine selected works of Greek and Roman art (sixth century B.C. to fourth century A.D.) to explore how ancients thought about themselves with regard to love, sexuality, divine and human beauty, and protection from demonic forces. Focus on social and cultural contexts, gender, and practices of daily life.

ARH X28C. Mosques of the Islamic Worlds.
Examine mosque architecture beyond well-known examples from the Middle East, reaching less researched regions where Muslims have built and used mosques, including Africa, South and Southeast Asia, East Asia, Europe, and the Americas.

ARH X28D. Material Cultures of Coexistence.
Dicuss Muslims living in regions where non-Islamic socio-political systems and infrastructures predominate, exploring the material cultures produced in places where Islam did not originate as, or is not, the dominant authority.

ARH X28J. Arts of Islam, 650-1500.
Early Islamic art and architecture, with an emphasis on interconnections between the Islamic world and Europe. Examines unique ways Islamic visual culture developed out of the classical and late antique world. Artworks will be contextualized within early Islamic history, religion, and culture.

ARH X28K. Arts of Islam 1500-Present.
Later Islamic art and architecture, beginning with the world empires of the Ottomans, Safavids, and Mughals, and extending into the modern and contemporary periods. Subjects include the social and historical context of Islamic art in these periods and its unique visual culture.

ARH X28L. Medieval Middle East History in One Hundred Objects.
Survey the history of the medieval Middle East, from the period of Late Antiquity (in the seventh century) to the rise of early modern empires of the Safavids, Ottomans, and Mughals (in the seventeenth century), through close examination of the meaning and significance of 100 objects.

ARH X28M. Modern Middle East History in One Hundred Objects.
Survey the history of the medieval Middle East, from 1500 to the present, through close examination of the meaning and significance of 100 objects.

ARH X28N. Arabs and Vikings: Art and Culture.
Explore the art and culture of the global Middle Ages through close examination of recent films, popular and academic publications, and works of art and architecture that reveal the interconnection between the European and the Islamic worlds.

ARH X29J. Byzantine Art.
Examination of the medieval art and architecture of the eastern Roman empire, including related traditions (Coptic, Armenian, Georgian, Crusader, Norman).

ARH X29N. Art and Architecture of Late Antiquity.
Examination of early Christian and late Roman art and architecture, including related traditions, such as Jewish, Coptic, Armenian, Georgian, Persian,and Syriac.

ARH X29R. Romanesque Art and Architecture.
Form and function of religious art in twelfth-century Europe.

ARH X29S. Topics in Art History.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ARH X29T. Art in the Age of Dante and Giotto.
Examine the art of the later Middle Ages in Italy (1200-1400), including work by Giotto, Duccio, Nicola and Giovanni Pisano, and Arnolfo de Cambio.

ARH X30G. Art at Court: The Gothic Period.
Changing manifestations of Gothic art and architecture at selected court centers, 1140 to 1400.

ARH X30J. Gothic Cathedral: Amiens.
An examination of the cathedral at Amiens, its meaning, structure, political and financial contexts, and sculptural programs, as well as its influence on other buildings in France and Germany.

ARH X31J. Art and Experience in Central Italy.
Art and architecture of central Italy.

ARH X31K. Early Italian Renaissance Art to 1470.
Traces the beginnings of the "rebirth" (renaissance) of the visual arts, from the end of the Middle Ages to the heyday of the Medici. Works of art are analyzed both in formal terms and in relation to contemporary society, religion, philosophy, economics, statecraft, gender, and other significant issues.

ARH X31N. Later Quattrocento Art, 1470-1500.
Explores the visual arts created in the Italian peninsula during the final decades of the fifteenth century, or Quattrocento. Emphasis will be on common themes such as the revival of antiquity, the exaltation of the prince, and specific local characteristics.

ARH X31P. Art and the City in Renaissance Italy.
Art, architecture, and emerging civic identity in Florence, Siena, Venice, and other Italian Renaissance city-states.

ARH X31Q. Art in Medici Florence.
Explores the social and cultural fabric of Florence before and after the rise to power of the Medici family beginning in the early fifteenth century.

ARH X31R. Michelangelo and His World.
Examine the work of artist Michelangelo Buonarroti (1475-1564).

ARH X31S. Art, Geology, and Place in Italy.
Examine the intersection of art, geology, and the geographic notion of 'place' in Italy, using a thematic rather than geographic approach.

ARH X32K. Northern Renaissance Art, 1350-1500.
Northern European art from the International Style to van Eyck and Hieronymus Bosch.

ARH X32L. Northern Renaissance Art, 1500-1600.
Art and cultural development in the sixteenth century; artists include Duerer, Gruenewald, Holbein, and Brueghel.

ARH X33K. Italian Baroque Art.
The art of Italy in the seventeenth and eighteenth centuries; includes the sixteenth-century sources from which Roman baroque developed.

ARH X33L. The Age of Rembrandt and Rubens: Northern Baroque Art.
Northern European art in the seventeenth century, stressing the Netherlands and Flanders.

ARH X33M. Rembrandt and Vermeer.
Examine the lives and work of Rembrandt (1606-1669) and Jan Vermeer (1632-1675) from diverse methodological perceptions.

ARH X35F. Art and the Moral Law.
Examines the revolutionary energy of 'Art for Art's Sake' in nineteenth century Europe and various artists' challenge to the moral law, especially in Britain and France.

ARH X35G. Art and Landscape 1778-1908.
In Europe, the arts of landscape (painting, gardening, poetry and the novel) flourished more creatively than ever in the period covered. Exploration of these arts, their intersections with each other, and across national boundaries.

ARH X35H. Buddhist Traditions and Nineteenth-Century Art.
Examines the extent to which Buddhism and Buddhist art influenced artists and Western culture in the nineteenth century, especially in the development of modernism.

ARH X35J. Nineteenth-Century Art.
Examines European art and themes in art during the nineteenth century.

ARH X35N. European Art, 1789-1848.
European painting and sculpture as social and political events from the French Revolution to the revolutionary crises of midcentury.

ARH X35R. Burne-Jones and Friends.
Explore the work of British symbolist painter Edward Burne-Jones (1833-1898) and its place within 19th-century European culture.

ARH X35T. Goya in Context.
Explore the works of Francisco Goya (1746-1828).

ARH X36D. Derek Jarman: Art and Film.
The place of Derek Jarman (1942-1994) in the history of film is assured, but he was also a painter, wrote memoirs, and created a famous garden. Discussion of all his works in the context of his life, British culture, and his HIV/AIDS status.

ARH X37K. Twentieth-Century European Art to 1940.
Major movements in the development of modern European painting and sculpture.

ARH X38J. Performing Art History.
Uses the work of one seminal performance, film, video, and installation artist as a case study for considering the history of minimalism, video, and performance in the United States and Europe from the 1960s to the present and for developing ways of writing about time-based media in general.

ARH X38L. Art since 1930: Modernism and Mass Modernity.
Avant-garde activity, primarily painting, photography, and film, in the United States and Europe from 1930 to 1970.

ARH X38M. Art and Culture: 1968 and After.
Artistic and critical activity in the United States and Europe from 1968 to the present.

ARH X38N. Sculpture as Model in the Twentieth Century.
Examines the inherent problems in making and interpreting sculpture in the twentieth century in the United States and Europe.

ARH X38V. Magazine as Archive: View Magazine 1940-1947.
Considers the fate of avant-garde culture globally during World War II and its immediate aftermath through the lens of View Magazine and primary research conducted in the Harry Ransom Center.

ARH X39J. American Art: Colonial Era to the Civil War.
Painting, sculpture, and architecture from the early seventeenth century to 1860.

ARH X39K. American Art: Civil War to the Armory Show.
Painting, sculpture, and architecture from 1860 to 1913.

ARH X39L. Twentieth-Century American Art to the 1950s.
Art in the United States from the Armory Show through abstract expressionism.

ARH X39M. American Art, 1958-1985.
Survey of major movements from 1958 to 1985, from pop art to graffiti art and new expressionism.

ARH X39N. Painting in America to 1860.
Painting in British colonial North America and the United States prior to the Civil War.

ARH X39P. Painting in the United States, 1860-1913.
Painting in the United States from the Civil War to the Armory Show.

ARH X39Q. Modernism in American Design and Architecture.
A historical survey of artifacts, buildings, and urban environments, focusing on responses to machine-age civilization.

ARH X39R. Art, Art History, and Medicine.
Examines similarities and differences between the discipline of art history and the types of visual training offered by medical schools in conjunction with museums. Builds observational skills necessary for both medicine and art history while remaining grounded in the methodologies and purposes of art history. Sharpens critical thinking skills about images and texts. Cultivates interdisciplinary collaboration in consideration of select examples of European and U.S. art, including-but not limited to--medical or anatomical subjects.

ARH X40L. History of Photography.
The history of photography, including major historic processes, influential photographers, critical debates, and the significant social, political, and economic circumstances that shaped the development of the medium and the diverse works that were created since its origins in the nineteenth century.

ARH X41D. Contemporary Latinx Visual and Performance Art.
Explore contemporary visual and performance art by Latinx artists working since the 1970's to the present. Examine artists who began to engage with and in civil rights discourse to intervene through their art-making practices; and to align with contemporary trends in the art world that began to expand in the 1970's, such as performance art, installation art, video art, and, later, digital art.

ARH X41J. Nineteenth-Century Latin American Art.
Art of the nineteenth century in Latin America, including Argentina, Brazil, Colombia, Chile, Mexico, Paraguay, Peru, Uruguay, Venezuela, and the Caribbean.

ARH X41K. Modern Art of Mexico.
Mexican visual culture from the late nineteenth century through 1968. Emphasis on the emergence of modernist avant-gardes and popular entertainment, and their ambivalent relationship to state, church, and market. Also explores how self-consciously negotiating the tension between native and international influences, artists, critics, and curators contributes to notions of Lo Mexicano, or "Mexicanness.

ARH X41L. Chicano Art Histories and Futures.
Mexican American art since the 1960s, with an emphasis on the visual production and exhibition of identity inside and outside the Chicano civil rights movement and the politics of U.S. multiculturalism. An introduction to a broad range of art history written to date--including recent feminist and queer interventions--as a means of envisioning a supposed "post-Chicano" or "post-racial" moment.

ARH X41M. Contemporary Mexican Art.
Survey of visual culture beginning in the 1950s and 1960s, with a focus on key artists, exhibition spaces, and critical debates from the last thirty years in Mexico in light of international aesthetic currents and shifting political and economic conditions.

ARH X41N. Other Modernities: Latin American Art.
Development and sources of twentieth-century art in the Caribbean and Central and South America.

ARH X41P. Contemporary Latin American Art.
Development and sources of art in the Caribbean and Central and South America from the 1960s to the present.

ARH X41Q. Women in Latin American Art.
Development and sources of Latin American Women Artists considering feminist, gender and queer theories

ARH X41R. Apertures: Film and Photography Through Greater Mexico.
Exploration of the historical and aesthetic linkages and affinities between filmmakers and photographers working in greater Mexico, including prominent visitors and Americans of Mexican descent. Considers how Mexican culture is represented but also how borders between Mexico and the wider world--as well as among media--were blurred or brought into sharper focus by these exchanges.

ARH X41S. Art Cinemas of the Americas.
Examine art cinemas from the Spanish-speaking Americas from the 1950s to the present.

ARH X41T. Pop Art Americas.
Examine the history of Pop Art in Latin America and by Latinx artists in the US from the 1960s to the present.

ARH X41U. Chicana/o/x Film and Media.
Examine a history of Chicana/o/x production and representation in film and media from early 20th century to the present.

ARH X42J. Introduction to Women's and Gender Studies in the Fine Arts.
An introduction to women's studies and gender studies in relation to visual, theatrical, and musical culture in the United States and Europe.

ARH X44J. Twentieth-Century African American Art.
A survey of visual art produced by people of African descent in the United States with an emphasis on the twentieth century and its sociohistorical framework. Changes in modes of expression, formal concerns, pictorial themes, and the impact of the Black Arts movement, feminism, and Afrocentrism on art are explored, as well as the relationship of the work of black artists to art from West and Central Africa and the visual traditions of European and Euro-American artists.

ARH X44L. Art of the Harlem Renaissance.
Examine the factors which gave rise to the Harlem Renaissance, with a particular emphasis on art and artists.

ARH X44M. Photographs and Blackness in the United States.
Examine issues raised at the intersection of Blackness and photography in contemporary art of the United States.

ARH X45J. Contemporary Artists of the African Diaspora.
Examines a wide range of artists, practicing in different parts of the world, who are part of the African diaspora via such factors as the Atlantic slave trade and various patterns of international migration.

ARH X45K. Contemporary British Artists of the African Diaspora.
A look at a wide range of artists, practicing in Britain, who are part of the African diaspora via such factors as the Atlantic slave trade and various patterns of international migration.

ARH X45L. Diaspora Visions.
An exploration of border crossing by cultures and groups including Yorubas, Jews, Armenians, Tibetans, Hamish, Pakistanis, and Indians and the production of images by immigrants, exiles, and nomads in alien lands.

ARH X45M. Visual Arts of the Caribbean.
A look at a wide range of artists from the countries of the Caribbean, including examples of cinema and reggae music packaging.

ARH X45N. Cinema of the African Diaspora.
Examine work made in the past several decades by independent film-makers from different parts of the world, including the United States, which speaks to the history, challenges, and multiple identities of people in the African Diaspora.

ARH X46K. Introduction to African Art.
Investigates the lives and works of several artists who have made substantial contributions to the definition, history, and interpretation of the visual arts.

ARH X46L. Africana Women's Art.
Analysis of the diverse modes of presentation, mediums, definitions, and influences of Africana women artists in the diaspora. Designed to use critical theory and art history found in oral and written literatures, music, films, and other formal and informal documents.

ARH X46M. Visual Cultures of Africa.
Painting, textiles, ceramics, sculpture, performance, mixed media, photography, films, and the aesthetic ideas behind the production of African visual cultures from the perspectives of rituals, rites of passage, celebrations, initiations, documentations, and expressions.

ARH X47J. Preclassic Mesoamerican Art and Civilization.
Introduction to the origins and earliest developments in Mesoamerican art, architecture, and civilization, with emphasis on the social context of art and visual culture in preclassic Mesoamerica.

ARH X47K. Art and Archaeology of Ancient Peru.
The growth of civilization in South America from the earliest decorated textiles, pottery, and ceremonial buildings to the imperial Inca style.

ARH X47L. Mesoamerican Art and Culture.
Mesoamerican art, architecture, and its archaeological context, with emphasis on the social function of art and visual culture in ancient Mesoamerica up to the time of European contact.

ARH X47M. Maya Art and Architecture.
Introduction to the artistic traditions of the ancient Maya, tracing their development up to the time of European contact. Students will examine various important themes of Maya culture including history, ritual, and cosmology as revealed in sculpture, hieroglyphs, painting, and architectural design.

ARH X47N. Aztec Art and Civilization.
An introduction to the art, symbolism, and visual culture of the ancient Aztecs. Subjects include the representations of history and mythology in architecture, stone monuments, and pictorial manuscripts.

ARH X47P. Mesoamerican Writing Systems.
Examines the scripts of ancient Mesoamerica, focusing mostly on Maya and Aztec hieroglyphic writing. Subjects include methods of decipherment, the visual encoding of language in art and script, and the cultures of literacy in precolumbian Mesoamerica.

ARH X47R. Architecture and Sculpture in the Maya World.
Explore the ancient world of the Maya through the lens of architecture and sculpture.

ARH X48K. Formation of Indian Art.
Examine the artistic traditions of South Asia up to the fifth century C.E., with an emphasis on social and religious factors shaping its development.

ARH X48L. Later Indian Art.
Examines the development of artistic and architectural traditions in South Asia from the fifth through fourteenth centuries with an emphasis on their social and religious significance.

ARH X48M. The Taj Mahal and the Diversity of Indian Art.
Examination of the period when Islamic dynasties controlled much of the subcontinent and how a unique mix of forms and cultural practices shaped the development of monuments such as the Taj Mahal.

ARH X48N. Buddhist Art.
Explores the development of Buddhist art in South Asia, the land of its origin as well as its spread elsewhere. Focus on the question of "what is" Buddhist art.

ARH X48P. Art in the Himalayas.
Examines developments in various Himalayan regions, such as Tibet and Nepal, by focusing on certain subjects and styles in order to comprehend the roles of art in shaping culture and society.

ARH X49L. Contemporary Chinese Art.
Examines Chinese art and visual culture from the early twentieth century to the present. Analyzes complex issues involving modern and contemporary art scenes in China through artworks, artists' lives, and sociopolitical changes in China during this period.

ARH X49M. Art at the Crossroads: A View from South China.
Explore the southern Chinese coast as an integral part of the Indian Ocean world, whose multi-directional networks connect this East Asian region to South and Southeast Asia, the Persian Gulf, the Red Sea, and the East African coast.

ARH X59. Topics in Feminism and Gender.
An introduction to feminist and gender theories in relation to issues concerning visual representation.

ARH X60L. Topics in the History of Photography.
ARH X61. Topics in Latin American and Latinx Art.
ARH X61L. Topics in Ancient Near Eastern Art.
ARH X62. Topics in Greek and Roman Art.
ARH X62R. Topics in the Art of Late Antiquity.
ARH X63. Topics in Medieval Art.
ARH X64. Topics in Renaissance Art.
ARH X65. Topics in Baroque Art.
ARH X66J. Topics in Nineteenth-Century Art.
ARH X66N. Topics in Twentieth-Century Art.
ARH X66P. Topics in Modernism.
ARH X67. Topics in the Art of North America.
ARH X70. Topics in Pre-Columbian Art.
ARH X70J. Topics in Study in Guatemala.
Art and architecture of Guatemala.
ARH X70J.1. Ancient Maya Writing and History.
ARH X70J.2. Sacred Landscapes of the Precolumbian World.
ARH X70J.3. Baroque Art and Architecture in Spanish America.
ARH X72. Topics in the Art of Asia.
ARH X72.1. Chinese Literati Art.
ARH X73C. Topics in Africana Art.
ARH X73D. Topics in Diaspora Art.
ARH X73E. Topics in African American Art.
ARH X73E.1. Black Art, Brown Art.
ARH X74. Special Topics in the History of Art.
ARH X74.3. Colonial Encounter.
ARH X74.4. Blackness in the Contemporary Art Museum.
Explore issues related to the acquisition, stewardship, and repatriation of the art of the African Diaspora in the face of an increasingly virtual and market-driven art world.
ARH X75. Theories and Methods in the History of Art.
Examination of the theories and methods used by art historians and the changing nature of art historical inquiry.
ARH X76. Reading Tutorial in Art History Problems.
Individual projects to be completed under faculty supervision.
ARH X79H. Thesis Course for Departmental Honors.
Individual conference course in which student researches and writes a thesis.

Graduate Courses

ARH X80. Water Histories.
ARH X81. Topics in Latin American and Latinx Art.
ARH X81.1. Contemporary Brazilian Art.
Examine art and activism in contemporary Brazil to explore how artists are relating to, reflecting on, and resisting the democratic erosion in the country.
ARH X81L. Topics in Ancient Near Eastern Art.
ARH X81L.1. Visual Cultures in the Ancient Near East.
Examine scholarly methodologies for understanding how imagery encoded messages and how viewers developed strategies for making sense of them.
ARH X82. Topics in Greek and Roman Art.
ARH X82.1. Parthenon Throughout the Ages.
Examine the products of ongoing preservation and restoration of the Parthenon, its history and contemporary relevance.
ARH X82.2. Seeing Gods.
Examine textual and theoretical accounts of the religious phenomenon of epiphany across various belief systems.
ARH X82.3. Pompeii and Ostia: Visual Representation and Acculturation.
Examine how scholars in the past and the present have used evidence of visual representation and material culture to understand human beings living in Pompeii and Ostia.
ARH X82.4. Art and Politics in Republican Rome.
Explore the art and architecture of Republican Rome circa 500-44 B.C. and its relationship with visual culture and politics of the time.
ARH X82.5. Construction, Deconstruction, Reconstruction in Ancient Rome.
Study Roman architecture from Republic to Empire periods. Explore evidence for different phases of ancient buildings' lives - from construction to restoration to demolition - with a view to determining their political significances.
ARH X82.6. Art of the Roman Dictatorship.
Examine public art and architecture created in Rome during the last decades of the Republic (circa 100-44 BCE).
ARH X82R. Topics in the Art of Late Antiquity.
ARH X82R.1. Art, Gender, and Religion in Late Antiquity.
Examine the gendered experience of religion in Late Antiquity using the evidence of artistic record, with a primary focus on the Mediterranean world.
ARH X83. Topics in Medieval Art.
ARH X83.1. The Islamic City.
Explore the morphology, sociology, and historiography of cities in the Islamic world over time, from the medieval period to the present.
ARH X84. Topics in Renaissance Art.
ARH X84.1. Michelangelo and His World.
Examine the work of Michelangelo Buonarroti (1475-1564) in the context of his patrons and the history of the period in which he worked.
ARH X85. Topics in Baroque Art.
ARH X86G. Topics in Eighteenth-Century Art.
ARH X86J. Topics in Nineteenth-Century Art.
ARH X86N. Topics in Twentieth-Century Art.
ARH X86P. Topics in Modernism.
ARH X86P.1. Art Criticism, Theory, and Contemporary Art.
Explore the language of art criticism and to investigate the historical origin of some of the terms that have become central to the discourse of contemporary art.
ARH X86P.2. Writing About Contemporary Art.
Study the special problems facing those who write about contemporary art, which does not already have an established historical record or a generally accepted canonical interpretation.
ARH X86P.3. Film Cultures of the 1960s.
Examine the formal, theoretical, and social circumstances of the integration of various film cultures and surrealism in Europe and the United States during the post-war period.
ARH X86P.4. Archives and the History of Everyday Life.
Examine an overview of the work of a variety of individuals who consider history, biography, and the study of archives through the lens of the ephemeral and lived experience. Explore the relationship between writing biography and autobiography, archives and archival research and the production of knowledge, and the impact these choices have on the writing of history.
ARH X86P.5. Magazine as Archive.
Examine the magazine as archive and whether its temporal and material limit-terms constitute a viable frame for the writing of history.
ARH X87. Topics in the Art of North America.
ARH X90. Topics in Pre-Columbian Art.
ARH X92. Topics in the Art of East Asia.
ARH X93C. Topics in Africana Art.
ARH X93D. Topics in Diaspora Art.
ARH X93D.1. Visualizing Slavery.
Examine the work of modern and contemporary artists that touches on or explores the issue of slavery.

ARH X93E. Topics in African American Art.
ARH X94. Special Topics in the History of Art.
ARH X94.2. Administration and Development of Visual Resources Collections.
ARH X94.3. Poststructuralist Methods in Art History.
Examine an overview of influential examples of poststructuralist theory and how such theory can be applied to interpretive issues in the visual arts. Explore the writings of Barthes, Derrida, Lacan, Benjamin, and others.
ARH X94.4. When Practice Encounters Theory.
Study situations in which the theoretical position that guides an interpretation comes into conflict with the nature of the technical practices of the artist whose work is being interpreted.
ARH X94.5. Visual Cultures in Cyberspace.
Examine transatlantic computational art systems as expressive practices for computing aesthetics and interconnectivity of gendered, racial, and sexualized bodies.
ARH X94.6. Issues in Museum Studies.
Survey major issues in the field of museum studies.
ARH X95. Topics in Art Historical Methods.
ARH X96. Advanced Reading Tutorial.
ARH X96C. Reading Tutorial.
ARH X96K. Advanced Lecture Tutorial.
ARH X96L. Topics in the History of Latin American Art: Reading Tutorial.
ARH X96P. Qualifying Examination Preparation.
ARH X97. Doctoral Colloquium.
Conference course for students preparing for dissertation colloquium.
ARH X98. Thesis.
ARH X98T. Supervised Teaching in Art History.
Teaching under the close supervision of the course instructor for one semester; weekly group meetings with the instructor, individual consultations, and reports throughout the teaching period.
ARH X99W. Dissertation.

Professional Courses

ARI - Architectural Interior Design

Architectural Interior Design: ARI

Lower-Division Courses

ARI X01Q. Topics in Architectural Interior Design.
ARI X10K. Design I.
An introduction to the forms and methods of design for architects and interior designers, with an emphasis on inhabitation including body, light, and movement. Taught in a studio format by faculty members under the direction of a faculty coordinator.
ARI X10L. Design II.
An introduction to the forms and methods of design for architects and interior designers, with an emphasis on environment, including color, material, and texture. Taught in a studio format by faculty members under the direction of a faculty coordinator.
ARI X11K. Visual Communication I.
Study and application of drawing and other communication skills for designers, including formal and spatial studies, life drawing, and perspective.
ARI X11L. Visual Communication II.
Study and application of drawing and other communication skills for designers, including color, light and shadow, and projections. Employs manual and digital techniques.
ARI X18K. Interiors and Society.
Concepts, principles, and elements of interior design, presented in artistic, philosophical, and professional contexts. Includes a basic historical overview of the development of interior design.
ARI X18M. Interior Design History.
Survey of interior design from antiquity through the eighteenth century, including theoretical, social, technical, and environmental forces.
ARI X19S. Topics in Architectural Interior Design.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Architecture. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ARI X89. Research in Interior Design.
Investigation of problems selected by the student and approved by the graduate adviser.

Upper-Division Courses

ARI X20K. Design III--Interiors.
Focus on the physical and psychological needs of the inhabitants of interior space, with an emphasis on conceptual process and diagrammatic techniques. Projects deal with real building situations and introduce implications of fenestration, structure, and materials.
ARI X20L. Design IV--Interiors.
Explores linkages between multiple interior spaces and the study of spatial thresholds. Investigates individual spaces in relation to the body and the surrounding environment, utilizing a clearly defined program.
ARI X20Q. Topics in Architectural Interior Design.
ARI X21K. Visual Communication III.
Introduction to digital modeling as well as principles of digital fabrication. Includes various modes of output such as drawings, renderings, and physical models.
ARI X24K. Environmental Controls I.
A survey of acoustics, color, light, illumination, and electrical and information systems in architectural interiors. Includes techniques of documentation.
ARI X27P. Productions.
Designed to explore the relationships between the generation of form, space, experience, and atmosphere in the spatial practices of interior design, architecture, and art.
ARI X28P. Prototype.
Focus on digital fabrication as a link between architecture and product design.
ARI X29S. Topics in Architectural Interior Design.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Architecture. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ARI X30. Interior Design Internship.
Practical application of design procedures in a professional design office.
ARI X30K. Design V--Interiors.
Examination of the elements of interior space and scale, including specific human factors. Particular emphasis on the design, documentation, production, and placement of objects in interiors.
ARI X30T. Design VI--Interiors.
Capstone studio with specific design projects from current markets. Application of code issues, regulatory restraints, fire safety, and regulations for accessibility in interiors.
ARI X33L. Environmental Controls II.
Examine heating, ventilating, air conditioning, vertical transportation, and wiring and plumbing systems in buildings, including techniques of documentation.
ARI X34J. Construction I.
Introduction to building construction, materials, and structures.

ARI X34K. Construction II--Interior Materials and Assemblies.
Core concepts in interior materials, assemblies, and systems. Includes material properties, environmental and sustainable issues, attachment, detailing, and product specifications. Projects encourage manipulation and assembly of various material systems. Case studies using material samples, and field trips to sites of fabrication.

ARI X38. Designing for Human Behavior.
Issues of mood, privacy, perception, proxemics, and preferences applied to the design of interiors.

ARI X50R. Topics in Interior Design Theory.
Seminar in a variety of topics. Designed to broaden the student's knowledge of interior design and to encourage critical and theoretical thinking in the discipline.

ARI X50R.1. Design Firm Leadership.

ARI X50R.2. Managing the Design Project.

ARI X60E. Advanced Design Studio.
Synthesize components such as human aspects, place-making, the interior envelope, transitional spaces, and conceptual processes.

ARI X62. Interior Design Practice.
Business procedures, professional practice, design project control and management, and professional ethics. Documents procedures for interior design.

ARI X68R. Interior Design History II.
Study of function and aesthetics, and decoration and use, emphasizing interiors from the nineteenth century to the present.

ARI X68S. Topics in the History of Architecture and Architectural Interior Design.
Seminars and lecture/seminars on advanced topics in the history of architectural interior design.

ARI X89. Research in Interior Design.
Investigation of problems selected by the student and approved by the graduate adviser.

Graduate Courses

ARI X80Q. Topics in Architectural Interior Design.

ARI X81. Visual Communications.
Introduction to using digital tools for communicating design, with an emphasis on integrating digital image, CAD, and 3-D software processes with hand drawing and modeling techniques. Subjects may include the manipulation of digital images, the combination of text and image, rendered perspectives, measured drawings, an introduction to 3-D modeling, and the use of advanced visual language. Some projects are based on work done in the student's design studios.

ARI X81D. Architectural Drawing.
Visual communication in such media as freehand drawing, modeling, photography, and measured drawings.

ARI X81R. Topics in Representation.
Topics in the fundamental components of interior design and visual communication.

ARI X81R.1. Advanced Drawing.
Focus on personal design methodology by exploring multiple drawing methods, skills, and approaches including manual, digital, and hybrid techniques. Refines design communication skills by pairing clearly articulated design intention with compelling drawings, and expressing them via effective verbal presentations.

ARI X81T. Topics in Emerging Technologies.
Examines tools, techniques, and methods used in simulating, constructing, and experiencing interior space. Studies how various emerging technologies affect interior design, from initial design to fabrication to completion.

ARI X82. Interior Design Practice.
Business procedures, professional practice, design project control and management, and professional ethics as they relate to interior design.

ARI X82D. Mediating Interiors.
Explore methods of media-based processes such as drawing, modeling, imaging, and coding in design, with particular emphasis on explorations which make interior space perceptually, physically, and conceptually tangible.

ARI X84F. Environmental Control: Heat, Air and Water.
Examine thermal comfort, heating, cooling, ventilation, plumbing systems, fire protection, and conveying equipment in buildings.

ARI X84G. Environmental Control: Light, Sound and Electricity.
Survey light and color fundamentals, daylighting, artificial illumination, acoustics, and electrical and information systems for buildings.

ARI X85K. Construction I.
Introduction to building construction, materials, and structures.

ARI X85L. Construction II: Interior Materials and Assemblies.
Core concepts in interior materials, assemblies, and systems. Includes material properties, environmental and sustainable issues, attachment, detailing, and product specifications. Projects encourage manipulation and assembly of various material systems. Also includes case studies using material samples, and field trips to sites of fabrication.

ARI X85T. Topics in Materials and Tectonics.
Investigates traditional interior design materials and materials emerging from new technologies.

ARI X86K. Seminar in Interior Design.
Introductory subjects in interior design.

ARI X86M. Topics in Interior Design Theory and Criticism.

ARI X86M.1. Interiors and Society.

ARI X86M.2. Inside Utopia.

ARI X86M.3. Reimagining Design Precedent.

ARI X86M.4. Design Firm Leadership.

ARI X86M.5. Managing the Design Project.

ARI X86M.6. Theorizing Interiors.

ARI X88. Designing for Human Behavior.

ARI X88K. Interior Design History I.
Survey of interior design from antiquity through the eighteenth century, including theoretical, social, technical, and environmental issues.

ARI X88L. Interior Design History II.
Study of function and aesthetics, and decoration and use, emphasizing interiors from the nineteenth century to the present.

ARI X88R. Topics in Interior Design History.

ARI X89. Research in Interior Design.
Investigation of problems selected by the student and approved by the graduate adviser.

ARI X91P. Productions.
Designed to explore the relationships between the generation of form, space, experience, and atmosphere in the spatial practices of interior design, architecture, and art.

ARI X92F. Digital Drawing and Fabrication.
Focus on advanced visual communication methodologies necessary for architectural generation, translation, and output.

ARI X92P. Prototype.
Focus on digital fabrication as a link between architecture and product design.

ARI X93K. Interior Design Core Studio I.
Explores interior spaces and their sequence and adjacencies. Studies individual rooms, their locations, and their uses in such fields as hospitality, health care, and entertainment. Special emphasis on the design of transitions from public spaces to personal spaces.

ARI X93L. Interior Design Core Studio II.
Examination of the elements of interior space and scale, including specific human factors. Particular emphasis on the design, documentation, production, and placement of objects in interiors.

ARI X93M. Interior Design Core Studio III.
Examination of interior spaces and elements.

ARI X95. Interior Design: Technical Studio.
Comprehensive studio that focuses on combining the elements that create a thorough interior design.

ARI X95D. Frank Lloyd Wright: Design, Method, Theory.
Comprehensive study of Frank Lloyd Wright's life and work with emphasis on the analyses of his concepts of organic architecture, design methods, and theories.

ARI X95G. The American Home: Identity, Process, and Marketing.
An examination of how American housing is conceived, developed, and marketed, as well as relationships between home buyers and builders.

ARI X96E. Advanced Design Studio.
Study advanced problems in interior design and examine design strategies and different phases of design. Focus on interior design as it relates to retail, education, sustainability, and health care.

ARI X97. Interior Design Internship.
Practical application of design procedures in a professional design office.

ARI X97C. Master's Design Studio.
Study architectural interior design, addressing complex design problems and issues related to various architectural subjects.

ARI X98. Thesis.
For students seeking the Master of Interior Design degree.

Professional Courses

ARI X89. Research in Interior Design.
Investigation of problems selected by the student and approved by the graduate adviser.

ART - Studio Art

Studio Art: ART

Lower-Division Courses

ART X09D. Topics In Studio Art Lecture.

ART X10P. Introduction to Print.
Introduction to the concepts, methods, and materials of print including a combination of intaglio, relief, lithography, serigraphy, and/or book arts.

ART X11C. Core Studio: Drawing.
Explore techniques of drawing in a contemporary context. Focus on line, line weight, continuous line, contour line, sighting, figure, gesture, perspective (two point, three point, and isometric/orthogonal drawing), value, color, and texture.

ART X11K. Painting I.
Introduction to painting techniques, composition, and exploration of personal expression.

ART X12C. Core Studio: 2D.
Create planar works and explore formal principles and conceptual concerns in a contemporary context.

ART X13C. Core Studio: 3D.
Create spatial works and explore formal principles and conceptual concerns in a contemporary context.

ART X13K. Beginning Sculpture.
Introduction to the processes involved in the production of object-oriented sculpture using direct methods of hot and cold construction.

ART X14C. Core Studio: Time and Technology.
Explore time-based media and digital technology in a contemporary context.

ART X15K. Beginning Drawing.
Exploration of various methods, subjects, and expressive possibilities in drawing.

ART X16K. Beginning Life Drawing.
Problems in drawing and construction of the human figure in selected media.

ART X16V. Transmedia: Expanded Media I.
Introduction to video, digital, net.art, and multiple media art forms with an emphasis on experimentation and a DIY approach to production. Focuses on the history, theory, and evolution of media art practices and their relation to the Internet and social media networks.

ART X17C. Transmedia: Performance Art I.
An introduction to the practice, history, and theory of performance art in a variety of contexts and spaces, including theatrical, the white cube, and the workaday world.

ART X17K. Beginning Photography.
An introduction to still photography, including basic technical skills and concepts.

ART X18C. Transmedia: Digital Time-Art I.
Study in digital video, sound, and animation, with emphasis on the exploration of movement, image, and montage. Guided inquiry into pertinent conceptual, perceptual, and practical skills.

ART X19T. Topics in Studio Art: Laboratory.
Intensive study of various disciplines of studio art.

Upper-Division Courses

ART X20F. Digital Fabrication I.
Study of the artistic culture and techniques associated with digital visualization, three dimensional data acquisition, and various forms of digital fabrication including 3D Printing, computer numerical controlled milling, and Laser Cutting.

ART X20K. Topics in Studio Art.

ART X20L. Topics in Studio Art.
Continuation of Studio Art 320K.

ART X21K. Painting II.
Problems in composition and exploration of personal expression.

ART X22K. Intermediate Drawing.
Continuation of Studio Art 315K.

ART X23K. Intermediate Sculpture.
Exploration of the concepts and processes involved in the production of object-oriented sculpture, with emphasis on indirect methods of mold-making and casting. Encourages individual direction.

ART X23S. Installation Sculpture.
Exploration of the theories and methods involved in the production of installation sculpture through the investigation of form and space and of their function in transforming environmental, architectural, or invented sites.

ART X24C. Publication Studio.
Studio course. Advanced publishing projects in print and/or digital media.

ART X25G. Intermediate Print: Serigraphy.
Practice in the theories and techniques of multicolor serigraphy and photoserigraphy.

ART X25J. Intermediate Print: Relief.
Instruction in relief print processes in conjunction with digital technologies. Utilization of laser cutters, CNC routers, and large-format photo printers as well as traditional techniques to generate dynamic projects in woodcut, linocut, and more. Emphasis on contemporary print practice in the expanded field.

ART X25K. Intermediate Print: Intaglio.
Instruction in the theories and techniques of intaglio printmaking, color, assemblage, stencil, viscosity, collography, photo process, and relief.

ART X25M. Intermediate Print: Lithography.
Instruction in the theories and techniques of metal plate, multicolor, and stone lithography and photolithography.

ART X25T. Intermediate Print: Monotype.
Explore the concepts, methods, and materials of monotype.

ART X26K. Fiber Art and Soft Sculpture.
Explore various fiber and soft materials.

ART X29S. Topics in Studio Art.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ART X30P. Advanced Print Workshop.
Focuses on the concepts and practice of print.
ART X35K. Intermediate Photography.
Practice in still photography, including materials and processes.
ART X36C. Art and Ecology.
Explore eco art through creative inquiry into how natural, social and technological systems co-shape life, relationships, and possible futures.
ART X36D. Living Systems.
Engage in creative inquiry and develop work with and in relation to living systems, drawing from conceptual, bio, eco, performance, socially engaged, and technology-based art practices.
ART X36V. Transmedia: Expanded Media II.
Advanced practice of media art exploring time, space, and reality through multidimensional forms. An investigation of media technologies and networks: aesthetically, formally, theoretically or conceptually using traditional media, new media, and immaterial approaches.
ART X37C. Transmedia: Performance Art II.
Advanced workshop in performance art that focuses on the development of researched solo and collaborative projects.
ART X38C. Transmedia: Digital Time-Art II.
Study in digital video, sound, and animation, with emphasis on the exploration of cinematic time and its time-based installation. Guided inquiry into the relationship between video and video projections, and technics and technology.
ART X40F. Digital Fabrication II.
Advanced study of the artistic culture and techniques associated with digital visualization, three dimensional data acquisition, and various forms of digital fabrication including 3D Printing, computer numerical controlled milling, and Laser Cutting.
ART X41K. Painting III.
Continuation of Studio Art 321K.
ART X46K. Intermediate Life Drawing.
Advanced problems in drawing and construction of the human figure.
ART X50. Philosophy, Theory, and Criticism.
Advanced exploration of philosophy, theory, and criticism from a studio art perspective.
ART X50D. Alternative Photographic Processes: Photography and Printmaking.
Explore a process-based journey through the history of photography and photographic printmaking. Discuss, innovate and create while engaging with the history of photography.
ART X50E. Aesthetics of Health.
Explore the intersection of art and healthcare.
ART X50M. Topics in Studio Art Practice.
ART X50N. Topics in Studio Art Lecture.
ART X50P. Professional Practices.
Exploration of professional practices as they relate to the field of visual arts. Focus on writing an artist statement and resume, as well as learning about writing and applying for exhibition, grant, and residency opportunities.
ART X52C. Painting for Nonmajors.
Exploration of various methods, subjects, and expressive possibilities in painting.
ART X52D. Drawing for Nonmajors.
Exploration of various methods, subjects, and expressive possibilities in drawing.
ART X52E. Figure Drawing for Nonmajors.
Exploration of the human figure in selected media.
ART X52F. Print for Nonmajors.
Exploration of the concepts, methods, and materials of print.
ART X52G. Sculpture for Nonmajors.
Exploration of the processes involved in the production of object-oriented sculpture.
ART X52J. Photography for Nonmajors.
Exploration of still photography.
ART X52K. Transmedia for Nonmajors.
Exploration of time-based media.
ART X55. Topics in Studio Projects.
Study of specific techniques or problems.
ART X55.2. Installation of Film Art.
ART X56V. Transmedia: Expanded Media III.
Student-initiated research and development of complex media art and hybrid media art projects.
ART X57C. Transmedia: Performance Art III.
Advanced independent inquiry into the development of performance art projects requiring focused research and time.
ART X58C. Transmedia: Digital Time-Art III.
Advanced study in video, sound, and animation with an emphasis on individual research reflecting students' artistic goals.
ART X61K. Painting IV.
Continuation of Studio Art 341K.
ART X63K. Advanced Sculpture.
Advanced research in the theory, technology, and methods involved in the production of sculpture, with emphasis on individual direction.
ART X66K. Advanced Life Drawing.
Problems in drawing and construction of the human figure.
ART X68N. Advanced Drawing.
Continuation of Studio Art 322K.
ART X72K. Advanced Photography.
Practice in photography with an emphasis on long-term photography-based projects, more advanced technical knowledge, and a deeper familiarity with uses of the medium.
ART X76. Independent Study: Studio Art.
Individual projects to be completed under faculty supervision.
ART X76K. Contemporary Issues in Photography.
Inquiry of specific themes in photography which can include: photographic intervention, photography since 1945, photo book making, abstraction in photography, appropriation in photography, and lighting for photography.
ART X76P. Contemporary Issues in Print.
Explore advanced issues, subjects, and processes in contemporary print and the expanded field.
ART X79S. Advanced Topics in Studio Art: Lecture.
Intensive advanced study of various disciplines of studio art.
ART X79T. Advanced Topics in Studio Art: Laboratory.
Intensive advanced study of various disciplines of studio art.

Graduate Courses

ART X80. Group Critique in Studio Art.
Group critiques of student artwork organized under the leadership of the instructor, in addition to regular individual studio visits between the instructor and each student.
ART X81. Graduate Committee Study.
ART X82. Seminar in Studio Art.
Addresses topics and issues in contemporary art. Uses lectures, readings, guest presentations, discussions, and writings to articulate and define contemporary art practices.
ART X82T. Topics Seminar in Studio Art.
Topics and issues in contemporary art. Lectures, readings, guest presentations, discussions, and writings provide an opportunity for students to discuss the production and reception of culture.
ART X83. Graduate Independent Study Outside Student's Concentration.
ART X84F. Master of Fine Arts First-Year Seminar.
Introduction to the extensive research assets of the University. Focus on critical assessment skills and developing effective and consistent habits for working in the studio.
ART X84S. Master of Fine Arts Assembly.
Continuation of Studio Art 384F. Focuses on critiquing skills, talking and writing about artwork, and defining effective studio practices. Students work with peers and faculty from across the studio disciplines.

ART X90. Advanced Topics in Studio Art.
Intensive advanced study of various disciplines of studio art.
ART X90.1. Model, 3D Scan, and Digital Fabrication.
Explore computer modeling, 3D data acquisition, and digital fabrication.
ART X90T. Advanced Topics in Studio Art.
Intensive advanced study of various disciplines of studio art.
ART X98P. Professional Practices for Fine Artists.
Study of effective strategies for entering various aspects of the art world. Experiences may include lectures, guest specialists, field trips, and readings.
ART X98R. Master's Portfolio Report.
Written interpretation of the artwork created in the graduate program, addressing influences on and concepts of the work, and including a digital portfolio of major works and influences.
ART X98S. Master's Exhibition Seminar.
Preparation for the presentation of a professional exhibition in which significant work from each student is displayed. The exhibition is curated by the instructor with all students collaborating in its execution. The students' final sixty-hour review takes place during the exhibition and is individually conducted by faculty committee. At a later date during the exhibition, students publicly discuss and present their work in a colloquium open to the public.
ART X98T. Teaching Methodologies in Studio Art.
Training in teaching methods and procedures for studio art classes, including weekly group meetings with the instructor and individual consultations.

Professional Courses

ASE - Aerospace Engineering

Aerospace Engineering: ASE

Lower-Division Courses

ASE X02. Introduction to Aerospace Engineering.
Introduction to aerospace engineering, including problem solving and study skills. Examines opportunities and responsibilities of careers in aerospace engineering.
ASE X19. Topics in Aerospace Engineering.
ASE X19S. Topics in Aerospace Engineering.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's International Engineering Education Programs.
ASE X24L. Aerospace Materials Laboratory.
Study of the deformation and fracture behavior of materials used in aerospace vehicles. Structure-property relations, methods of characterizing material behavior, use of properties in the design process. Case histories. Written reports.

Upper-Division Courses

ASE X20. Low-Speed Aerodynamics.
Fundamental concepts, fluid statics; integral and differential analysis; detailed analysis of inviscid, incompressible flows; aerodynamics of airfoils and wings.
ASE X20K. Low-Speed Aerodynamics Laboratory.
Wind tunnel and water channel experiments at subsonic speeds; use of instrumentation and written reports.
ASE X24L. Aerospace Materials Laboratory.
Study of the deformation and fracture behavior of materials used in aerospace vehicles. Structure-property relations, methods of characterizing material behavior, use of properties in the design process. Case histories. Written reports.
ASE X28. Aerospace Engineering Projects Laboratory.
Directed work on an organized student project in aerospace engineering or engineering mechanics.
ASE X30M. Linear System Analysis.
Explore the fundamentals of signals and systems; mathematical modeling of mechanical systems; transfer function; impulse response; Laplace transforms; response of linear, time-invariant systems; frequency response methods; time-domain analysis; introductory concepts for feedback control systems; multivariate linear dynamical systems; eigenvalues and eigenvectors; matrix exponentials. An introduction to fundamental elements of the theory of systems and signals and exposure to necessary concepts and tools required to perform modeling and analysis of linear dynamical systems. Demonstrate the theory through several simulation examples using MATLAB and Simulink relevant to applications of modern aerospace engineering systems.
ASE X39. Advanced Strength of Materials.
Curved beams, shear deformation, beam columns, beams on elastic foundations; inelastic behavior of members; elementary plate bending.
ASE X46. Viscous Fluid Flow.
Navier-Stokes equations, laminar and turbulent boundary layers, transition, effects of pressure gradients, heat transfer, and compressibility.
ASE X55. Aeroelasticity.
Static aeroelastic phenomena; wing torsional divergence, control reversal, effect of wing sweep, flexibility effects on aircraft stability and control, and design implications; dynamic aeroelasticity; and galloping of transmission lines, flutter, and unsteady aerodynamics. Includes an introduction to experimental aeroelasticity.
ASE X57. Mechanics of Composite Materials.
Anisotropic constitutive relationships, lamination theory, failure theories, micromechanical behavior of laminates; laminated composite plates–bending, vibration, and buckling; composite fabrication, sandwich and other composite lightweight structures.
ASE X61K. Aircraft Design I.
Introduction to systems engineering including the systems engineering process, requirements, design fundamentals, trade studies, cost and risk analyses, integration, technical reviews, case studies, and ethics.
ASE X61L. Aircraft Design II.
Examine aerospace systems characteristics, mission requirements, sensors, and consumables analyses; and mission phases, request for proposal, problem definition, ideation, proposal preparation, conceptual design review, preliminary design development and review, and design report preparation. Produce written reports.
ASE X62K. Compressible Flow.
Shock and expansion waves, quasi-one-dimensional flow, converging-diverging nozzles, diffusers, linearized flow, and compressibility effects on aerodynamics of airfoils and bodies.
ASE X62M. High-Speed Aerodynamics Laboratory.
Experiments using a variable-Mach number supersonic wind tunnel and shock tube. Aerodynamics of wedges, cones, spheres and diamond-shaped airfoils in supersonic flow. One-dimensional unsteady shock motion. High-speed flow measurement techniques.
ASE X64. Applied Aerodynamics.
Detailed analysis of aerodynamics of compressible and incompressible flows about wings and airfoils; wing and airfoil parameters and force and moment coefficients; and thin-airfoil theory, lifting-line theory, panel methods, high-lift devices, delta wings, transonic flows, and supersonic flows over wings.
ASE X65. Structural Dynamics.
Analysis of discrete and continuous vibrating systems; deriving equations of motion; determining response; and natural frequencies and modes of vibration.
ASE X66K. Spacecraft Dynamics.
Examine Newton's gravity law, Kepler's laws, basic orbit propagation, orbit properties, orbital elements, coordinate systems and transformations, radar observations, ground tracks, orbit maneuvers, and trajectory design principles.
ASE X66L. Applied Orbital Mechanics.
Selected subjects in satellite motion and satellite applications, including communication and navigation satellites, orbit selection/design for

satellite applications, orbital coordinate systems, time, major perturbing forces, rendezvous and intercept, and interplanetary trajectories.

ASE X66M. Spacecraft Systems Laboratory.
Overview of spacecraft subsystems, mission design program library, numerical techniques, mission planning references, mission constraints, and mission design projects. Includes written reports.

ASE X67K. Flight Dynamics.
Equations of motion for rigid aircraft; aircraft performance, weight and balance, static stability and control, and dynamic stability; design implications.

ASE X70C. Feedback Control Systems.
Fundamentals of linear control analysis and design for single-input, single-output systems; stability and performance measures; Routh Hurwitz analysis; root locus methods; frequency response (Bode and Nyquist); introduction to full-state feedback.

ASE X72K. Attitude Dynamics.
Examine attitude representations, rotational kinematics, rigid-body dynamics, and torque-free motion. Explore satellite's sensors and actuators, attitude determination algorithms, and passive and active attitude control systems.

ASE X72N. Satellite-Based Navigation.
Satellite-based navigation systems, with focus on the Global Positioning System (GPS), ground and space segments, receiver location estimation, astrodynamics, satellite signal coordinate/time systems, differential techniques, GPS data analysis.

ASE X74D. Aerospace Systems Senior Design I.
Introduction to systems engineering including the systems engineering process, requirements, design fundamentals, trade studies, cost and risk analyses, integration, technical reviews, case studies, and ethics.

ASE X74E. Aerospace Systems Senior Design II.
Examine aerospace systems characteristics, mission requirements, sensors, and consumables analyses; and mission phases, request for proposal, problem definition, ideation, proposal preparation, conceptual design review, preliminary design development and review, and design report preparation. Produce written reports.

ASE X74K. Space Systems Engineering Design.
Introduction to systems engineering: the systems engineering process, requirements, design fundamentals, trade studies, cost and risk analyses, integration, technical reviews, case studies, and ethics. Includes written reports.

ASE X74L. Spacecraft/Mission Design.
Examine aerospace systems characteristics, mission requirements, sensors, and consumables analyses; and mission phases, request for proposal, problem definition, ideation, proposal preparation, conceptual design review, preliminary design development and review, and design report preparation.

ASE X75. Electromechanical Systems.
Subjects include basic electronic circuits, operational amplifiers, concepts of impedance and feedback, sensors to measure temperature, displacement, strain, force and acceleration, impulse testing, shake testing, and triggered data acquisition. These concepts will be implemented via experiments that illustrate interesting phenomena in solids and structures.

ASE X76C. Rocket Engineering Practicum I.
An introduction to rocket engineering. Explore a high-level overview of the principles, systems, and design methodologies required to design a vehicle capable of going to space. Participate in project-based work embedded within actual systems of the Texas Rocket Engineering Laboratory.

ASE X76D. Rocket Engineering Practicum II.
Explore the industry-relevant design and production environment encountered when working on a rocket subsystem in depth. Participate in project work embedded within systems of the Texas Rocket Engineering Laboratory.

ASE X76F. Rocket Fluid System Design.
Discuss analysis and design of rocket fluid systems, including component selection and design; sensors; propellant loading, usage, and measurement; tank pressurization. Examine control theory.

ASE X76G. Rocket Guidance, Navigation, and Control.
Explore rocket trajectory design, statistics, signal processing, and various control strategies. Discuss classic GNC design problems and in-depth control software projects.

ASE X76K. Propulsion.
Review of control volume analysis and quasi-one-dimensional compressible flow. Simple propeller theory. Analysis and design of rocket nozzles and air-breathing engines, including performance and cycle analysis; flow in nozzles, diffusers, compressor, and turbine stages; combustion chamber processes and propellants. Includes an introduction to chemical rocket propulsion.

ASE X79H. Undergraduate Honors Thesis.
Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis.

ASE X79K. Research in Aerospace Engineering.
Directed study or research in a selected area of aerospace engineering.

ASE X79L. Topics in Aerospace Engineering.
Current topics in aerospace engineering.

ASE X79L.1. Selected Topics in Fluid Mechanics.

ASE X79L.2. Selected Topics in Structural Mechanics.

ASE X79L.3. Selected Topics in Flight Mechanics.

ASE X79L.4. Selected Topics in Orbital Mechanics.

ASE X79L.5. Rocket Science.
Review rocket thrust equation and non-ideal nozzle analysis for quasi one-dimensional perfect gas flow. Discuss thermochemistry; chemical equilibrium; kinetics; liquid, solid, and hybrid chemical rocket systems; and electric rocket propulsion.

ASE X79L.6. Low Earth Orbit for Earth Observation.
Explore orbital geometry, approximate representation, and design of orbits in the secularly precessing ellipse model. Examine the motion of satellites, the sun, the moon and the Earth. Discuss the view of space from the ground, the view of ground from space, and the design and utilization of constellations.

ASE X79L.9. Selected Topics in Controls.

ASE X79S. Topics in Aerospace Engineering.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's International Engineering Education Programs.

ASE X79W. Aerial Robotics.
Comprehensive introduction to robotic aircraft. Examine rotorcraft dynamics modeling, feedback control, sensing, state estimation, path planning, machine vision, and decision-making under uncertainty. Design an automation protocol, written in C++, that commands a squad of quadcopters competing in a game.

Graduate Courses

ASE X24L. Aerospace Materials Laboratory.
Study of the deformation and fracture behavior of materials used in aerospace vehicles. Structure-property relations, methods of characterizing material behavior, use of properties in the design process. Case histories. Written reports.

ASE X80P. Topics in Mathematical Analysis for Aerospace Engineers.

ASE X80P.1. Analytical Methods I.
Introduction to modern mathematics, real analysis of functions of one variable, linear algebra, elements of real analysis of functions of many variables, calculus of variations.

ASE X80P.2. Analytical Methods II.
Elements of complex analysis, Fourier and Laplace transforms, ordinary and partial differential equations, perturbation methods.

ASE X81P. Topics in System Theory.

ASE X81P.1. Linear Systems Analysis.
Linear dynamical systems; controllability and observability; stability; realization theory; state-feedback and observers.

ASE X81P.10. Learning for Dynamics and Controls.

ASE X81P.11. Nonlinear Dynamics and Control.
Analysis and synthesis of nonlinear control systems. Stability theory, Center manifold analysis, feedback linearization, backstepping, time-scale separations, nonlinear observers, Aeromechanical system applications.

ASE X81P.14. System ID and Adaptive Control.
System identification, persistence of excitation, model reference adaptive control, projection operators, immersion and invariance techniques, applications to aeromechanical systems.

ASE X81P.15. Formal Methods for Robotics.

ASE X81P.16. Networked Control Systems.

ASE X81P.17. Introduction to Optimization.
Introduction to convex optimization (linear, quadratic, second order cone, and semi-definite programming). Review linear and matrix algebra, singular value decomposition, least squares optimization. Discuss engineering applications of optimization.

ASE X81P.18. Modeling Multi-Agent Systems.
Introduction to the mathematics of dynamic game theory, and the use of self-driving vehicles as an ongoing case study. Discuss static games and complementarity programming, dynamic game theory, and game theory and multi-agent control.

ASE X81P.19. Architecting and Design of Autonomous Aerospace Systems.
Introduction to the technical, operational, economic, market, environmental, regulatory, legal, manufacturing, and societal factors that must be considered; as well as the optimization problems and underlying mathematical solution approaches inherent to the architecting and design of systems with high levels of automation and autonomy. Discuss the framework and tools required to develop an appropriate architecture for a large, complex, multi-vehicle aerospace system.

ASE X81P.2. Multivariable Control Systems.
Multivariable feedback systems; factorizations and controller parameterization; limitations and trade-offs of feedback; robust stability and performance; robust H2 and H-infinity control methods.

ASE X81P.3. Optimal Control Theory.
Unconstrained and constrained finite-dimensional optimization, introduction to calculus of variations and optimal control, necessary and sufficient conditions for optimality, Pontryagin's Maximum Principle, minimum-time control, linear quadratic optimal control theory, introduction to dynamic programming, Hamilton-Jacobi-Bellman equation.

ASE X81P.4. Numerical Methods in Optimization.
Numerical methods for solving parameter optimization, suboptimal control, and optimal control problems.

ASE X81P.6. Statistical Estimation Theory.
Modeling static and dynamic systems, linear and nonlinear estimation, Bayesian estimation, batch least squares, Kalman filtering, square-root and information filtering, introduction to advanced estimation methods.

ASE X81P.7. Advanced Topics in Estimation Theory.
Estimation in the presence of unmodeled accelerations; nonlinear estimators; continuous estimation methods.

ASE X81P.9. Human Centered Robotics.

ASE X82Q. Topics in Fluid Mechanics.

ASE X82Q.1. Foundations of Fluid Mechanics.
Fundamental equations; constitutive equations for Newtonian fluids; inviscid, incompressible potential flow; viscous flow including exact solutions and boundary layer theory; compressible flow.

ASE X82Q.10. Plasmas and Reactive Flows.
Fundamental description of plasmas and reactive flows. Includes derivation of common governing transport equations for a broad class of electrically conducting and nonconducting reactive gases, and electromagnetic field interactions with gases, gas-phase and surface kinetics, transport properties, and applications.

ASE X82Q.11. Foundations of Computational Fluid Dynamics.
Higher-order numerical methods for solving partial differential equations and ordinary differential equations. Focus on the numerical computation of fluid flows, with a variety of scientific applications.

ASE X82Q.12. Partially Ionized Plasmas and Gas Discharges.

ASE X82Q.13. Viscous Fluid Flow.
Discuss transport phenomena, conservation equations, Navier-Stokes equations, analytical solutions to Navier-Stokes equations, laminar and turbulent boundary layers, transition, and effects of pressure gradients, with a brief introduction to RANS, LES, DNS.

ASE X82Q.7. Advanced Problems in Compressible Flow.
Physics and modeling of compressible fluids; types and structure of shock waves; heat conduction and secondary viscosity effects; exact nonlinear flow models.

ASE X82Q.8. Lagrangian Methods in Computational Fluid Dynamics.
Particle-based methods of computational fluid dynamics: molecular dynamics, direct simulation Monte Carlo, cellular automata, lattice Boltzmann, particle in cell, point vortex, immersed boundary.

ASE X82Q.9. Turbulent Mixing.
Fundamentals of turbulent scalar mixing relevant to turbulent combustion. Includes governing equations, mass diffusion, scalar transport, kinematics, chaotic advection, vortex dynamics, small-scale structure of vorticity and dissipative fields, scalar dissipation rate, scaling laws for canonical flows, heat release effects, and turbulent jet flame structure.

ASE X82R. Topics in Aerodynamics.

ASE X82R.3. Hypersonic Aerodynamics.
Characteristics and assumptions of hypersonic flow; hypersonic similitude; Newtonian theory; constant density solutions.

ASE X82R.5. Advanced Computational Methods.
Development and implementation of numerical methods for solution of transport equations; computational grid generation; applications to fluid flows, including shock waves.

ASE X82R.6. Molecular Gas Dynamics.
Kinetic theory, chemical thermodynamics, statistical mechanics. Applications: equilibrium gas properties, chemical kinetics, interaction of matter with radiation, rarefied gas dynamics.

ASE X82R.7. Optical Diagnostics for Gas Flows.
Fundamentals of nonintrusive flowfield diagnostics for aerodynamics and combustion. Basics of lasers and optical detectors; interferometric methods; Rayleigh, Raman, and Mie scattering; absorption spectroscopy; laser-induced fluorescence.

ASE X84P. Topics in Structural and Solid Mechanics.

ASE X84P.1. Solid Mechanics I.
Mathematical description of stress, deformation, and constitutive equations of solid mechanics; boundary value problems of elasticity.

ASE X84P.11. Mechanics of Composite Materials.
Constitutive equations; micromechanical and macromechanical behavior of lamina; strength and stiffness in tension and compression, theory of laminated plates; strength of laminates; delamination.

ASE X84P.13. Rotary Wing Aircraft.
Discuss the aerodynamics of rotors; typical helicopter rotor hubs and their operation; rotor forces and aircraft trim; rotary-wing aircraft performance; and rotating blade dynamics.

ASE X84P.2. Solid Mechanics II.
Continuation of Engineering Mechanics 388. Additional topics in elasticity, plasticity, viscoelasticity, variational methods, and other areas of solid mechanics.

ASE X84P.3. Structural Dynamics.
Free and forced vibration of single-degree-of-freedom, multiple-degree-of-freedom, and continuous systems. Lagrange's equations and Hamilton's principle; discretization of continuous systems; numerical methods for response and algebraic eigenvalue problems.

ASE X84P.4. Finite Element Methods.
Derivation and implementation of the finite element method; basic coding techniques; application to problems of stress and diffusion.

ASE X84P.6. Advanced Structural Dynamics.
Analysis of complex flexible systems; discretization of complex structures by the finite element method; advanced computational methods for large finite element models.

ASE X84P.8. Selected Topics in Aeroelasticity.
Classical and contemporary topics in aeroelasticity; general introduction to aeroelastic phenomena, including flutter, divergence, control reversal, and flexibility effects on stability and control; aeroelastic tailoring; active control concepts; unsteady aerodynamic theories for lifting surfaces and bodies; aeroelastic system identification, including nonlinear systems (theory and laboratory applications).

ASE X87P. Topics in Flight Mechanics, Guidance, Navigation, and Control.

ASE X87P.2. Mission Analysis and Design.
Mission design and mission constraints, launch windows; rendezvous analysis; orbital design interactions with thermal and structural analysis; design of a typical mission.

ASE X87P.6. Optimal Spacecraft Trajectories.
Optimal control of spacecraft; primer vector theory; impulsive maneuvers; finite burn high/low thrust maneuvers; solar sails; numerical methods; applications to contemporary trajectory problems using single or multiple spacecraft.

ASE X87P.7. Sensors and Actuators.
Students use LabVIEW to study aerospace devices such as inertial navigation systems, control-moment gyroscopes, optical navigation systems, torque coils and magnetometers, robots, and integrated satellites.

ASE X87P.8. Aerial Robotics.
Comprehensive introduction to robotic aircraft. Examine rotorcraft dynamics modeling, feedback control, sensing, state estimation, path planning, machine vision, and decision-making under uncertainty. Design an automation protocol, written in C++, that commands a squad of quadcopters competing in a game.

ASE X88P. Topics in Celestial Mechanics.

ASE X88P.2. Celestial Mechanics I.
N-body problem; three-body problem; restricted three-body problem; Jacobian integral; zero-velocity curves; equilibrium points; stability; linearized solutions; variational equations; periodic orbits; the two-body problem; variation of parameters; Lagrange's planetary equations; applications to near-earth and deep-space trajectories; numerical methods.

ASE X88P.3. Celestial Mechanics II.
Hamiltonian mechanics; dynamical systems; canonical transformations; invariant manifolds; Poincare surfaces of section; applications to restricted n-body problems; applications to sun-earth-moon or sun-planet-moon particle trajectory problems.

ASE X89. Topics in Aerospace Engineering.

ASE X89P. Topics in Satellite Applications.

ASE X89P.1. Determination of Time.
Concepts of time; fundamental reference system; polar motion; practical methods in time determination and dissemination; historical and present-day time scales; atomic clocks; time transfer via satellite.

ASE X89P.10. Fundamentals and Geophysical Application of Imaging Radar Systems.
Exploration of how radar images are formed and manipulated, as well as applications of the systems to problems such as measurement of the Earth crustal deformation. Focus on radar as a signal processing problem, radar image formation, polarimetric radars, and radar interferometry. Subjects include system design, scattering from natural surfaces, range and azimuth processing algorithms, and processor design.

ASE X89P.11. Advanced Satellite Geodesy.
Examine kinematics and dynamics of displacement and Earth orientation. Investigate the determination of time and reference frames. Explore deformations of the Earth due to tides and mass loading. Study modern space geodetic applications.

ASE X89P.12. Orbital Debris.
Discuss the orbital debris environment, space situational awareness, and space traffic management. Explore orbit determination, multiple-target tracking, uncertainty propagation, risk assessment, and evolution of the existing debris field.

ASE X89P.13. 3D Remote Sensing Analytics and Applications.

ASE X89P.14. Low Earth Orbit for Earth Observation.
Explore orbital geometry, approximate representation, and design of orbits in the secularly precessing ellipse model. Examine the motion of satellites, the sun, the moon and the Earth. Discuss the view of space from the ground, the view of ground from space, and the design and utilization of constellations.

ASE X89P.15. Satellite System Signal Processing.
Discuss fundamental theory and algorithms related to acquiring and processing radio signals from constellations of satellites for navigation and communication. Examine software-defined radio fundamentals, carrier and code tracking loops, and the effects of the space-to-earth communications channel.

ASE X89P.16. Computational Methods.
Examine basics of vectors and matrices, linear equations, regression and classification, similarity measures, the Discrete Fourier Transform (DFT), linear filters, and power spectrum estimates. Focus on applying matrix methods to practical applications, such as tomography, image processing, data fitting, time series prediction, optimal control, finance, and machine learning. Utilize MATLAB or Python to do computations with vectors and matrices and run numerical experiments with real-world data sets.

ASE X89P.2. Satellite Geodesy.
Explore theory of the gravitational potential, including its time-variations; spherical harmonics and other representations; space-based remote sensing of the geopotential and its gradients; mass flux variability and its applications.

ASE X89P.4. Methods in Orbit Determination.
Variational methods of the orbit determination, Orbit parameter estimation, satellite tracking techniques and observables, modern precision orbit determination.

ASE X89P.8. Satellite Control Systems.
Spacecraft equations of motion; linearization and stability, classical control methods; digital and sampled data systems; multivariable control; attitude determination and control; momentum management; coupled modes; and case studies in satellite control.

ASE X89P.9. Synthetic Aperture Radar: Principles and Applications.
Synthetic Aperture Radar (SAR) imaging for Earth remote sensing, including image formation concepts and interpretation, radar interferometry processing and strategies, surface deformation, topographic mapping, and polarimetric applications.

ASE X97. Graduate Seminar.
Student, faculty, and visitor presentations of current research topics.

ASE X97R. Research in Aerospace Engineering.
ASE X98. Thesis.
ASE X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
ASE X98T. Supervised Teaching in Aerospace Engineering.
Teaching methods and objectives, criteria for evaluating teaching effectiveness, procedural rules and regulations, laboratory teaching.
ASE X99W. Dissertation.

Professional Courses

ASE X24L. Aerospace Materials Laboratory.
Study of the deformation and fracture behavior of materials used in aerospace vehicles. Structure-property relations, methods of characterizing material behavior, use of properties in the design process. Case histories. Written reports.

ASL - American Sign Language

American Sign Language: ASL

Lower-Division Courses

ASL X01C. Accelerated First-Year American Sign Language.
Introduction to American Sign Language and its vocabulary and sentence structure. A six-hour course comparable to American Sign Language 506 and 507.
ASL X01D. American Sign Language I: Beginning.
This course focuses on the development of beginner-level comprehension and production skills in American Sign Language. Students learn how to attend to visual language and use their hands and body for producing ASL constructions. Elementary vocabulary and grammar is covered, along with information about Deaf culture.
ASL X10D. American Sign Language II: Beginning.
Focuses on the development of intermediate-level proficiency in ASL. An introduction to more complex grammatical constructions with the goal of engaging in conversations in ASL on a variety of topics. Examines the historical aspects of the Deaf community and related themes.
ASL X11D. American Sign Language III: Intermediate.
Focuses on maintaining and building upon a student's intermediate ASL skills. Grammar coverage includes complex constructions that involve the signing space, and vocabulary building includes comparisons between English words and ASL signs in order for the learner to make appropriate vocabulary choices in their ASL production. Complex questions facing the contemporary Deaf community are discussed.
ASL X19S. Topics in American Sign Language.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Linguistics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ASL X20. Advanced American Sign Language Conversation.
Advanced development of conversational skills in American Sign Language, with a focus on sophisticated linguistic structures and important issues in Deaf studies.
ASL X26. Sign Languages and Signing Communities.
Examine the grammar of signed languages, their use in signing communities, and the acquisition of signed languages as first languages. No knowledge of American Sign Language is required. Conducted in English.
ASL X29S. Topics in American Sign Language.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Linguistics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ASL X36. Introduction to Sign Interpreting.
Introduction to sign interpreting from American Sign Language into English and from English into American Sign Language. Topics include the ethics of interpreting and the problems that arise in interpreting in different social and professional situations.
ASL X50. Topics in American Sign Language, Deaf Studies, and Interpreting.
ASL X50.1. American Sign Language Literature.
Examines American Sign Language literature; includes narratives, language games, and poetry.
ASL X52. Deaf Culture.
Introduction to aspects of the culture of Deaf people, including their history, language, and contributions to the United States and/or to other countries. Themes explored include the role of educational institutions within Deaf networks and linguistic, ethnic, and cultural diversity throughout the community.
ASL X54. Exploring the History of American and French Sign Languages.
Conducted in American Sign Language. Explore the historical development of American Sign Language (ASL) and its roots in French Sign Language (LSF). Examine the linguistic, cultural, and historical connections between ASL and LSF.
ASL X56. Perspectives on Deaf Peoples and Communities.
Conducted in English. Examine deaf peoples and communities from a number of perspectives: social and psychological meanings of deaf, the deaf community, education of deaf children, sign languages, and historical trends.
ASL X57. Undergraduate Research.
Supervised research experience.

Graduate Courses

ASL X95. Conference Course in American Sign Language.
Supervised research.
ASL X95C. American Sign Language for Graduate Students I.
Beginning language instruction in American Sign Language for graduate students.
ASL X95D. American Sign Language for Graduate Students II.
Intermediate language instruction in American Sign Language for graduate students.
ASL X95E. American Sign Language for Graduate Students III.
Advanced language instruction in American Sign Language for graduate students.

Professional Courses

AST - Astronomy

Astronomy: AST

Lower-Division Courses

AST X01. Introduction to Astronomy.
General introduction to astronomy for nonscience majors. The solar system, stars, galaxies, and cosmology.
AST X01L. Astronomy Discovery Laboratory.
Hands-on projects in observational astronomy and related laboratory disciplines. Students work in small groups.
AST X02. Self-Paced Introduction to Astronomy.
General, self-paced introduction to astronomy for nonscience majors. The solar system, stars, galaxies, and cosmology.

AST X03. Introduction to Astronomy with Celestial Observations.
General introduction to astronomy for nonscience majors. The solar system, stars, galaxies, and cosmology. Introduces students to the night sky and includes some observational activities.

AST X03L. Astronomical Observations.
Observations of the night sky with the naked eye and small telescopes; indoor laboratory activities.

AST X04. Undergraduate Astronomy Seminar.
Discussions about current astronomical research, with different topics emphasized each semester.

AST X07. Introductory Astronomy.
Introduction to astronomy for science and engineering students. The solar system, stars, galaxies, and cosmology.

AST X09. Topics in Astronomy for Nonscience Students.
Selected topics in modern astronomy: solar system, galaxies, peculiar stars, cosmology, and others.

AST X09.1. Popular Astronomy.
Survey of topics of greatest interest to the public and the media, including new planets, black holes, dark matter, dark energy, and the origin of the Universe.

AST X09C. Birth of Stars and Planets.
Study of how stars and planets form, including discussions on the implications for the formation of our own solar system. Designed for non-College of Natural Sciences majors.

AST X09G. Popular Astronomy for Nonscience Students.
Subjects include new planets, neutron stars, supernovae, gamma-ray bursts, black holes, dark matter, dark energy, and the origin of the universe. Designed for non-College of Natural Sciences majors.

AST X09L. Search for Extraterrestrial Life.
Origin of life in the solar system, existence of other planetary systems, possibilities and techniques for detection of and communication with other intelligences. Designed for non-College of Natural Sciences majors.

AST X09N. Lives and Deaths of Stars.
How stars live and die; extremes of stars and their life cycles. Exotic objects such as white dwarfs, supernovae, neutron stars, pulsars, and black holes. Specific subjects may vary with instructor. Designed for non-College of Natural Sciences majors.

AST X09P. Astronomy in Science Fiction.
The use of astronomy and other sciences in science fiction literature. Critical analysis of selected novels as to the validity of the astronomy used. Designed for non-College of Natural Sciences majors.

AST X09Q. Time and the Cosmos.
From the beginning of time in the Big Bang to the end of time in the black hole. Includes the early universe, the formation and evolution of single and double stars, and the supercompact objects they eventually become: white dwarfs, pulsars, and black holes. Designed for non-College of Natural Sciences majors.

AST X09R. Galaxies, Quasars, and the Universe.
Galaxies, quasars, giant black holes; cosmic evolution; the origin and future of the universe. Designed for non-College of Natural Sciences majors.

AST X09S. The Solar System.
The nature, origin, and evolution of our solar system, including planets, moons, and other bodies. Designed for non-College of Natural Sciences majors.

AST X09T. The Milky Way Galaxy.
Our spiral system of stars, gas, and dust; star formation. Designed for non-College of Natural Sciences majors.

AST X10C. Conference Course in Astronomy.
Independent research course with supervision by astronomy faculty member or research scientist.

AST X10K. Topics in Astronomy Research.

AST X11G. Galaxy Evolution - Vertically Integrated Projects I.
Improve Python programming skills and learn application to galaxy evolution research in astronomy. Develop research skills through a group project and discussions. Report on progress each week, produce a research notebook, and conduct presentations.

AST X12G. Galaxy Evolution - Vertically Integrated Projects II.
Collaborate with senior mentoring team to define and develop capstone research project. Complete original project initiated in Astronomy 211G, and present results at the CNS Undergraduate Research Fair. Analyze and discuss current scientific papers related to astronomy.

AST X19S. Topics in Astronomy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Astronomy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AST X29S. Topics in Astronomy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Astronomy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

AST X19S. Topics in Astronomy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Astronomy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AST X21. Topics in Current Problems in Astronomy.

AST X22G. Galaxy Evolution - Vertically Integrated Projects Capstone.
Continue capstone research project developed in Astronomy 212G. Discuss and pursue publication possibilities. Present poster of research results at the CNS Undergraduate Research Fair and in an oral presentation.

AST X24. Origins: The Universe, Stars, Planets, and Life.
Cosmic origins from the Big Bang to life, and the connections among the origins of stars, planets, and life.

AST X29S. Topics in Astronomy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Astronomy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AST X50L. History and Philosophy of Astronomy.
Historical influence of astronomical concepts on social, economic, literary, and scientific life; the place of astronomy in society.

AST X51. Astronomical Instrumentation.
A hands-on course in computer-controlled optical instrumentation. Intended for natural science and engineering students interested in the practical aspects of instrument design and construction. Includes optics and optical design, electronics, machining and mechanical design, and computer interfacing. Students work in groups and as teams to design a computer-controlled optical instrument.

AST X52K. Stellar Astronomy.
Properties of stars and starlight: principles of radiation; interpretation of stellar spectra. Observational techniques such as photometry, spectroscopy, and telescopes and detectors; variable stars; binary stars.

AST X52L. Positional, Dynamical, and Kinematical Astronomy.
Coordinate systems and time; stellar positions and motions; the kinematics and dynamics of star clusters and galaxies.

AST X52M. Stellar Astronomy Laboratory.
An introduction to practical observational techniques in astronomy, designed for astronomy majors or advanced students in a physical science. Exercises on the spectroscopy, photometry, and positions of stars using a sixteen-inch telescope on campus.

AST X53. Astrophysics.
Survey of the physics of stellar and nonstellar radiation laws, stellar atmospheres and interiors; high-energy astrophysics. Designed for science and engineering majors.

AST X58. Galaxies and the Universe.
Our galaxy and its constituents; stars and interstellar matter. Properties of other galaxies; galaxy interactions and mergers; expansion and evolution of the universe. Designed for science and engineering majors.

AST X64P. Planetary Systems.
Modern studies of the solar system, including properties of the planets and smaller bodies, and the origin of planetary systems.

AST X67M. Physical Science: Methods of Astronomy.
An introductory, self-paced course in the methods of astronomy that emphasizes learning astronomical principles through observations.

AST X75. Topics in Astronomy Research.

AST X75C. Conference Course in Astronomy.
Independent research course with astronomy faculty member or research scientist.

AST X76. Special Topics in Advanced Astronomy.

AST X76.1. Observational Methods in Astronomy.
A hands-on course in astronomical observations and data analysis. Explores astronomical observing techniques, data reduction and analysis, and interpretation of results. The coursework will include regular exercises in obtaining and analyzing data to solve currently relevant astronomical problems.

AST X76C. Cosmology.
The laws of physics applied to the Universe at large: its featureless beginning in the Big Bang, its fundamental constituents including radiation, atoms, and dark matter; the discoveries of universal expansion and dark energy, and a structure reflected in the web of galaxies. Designed for science and engineering majors.

AST X76R. A Practical Introduction to Research Methods.
Practical exercises including analysis of imaging data, visualization, programming exercises with Python, IDL or other languages, statistical analyses, and training for papers and oral presentations.

AST X79H. Honors Tutorial Course.
Research project and thesis for students electing to take the honors program in astronomy.

Graduate Courses

AST X19S. Topics in Astronomy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Astronomy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AST X29S. Topics in Astronomy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Astronomy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AST X80E. Radiative Processes and Radiative Transfer.
Classical and quantum radiative processes relevant to astrophysics; basic radiative transfer.

AST X81. Topics in Theoretical Astrophysics.

AST X81C. Gravitational Dynamics.
Orbital, collective, and tidal effects of astronomical objects, such as planets, stars, galaxies, and interstellar medium, under the influence of a gravitational field.

AST X81S. Seminar in Theoretical Astrophysics.
Topics to be announced.

AST X82C. Astrophysical Gas Dynamics.
The basic principles of compressible gas dynamics and magnetohydrodynamics, developed and applied in an astrophysical context to a wide range of astronomical phenomena.

AST X82D. Astronomical Data Analysis.
Apply statistical analysis techniques to astronomical data. Examine probability theory, parameter estimation, Bayesian statistics, Markov Chain Monte Carlo methods, and model fitting.

AST X83. Topics in Stellar Astronomy.

AST X83C. Stellar Atmospheres.
Observational properties of stellar atmospheres; theoretical calculations of stellar atmospheres and stellar spectra.

AST X83D. Stellar Structure and Evolution.
Theoretical calculations of the structure and evolution of stars.

AST X83E. Order of Magnitude Astrophysics.
Apply rapid estimation strategies employing astrophysical knowledge to answer a broad range of problems. Develop skills in posing and answering questions about research.

AST X83L. Seminar in Planets and Life.
Discussions concerning the solar system; the detection, formation, and evolution of planets; planetary atmospheres, climates, and meteorology; and various aspects of life in the universe.

AST X83T. Seminar in Stellar Astronomy.

AST X84C. Computational Astrophysics.
Investigate, compare, and implement computational techniques for numerical modeling of astrophysical systems.

AST X84T. Current Studies in Astronomy for Teachers.
Lectures and laboratory work in astronomy for elementary and secondary school teachers of earth science, physical science, or astronomy.

AST X85. Topics in Conference Course.

AST X85C. Conference on Modern Astronomy.
A broad introduction to the research being conducted by the faculty and research staff in astronomy.

AST X86. Topics in Extragalactic Astronomy.
Topics include classification of galaxies, distance indicators, luminosities, dimensions, colors, spectra, polarization, radio emission, rotation, masses; formation and evolution; pairs, groups, clusters, superclusters, large-scale distribution, redshifts, cosmology.

AST X86C. Properties of Galaxies.
Observational properties of galaxies and their interpretation; includes a discussion of the Milky Way galaxy.

AST X86S. Seminar in Extragalactic Astronomy.
Topics to be announced.

AST X89. Topics in Dynamical Astronomy.
Topics include planetary and stellar motions, asymptotic representations of quasi integrals, galactic dynamics.

AST X90F. Stars, Planets, and Interstellar Matter Seminar.
Present and discuss current research broadly related to stars, planets in the Solar System, extrasolar planets, and interstellar matter.

AST X90G. Galaxies and Cosmology Seminar.
Present and discuss current research on properties of galaxies, galaxy evolution, cosmology, and related subjects.
AST X91. Graduate Research in Astronomy.
AST X92D. Mathematical Methods of Astrophysics.
Statistics, error theory, least squares and curve fitting, numerical methods, approximation theory, Fourier transforms, sampling theory, time-series analysis.
AST X92E. Topics in Optical Techniques in Astronomy.
Topics include photometry, spectroscopy, direct imaging, interferometry and polarimetry at ultraviolet, visual, and infrared wavelengths.
AST X92G. Observing Techniques in Astronomy.
Survey of techniques used at the McDonald Observatory. Includes workshop at the observatory.
AST X92J. Astronomical Instrumentation.
A hands-on course in instrument development, including mechanical design and machining, electronics design, optical design and optics, computer interfacing, and project planning. Students use CAD programs in each area and design and build a computer-controlled instrument. Learning activities are carried out in groups and teams.
AST X93F. Survey of the Interstellar Medium.
A broad introduction to the processes and properties of the interstellar medium. Topics include H I regions, H II regions, molecular clouds, interstellar dust, and the distribution of the interstellar medium in our galaxy.
AST X93S. Seminar in Interstellar Matter.
Topics to be announced.
AST X94F. Formation of Galaxies and Large-Scale Structure.
Investigate formation and evolution of galaxies and larger structures in their cosmological context, including dark matter, dark energy, and the intergalactic medium.
AST X94P. Planetary Astrophysics.
Discuss exoplanet detection methods; demographics, architecture, formation and evolution of planetary systems; planetary interiors, atmospheres and habitability.
AST X95H. High Redshift Galaxies.
Examine galaxy evolution, emphasizing first galaxies to the cosmic star formation peak at redshift z=2. Interpret relevant observations and simulations.
AST X96C. Elements of Cosmology.
A theoretical discussion of the origin and evolution of the universe; includes a brief review of general relativity.
AST X97. Graduate Research Project.
Two-semester graduate research project in astronomy.
AST X98. Thesis.
AST X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
AST X98T. Supervised Teaching in Astronomy.
Effective astronomy teaching: course design, instructional materials, test design, other methods. In-class practice teaching. Projects in astronomy education.
AST X99W. Dissertation.

Professional Courses

AST X19S. Topics in Astronomy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Astronomy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
AST X29S. Topics in Astronomy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Astronomy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

AUD - Audiology

Audiology: AUD

Lower-Division Courses

Upper-Division Courses

Graduate Courses

Professional Courses

AUD X81P. Auditory Processing Disorders.
Examine the assessment and treatment of disorders of the central auditory nervous system in children and adults.
AUD X83P. Surgically Implanted Auditory Prostheses.
Explore the theory behind implantable auditory technology and application. Learn to determine implant candidacy and outcomes of implantable devices.
AUD X83S. Applications of Surgically Implanted Auditory Prostheses.
Learn clinically applied skills in implantable auditory devices such as programming and assessing patient outcomes.
AUD X88P. Basic Clinical Practicum in Audiology.
Examine the basic foundations of practice in clinical audiology.
AUD X89P. Intermediate Clinical Practicum in Audiology.
Examine the intermediate methods and experiential learning in an immersive clinical audiology setting.
AUD X90Q. Business Applications.
Examine issues associated with the development, operation, and management of businesses devoted to service delivery in audiology and speech-language pathology.
AUD X91P. Anatomy and Physiology of the Auditory System.
Explore the structure and function of the auditory system, including hearing and balance mechanisms.
AUD X92C. Counseling.
Examine both speech-language pathology and audiology counseling roles when implementing patient-centered and family-centered care in a variety of settings.
AUD X94E. Auditory Electrophysiology.
Review the auditory nervous system and evaluate electrodermal, electroencephalographic, and electrocardiographic audiometry in depth.
AUD X94J. Auditory Perception.
Examine an overview of theories and research findings related to human auditory perception and recognition including acoustic characteristics of speech categorical perception, sound localization, and pitch and loudness perception.
AUD X94K. Aural Habilitation.
Examine both the pediatric and educational audiologist's roles when working with hard of hearing or deaf children and their families.
AUD X94P. Amplifying Systems in Aural Rehabilitation.
Examine principles of hearing aid circuitry and looped systems; ear molds and acoustic properties thereof; electroacoustic properties of hearing aids and selection procedures.
AUD X94S. Medical Audiology.
Explore audiologic implications of pathology and medical and/or surgical treatment of the ear; otologic diagnoses.
AUD X94T. Topics in Audiology.
Apply advanced clinical skills in Audiology for challenging disorders such as tinnitus, decreased sound tolerance, and auditory dysfunction in normal hearing.

AUD X95Q. Pediatric Audiology.
Explore current methods of testing the hearing of young children, including identification, electrophysiological and operant audiometry, and medical aspects of hearing loss in children.
AUD X96H. Vestibular Sciences I.
Explore vestibular anatomy and physiology, including vestibular dysfunction in congenital and adult disorders.
AUD X96J. Vestibular Sciences II.
Learn and apply vestibular diagnostic techniques designed to assess peripheral through central vestibular function.
AUD X96P. Signals and Systems in Hearing and Speech.
Explore electrophysiological and electroacoustic procedures in the study of communication behaviors.
AUD X96Q. Advanced Amplifying Systems.
Explore the fitting of amplification systems in various clinical populations, with a main focus on pediatric amplification followed by complex amplification cases across the lifespan.
AUD X97. Clinical Externship in Audiology.
Engage in an intensive clinical experience in a professional setting.
AUD X98. Audiology Research Practicum.
Conduct research under the mentorship of an Audiology Faculty member. Present a prospectus at the end of the second year to faculty and peers. Present findings to faculty/peers and present at conference and/or submission for publication at the end of the third year.
AUD X98Q. Research Project in Audiology.
Learn about conducting a research study and how to design a study. Read and integrate relevant literature and develop hypotheses and research plan. Identify a mentor for the Audiology Research Practicum.

B A - Business Administration

Business Administration: B A

Lower-Division Courses

B A X01F. First-Year Interest Group Seminar.
Basic issues in various McCombs School of Business disciplines.
B A X01H. Professional Development and Career Planning: Honors.
Professional development issues including self-assessment, identification of personal life goals, identification of business majors and exploration of potential career fields for each major, and analysis and discussion of the academic planning process and how it relates to professional development and career planning.
B A X01S. Professional Development and Career Planning.
Discussion of issues surrounding career planning, implementation, and evaluation in order to establish career goals. Strategies for executing a successful job search, including interviewing techniques, resumes, networking, and job search ethics. Focus on career management as a lifelong process.
B A X01T. Professional Development and Career Planning.
Discussion of issues surrounding career planning, implementation, and evaluation.
B A X02F. Career Planning.
Practice career exploration, planning, and networking techniques. Focus on exploring interests, job search, and alignment of personal and professional goals. Explore experiential learning and peer-to-peer assessment to optimize resume, storytelling, and interviewing techniques.
B A X05. Topics in Business Administration Leadership.
Explores current theory and research related to peer mentoring and leadership with higher education and business.
B A X10G. Topics in Professional Growth I.
B A X11F. Career Planning: The Business of Your Career.
Practice career exploration, planning, and networking techniques. Focus on exploring interests, job search, and alignment of personal and professional goals. Explore experiential learning and peer-to-peer assessment to optimize resume, storytelling, and interviewing techniques.
B A X11G. Topics in Professional Growth II.
B A X18H. Business Honors Program Seminar.
Basic issues in various interdisciplinary and business fields of study.
B A X19. Topics in International Learning Seminar.
Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.
B A X19S. Topics in Business Administration.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the Bachelor of Business Administration's study abroad director in the McCombs School of Business. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
B A X87T. Legal and Regulatory Environment of Business.
Examination of relationships between public and private institutions, with emphasis on the legal constraints on managerial decision making.

Upper-Division Courses

B A X20F. Foundations of Entrepreneurship.
Introduction to the mechanics and strategies for starting a business.
B A X20G. Topics in Professional Growth III.
B A X21L. Contemporary Leadership Issues.
Focuses on leadership topics such as ethics, diversity, and sustainability.
B A X24. Business Communication: Oral and Written.
Theory and practice of effective communication, using models from business situations. Students practice what they learn with a variety of in-class activities, written assignments, and oral presentations. Teamwork and use of interpersonal skills are included.
B A X24H. Business Communication: Oral and Written: Honors.
Theory and practice of effective communication, using models from business situations. Students practice what they learn with a variety of in-class activities, written assignments, and oral presentations. Teamwork and use of interpersonal skills are included.
B A X30G. Topics in Professional Growth IV.
B A X32F. Topics in Foundations of Business.
B A X40G. Topics in Professional Growth V.
B A X40S. Topics in Business Administration.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the Bachelor of Business Administration's study abroad director in the McCombs School of Business. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
B A X49. Topics in International Learning Seminar.
Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.
B A X52F. Internship in Foundations of Business Administration.
Focuses on students' career goals through academic discussion and evaluations, while students are working in professional internships with public and private enterprises. Internship to be arranged by the student and approved by the director of the Business Foundations Program.
B A X53. Internship in Business Administration.
Provides a format for reflection during a professional internship, resulting in improved ability to both articulate preferences and skills, and to match them with appropriate career-related choices.

B A X66F. Foundations of Business Administration Practicum.
Students apply skills related to the Business Foundations certificate program curriculum and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise.

B A X66P. Business Administration Practicum.
Apply business skills through group projects conducted in a professional setting. Work with a private or a public enterprise.

B A X76C. Advanced Topics in Finance and Accounting.
Rigorous introduction into the topics and processes of accounting and finance in business. Focus on how to apply analytical skills to make better business decisions. Taught by faculty from the McCombs School of Business.

B A X76D. Advanced Topics in Marketing.
Explores marketing strategies and practices that are applicable to multiple departments across organizations. Discussion of marketing tactics and the impact of marketing on business operations.

B A X76E. Advanced Topics in Leadership and Management.
Discussion of strategies to foster highly effective communication and collaboration in order to become more successful and valuable as a leader.

B A X76F. Advanced Topics in Business Analytics.
Introduction to the leading edge of big data and data analytics.

B A X76G. Advanced Topics in Supply Chain.
Explores the tools and ideas that help shape and define the various components of value creation. Dive into the process and strategies behind acquiring, producing and delivering goods and services, whether domestically or globally.

B A X76J. Advanced Topics in Energy.
Focus on the economics, strategy, business valuation and finance specific to the energy industry.

B A X76K. Advanced Topics in Strategy.
Focus on developing the knowledge and thought processes necessary to make high-impact decisions within an organization.

B A X76L. Advanced Topics in Strategic Decision Making and Risk Management.
Explores techniques to recognize risks from stakeholders' perspectives. Discussion of how to frame strategic choices, generate alternatives, and create models that answer executives' questions, produce compelling analyses, and ultimately gain commitment.

B A X76N. Advanced Topics in Business.
Explores the skill set needed to move from a functional area to a cross functional management role.

B A X78F. Independent Research in Foundations of Business Administration.

B A X87T. Legal and Regulatory Environment of Business.
Examination of relationships between public and private institutions, with emphasis on the legal constraints on managerial decision making.

Graduate Courses

B A X80C. Information Technology Management.
A discussion of technical architecture, including hardware/software platforms, operating systems, networking and the Internet; development strategies; and management issues for the introduction of new technology.

B A X80F. Accounting Information for Managerial Decision Making.
Financial information regarding revenue, cost, and assets, with an emphasis on the interpretation of numbers to derive well-informed management decisions. Covers the role of taxes in business strategy.

B A X80G. Executive Seminar.
Examine the integration of business executive and real-world problem solving, career preparation, and professional growth.

B A X80M. Management Science.
Introduction to the structure and use of mathematical models and methods for analyzing managerial decision problems. Development and application of modeling concepts and skills underlying the analytical techniques used to solve such problems. Introduction to a range of computers, and use of the latest in computer-based decision support systems.

B A X80N. Operations Management.
An introduction to the issues and decisions involved in the production of goods and services. Focuses on designing, operating, controlling, and improving the systems that accomplish production.

B A X80P. Project Management.
An introduction to the techniques used in managing complex projects, with a central theme of managing risk and variability. Examine the progressive elaboration of cost and schedule estimates in the presence of significant uncertainty.

B A X80S. Managerial Economics.
Microeconomic and macroeconomic forces that influence an organization's decisions: interest rates, business cycles, financial systems, input demand and supply, industry factors, market structure, and externalities.

B A X81C. Strategic Career Planning.
Issues surrounding career planning, including exploration and implementation. Professional development issues, including self-assessment.

B A X81M. Marketing Management for Executives.
Study the marketing function in modern organizations, focusing on understanding consumer behavior, development of an organization's value proposition, competitive positioning, and the major tactical decisions regarding product planning, marketing communications, pricing, and distribution.

B A X81T. Marketing Management.
An introduction to the marketing perspective on strategy development and to the elements of marketing analysis. Includes the functional decision areas of the marketing manager, such as products and product lines, pricing policies, branding, promotion and advertising, and channels of distribution, and how organizations use these components to create, capture, and sustain value for the firm.

B A X82C. Strategies for Career Planning.
Examine the McCombs Career Management Framework (Discover, Connect, Strategize, Engage). Assess strengths and values, develop professional networks, research target industries and companies, create comprehensive career portfolios including tailored resumes and LinkedIn profiles, and build behavioral interviewing skills using STAR methodology. Explore practical application through informational interviews, mock interviews, networking events, and personalized career strategy development to effectively translate academic training into meaningful career opportunities.

B A X82T. Managerial Accounting.
An investigation of the conceptual and operational relationship of planning and control with management and accounting information systems. Topics include data collection and analysis for short-range and long-range organizational decisions.

B A X84F. Financial Reporting for Executives.
Examine the strengths and weaknesses of the information produced in financial reports, the pressures faced by management and auditors as they prepare financial statements, the difficulties involved in evaluating decisions after outcomes are known, and the impact of accounting information on strategic decisions.

B A X84S. Topics in Economics for Business.
Microeconomic and macroeconomic forces that influence an organization's decisions, such as interest rates, business cycles, financial systems, input demand and supply, industry factors, market structure, and externalities.

B A X84S.1. Managerial Microeconomics.
Microeconomic forces that influence an organization's decisions, including input supply and demand, industry factors, market structure, and externalities.

B A X84S.2. Managerial Macroeconomics.
Macroeconomic forces that influence an organization's decisions, including interest rates, business cycles, and financial systems.

B A X84S.3. Global Economics for Executives.
Explore both microeconomics and macroeconomics, with a special emphasis on global macro phenomena.

B A X84T. Financial Accounting.
An examination of the information needs of capital market participants in a dynamic and complex socioeconomic system; emphasis on interpretation, measurement, and disclosure of economic events.

B A X85F. Financial Management Concepts and Applications for Executives.
Examine the core concepts underlying financial management. Explore organizational forms of business, the time value of money, debt and equity markets, agency theory, risk and return, value creation, capital budgeting, firm valuation, and the fundamentals of risk-management.

B A X85G. Strategies for Digital Transformation.
Examine concepts and principles from different disciplines in strategy, marketing, economics and operations.

B A X85T. Financial Management.
An exploration of concepts and techniques employed in investment decision making, working capital management, and financing the activities of a business.

B A X86S. Statistics for Executives.
Explore regression as a universal model for linking data to outcomes. Discuss how to set up and run a regression model, evaluate when the model is correct, and interpret the results. Examine illustrative case studies that use regression models to forecast a firm's future sales, determine if apartments and homes are overpriced, evaluate the relative riskiness of owning shares of a stock, develop an optimal bidding strategy, estimate the value of a physical asset, and value a contingent contract offer in a negotiation.

B A X86T. Statistics.
A unified approach to basic concepts in collection, analysis, and interpretation of data, emphasizing capabilities of different statistical methods and business applications. Students use statistical software packages.

B A X87T. Legal and Regulatory Environment of Business.
Examination of relationships between public and private institutions, with emphasis on the legal constraints on managerial decision making.

B A X88F. Foundations of Strategy for Executives.
Explore the foundations of strategy at the top management level, specifically, the antecedents, formulations, and effects of firm strategies.

B A X88T. Strategic Management.
Designed to help students develop a general management orientation. Subjects include the role of the general manager, formulating business and corporate-level strategy, managing strategic change, strategy implementation, and developing general managers.

B A X89T. Managing People and Organizations.
Development of the general areas of theory most central to dealing with the varieties of social/psychological behavior of direct import to the administrator and manager.

B A X90C. Hardware, Software, and Telecommunications.
Provides a broad familiarity with the latest advances in the fundamental concepts and terminology of computer architecture and software.

B A X90D. Management Information Systems.
The use of decision support systems and database management concepts in an organization for information management and processing by mainframe and personal computer.

B A X90F. Information Systems Design and Implementation.
Specification, design, implementation, and testing of information systems.

B A X90H. Managing Information.
Management and use of information in organizations, including database management, analytical approaches for effective information management, and organizational issues.

B A X90J. Data Communications, Networks, and Distributed Processing.
Functional aspects of data communications, computer networks, and distributed information systems, using campus computers and the network systems available in the classroom.

B A X91. Special Topics in Business Administration.

B A X91.1. Finance.

B A X91.2. Management.

B A X91.3. Real Estate.

B A X91.4. Risk Management.

B A X91.5. Accounting.

B A X91.6. Marketing.

B A X91.8. Business, Government, and Society.

B A X92C. Special Studies in Business, Government, and Society.

B A X92D. Special Studies in Business, Government, and Society.

B A X92E. Special Studies in Finance.

B A X92F. Special Studies in Finance.

B A X92G. Special Studies in International Business.

B A X92H. Special Studies in International Business.

B A X92J. Special Studies in Legal Environment of Business.

B A X92K. Special Studies in Legal Environment of Business.

B A X92L. Special Studies in Management.

B A X92M. Special Studies in Management.

B A X92N. Special Studies in Management Information Systems.

B A X92P. Special Studies in Management Information Systems.

B A X92Q. Special Studies in Marketing.

B A X92R. Special Studies in Marketing.

B A X92S. Special Studies in Operations.

B A X92T. Special Studies in Operations.

B A X92U. Special Studies in Risk Management.

B A X92V. Special Studies in Risk Management.

B A X98L. Written and Oral Communication for International Students.
Designed to provide students at the high-intermediate level of English proficiency with communication skills beyond pronunciation and grammatical accuracy.

B A X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

B A X98T. Supervised Teaching in Business Administration.
Teaching in the McCombs School of Business for two semesters under the close direction of the course instructor or supervisor; weekly group meetings with the instructor, individual consultations, and reports throughout the teaching period.

Professional Courses

B A X87T. Legal and Regulatory Environment of Business.
Examination of relationships between public and private institutions, with emphasis on the legal constraints on managerial decision making.

BAH - Business Administration Honors

Business Administration Honors: BAH

Lower-Division Courses

BAH X10G. Topics in Professional Growth I.

BAH X11G. Topics in Professional Growth II.

BAH X19S. Topics in Business Administration Honors.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Business. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

BAH X29S. Topics in Business Administration Honors.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Business. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BAH X51H. Lyceum.

Observe professionals from various fields of business.

BAH X79. Independent Research.

Graduate Courses

Professional Courses

BAX - Business Analytics

Business Analytics: BAX

Lower-Division Courses

BAX X04. Introduction to Problem Solving and Programming.

Programming skills for creating easy-to-maintain systems for business applications. Object-oriented and structured methodologies with Python.

BAX X05. Programming for Data Analytics.

Examine general principles of computer languages and basic object-oriented programming principles. Translate business problems from English into programs written using the Python language. Explore automatic function optimization needed for decision-making. Utilize Python for hands-on work.

BAX X19S. Topics in Business Analytics.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

BAX X20F. Foundations of Business Analytics.

BAX X25. Database Management.

Beginning and intermediate topics in data modeling for relational database management systems.

BAX X27. Data Management.

Explore how to tailor data strategy to business strategy and the technical skills related to understanding data sources, acquiring data, storing data efficiently, and processing the data in preparation for analysis. Learn how to engineer and manage data pipelines, create data stores for analytics, and use data management specific APIs (application programming interfaces). Examine the importance of implementing data governance, understanding data limitations, and assessing the fairness of data collection and usage.

BAX X29S. Topics in Business Analytics.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BAX X32F. Topics in Foundations of Business Analytics.

BAX X38. Supply Chain Modeling and Optimization.

Framing, formulating, and applying quantitative optimization and descriptive models to support supply chain and operations management decisions, using spreadsheets and other software. Requires familiarity with spreadsheets.

BAX X57. Predictive Analytics.

Introduction to machine learning and artificial intelligence techniques with a focus on business applications and decision-making. Examine predictive frameworks, including tree-based techniques and artificial neural networks and their applications in business contexts. Explore solid foundations for evaluating models to understand their impact in a given business context, discuss issues related to algorithmic decision-making, and algorithmic bias and fairness.

BAX X58. Optimization Methods and Decision Making.

Examine decision-making in deterministic settings. Discuss optimization and planning in various contexts including portfolio selection, production planning, marketing allocations, revenue management and pricing. Explore linear, quadratic, nonlinear, and integer programming. Utilize Python for hands-on work.

BAX X60. Information and Analysis.

The development and analysis of information for marketing management sources.

BAX X62. Auditing and Control.

Professional practice standards and procedures of auditing: ethics, legal liability, sampling methods, control systems, control design, and control evaluation.

BAX X65. Ethics of Business Analytics.

Analyze the ethical questions and implications of applying data science to business problems. Examine ethical, policy, and legal terminology used to conceptualize challenges. Explore technical approaches to characterize ethical problems, and historical cases and recent controversies involving data science ethics. Discuss data as abstraction and representations, data collection, consent and privacy, bias in predictive modeling, and algorithms as actors and feedback loops.

BAX X66. Advanced Programming for Data Analytics.

Study exploratory data analysis in-depth. Examine machine learning approaches such as classification and clustering, with a focus on practical implementation of machine learning projects. Explore tools for extraction of structured data and methods for analyzing data networks. Utilize Python for hands-on work.

BAX X66P. Business Analytics Practicum.

Apply skills in a major area and focus on additional business analytics skills through group projects conducted in a professional setting. Work with a private or a public enterprise.

BAX X67. Advanced Predictive Analytics.

Explore problem formulation, data understanding and preparation, and class imbalance and biases in observed and unobserved information. Examine predictive frameworks such as network and graph data analysis, unstructured data analysis, and subjects related to deep neural network architectures and their business applications.

BAX X68. Advanced Optimization Methods and Decision Making.

Examine decision-making under uncertainty. Discuss optimization and planning in various contexts including queueing, resource allocation, pricing, inventory management, and artificial intelligence. Explore stochastic optimization, sample average approximations, simulation, and sequential decision making. Utilize Python for hands-on work.

BAX X71T. Topics in Business Analytics.
BAX X72T. Topics in Business Analytics.
BAX X72T.11. Advanced Analytics Programming.
Focus on data analysis using the Python programming language. Explore machine learning tasks such as classification and clustering.
BAX X72T.13. Data Driven Marketing.
Explore marketing research analytics using various types of data analytics and statistical learning modes.
BAX X72T.14. Quantitative Investment Management.
Examine the economic, statistical, and computing frameworks behind quantitative approaches to evaluating and implementing investment strategies, as well as the empirical evidence on their performance in multiple asset classes. Apply the quantitative big-data approach by developing, pitching, and backtesting an original trading strategy.
BAX X72T.15. Financial Technology.
Explore an overview of the most recent technological advances that are changing the financial services industry and how these technological breakthroughs offer new ways for people to save, invest, borrow, and transact. Analyze how new technologies create value in the financial industry, from reducing unit cost, increasing transparency, increasing competition, creating network effects, leveraging economies of scales, and lowering asymmetric information. Examine the competitive landscape and the market opportunities and threats for incumbents and new entrants.
BAX X72T.16. Optimization Method in Finance.
Explore quantitative methods and techniques in optimization and simulation, and their use in financial decision making. Discuss theory and application in portfolio selection, options and other derivative pricing, index tracking, risk measures, volatility estimating. Examine linear, quadratic, nonlinear, and integer programming; dynamic programming; robust optimization; Monte Carlo methods and variance reduction techniques. Emphasis will be placed on problem solving with advanced computational programming languages.
BAX X72T.17. Health Care Analytics.
Explore key management challenges and how data may be leveraged to guide decisions and improve operations, with the unifying theme of providing health care services in a manner that leads to lower cost and higher quality.
BAX X72T.18. People Analytics.
Explore the use of analytics in the creation and management of human capital. Examine recruiting, selecting, deploying, developing, and managing performance of employees.
BAX X72T.19. Pricing and Channels.
Explore the concept, theory, and latest thinking that bares on key issues in pricing and channels; taking the perspective of the marketing manager. Apply concepts and theory, through extensive case analyses, to solve pricing and channel problems in realistic business settings.
BAX X72T.20. Supply Chain Analytics.
Study dynamic demand forecasting models based on both data aggregation as well as hierarchical aggregation of point-of-sale predictive analytics. Explore the use of developed predictive dynamic models for operations planning and operations decision maing.
BAX X72T.21. Time Series Forecasting.
Examine statistical forecasting methods used in business. Discuss Box-Jenkins models; exponential smoothing models; ARCH/GARCH models for varying volatility in financial returns; seasonal adjustment of time series; tests for nonstationary of time series; and modeling multiple time series.
BAX X72T.22. Predictive Analytics and Data Mining.
Introduction to data mining problems and tools to enhance managerial decision making at all levels of the organization. Discuss scenarios, including the use of data mining to support customer relationship management (CRM) decisions, decisions in the entertainment industry, financial trading, and even professional sports teams.
BAX X72T.23. Social Media Analytics.
Introduction to social network analysis for business value using statistical optimization and decision theory. Analyze online search and conversation data for market sensing, sentiments, product quality, reputation, recommendations, and brand awareness.
BAX X72T.24. Data-Driven Revenue Management.
Use data-driven tactics and strategies to predict consumer demand and optimize price and capacity/inventory availability to maximize revenue or profit. Explore demand analytics and revenue management techniques, produce rigorous and practical insights, and develop data analysis and optimization skills, based on business cases, datasets, and exercises. Examine diverse contexts and industries, such as conventional retailing, e-commerce, airline/hotel, and contemporary platform and cloud services (e.g., Uber, Dropbox, Netflix, AWS), by utilizing software (Excel, R, or Python) to build models, conduct optimization, and develop insights for a variety of revenue management examples.
BAX X72T.25. User Generated Content Analytics.
Focus on a gamut of questions ranging from strategic to operational matters pertaining to a firm's social media initiatives, metrics to capture relevant outcomes, and predictive analysis to link social media chatter to business performance.
BAX X72T.26. Data Analytics for Marketing.
Introduction to making more effective marketing decisions through the use of data. Examine sources, collecting and cleansing methods, conducting analyses, and presenting of data. Use real-world data and applications from a variety of industries.
BAX X75. Business Analytics in Practice.
Examine the role of business analytics in the context of the broader operations of a firm. Explore the use of business analytics in firms, the impact on business performance, and the ways that it can enhance firm value, through a series of case studies.

Graduate Courses
Professional Courses

BCH - Biochemistry

Biochemistry: BCH
Lower-Division Courses
BCH X06K. Undergraduate Research.
Introduction to research practices; supervised individual undergraduate research in biochemistry.
BCH X15L. Introduction to Biotechnology Laboratory Skills.
Explore skills, concepts, and careers in biotechnology, biochemistry and the molecular biosciences.
BCH X15T. Special Topics in Biotechnology.
Explore recent development and research methods in biotechnology and biomanufacturing.
BCH X19L. Introduction to Biochemical Laboratory Practices and Skills.
Explore basic skills used by biochemists and an introduction to future career options. Examine basic biochemical concepts and laboratory, computational, and professional skills.
BCH X19S. Topics in Biochemistry.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
BCH X29S. Topics in Biochemistry.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University

credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

BCH X19S. Topics in Biochemistry.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BCH X29S. Topics in Biochemistry.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BCH X30M. Medical Biochemistry.
Apply the principles of biochemistry to medicine and physiology to gain an understanding of organ function and regulating metabolite homeostasis.

BCH X39F. Foundations of Biochemistry.
Metabolism of carbohydrates, lipids, amino acids, and nucleotides; structure and function of proteins.

BCH X39J. Chemical and Synthetic Biology.
Topics include enzymatic reaction mechanisms and how they can be manipulated using tools from both chemistry and molecular biology. Designed for students pursuing pharmaceutical and biotechnology careers.

BCH X39M. Structure and Function of Molecular Machines.
Function of proteins and protein complexes as machines in the cell, including the interaction of proteins with nucleic acids, synthesis of proteins, and degradation of proteins.

BCH X39N. Systems Biology and Bioinformatics.
Understanding how the cell works as a system with emphasis on the methods used to gather and analyze data and develop/test models of systems level data.

BCH X39P. Biochemistry in Physiology and Medicine.
Explore the fundamentals of physiology and medicine to understand how the body functions and maintains homeostasis through the principles of biochemistry.

BCH X47. Topics in Biochemistry.
Explore recent developments and research methods in biochemistry.

BCH X64C. Bioinformatics.
Examine typical data, data analysis, and algorithms encountered in computational biology. Includes introductory probability and statistics, basics of programming, protein and nucleic acid sequence analysis, genome sequencing and assembly, synthetic biology, analysis of large-scale gene expression data, data clustering, biological pattern recognition, and biological networks.

BCH X64D. Macromolecular Structure Determination.
Theory of physical methods used in biochemistry and molecular biology, with a strong emphasis on macromolecular structure determination by X-ray crystallography and cryo-electron microscopy. Includes surface plasmon resonance, isothermal titration calorimetry, and biolayer interferometry.

BCH X64E. Systems Biology.
Survey of current high-throughput technologies and computational methods for generating data and integrating information at all levels of biological organization. Emphasis on how hypotheses can be generated and tested with these techniques to better understand how model organisms function and evolve.

BCH X64F. Astrobiology.
An overview of the science used in the search for extraterrestrial life, life origins, earth history, evolution, metabolism of extremophiles, biochemistry, and astronomy.

BCH X65D. Structure and Function of Proteins and Nucleic Acids.
Exploration of the structures and functions of proteins and nucleic acids, utilizing quantitative methods to evaluate the roles of structural features in function, and developing new ways of thinking about the dynamics of macromolecules.

BCH X68C. Topics in Biochemistry.
Supervised study of selected topics in Biochemistry by individual arrangement with the instructor.

BCH X68H. Capstone Honors Research.
Conduct a laboratory research project in a specific field of biochemistry under the supervision of one or more faculty members.

BCH X68L. Capstone Course-Based Research Experience.
Explore experimental design, data collection, data analysis and fundamental principles of biochemistry research.

BCH X68M. Capstone Experience in Biochemistry.
Explore approved capstone experiences such as Biochemistry Research Experience Abroad, Biochemistry/Biotechnology Internships or other external, intensive biochemistry-related research experiences.

BCH X68R. Supervised Capstone Research.
Perform supervised independent research and write a capstone thesis on a selected subject in Biochemistry by individual arrangement with the instructor.

BCH X68T. Biotechnology Capstone.

BCH X68W. Supervised Literature Review.
Perform a supervised literature review and write a capstone thesis on a selected subject in Biochemistry by individual arrangement with the instructor.

BCH X69. Fundamentals of Biochemistry.
The basics of protein structure and function, carbon and nitrogen metabolism, and molecular biology of macromolecules.

BCH X69K. Techniques of Research.
Advanced laboratory practice and introduction to research.

BCH X69L. Biochemistry Laboratory.
An introduction to modern fundamental techniques of biochemistry.

BCH X69T. Biotechnology Laboratory.
Advanced techniques in biotechnology.

BCH X70. Physical Methods of Biochemistry.
Theory of electrophoresis, ultracentrifugation, spectroscopy, electron microscopy, and diffraction as applied to biological macromolecules.

BCH X75C. Biochemistry Capstone Seminar.
Receive guidance during capstone experience. Document and reflect on the experience, present capstone work in a professional venue, and discuss plans for transitioning to post-graduation careers.

BCH X79H. Biochemistry Honors Tutorial Course.
Laboratory research project in a specific field of biochemistry under the supervision of one or more faculty members.

Graduate Courses

BCH X19S. Topics in Biochemistry.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BCH X29S. Topics in Biochemistry.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University

credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BCH X80M. Dual MD/PhD Program with UT Medical Branch.
Preclinical medical study at the University of Texas Medical Branch at Galveston.

BCH X86. Topics in Problems and Methods in the Life Sciences.
Examine the questions addressed in modern life sciences research and the experimental methods used. Focus on experimental reasoning and on the application of different techniques to solve problems.

BCH X87D. Physical Methods in Biochemistry and Molecular Biology.
Theory of physical methods used in biochemistry and molecular biology.

BCH X90C. Topics in Biochemistry.
Discuss current topics in biochemistry.

BCH X94. Structure and Function of Proteins and Nucleic Acids.
Explores the structures and functions of proteins and nucleic acids. Emphasis is placed on quantitative methods used to evaluate the roles of structural features in function and in developing new ways of thinking about the dynamics of macromolecules.

BCH X94P. Bioinformatics.
Examine typical data, data analysis, and algorithms encountered in computational biology. Includes introductory probability and statistics, basics of programming, protein and nucleic acid sequence analysis, genome sequencing and assembly, synthetic biology, analysis of large-scale gene expression data, data clustering, biological pattern recognition, and biological networks.

BCH X95F. Advanced Biochemistry.
Explore advanced biochemistry concepts and the scientific process. Consider the structure and function of proteins, carbohydrates, lipids and nucleic acids, and discuss enzyme mechanisms and kinetics.

BCH X95G. Structure and Function of Proteins and Membranes.
Explore advanced biochemistry concepts and the scientific process. Examine a detailed consideration of the structure and function of proteins, carbohydrates, lipids and nucleic acids, as well as discussion of enzyme mechanisms and kinetics.

BCH X95J. Genes, Genomes, and Gene Expression.
Detailed consideration of prokaryotic and eukaryotic mechanisms of DNA replication and transcription; posttranscriptional processing of transcription products; and mechanism and regulation of the translation of messenger RNAs.

BCH X96S. Synthetic Biology.
Survey of current high-throughput technologies and computational methods for generating data and integrating information at all levels of biological organization. Emphasis on how hypotheses can be generated and tested with these techniques to better understand how model organisms function and evolve.

BCH X97C. Advanced Study and Research in Biochemistry.

BCH X98. Thesis.

BCH X98T. Professional Development for Graduate Students in Biochemistry.
Provides professional development skills to graduate students in biochemistry. Subjects include excellence in teaching, scientific communication, grantsmanship, ethics, and career planning.

BCH X99W. Dissertation.

Professional Courses

BCH X19S. Topics in Biochemistry.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BCH X29S. Topics in Biochemistry.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BCM - Bosnian, Croatian, Montenegrin, Serbian

Bosnian, Croatian, Montenegrin, Serbian: BCM

Lower-Division Courses

BCM X06. Bosnian, Croatian, Montenegrin, Serbian I.
Examine Bosnian, Croatian, Montenegrin, and Serbian languages with an emphasis on proficiency in four skills: listening, speaking, reading, and writing.

BCM X07. Bosnian, Croatian, Montenegrin, Serbian II.
Examine Bosnian, Croatian, Montenegrin, and Serbian languages with an emphasis on proficiency in four skills: listening, speaking, reading, and writing.

BCM X12K. Bosnian, Croatian, Montenegrin, Serbian III.
Explore Bosnian, Croatian, Montenegrin, Serbian languages through listening, speaking, reading, and writing at the second-year level.

BCM X12L. Bosnian, Croatian, Montenegrin, Serbian IV.
Explore Bosnian, Croatian, Montenegrin, Serbian languages through listening, speaking, reading, and writing at the second-year level.

BCM X19S. Topics in Bosnian, Croatian, Montenegrin, and Serbian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

BCM X24. Bosnian, Croatian, Montenegrin, Serbian V.
Explore Bosnian, Croatian, Montenegrin, Serbian languages through oral expression, reading, and composition.

BCM X25. Bosnian, Croatian, Montenegrin, Serbian VI.
Explore Bosnian, Croatian, Montenegrin, Serbian languages through oral expression, reading, and composition.

BCM X26. Topics in Bosnian, Croatian, Montenegrin, Serbian.
Examine selected aspects of Bosnian, Croatian, Montenegrin, and Serbian history and culture.

BCM X29S. Topics in Bosnian, Croatian, Montenegrin, and Serbian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BCM X79. Conference Course in Bosnian, Croatian, Montenegrin, Serbian.
Conference course.

Graduate Courses

Professional Courses

BDP - Bridging Disciplines

Bridging Disciplines: BDP

Lower-Division Courses

BDP X01. Topics in Forum Seminar Series.

BDP X01.1. Children and Society.
Discuss various contemporary issues in children and society, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.10. Introduction to Smart Cities.
Discuss various contemporary issues relevant to smart cities, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.11. Patients, Practitioners, and Cultures of Care.
Discuss various contemporary issues relevant to patients, practitioners, and cultures of care, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.12. Professional Ethics in Law, Business, and Medicine.
Discuss various contemporary issues in professional ethics, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.13. Social Inequality, Health, and Policy.
Discuss various contemporary issues in social inequality, health, and policy, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.14. Narrative Leadership.
Discuss various contemporary issues in leadership and ethics, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.15. Introduction to the Entrepreneurial Mindset.
Discuss various contemporary issues relevant to what it means to be entrepreneurial, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.16. Criminal Law, Justice and Inequality.
Discuss various contemporary issues in criminal law, justice, and inequality, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.17. Non-profits and Social Entrepreneurship.
Discuss various contemporary issues in non-profits and social entrepreneurship, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.18. Conflict Prevention, Management, and Resolution.
Discuss various contemporary issues in conflict prevention, management, and resolution, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.2. Environmental Change and Sustainability.
Discuss various contemporary issues in environmental change and sustainability, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.3. Exploring Digital Arts and Media.
Discuss various contemporary issues in digital arts and media, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.4. Health Inequality in Childhood and Adolescence.
Discuss various contemporary issues in health inequality in childhood and adolescence, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.5. Human Rights and Social Justice.
Discuss various contemporary issues in human rights and social justice, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.8. Introduction to Museum Studies.
Discuss various contemporary issues in museum studies, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X01.9. Introduction to Public Policy.
Discuss various contemporary issues in public policy, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X06. Fundamentals of Ethical Leadership.
Discussion of various contemporary issues related to ethical leadership, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X06C. Principles of Business.
Interdisciplinary examination of how businesses function in the Western world. Discusses the development of the corporation in the United States, ethical issues, and the primary areas of business.

BDP X19. Topics in Specialized Forum Seminar Series.

BDP X19.1. Human Rights: Theories and Practice.
Discuss various contemporary issues in human rights, with an emphasis on multidisciplinary perspectives and critical discourse.

BDP X19.2. Museum Studies.
Discuss various contemporary issues in museum studies, with an emphasis on multidisciplinary perspectives and critical discourse.

BDP X19.3. Smart Cities.
Discuss various contemporary issues relevant to smart cities, with an emphasis on multidisciplinary perspectives and critical discourse.

BDP X19D. Introduction to Digital Media Production.
Introduction to digital media production, including the fundamentals of software programs used for digital design, web production, animation, and other functions.

BDP X19S. Topics in Bridging Disciplines.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Undergraduate College. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

BDP X20K. Connecting Research Experience.

BDP X20L. Connecting Research Experience.
Supervised research with a faculty member, related to the interdisciplinary themes of a Bridging Disciplines Program. Research may consist of an individual project and must meet the criteria for the independent inquiry flag.

BDP X20M. Connecting Research Experience: Service Learning.
Supervised research with a faculty member, related to the interdisciplinary themes of a Bridging Disciplines Program and including an academic service-learning component. Research may consist of an individual project involving service to the community or assisting a faculty research project with a community service component.

BDP X21M. Connecting Internship Experience: Service Learning.
Supervised internship experience related to the interdisciplinary themes of a Bridging Disciplines Program and including an academic service-learning component. Internships must be unpaid and may include work with nonprofit organizations or other organized community service entities.

BDP X22K. Topics in Team-Based Research Experience.
Collaborative or team-based research or creative project, under the supervision of a faculty member. Topics are related to the interdisciplinary themes of the Bridging Disciplines Programs.

BDP X25K. Connecting Internship Experience.
Supervised internship experience related to the interdisciplinary themes of a Bridging Disciplines Program.

BDP X26. Topics in Advanced Forum Seminar Series.
Discussion of contemporary issues related to the topics of a Bridging Disciplines Program, with an emphasis on interdisciplinary perspectives and critical discourse.

BDP X29. Topics in Specialized Advanced Forum Seminar Series.
Discussion of contemporary issues related to the topics of a Bridging Disciplines Program, with an emphasis on interdisciplinary perspectives, research, and critical discourse.
BDP X29.1. Race and Medicine in American Life.
Discuss contemporary issues related to race and medicine in American life, with an emphasis on interdisciplinary perspectives, research, and critical discourse.
BDP X29S. Topics in Bridging Disciplines.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Undergraduate College. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

Professional Courses

BEN - Bengali

Bengali: BEN

Lower-Division Courses

BEN X06. First-Year Bengali I.
BEN X07. First-Year Bengali II.
Continuation of Bengali 506.
BEN X12K. Second-Year Bengali I.
BEN X12L. Second-Year Bengali II.
Continuation of Bengali 312K.
BEN X19S. Topics in Bengali.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
BEN X29S. Topics in Bengali.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

BEN X19S. Topics in Bengali.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
BEN X20K. Advanced Bengali I.
BEN X20L. Advanced Bengali II.
Continuation of Bengali 320K.
BEN X29S. Topics in Bengali.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
BEN X60. Conference Course in Bengali Language and Literature.
Supervised individual study of selected problems in Bengali language and literature.

Graduate Courses

BEN X19S. Topics in Bengali.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
BEN X29S. Topics in Bengali.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
BEN X81. Conference Course in Bengali Language and Culture.
Supervised individual study in Bengali language or culture.

Professional Courses

BEN X19S. Topics in Bengali.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
BEN X29S. Topics in Bengali.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BGS - Business, Government, and Society

Business, Government, and Society: BGS

Lower-Division Courses

BGS X19S. Topics in Business, Government, and Society.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Business, Government, and Society. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
BGS X80. Topics in Business, Government, and Society.

Upper-Division Courses

BGS X25. Social and Ethical Responsibility of Business.
Examine ethical aspects of the decision-making processes of managers and employees. Explore the responsibility of firms to society and other constituencies.
BGS X29S. Topics in Business, Government, and Society.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study

Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Business, Government, and Society. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BGS X37. Strategy Beyond Markets.

BGS X40S. Topics in Business, Government, and Society.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office, or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Business, Government, and Society. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.

BGS X70S. Social and Cultural Entrepreneurship.
Create a business to address social problems, using social and creative means to design market-based approaches to aid a specific cultural group.

BGS X71. Corporate Political Strategy.
Study how the political and regulatory environment enables and constrains business activity and how individual firms and groups of firms can ethically yet effectively lobby legislatures, negotiate with regulators, create industry associations, make campaign contributions, and engage in other political activity to gain competitive advantage.

BGS X71T. Topics in Business, Government, and Society.

BGS X72. Strategic Corporate Social Responsibility.
A study of how corporations can engage in corporate social responsibility and sustainable activities to improve the world with strategic considerations kept in mind.

BGS X72T. Topics in Business, Government, and Society.

BGS X72T.1. Energy Technology and Policy.
Develop an understanding of the broad context of energy production and consumption in the United States and the world. Discuss past energy trends and fundamentals of energy and power, including fossil fuels and renewable energy sources and technologies. Explore different energy resources, environmental impacts, and societal uses of energy. Evaluate future energy technology options.

BGS X72T.10. Nontechnical Exploration and Production.
Introduction to the oil and gas exploration and production business for nontechnical personnel. Explore prospect generation and leasing, drilling, production, processing, transportation, and closing out a project.

BGS X72T.12. Global Business Sustainability.
Explore the role of sustainability in the corporate sector. Examine how businesses partner with others for sustainability goals, how to value sustainable business practices, and how to report on corporate sustainability.

BGS X72T.14. Global Net Zero Strategy.
Discuss the actions that firms around the world are taking regarding global warming, and whether these actions and innovations will keep the growth of global greenhouse gas emissions to zero.

BGS X72T.2. Ethics, Corporate Social Responsibility, and Service Learning.
Examine reasons that seemingly good people sometimes make unethical choices. Explore real-life ethical dilemmas, decision-making processes, and ideal behavior for the future.

BGS X72T.3. Business Ethics and Social Responsibility.
Focus on the development of ethical leadership and responsibility. Explore basic concepts relevant to business ethics. Develop ethical principles in a variety of business domains, and practice discussing ethical issues with people from a variety of viewpoints and backgrounds.

BGS X72T.4. International Business and Politics.

BGS X72T.5. Health Care Innovation and Entrepreneurship.
Focus on healthcare entrepreneurship in the United States, addressing the complexities of building companies in this sector while also examining the incentives of health care financing and spending that risk, ignoring the needs of the most vulnerable. Explore how to ensure that innovation decreases disparities in access and outcomes for the underserved.

BGS X73. Strategic Corporate Communication.
Studies corporate efforts to inform, motivate, and persuade various constituencies, including investors, employees, communities, and regulators. Subjects include public relations, investor relations, and government relations.

BGS X74. Global Political Economy.
Explore how firms can successfully integrate their traditional strategies with non-market strategy in the global arena, including how to successfully engage with international non-market actors, such as foreign governments, regulators, political parties, NGOs, and the media. Examine the necessary tools to craft successful, integrated firm strategies in diverse institutional and political environments.

BGS X75. Business and Policy in the Age of Inequality.
Examine inequality and its implications as managers and as citizens, and explore how to deal proactively with the consequences of this pervasive phenomenon.

BGS X79. Independent Research in Business, Government, and Society.

BGS X80. Topics in Business, Government, and Society.

Graduate Courses

BGS X80. Topics in Business, Government, and Society.

BGS X80C. Strategic Corporate Communication.
Studies corporate efforts to inform, motivate, and persuade various constituencies, including investors, employees, communities, and regulators. Includes public relations, investor relations, and government relations.

BGS X80D. Strategic Corporate Social Responsibility.
Overview of corporate social responsibility (CSR) given the constraints of the business environment, with an emphasis on the conditions under which CSR can provide strategic value to firms through class discussions and group projects.

BGS X80E. Global Political Economy.
Exploration of how firms can successfully integrate their traditional strategies with non-market strategy in the global arena, including how to successfully engage with international non-market actors such as foreign governments, regulators, political parties, NGOs, and the media. Examines the necessary tools to craft successful, integrated firm strategies in diverse institutional and political environments.

BGS X80G. Business and Policy in the Age of Inequality.
Examine inequality and its implications as managers and as citizens, and explore how to deal proactively with the consequences of this pervasive phenomenon.

BGS X81. Law, Ethics, and Corporate Social Responsibility.
Examines corporate responsibility issues and the tools necessary to manage relationships with external stakeholders such as governments, nongovernmental organizations, and communities in legal, political, and cultural contexts.

BGS X81E. Topics in Law, Ethics and Corporate Social Responsibility: Energy.
Examines the external relations challenges facing the energy industry. Focuses on the theory and practice of corporate social responsibility and government relations for the oil, natural gas, and electricity industries in the United States and the larger world. Explores the resource curse and its implications for oil and gas companies doing business overseas, the management of environmental health and safety risk in both the developed and developing world, energy facility siting, and NIMBY challenges in the United States. Some familiarity with energy law is helpful.

BGS X81M. Social and Ethical Responsibility of Business.
Examines ethical aspects of the managerial decision-making process and the application of fundamental ethical principles to business, legal, and social problems. Includes ethical implications of financial

markets, race and gender discrimination, employee privacy, multinational business, and health, safety, environmental, and consumer issues.

BGS X81N. Social and Ethical Responsibilities of Accountants.

Examines ethical aspects of the managerial decision-making process and the application of fundamental ethical principles to business, legal, and social problems. Includes ethical implications of financial markets, race and gender discrimination, employee privacy, multinational business, and health, safety, environmental, and consumer issues.

BGS X82. Corporate Political Strategy.

A study of how the political and regulatory environment enables and constrains business activity and how individual firms and groups of firms can ethically, yet effectively, lobby legislatures, negotiate with regulators, create industry associations, make campaign contributions, and engage in other political activity to gain competitive advantage.

BGS X82D. Economics of Health Care.

Explores the production and provision of health care in the United States. Includes the study of basic economic concepts, differences between health care and other goods, impact of regulatory policies, and the importance of health for economic development. May include international and ethical aspects of health care.

BGS X82E. Energy Economics.

Studies domestic and international policy issues of energy and the environment, with a focus on market solutions to various problems and market limitations in the allocation of environmental resources. Also examines the economics of fossil fuel alternatives.

BGS X82L. Labor Economics.

Studies the functioning of the labor market and examines determinants of wage and employment levels in perfect and imperfect labor markets.

BGS X82R. Economic Analysis of Law.

Uses economic analysis to study law and its impact on business activity. Includes the economics of contract law, tort law, property law, securities regulation, antitrust law, intellectual property, and environmental law.

BGS X82S. Economics of Sustainable Business.

Examines the policy and practical implications of sustainability. Topics covered may include property rights, air and water pollution, solid-waste disposal, hazardous substances, and wilderness preservation and the protection of endangered species.

BGS X83. Business Ethics in the Global Market.

Moral theory and its application to business issues in diverse cultures.

BGS X84. Global Macroeconomic Policy.

Practical study of global macroeconomic policy, including monetary policy, financial market regulation, and economic growth and development policies.

BGS X85. Business, Government, and Public Policy.

Studies the relationship between business and government throughout the policy process and examines the constitutional constraints that affect businesses across different political and legal systems. Explores ethical issues of the role of business in the policy process.

BGS X85W. Business, Government, and Public Policy: Washington Campus.

Studies the relationship between business and government throughout the formation and implementation of public policy; includes examination from economic, political, legal, and behavioral perspectives. Focuses primarily on the political, regulatory, and legal system of the United States and addresses issues covered further in the Washington Campus event, a week-long seminar with policy makers in Washington DC that precedes the course.

BGS X86. Market Structure and Performance.

Studies industrial organization economics using game-theory to model strategic market behavior. Examines econometric methods used to test hypotheses regarding firm conduct and market performance. Explores profit-maximizing business strategies of firms with market power and strategic interactions among firms in imperfectly competitive markets.

BGS X86E. Topics in Business, Government, and Society.

BGS X87. Business Integrity.

Examines how to make ethical decisions, take ethical actions, lead an ethical life, run ethical organizations, and fulfill corporate social responsibilities.

BGS X88. Behavioral Economics.

Explores and applies existing behavioral economics findings to all areas of business, and also instructs how to run studies to learn how to nudge" people toward or away from particular behaviors.

BGS X89. Environmental Regulation of Business.

Examines federal and state regulation of business activities that affect the environment and the potential liability of business for environmental damage.

BGS X90. Behavioral and Institutional Economics.

Uses aspects of the social sciences, including economics, psychology, and sociology to explore the evolution of economic organizations, the need for business regulation, bubbles and speculation, and economic herd behavior.

BGS X90E. Business in the Global Political Environment.

Examines global business from a political science perspective. Includes the politics of international trade and investment and the regulatory expectations of national regulators and of international organizations such as the World Trade Organization and the World Bank.

BGS X90F. Federal Regulatory Policy.

Studies the federal regulatory framework in the United States, including the processes through which regulations are promulgated and the stakeholders involved. Particular emphasis on cost-benefit analysis.

BGS X90J. Modern Political Economy.

Studies economic theory from Adam Smith to the modern day, with a focus on the interrelationship between economic models and political behavior. Explores the development of American capitalism; includes works from Marx, Hayek, Polanyi, and Williamson.

BGS X91. Topics in Conference Course in Business, Government, and Society.

BGS X91S. Independent Study.

Professional Courses

BGS X80. Topics in Business, Government, and Society.

BHD - Behavioral and Humanities Data Science

Behavioral and Humanities Data Science: BHD

Lower-Division Courses

BHD X01. Introduction to Humanities Data Science.

Introduction to core concepts, methods, and tools in data science from a liberal arts perspective with an emphasis on both technical skill-building and critical reflection. Discuss data ethics, machine learning, archival processing, and the cultural contexts of computational research.

BHD X15. Programming for Humanities Data Science.

Introduction to computer programming for the humanities and to digital humanities as a research area. Examine basic programming concepts, data types, functions, and Application Programming Interfaces (API). Learn the first steps in building data pipelines and explore introductory natural language processing (NLP) techniques through humanities-centered applications.

BHD X19. Gateway to Humanities Data Science.

Introduction to digital humanities research. Examine how data, algorithms, Machine Learning/Artificial Intelligence, and interpretation shape cultural inquiry in the humanities through hands-on experimentation and critical tinkering using computer programming. Utilize exercises in artifact, text, image, and metadata analysis.

BHD X19S. Topics in Behavioral and Humanities Data Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

BHD X21. Research Methods for Humanities Data Science.
Explore approaches to research design in humanities data science with an emphasis on mixed methods, critical and theoretical connections between data science and humanities research programs, ethical frameworks, and the formulation of research questions within specific cultural, disciplinary, and cross-sectoral professional contexts.

BHD X29S. Topics in Behavioral and Humanities Data Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BHD X40. Advanced Programming for Humanities Data Science.
Focus on building and refining custom data pipelines and applications in a self-guided research project. Discuss research and data flow planning, critical evaluation, Natural Language Processing (NLP) and computational cultural artifact analysis, including archive processing. Explore modular programming, adapting tools for humanities-specific use cases, and interface design.

BHD X45. Topics in Behavioral and Humanities Data Science.

BHD X50. Project Management for Humanities Data Science.
Introduction to strategies for managing digital humanities projects from research design and planning to deployment. Discuss team collaboration, corpus and artifact curation, Institutional Review Board (IRB) protocols and legal questions, documentation practices, and navigating the institutional, ethical, and technical dimensions of humanities data science research.

BHD X60. Conference Course.

Graduate Courses

Professional Courses

BIO - Biology

Biology: BIO

Lower-Division Courses

BIO X01C. Topics in Biology.
Topics in biology that are especially relevant to current issues and problems in modern society.

BIO X01C.1. The Biology of Being Human.
Introductory biology course that covers human evolution, genetics and genomics, behavior, population growth and environmental issues.

BIO X01E. Problems in Modern Biology.
An introduction to major concepts in biology, with emphasis on topics, such as genetics, that are relevant to current issues in the field.

BIO X02C. Conference Course.
Supervised study of selected subjects in biology, by individual arrangement with the instructor.

BIO X02D. Science Literacy and Numeracy: Ecology and Evolution.
Explore science literacy and numeracy skills through methods of inquiry; dealing with quantitative data; and correcting common misconceptions regarding rational and quantitative thought. Examine these skills in the context of news events that include reference to some or all of the following: Mendelian genetics; microevolution; macroevolution; population ecology; community ecology; ecosystem ecology.

BIO X02E. Science Literacy and Numeracy: Genetics and Genomics.
Explore science literacy and numeracy skills through methods of inquiry, dealing with quantitative data and correcting common misconceptions regarding rational and quantitative thought. Examine these skills in the context of news events that include reference to some or all of the following: human genetics; analysis and manipulation of DNA; genetic testing; assisted reproductive technology; human ancestry; personalized medicine; forensic genetics.

BIO X02F. Science Literacy and Numeracy: Human Health and Disease.
Explore science literacy and numeracy skills through methods of inquiry, dealing with quantitative data and correcting common misconceptions regarding rational and quantitative thought. Examine these skills in the context of news events that include reference to some or all of the following: metabolic diseases, infectious diseases, genetic diseases - causes, prevention, and treatments.

BIO X02G. Science Literacy and Numeracy: Biotechnology and the Future.
Explore science literacy and numeracy skills through methods of inquiry, dealing with quantitative data and correcting common misconceptions regarding rational and quantitative thought. Examine these skills in the context of news events that include reference to some or all of the following: climate change; genetically modified organisms; biomedical technology.

BIO X06L. Introductory Laboratory Experiments in Biology.
The organizing principles of biology (such as molecular and cellular functions, reproduction, development, homeostatic mechanisms, and organismal physiology and behavior) are used within a comparative and evolutionary framework to train students in modern laboratory techniques, bioinformatics, experimental design, and interpretation of results.

BIO X06M. Introduction to Lab Experiments in Biology.
Explore the organizing principles of biology (such as, molecular and cellular functions, reproduction, development, homeostatic mechanisms, and organismal physiology and behavior) and how they are used within a comparative and evolutionary framework in modern laboratory techniques, bioinformatics, experimental design, and interpretation of results.

BIO X06N. Introduction to Lab Experiments in Biology II.

BIO X11C. Introductory Biology I.
Introduction to biological energy transformation, cell structure and physiology, and gene expression.

BIO X11D. Introductory Biology II.
Introduction to mechanisms of inheritance, evolution, physiology, and species interactions.

BIO X15H. Advanced Introduction to Genetics: Honors.
Basic principles of genetics and cell biology. Emphasis on gene structure and regulation; transmission of heritable traits; structure and function of cells; bacterial and viral genetics; and recombinant DNA technology.

BIO X19S. Topics in Biology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Biology Instructional Office. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. .

Upper-Division Courses

BIO X25. Genetics.
Basic principles of Mendelism, molecular genetics, structure and function of genes and chromosomes, populations and evolution.

BIO X25H. Genetics: Honors.
Basic principles of genetics and evolution. Emphasis on population genetics and natural selection; structure and function of organ systems; behavioral ecology; and mutational analysis of organismal development.

BIO X25L. Laboratory Experience in Genetics.
Experimentation and direct observation in fundamental aspects of transmission genetics.

BIO X29S. Topics in Biology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Biology Instructional Office. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BIO X37. Selected Topics in Biology.
Recent developments and research methods in the biological sciences.

BIO X37.2. Research Methods: UTeach.
Students perform independent inquiries and use skills from mathematics and science to solve research problems.

BIO X37J. Computational Biology Laboratory.
Overview of computational biology, with emphasis on nucleic acid sequence analysis and databases. Class projects and self-learning exercises.

BIO X56L. Limnology and Oceanography.
An introduction to the study of the interactions between aquatic organisms and their environments.

BIO X68. Peer Assistant.

BIO X70C. Topics in Conference Course.
Supervised study of selected topics in biology, by individual arrangement with the instructor.

BIO X72C. Biology Peer Mentors in Research/Teaching.
Students work as peer mentors and assistants in the teaching of biology, with emphasis on developing instructional materials that teach fundamental biology with real world data.

BIO X77. Undergraduate Research.
Laboratory or field research in the various fields of biological science under the supervision of one or more faculty members.

BIO X79H. Honors Tutorial Course.
Original laboratory or field research project under the direction of a faculty mentor, leading to a thesis or research presentation for students in the honors program in biology.

Graduate Courses

BIO X80M. Topics in Biology (Cooperative Programs).
Formal, organized courses taught at institutions other than the University of Texas at Austin.

BIO X81. Advanced Plant Physiology.
Concepts in the broad field of plant physiology. Includes aspects of plant growth, development, cell signaling, and stress responses that are very similar to these processes in animals, but will also illustrate unique aspects of plants that exemplify the diversity of life strategies on earth. Explores the critical skills needed to evaluate the current literature, data interpretation, and methods for solving key questions in the field.

BIO X81K. Topics in Ecology, Evolution, and Behavior: Physiology and Biophysics.

BIO X81K.11. Current Concepts in Neurophysiology.

BIO X81K.3. Sensory Physiology.
Physiology and biophysics of the transduction and peripheral processes of the major sensory systems.

BIO X81K.4. Current Concepts in Neurobiology.
A series of seminars designed to give students a broad background in neurobiology.

BIO X81K.5. Laboratory in Neurophysiology.
Training in research techniques useful for the neurophysiological study of vertebrate and invertebrate nervous systems.

BIO X81K.6. Insect Physiology.
An in-depth study of the physiology of insect organ systems, development, and behavior.

BIO X81K.7. Developmental Neurobiology.
Neuronal cell lineage and differentiation, neuronal migration, axon guidance, neural cell death, synapse formation and maintenance.

BIO X81K.8. Addiction Biology.

BIO X81N. Basic Processes of Nerve Cells.
Degeneration and regeneration in nervous systems following traumatic injury; invertebrate versus vertebrate, peripheral nervous system versus central nervous system, axonal versus cell body, role of glia versus neurons.

BIO X83K. Topics in Ecology, Evolution, and Behavior: Development and Reproduction.

BIO X83K.1. Hormonal Control of Development and Reproduction.

BIO X83K.2. Techniques in the Study of Development and Reproduction.

BIO X83K.3. Comparative Endocrinology.
Structure, function, and interrelationships of endocrine glands, with emphasis on the control of hormone synthesis and secretion and mechanisms of hormone action.

BIO X83K.4. Recent Advances in Development and Reproduction.
Discussion of recent scientific papers and their contribution to modern work in development and reproduction.

BIO X83K.5. Molecular Analysis of Development.
Lectures and discussion concerning the principles of animal development at the molecular level.

BIO X83K.8. Development and Evolution.

BIO X84K. Topics in Ecology, Evolution, and Behavior.
Basic concepts and methods of laboratory and field analysis in various fields of biology; systematics and ecology of natural populations.

BIO X84K.30. Recent Advances in Community Ecology.
Seminar course. Faculty- and student-led lectures and discussions of current topics in community ecology. Some written assignments required.

BIO X84K.32. Recent Advances in Macroecology.
Examines recent ideas and new findings in the fields of Macroecology, Biogeography, and Ecosystem Science.

BIO X84K.33. Recent Advances in Conservation Biology.
Seminar course. Faculty- and student-led discussions of current topics in population ecology. Some written assignments may be required.

BIO X84K.34. Recent Advances in Microbial Ecology.
Explores current subjects and controversies in microbial ecology, including community and ecosystem perspectives. Includes faculty- and student-led discussions of primary literature. Some written assignments required.

BIO X84K.35. Global Environmental Change.
Explores the knowledge of current environmental change and biological responses, efforts to understand and predict changes in the future through both experimental manipulations and models. Discussion of the scientific philosophy behind this work.

BIO X84K.41. Recent Advances in Molecular and Genomic Evolution.

BIO X84K.42. Human and Primate Evolutionary Genetics.

BIO X86. Topics in Plant Science: Ecology and Evolution.

BIO X86.10. Recent Advances in Plant Systematics.
Basic concepts and methods of laboratory and field analysis in various fields of biology; systematics and ecology of natural populations.

BIO X86.11. Advanced Subjects in Plant Ecology.
BIO X86.12. Advanced Subjects in Plant Evolution.
BIO X86.13. Advanced Subjects in Plant Molecular Biology.
BIO X87G. Taxonomic Plant Anatomy.
An advanced course that emphasizes those aspects of plant anatomy that are most reliable and useful for systematic purposes.
BIO X89C. Chemistry and Biology of Membranes.
Consideration of the origin and structure of biological membranes at the microscopic and molecular levels; describes membrane function, especially with regard to transport properties.
BIO X89K. Advanced Cell Biology.
BIO X90. Topics in Microbiology.
Discuss current topics in microbiology.
BIO X90G. Applied Public Health and Medical Microbiology.
One semester of full-time training in the Texas Department of Health Laboratories, with rotation in the divisions of medical microbiology, mycology, parasitology, virology, sanitary bacteriology, and biologics. Assigned reading and regular meetings with the Department of Health Laboratories staff and the molecular genetics and microbiology faculty.
BIO X90K. Scanning Electron Microscopy, Theory and Practice.
Theory of scanning electron microscopy and basic principles of instrument design; basic procedures in specimen preparation; hands-on experience.
BIO X90M. Electron Microscopy I: Theory and Practice.
An introduction to electron optics; emphasis on basic operation and maintenance of the transmission microscope; theory and practice of basic preparative techniques.
BIO X90P. Techniques in Molecular Genetics.
Laboratory training in modern molecular genetics, with emphasis on the manipulation of bacterial plasmid DNA as a model system. DNA purification, gene mapping and cloning, site-directed mutagenesis, polymerase chain reaction, and DNA sequencing.
BIO X91K. Cellular Immunology.
Cell-associated immune responses, with emphasis on transplantation, immunity, tumor immunology, delayed hypersensitivity, and acquired cellular resistance.
BIO X91R. Advanced Metabolism and Biochemistry of Microorganisms.
Study of the metabolic processes of microorganisms, using a biochemical approach.
BIO X91S. Microbial Genetics.
Molecular biology of nucleic acids; biosynthesis of macromolecules, transfer of genetic material from cell to cell, recombination, mutagenesis, and regulatory mechanisms.
BIO X92. Topics in Problems in Host-Parasite Biology.
BIO X92.1. Current Topics in Virology and Immunology.
BIO X92.2. Current Topics in Pathogenic Mechanisms.
BIO X92D. DNA Repair.
Broad overview of the repair of DNA in archae, prokaryotes, eukaryotes, and viruses, focusing on the primary research literature, and developing critical thinking and presentation skills.
BIO X93. Topics in Problems in Molecular Genetics.
BIO X93.1. Current Topics in DNA Transactions.
BIO X93.2. Current Topics in Fungal and Cell Molecular Biology.
BIO X93.3. Current Topics in Gene Regulation.
BIO X94. Topics in Problems in Microbial Physiology.
BIO X94.1. Current Topics in Cell Envelope Structure and Functions.
BIO X94.2. Current Topics in Microbial Signal Transduction.
BIO X94T. Tumor Biology.
Explore core aspects of cancer pathology, treatment, epidemiology, the discovery of oncogenes and tumor suppressors, and the molecular genetics underlying the characteristic features of malignant tumors (including metastatic behavior, genomic instability, angiogenesis, cell cycle regulation, and apoptosis). Emphasize the biochemical functions of cancer-related proteins and enzymes and therapeutic approaches based on understanding of these proteins. Examine important experimental approaches that have influenced the current understanding of cancer.
BIO X95F. Genetics.
Basic principles of Mendelian and molecular genetics, and an exploration of the genetic toolbox using examples of analytic methods and modern genetic manipulations. Focus on the genetic analysis of model organisms. Use of genetic tools in dissecting complex biological pathways, developmental processes, and regulatory systems.
BIO X95I. Advanced Biochemistry.
Explore advanced biochemistry concepts and the scientific process. Consider the structure and function of proteins, carbohydrates, lipids and nucleic acids, and discuss enzyme mechanisms and kinetics.
BIO X96. Membranes and Walls of Bacteria.
Structure, biosynthesis, and function of bacterial envelopes and walls, including associated optional components.
BIO X96R. Microbiology Research Seminar.
Students present their research findings and receive feedback from faculty and peers. Designed to help students refine their presentation techniques, practice giving critical feedback, and gain familiarity with a wide variety of research topics.
BIO X97. Seminar in Microbiology.
BIO X97J. Advanced Genetics.
Selected related topics of current interest with an emphasis on molecular developmental genetics, and any needed review of classical genetics. Designed to help the student to read the literature critically, deliver a good seminar, and participate in thoughtful discussion.
BIO X98T. Supervised Teaching in Biological Sciences.
Teaching under the close supervision of course instructors; weekly group meetings with the instructor, individual consultations, and reports throughout the teaching period.

Professional Courses

BME - Biomedical Engineering

Biomedical Engineering: BME

Lower-Division Courses

BME X03. Introduction to Computing.
Introduction to computing and programming, focusing on high-level programming languages. Emphasis on programming skills using C++ and Python as well as data acquisition using open-source computer hardware. Emphasis is on biomedical engineering applications for computing.
BME X03L. Introduction to Biomedical Engineering Design.
Biomedical engineering design concepts with hands-on learning applications.
BME X06. Fundamentals of Computing.
Introduction to computing including bits and operations on bits, number formats, arithmetic and logic operations, digital logic. Explore the Von Neumann model of processing including memory, arithmetic logic unit, registers, and instruction decoding and execution. Examine structured programming and debugging, machine and assembly language programming, the structure of an assembler, physical input/output through device registers, subroutine call/return; trap instruction, stacks and applications of stacks.
BME X11. Network Analysis in Biomedical Engineering.
Basic concepts in circuit analysis and design of systems for biomedical engineering; Ohm's law, Kirchhoff's laws, and nodal and loop analysis; Theyenin's and Norton's theorem; operational amplifiers; high-order circuit and basic AC circuit analysis using Fourier and Laplace transforms.

BME X13L. Introduction to Numerical Methods in Biomedical Engineering.
Introduces principles and techniques of numerical analysis of biomedical engineering problems. Examines numerical methods of integration, differentiation, interpolation, curve fitting, data analysis, sampling and estimation, error analysis, analysis of ordinary differential equations, numerical modeling of biomedical engineering systems, symbolic computation, and scientific visualization.

BME X14L. Computational Fundamentals of Biomedical Engineering Design.
Overview of computational methods used to model biomedical systems, analyze data, and assist in the engineering design process. Subjects and hands-on learning applications include 3D modeling tools and computer aided manufacturing, flow simulation, instrumentation, biomedical imaging modalities, and biomedical informatics.

BME X17T. Introductory Topics in Biomedical Engineering.

BME X97. Research Problems.
Problems selected by the student with approval of the faculty adviser.

BME X97S. Graduate Seminar in Biomedical Engineering.

Upper-Division Courses

BME X20. International Perspectives on Biomedical Engineering Design.
Activities to consider sociotechnical factors in designing clinically translatable solutions with a focus on international perspectives.

BME X21D. Introduction to Medical Image Processing.
Introduction to theories, methods, and applications related to medical image processing through project-based learning. Discuss the principles and approaches for image segmentation, image registration, and deep learning classification, in addition to the global reach of clinical applications based on these methods, such as radiology and radiation oncology.

BME X22. Health Equity in Engineering Design.
Discuss healthcare disparities and causal mechanisms that lead to differential patient outcomes of medical devices and therapeutics. Assess how engineers can improve the design process of healthcare technologies to remove bias and improve equity. Explore current research in the field from health disparity specialists.

BME X29S. Topics in Biomedical Engineering.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Biomedical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

BME X35. Engineering Probability and Statistics.
Fundamentals of probability, random processes, and statistics with emphasis on biomedical engineering applications. Includes hypothesis testing, regression, and sample size calculations.

BME X36. Cancer Bioengineering.
Comprehensive overview of the biology and pathology of cancer. Emphasis on the fundamental nature of cancer, the roles of genetics and the environment, and the contributions of heterotypic tissues in the tumor microenvironment. Exploration of current challenges in the field and ways that various engineering tools are transforming the future of cancer research.

BME X37. Nanomedicine.
Explore the fundamental properties, synthesis, and characterization of nanomaterials, including their applications in nanomedicine. Discuss micro- and nano-particles for drug delivery and imaging, microfluidics for in vitro diagnostics and biological systems modeling, and nanomaterials and platforms for biological applications. Examine biomedical applications such as cancer, cardiovascular disease, and infectious diseases.

BME X38. Thin Film Mechanics.
Examine mechanical testing, design, and failure analysis of thin film structures and devices, with an emphasis on mechanics-related subjects including stress, fracture, delamination, and instability. Explore important technological applications of film materials, including integrated circuits, micro- and nano-electromechanical systems, flexible and stretchable electronics, bioelectronics, and surface coatings.

BME X39. Biochemical Engineering.
Principles of fermentation and cell culture technologies; introduction to recombinant DNA technology and protein expression; the development of therapeutics, vaccines, and diagnostics using genetic engineering.

BME X40. Soft Tissue Biomechanics.
Explore soft tissues and soft tissue mechanics. Examine fundamentals of continuum mechanics (kinematics, stress, balance of linear momentum, hyperelasticity), experimental and nonlinear finite element analysis of soft tissue mechanics, and relevant imaging modalities and facilities available on campus.

BME X42. Biomechanics of Human Movement.
Modeling and simulation of human movement; neuromuscular control; computer applications; introduction to experimental techniques.

BME X43. Biomedical Engineering Signal and Systems Analysis.
Signals and systems representation; sampling and quantization; time and frequency domains; Laplace and z-transforms, transfer functions, and frequency response; two-port networks; Bode plots; convolution; stability; Fourier series; Fourier transform; AM/FM modulation; filter design; and applications in biomedical engineering.

BME X44. Biomechanics.
Examine the principles of engineering mechanics and their applications to basic problems in biomechanics and biomedical engineering. Explore internal forces and deformations in solids, including stress, strain, tension, compression, torsion, bending, internal pressure, and failure analysis under combined mechanical loading.

BME X44C. Introduction to Therapeutics.
Introduction to the biological and engineering underpinnings of therapeutics discovery, development and manufacturing. Focus on the quantitative and engineering principles relevant to growing cells and producing molecules for commercial purposes, including basic growth kinetics and stoichiometry, simple bioreactor design and oxygen transfer.

BME X45. Graphics and Visualization Laboratory.
Introduction to techniques for graphical display of biological data. Subjects include transformations, geometric modeling, and two- and three-dimensional display algorithms. Includes computational projects with biomedical applications.

BME X45L. Experimental Principles of Biomedical Engineering Design.
Exploration of biomedical engineering design principles through open-ended, hands-on research applications involving mechanical testing, cell culture, and biomaterials. Analysis and interpretation of experimental data, including written reporting of outcomes in scientific journal format.

BME X46. Computational Biomolecular Engineering.
Introduction to computational structural biology and molecular modeling, including the fundamentals of biomolecular structure and molecular thermodynamics. The principles and applications of biomolecular modeling used to explore the critical relationship between structure, function, and thermodynamic driving forces in molecular biology.

BME X47. Fundamentals of Biomedical Optics.
Introduction to the field of biophotonics. Subjects include light scattering theory, tissue optical properties, analytical and numerical techniques for determining light propagation in tissue, light-tissue interactions, and bioheat transfer including solution methods.

BME X48. Modeling of Biomedical Engineering Systems.
Lumped and distributed models of physiological system function from molecular through organismal levels. Linear system steady-state and transient behaviors. Interactions among multiple energy domains,

including electrical, chemical, diffusional, mechanical, fluid, and thermal. Introduction to feedback control.

BME X48P. Introduction to Computational and Systems Biology.
Introduction to big data technology platforms, data science analytical algorithms and artificial intelligence in computational biology and medicine and network science. Examine DNA sequence alignment and search, high-throughput big data platforms and analysis, network science, multi-omics profiling, statistics, motif finding, molecular structure prediction, genome-wide association studies, artificial intelligence, and personalized precision medicine. Explore computational algorithms including hidden Markov model, clustering, classification methods, and others.

BME X49. Biomedical Instrumentation.
Introduction to biomedical instrumentation, design, and applications. Emphasis on the complete instrumentation development cycle, design for bio-compatibility, safety and efficacy, and design considerations specific to various medical specialties.

BME X50. Computational Methods for Biomedical Engineers.
Study of and hands-on experiences with computational methods commonly employed in biomedical engineering research.

BME X52. Engineering Biomaterials.
Overview of properties of metallic, ceramic, polymeric, and composite biomaterials used in biomedical applications. Material synthesis and processing. Analysis of mechanical and chemical properties, including stress-strain. Material interactions with the body and blood. Soft and hard biomaterials applications.

BME X53. Transport Phenomena in Living Systems.
Introduction to the principles of heat, mass and momentum transfer and their application to solve problems in living systems.

BME X54. Molecular Sensors and Nanodevices for Biomedical Engineering Applications.
Introduction to major types of molecular sensor systems, device miniaturization, and detection mechanisms, including molecular capture mechanisms; electrical, optical, and mechanical transducers; micro-array analysis of biomolecules; semiconductor and metal nanosensors; microfluidic systems; and microelectromechanical systems (MEMS, BioMEMS) fabrication and applications for biomedical engineering.

BME X55. Molecular Engineering.
Working principles of biomolecules such as proteins and nucleic acids. Physical and chemical basis for biomolecular structure, energetics, and function.

BME X56. Polymer and Bioconjugate Chemistry.
Introduction to synthetic principles of polymeric biomaterials and bioconjugate chemistry with an emphasis on synthetic strategies to achieve specific properties. Explores characterization methods of polymers and bioconjugates as a function of chemical composition, as well as tissue engineering and drug delivery applications as case studies of the biomaterial design process.

BME X57. Biomedical Imaging Modalities.
Introduction to major biomedical imaging modalities, including X-ray radiography, computed tomography (CT), nuclear medicine (SPECT and PET), magnetic resonance imaging (MRI), and ultrasound. Emphasis on principles, approaches, and applications of each imaging modality. Basic physics and imaging equations of the imaging system; hardware and software; sources of noise and primary artifacts; safety and patient risk.

BME X58. Medical Decision Making.
Understanding of the nature of expertise and related subjects of cognitive psychology and human-made interaction to be able to design more effective systems for supporting medical decision making.

BME X58M. Imaging Clinical Immersion.
Identify current unmet clinical needs via close interaction with healthcare professionals and patients. Explore biomedical imaging across the healthcare enterprise.

BME X59. Cellular and Molecular Biomechanics.
Introduction to the concepts needed to understand and work in the emerging field of cellular and molecular biomechanics. Examination of dynamic interplay between chemical, thermal, and physical forces in determining the mechanics of cells/tissues and their molecular components.

BME X61L. Development and Analysis in Biomedical Engineering Design.
The design and development of a working biomedical engineering device prototype. Focus on the full engineering design process, including reviews and documentation, and general project management strategies. Also considers the impact of markets, budgets, and the FDA on device requirements and design.

BME X62. Introduction to Nonlinear Dynamics in Biological Systems.
Introduction to various concepts from nonlinear mathematics and their application to biological systems, ranging from sub-cellular to whole ecosystems levels of investigation.

BME X62C. Advanced Engineering Biomaterials.
Analyze biomaterials as components of biomedical implants and delivery vehicles. Discuss basic principles of biocompatibility and implant performance as well as material selection and structure-function relationships.

BME X62E. Medical Device Innovation.
Money, markets, and entrepreneurship with particular focus on medical and health markets.

BME X63. Bioelectronics and Biointerfaces.
Examine critical concepts and strategies in materials development, electronics fabrication and genetic innovations that interface with biological systems. Explore neural interfacing technology, flexible electronics, wearable technology, bio-nanotechnology, and genetic engineering. Focus on the recently developed technology for recording and manipulating neural systems.

BME X63E. Medical Device Design and Manufacturing.
Application of engineering principles in the conception, design and prototyping of medical devices. Development of team projects with emphasis on clinical and market needs analysis, creative and useful concept generation, engineering requirements and specifications, and written and oral reporting of intermediate and final prototype outcomes.

BME X64. Biological Responses to Medical Devices.
Explore common biological responses elicited by biomaterials and the impact of these responses on material performance. Emphasis on key challenges in the development and assessment of biomaterials used in medical devices. Includes material surface properties, modification, and characterization; protein/cell interactions with materials; biocompatibility, inflammation and wound healing, cell-mediated biodegradation of materials; thrombosis, infection and calcification of medical devices.

BME X65. Tissue Microenvironments.
Introduction to, and hands-on applications for, fabrication/bioprinting of tissues on a chip and characterization of mechanical, thermal, transport, and cellular/tissue responses to varying properties of associated microenvironments.

BME X65R. Quantitative Engineering Physiology I.
A quantitative, model-oriented approach to human physiology, including basic cellular physiology, electrophysiology of nerve and muscle, the motor system, the central nervous system, and the cardiovascular system.

BME X65S. Quantitative Engineering Physiology II.
Biological control systems: sensory, renal, respiratory, and immune systems. Focuses on a quantitative, model-oriented approach to physiological systems.

BME X66. Immune Engineering.
Introduction to various aspects and applications of immune engineering. Subjects include vaccine design, cancer immunotherapy, genomics, infection, auto-immune diseases and emerging tools and methodologies.

BME X67. Design of Artificial Organs.
Analysis of the design process for blood-contacting medical devices with an emphasis on ventricular assist devices. Application of computational fluid dynamics and blood rheology to computer-aided design and testing of devices using specific software programs and 3D printing of functioning prototypes.

BME X67D. Point-of-Care Molecular Diagnostics.
Introduction to the principles, tools, and technologies required to develop and implement nucleic acid-based molecular diagnostics. Discuss amplification methods, primer design, sample prep, and detection. Focus on global and rural health, accessibility, and real-world applications.

BME X68. Introduction to Mathematical and Physical Biology.
Introduction to common mathematical and physical techniques used in modeling various aspects of biology at multiple spatial and temporal scales. Analyze critical techniques with words and pictures, and then equations including the computational implementation and simulation of those equations.

BME X69. Biomimetic Design and Engineering.
Overview of the core concepts of biomimetic microengineering with particular focus on engineered microphysiological models of human organs, tissues and disease pathophysiology.

BME X69C. Matrices, Organoids, and Microphysiological Systems.
Explore current technologies and scientific literature seeking to construct human-relevant, in vitro systems representing tissues, organs, and disease physiologies as platforms for development of new therapies. Focus on how concepts in biomaterials, stem cell biology, microfluidics, additive manufacturing, and biosensing are integrated to create such platforms.

BME X70. Biomedical Engineering Capstone Design I.
Structured methodologies for designing systems or to interface with living systems. Creative design, analysis, selection, development, and fabrication of biomedical components and systems.

BME X71. Biomedical Engineering Capstone Design II.
Development of team projects in biomedical engineering with emphasis on prototype development and quantitative analysis, and written and oral reporting of the outcome.

BME X72. Computational Modeling of the Cardiovascular System.
Analyze mathematical models and simulations of the cardiovascular system. Examine biomechanical simulations including the biomechanical function of the heart, heart valves, and the vasculature.

BME X72C. Delivery of Therapeutic Agents.
Explore molecular, biological, chemical, and mathematical fundamentals of the use of macromolecular carriers for the release of small and high molecular weight therapeutic agents in vitro and in vivo. Examine design and advanced techniques of protein, peptide, antibodies, and gene therapy. Discuss targeted delivery, mucoadhesive therapy, and theranostics, as well as advanced biomedical devices for treatment of diseases.

BME X72P. Mathematical Physiology.
Explore mathematical modeling in human physiology. Focus on how physiological problems can be formulated and modeled, and how such models give rise to interesting and challenging functional features. Examine several exemplar physiological systems and discuss the mathematical aspects of growth and remodeling in living systems, an area unique to living systems.

BME X73. Tissue, Scaffold, and Cell Biomechanics Applications.
Fundamentals of biosolid mechanics via the mechanical behavior of scaffolds and living tissues and cells. Emphasis on biomechanical applications to contemporary problems in biomedical research and medical devices.

BME X74. Optical Design.
Explore the principles of optical design for imaging and laser delivery systems. Examine the development and testing of designs using optical design software.

BME X74D. Biomedical Engineering Microscopy Foundations Laboratory.
Explore finite and infinite imagery; conjugate planes, back focal plan manipulation, Abbe theory image formation, point spread functions, camera principles, fluorescence, and advanced fluorescence techniques, and build an optical microscope.

BME X74K. Biomedical Instrument Design.
Application of electrical engineering principles in the design of electronic instrumentation at the circuit-board level for the measurement of pressure, temperature, flow, and impedance. Also includes the study of light intensity, bioelectric potentials, and stimulation devices such as pacemakers and defibrillators. Focus on design considerations specific to electro-medical environments, safety and efficacy, and public policy issues.

BME X74L. Applications of Biomedical Instrumentation Lab.
An in-depth examination of selected subjects in biomedical engineering, including optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; and noninvasive cardiovascular measurements. Students have the opportunity to design analog and digital measurements and acquire and process meaningful biomedical signals.

BME X75. Stem Cells in Cell and Tissue Engineering.
Analysis of recent cell and tissue engineering applications of human embryonic stem cells (hESC) and induced pluripotent stem cells (iPSC). Focus on case studies of each organ in the human body and how it can be engineered using stem cells.

BME X76. Cell Engineering.
Introduction to principles that govern the structure, organization, and processes at cellular and subcellular levels. Special focus on engineering and quantitative aspects of cellular machinery. Employs engineering approaches to study receptors, macromolecular complexes, and cellular signaling; clinical and pharmaceutical approaches to perturb cellular structure and function for disease prevention and drug design. State-of-the-art experimental and computational techniques to study cellular engineering.

BME X77. Undergraduate Research Project.
Initiate opportunity individually and select project in conjunction with a faculty member on the Department of Biomedical Engineering's Graduate Studies Committee (GSC) or in another approved University department. A final written report or the equivalent is required. Recommended for students considering graduate study or medical school.

BME X77M. Medical Internship.
Initiate opportunity individually, which may include participation in a variety of medical and clinical activities which apply engineering principles to solve problems in healthcare. A substantial final report or the equivalent is required. Designed for students considering medical school.

BME X77R. Off-Campus Research.
Initiate opportunity individually and select project in conjunction with a faculty member at an approved institution. A final written report or the equivalent is required.

BME X77S. Industrial Internship.
Practical work experience in industry or a government agency under the supervision of an engineer, scientist or business professional. A substantial final report or the equivalent is required.

BME X77T. Topics in Biomedical Engineering.

BME X78. Undergraduate Thesis in Biomedical Engineering.

Research performed during two consecutive semesters under the supervision of a biomedical engineering faculty member or other approved faculty member; topics are selected jointly by the student and faculty member. The student provides a progress report at the end of the first semester and writes a thesis and gives an oral presentation at the end of the second semester.

BME X79. Tissue Engineering.

Introduction to biomedical research in tissue engineering. Includes case studies of tissues and organs of the body, physiology and biology of tissue, pathologies of tissue, current clinical treatments, the role of engineers in development of new technologies to diagnose and treat pathologies, quantitative cellular and molecular techniques, and applications of synthetic and natural biomaterials.

BME X79H. Undergraduate Honors Thesis.

Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis.

BME X97. Research Problems.

Problems selected by the student with approval of the faculty adviser.

BME X97S. Graduate Seminar in Biomedical Engineering.

Graduate Courses

BME X80J. Topics in the Fundamentals of Biomedical Engineering.

BME X80J.1. Mathematical Modeling in Biomedical Engineering.

Conservation of mass, momentum, energy, and charge; first and second laws of thermodynamics; first- and second-order differential equations; nonlinear differential equations; partial differential equations as applied to biomedical engineering problems.

BME X80J.2. Quantitative Systems Physiology and Pathophysiology.

Modeling of physiological systems from the molecular and cellular levels to the systems level; focus on the neuromuscular and cardiovascular systems.

BME X80J.3. Principles of Biomeasurement.

Principles of signal measurement in the biomedical field; survey of transducers used for chemical, mechanical, electrical, and thermal biomedical measurements; analysis of how signals are converted into digital form; analysis of noise; aliasing; data storage.

BME X80J.4. Fields, Forces, and Flows.

Introduction to mathematical models that integrate different energy domains and length scales, with an emphasis on the coupling between them.

BME X80J.5. Biostatistics, Study Design, and Research Methodology.

Principles for hypothesis testing; confidence limits; regression analysis; correlation; analysis of variance; experimental design and factorial analysis; discriminate analysis; applications of statistics.

BME X80J.6. Analysis of Biomedical Engineering Systems I.

Quantitative examination of the cardiovascular and respiratory systems from the cell to system levels. Presents the cardiovascular and respiratory systems in three phases: (1) anatomy and physiology; (2) energetics (thermodynamics), cellular processes, and engineering analysis; and (3) engineered devices, instrumentation, and imaging for therapeutics and diagnosis.

BME X80J.7. Analysis of Biomedical Engineering Systems II.

Computational techniques used in biomedical engineering. Students propose and conduct an engineering design study relevant to a selected medical problem.

BME X80J.8. Mathematical Methods for Biomedical Engineering.

Analyze common mathematical techniques useful for biomedical engineering. Utilize vector calculus, linear algebra, Fourier and Laplace Transforms, and ordinary and partial differential equations. Explore common MATLAB (or Python) functions and manipulations for computationally implementing these mathematical techniques in biomedical engineering applications.

BME X80M. Dual MD/PhD Program with UT Medical Branch.

Preclinical medical study at the University of Texas Medical Branch at Galveston.

BME X81J. Topics in Cell and Molecular Imaging.

BME X81J.1. Laser-Tissue Interaction: Thermal.

The thermal response of random media in interaction with laser irradiation. Calculation of the rate of heat production caused by direct absorption of the laser light, thermal damage, and ablation.

BME X81J.10. Optics and Lasers.

Fundamentals of geometric and physical optics, interaction of light with matter, spectroscopy, and laser and electro-optics applications.

BME X81J.11. Medical Imaging.

BME X81J.12. Optical Design.

The principles of optical design for imaging and laser delivery systems are given. Students develop and test designs using a commercial optical design software package.

BME X81J.13. Fluorescence Micro- and Spectroscopy.

Fundamentals of fluorescence microscopy, spectroscopy, and techniques; single-molecule detection; advanced microscopy, including multi-photon microscopy, super-resolution imaging, and molecular tracking. Other subjects include metal-enhanced fluorescence, optogenetics, nanomedicine and microfluidics.

BME X81J.14. Digital Video.

Examine video sampling and transform; video (retinal and cortical) filters; motion detection and estimation; statistical models of videos; neuroscience of video perception; natural video statistics; modern video compression standards; video quality prediction; video denoising; active contour models; and video saliency.

BME X81J.15. Imaging Clinical Immersion.

Identify current unmet clinical needs via close interaction with healthcare professionals and patients. Explore biomedical imaging across the healthcare enterprise.

BME X81J.2. Laser-Tissue Interaction: Optical.

The optical behavior of random media such as tissue in interaction with laser irradiation. Approximate transport equation methods to predict the absorption and scattering parameters of laser light inside tissue. Port-wine stain treatment; cancer treatment by photochemotherapy; and cardiovascular applications.

BME X81J.3. Imaging Signals and Systems.

Physical principles and signal processing techniques used in thermographic, ultrasonic, and radiographic imaging, including image reconstruction from projections such as CT scanning, MRI, and millimeter wave determination of temperature profiles.

BME X81J.4. Optical Spectroscopy.

Measurement and interpretation of spectra: steady-state and time-resolved absorption, fluorescence, phosphorescence, and Raman spectroscopy in the ultraviolet, visible, and infrared portions of the spectrum.

BME X81J.5. Therapeutic Heating.

Engineering aspects of electromagnetic fields that have therapeutic applications: diathermy (short wave, microwave, and ultrasound), electrosurgery (thermal damage processes), stimulation of excitable tissue, and electrical safety.

BME X81J.6. Noninvasive Optical Tomography.

Basic principles of optical tomographic imaging of biological materials for diagnostic or therapeutic applications. Optical-based tomographic

imaging techniques including photothermal, photoacoustic, and coherent methodologies.

BME X81J.7. Digital Image and Video Processing.
Digital image acquisition, processing, and analysis; algebraic and geometric image transformations; two-dimensional Fourier analysis; image filtering and coding.

BME X81J.8. Functional Imaging Laboratory.
Explores in vivo functional imaging, including aspects of imaging hardware and instrumentation, contrast agents, image processing, management of large imaging data sets, and applications of physiological modeling.

BME X81J.9. Fundamentals of Biomedical Optical Imaging.
Fundamentals of the interaction of light with tissue for the purpose of imaging and treatment of disease. Focuses on quantitative modeling of tissue optical properties, light propagation in the tissue, heat transfer of laser irradiated tissue, and thermal damage models. Includes discussion of applications in laser surgery, pulse oximetry, and disease diagnosis using spectroscopy.

BME X81M. Normal Body Structure and Function.
Exploration of the structure and function of the human body at all levels of organization, from molecular and cellular to the integrated function of multiple organ systems attempting to maintain homeostasis. Emphasis on wellness and normal structure/function, in addition to the mechanistic disruptions that cause illness as well as the scientific rationale for methods to diagnose and treat selected diseases.

BME X82J. Topics in Cellular and Biomolecular Engineering.

BME X82J.1. Cell and Tissue Engineering.
Use of case studies to explore pathologies of tissue, current clinical treatment, and the role of engineers in developing new technologies to diagnose and treat these pathologies. Emphasis on the use of quantitative cellular and molecular techniques. Applications of synthetic and natural biomaterials.

BME X82J.10. Immune Engineering.
Introduction to the concept of immune engineering. Discussion of vaccine design, cancer immunotherapy, genomics, infection, auto-immune diseases and emerging tools and methodologies.

BME X82J.11. Polymer and Bioconjugate Chemistry.
Examine principles of polymeric biomaterials and bioconjugate chemistry with an emphasis on synthetic strategies to achieve specific properties. Includes characterization methods of polymers and bioconjugates as a function of chemical composition, as well as tissue engineering and drug delivery applications as case studies of the biomaterial design process.

BME X82J.12. Biological Responses to Medical Devices.
Examine key challenges in the development and assessment of biomaterials used in medical devices, including common biological responses elicited by biomaterials and the impact of these responses on material performance. Includes material surface properties, modification, and characterization; protein/cell interactions with materials; biocompatibility, inflammation and wound healing, cell-mediated biodegradation of materials; thrombosis, infection and calcification of medical devices.

BME X82J.13. Delivery of Therapeutic Agents.
Explore molecular, biological, chemical, and mathematical fundamentals of the use of macromolecular carriers for the release of small and high molecular weight therapeutic agents in vitro and in vivo. Examine design and advanced techniques of protein, peptide, antibodies, and gene therapy. Discuss targeted delivery, mucoadhesive therapy, and theranostics, as well as advanced biomedical devices for treatment of diseases.

BME X82J.14. Nanomedicine.
Explore the fundamental properties, synthesis and characterization of nanomaterials, including their applications in nanomedicine. Discuss micro- and nano-particles for drug delivery and imaging, microfluidics for in vitro diagnostics and biological systems modeling, and nanomaterials and platforms for biological applications. Examine biomedical applications such as cancer, cardiovascular disease, and infectious diseases.

BME X82J.15. Matrices, Organoids, and Microphysiological Systems.
Explore current technologies and scientific literature seeking to construct human-relevant, in vitro systems representing tissues, organs, and disease physiologies as platforms for development of new therapies. Focus on how concepts in biomaterials, stem cell biology, microfluidics, additive manufacturing, and biosensing are integrated to create such platforms.

BME X82J.2. Introduction to Biochemical Engineering.
Microorganisms in chemical and biochemical synthesis; genetic manipulation of cells by classical and recombinant DNA techniques; enzyme technology; design of bioreactors and microbial fermentations; and separations of biological products.

BME X82J.3. Molecular Sensors and Nanodevices for Biomedical Engineering Applications.
Introduction to a variety of methods used to detect biological molecules with optical and electrical transduction mechanisms. Covers the classical approaches to biosensors for the detection of specific molecules in biological systems.

BME X82J.4. Advanced Engineering Biomaterials.
Overview of biomaterials, including prosthetics, ceramics, metal implants, and polymers, with specific emphasis on properties and applications. The immunology of material-tissue interactions and the issues of biocompatibility.

BME X82J.5. Structured Surfaces, Fabrication, Characterization, and Application.
Introduction to fabrication and characterization techniques used to create and analyze microstructured and nanostructured surfaces for biomedical and biotechnology applications. Focuses on the use of self-assembly processes for the fabrication of biological functionality in surface structures.

BME X82J.6. Biopolymers and Drug/Gene Delivery.
Biomedical polymers and their applications in drug delivery and gene therapy. Emphasis on parenteral, mucosal, and topical delivery of biomolecules, and the role of polymers in genetic therapy and DNA vaccination.

BME X82J.7. Cellular and Molecular Biomechanics.
Introduction to the concepts needed to understand and work in the emerging field of cellular and molecular biomechanics. Examination of dynamic interplay between chemical, thermal, and physical forces in determining the mechanics of cells/tissues and their molecular components.

BME X82J.8. Molecular Biophysics: Measurements and Methods.
In-depth study and development of intuition for thermodynamics and mechanics and application of understanding to molecular-scale problems in cell biology and biomedical engineering. Focus on increasing students' familiarity with modern methods of biophysical measurement, their strengths and limitations, and how they are being applied to address current research problems.

BME X82J.9. Biomimetic Design and Engineering.
Introduction to biomimetic reverse engineering, including the weaknesses of animal models to predict human physiology, microphysiological systems, the potential of human organs on chips to accelerate drug development processes, pharmaceutical preclinical testing requirements, human microbiome, disease models to study pathophysiology, and related subjects.

BME X82M. Biodesign: Needs Identification.
Identify concrete clinical needs via clinical immersion experience with healthcare professionals and patients. Apply engineering design methodologies to identify clinical needs based upon the most meaningful problems observed.

BME X83J. Topics in Computational Biomedical Engineering and Bioinformatics.

BME X83J.1. Network Thermodynamics in Biophysics.
Modeling and simulation methods for nonlinear biological processes, including coupling across multienergy domains; practical implementation by bond graph techniques.

BME X83J.10. Computational Biomolecular Engineering.
Provides an introduction to the principles and applications of biomolecular modeling and simulation, including the theoretical background of molecular thermodynamics and molecular mechanics, major simulation/computational techniques and commonly used software tools.

BME X83J.11. Dynamical Modeling of Biological Signaling and Regulatory Systems.
Introduction to various approaches currently used for modeling and simulating cellular signal transduction, metabolic, and gene regulatory networks.

BME X83J.12. Computational Modeling in Bioengineering and Medicine.
Comprehensive introduction to methods used in simulation of biological systems and processes. Emphasis on selected applications from single channels, cells, and tissues up to whole organs.

BME X83J.13. Introduction to Mathematical and Physical Biology.
Introduction to common mathematical and physical techniques used in modeling various aspects of biology at multiple spatial and temporal scales. Explore the integration of theory and experiment while identifying the current barriers preventing computational modeling from having a broader impact in biology.

BME X83J.14. Mathematical Physiology.
Explore mathematical modeling in physiology, how physiological problems can be formulated and modeled, and how such models give rise to interesting and challenging functional features. Examine several exemplar physiological systems. Discuss the mathematical aspects of growth and remodeling in living systems, an area unique to living systems.

BME X83J.2. Musculoskeletal Biomechanics.
Synthesis of properties of the musculotendon and skeletal systems to construct detailed computer models that quantify human performance and muscular coordination.

BME X83J.3. Introduction to Computational Oncology.
Computational techniques commonly used in modeling various aspects of cancer at multiple spatial and temporal scales. Exploration of how computational modeling offers unique and complementary information to traditional methods of cancer research. Emphasis on the integration of theory and experiment while identifying the current barriers preventing computational modeling from having a broader impact on both cancer biology and clinical oncology.

BME X83J.4. Biomechanics of Human Movement.

BME X83J.5. Introduction to Nonlinear Dynamics in Biological Systems.
Basic concepts of nonlinear mathematics and their application to biological systems.

BME X83J.7. Data Mining.
Analyzing large data sets for interesting and useful information; online analytical processing, finding association rules, clustering, classification, and function approximation; scalability of algorithms and real-life applications.

BME X83J.8. Systems Biology.
The biological function of genetic and biochemical networks from a quantitative perspective. Students use mathematical tools to model network modules, such as biological switches, oscillators, and amplifiers. Discusses recent papers on a variety of biological problems that can be addressed with a systems biology approach.

BME X83J.9. Computational Methods for Biomedical Engineers.
Study of and hands-on experiences with computational methods commonly employed in biomedical engineering research.

BME X83M. Biodesign: Entrepreneurship.
Develop a team project in biomedical engineering with emphasis on detailed design and prototyping. Prepare a business plan designed to bring product to market or use in clinical practice.

BME X84J. Topics in Instrumentation.

BME X84J.1. Biomedical Instrumentation I.
Application of electrical engineering techniques to analysis and instrumentation in biological sciences: pressure, flow, temperature measurement; bioelectrical signals; pacemakers; ultrasonics; electrical safety; electrotherapeutics.

BME X84J.2. Biomedical Instrumentation II: Real-Time Computer-Based Systems.
Design, testing, patient safety, electrical noise, biomedical measurement transducers, therapeutics, instrumentation electronics, microcomputer interfaces, and embedded systems. Participate in an individual laboratory.

BME X84J.3. Biosignal Analysis.
Theory and classification of biological signals such as EEG, EKG, and EMG. Data acquisition and analysis procedures for biological signals, including computer applications.

BME X84J.4. Bioelectric Phenomena.
Examines the physiological bases of bioelectricity and the techniques required to record bioelectric phenomena both intracellularly and extracellularly; the representation of bioelectric activity by equivalent dipoles and the volume conductor fields produced.

BME X84J.5. Projects in Biomedical Engineering.
An in-depth examination of selected topics, such as optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; noninvasive cardiovascular measurements.

BME X84J.6. Neurophysiology/Prosthesis Design.
The structure and function of the human brain. Discussion of selected neurological diseases in conjunction with normal neurophysiology. Study of neuroprosthesis treatments and design philosophy, functional neural stimulation, and functional muscular stimulation.

BME X84J.7. Introduction to Neural Engineering.
Survey of important concepts, applications, and challenges in neural engineering. Subjects include basic neurophysiology and electrophysiological signals, major neural interface modalities and various optical microscopy techniques, and design aspects of neural engineering devices. Emphasis on recent trends and frontiers in neural engineering.

BME X84J.8. Rehabilitation Engineering.
Explores use of robotic devices in physical therapy for neuromuscular injury. Clinicians lecture each week on a specific malady, followed by critical review of the literature of that malady from the perspective of rehabilitation engineering. Shadows therapists and develops a prototype of a device for therapy, assistance or diagnosis of patients, or conducts an experiment to test a hypothesis in the field using a device.

BME X84J.9. Bioelectronics and Biointerfaces.
Examine critical concepts and strategies in materials development, electronics fabrication and genetic innovations that interface with biological systems. Explore neural interfacing technology, flexible electronics, wearable technology, bio-nanotechnology, and genetic engineering. Focus on the recently developed technology for recording and manipulating neural systems.

BME X84T. Topics in Biomechanics.

BME X84T.1. Bioheat Transfer.
Explore the application of the principles of heat transfer to the solution of a series of advanced, open-ended problems in medicine and biology.

Identify and pursue solution strategies for a range of cutting-edge problems in bioheat transfer.

BME X84T.2. Cellular, Tissue, and Scaffold Biomechanics.
Explore an analysis of biosolid mechanics via the mechanical behavior of scaffolds and living tissues and cells. Examine biomechanical application areas, including cell mechanics, engineered materials, hard and soft tissues, and organs.

BME X84T.3. Soft Tissue Biomechanics.
Explore the fundamentals and critical applications of soft tissue mechanics. Examine continuum mechanics (kinematics, stress, balance of linear momentum, hyperelasticity), experimental and nonlinear finite element analyses of soft tissue mechanics, and relevant imaging modalities and related facilities available on campus.

BME X84T.4. Thin Film Mechanics.
Explore a comprehensive introduction to, and important applications of, thin film structures and devices. Discuss stress, fracture, delamination, instability, and other mechanics-related subjects involving thin films. Examine technological applications including integrated circuits, micro- and nano-electromechanical systems, flexible and stretchable electronics, bioelectronics, and surface coatings.

BME X84T.5. Tissue Microenvironments.
Explore varying native and bio-fabricated tissue microenvironments and hands-on opportunities for fabrication and bioprinting of tissues on a chip. Examine characterization of mechanical, thermal, transport, and cellular tissue response to microenvironments; imaging and computational approaches that enable prediction of cell and tissue behavior within physiological and pathological native or bio-fabricated tissues; and clinical perspectives which drive design of physiologically representative tissues on a chip and their use for diagnostic screening and therapeutic planning.

BME X85J. Topics in Biomedical Engineering.

BME X85J.39. Medical Decision Making.
Selected subjects from cognitive psychology and human-machine interaction for engineering students to design more effective systems for supporting medical decision making.

BME X85J.40. Cancer Bioengineering.
Analysis of the biology and pathology of cancer, including the fundamental nature of cancer, cellular oncogenes, growth factor signaling, tumor suppressor genes, apoptosis, multi-step tumorigenesis, angiogenesis, metastasis, and tumor immunology and immunotherapy. Also explores ways in which the tools of engineering are transforming the future of cancer research.

BME X85J.41. Medical Device Design and Manufacturing.
Apply engineering principles in the conception, design and prototyping of medical devices. Develop team projects with emphasis on clinical and market needs analysis, creative and useful concept generation, engineering requirements and specifications, and written and oral reporting of intermediate and final prototype outcomes.

BME X85J.42. Inquiry Based Instructional Design.
Examine principles of inquiry-based learning methods and their applications to an engineering pedagogical context. Use multiple, open-ended engineering problems as case studies and develop an independent course integrating inquiry-based learning content.

BME X85J.6. Analysis of Biological Systems.

BME X85M. Mechanisms of Disease.
Overview of the disease-specific concepts required to participate in patient care by integrating clinical medicine, microbiology, pathology, and pharmacology into organ system modules, and the pathophysiology of diseases, the differential diagnosis of cardinal symptoms, and treatment modalities. Includes other concepts such as radiology and diagnostics.

BME X86J. Biomedical Engineering Microscopy Foundations Laboratory.
Explore finite and infinite imagery; conjugate planes, back focal plan manipulation, Abbe theory image formation, point spread functions, camera principles, fluorescence, and advanced fluorescence techniques. Build an optical microscope.

BME X96. Research Internship.
Students participate in research in an industry, clinic, or academic laboratory setting selected with the approval of the faculty adviser.

BME X97. Research Problems.
Problems selected by the student with approval of the faculty adviser.

BME X97D. Deep Reading in Science and Engineering.
Analyze primary research articles with the goal of improving understanding of experimental design/methods, writing scientific articles and critiquing current research.

BME X97E. Professional Responsibilities in Imaging.

BME X97M. Mentoring Undergraduates in Research.
Designed to support and develop students' skills in mentoring undergraduates engaged in science, technology, engineering and mathematics (STEM) research.

BME X97N. Integrated Biomedical Engineering Seminar.
Designed to support students' professional development as well as their broad understanding of the biomedical engineering research enterprise.

BME X97P. Graduate Professional Development Seminar.
Explores professional development goals of biomedical engineers. Subjects include an individual development plan, careers in academia, entrepreneurship, careers in industry, and more.

BME X97S. Graduate Seminar in Biomedical Engineering.

BME X98. Thesis.

BME X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

BME X99W. Dissertation.

Professional Courses

BME X97. Research Problems.
Problems selected by the student with approval of the faculty adviser.

BME X97S. Graduate Seminar in Biomedical Engineering.

C C - Classical Civilization

Classical Civilization: C C

Lower-Division Courses

C C X01. Introduction to Ancient Greece.
Greatness of Greece as reflected in Greek history, literature, philosophy, art, religion, and politics. No knowledge of Greek is required.

C C X02. Introduction to Ancient Rome.
Survey of the highlights and the influence of Roman civilization. No knowledge of Latin is required.

C C X03. Introduction to Classical Mythology.
Survey of major Greek and Roman myths and their influence on literature, art, and music.

C C X04C. Topics in the Ancient World.
An introductory survey of the highlights of Greek and Roman civilization and early Christianity. No knowledge of Greek or Latin is required.

C C X04C.2. Paganism to Christianity: An Introduction.

C C X04C.6. Ancient Philosophy.
An introduction to the philosophical achievements of the ancient world, concentrating on Plato and Aristotle.

C C X04D. Classical Mythology and the Occult.
Explore the background for the mythologies of Egypt, Greece, and Rome, and areas of occult practice.

C C X04E. Introduction to the New Testament.
Examines representative examples of the texts found in the Christian New Testament and selected noncanonical writings. Focuses on historical setting and systematic methods of interpretation.

C C X04F. Introduction to Classical Literature.
Explore the literature of ancient Greece and Rome, its relationship to other literatures and arts, and the main current approaches to research in the field.

C C X04G. Jews, Pagans, and Christians.
Investigate, using a range of primary and secondary readings, how religious identity was imagined and expressed in the 4th-6th centuries CE. Examine the complex interactions of, in particular, Jews, Christians, and Pagans.

C C X04J. Art and Architecture of Ancient Egypt.
Introduction to the complex and intriguing culture of ancient Egypt and to its legacy in society through the examination of its art and archaeology.

C C X04L. Greece and Rome: Film and Reality.
Explore key events and personalities of ancient Greece and Rome and their treatment in major European and American films.

C C X04M. Ancient Cities.
Introduction to the urban centers of the ancient Mediterranean world.

C C X06. Introduction to the Latin and Greek Element in English.
The systematic study of the Latin and Greek elements in the English vocabulary with a view to increasing the student's facility and authority in English. No knowledge of Greek or Latin is required.

C C X06M. Introduction to Medical and Scientific Terminology.
A systematic study of medical and scientific terminology based on Greek and Latin roots. No knowledge of Greek or Latin is required.

C C X07C. Introduction to Greek Archaeology.
A survey of the artifacts, monuments, and sites of ancient Greece, and their value for documenting Greek religious, social, and cultural history. No knowledge of Greek is required.

C C X07D. Introduction to Roman Archaeology.
A survey of the artifacts, monuments, and sites of ancient Rome, and their value for documenting Roman religious, social, and cultural history. No knowledge of Latin is required.

C C X08D. Greek Tragedy.
Explore Greek tragedy through reading, class discussion, and performance.

C C X18. The Rise of Christianity.
Introduction to the origins and development of Christianity.

C C X19D. The Ancient Mediterranean World.
Survey of the ancient Mediterranean from ca. 3000 BC to AD 476. Focus on the development of ideas and institutions in the Greek and Roman worlds and on the active cultural exchange among the diverse civilizations of the broader region that shaped Greek and Roman history and cultural identity.

C C X19S. Topics in Classical Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C C X29S. Topics in Classical Civilization.
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Upper-Division Courses

C C X19S. Topics in Classical Civilization.
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C C X20P. Classical Archaeology: Practice and Ethics.
Explore an overview of the history, methods, approaches, and ethics of classical archaeology focusing on case studies of major sites and their excavations.

C C X22C. Ancient Epic.
Explore epic poems of Greece and Rome in translation.

C C X22D. The Ancient Historians.
Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage.

C C X26M. Latin Scientific Terminology.
Study the mechanics of translating biological and anatomical Latin terms, such as Macropus rufus and M. abductor pollicis longus, by learning the grammar and vocabulary commonly used in scientific Latin.

C C X27. Parageography.
Survey of the classical and medieval roots of speculative literature, especially those fantasies that involve the creation and presentation of imaginary places, lands, and worlds. No knowledge of Greek or Latin is required.

C C X29S. Topics in Classical Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C C X40. Advanced Topics in Classical Archaeology.
Detailed study of topics such as architecture, sculpture, or topography of sites. No knowledge of Greek or Latin is required.

C C X40.1. Greek Archaeology.
Study of the artifacts, monuments, and sites of classical Greece; and their value for documenting ancient Greek religious, social, and cultural history.

C C X40.10. Archaeology, Art, and Analysis of Greco-Roman and Aegean Pottery.
Various approaches to pottery and analytical techniques. Combines lectures with hands-on analysis of sherds, as well as the experimental manufacture of pottery in bonfires.

C C X40.11. Water and the Roman City.
Examine Roman urban development, design, and adaption from the perspective of hydrology, hydraulics, and cult and culture.

C C X40.12. The Bronze Age: Kings and Heroes.
Examine the ancient civilizations of the Bronze Age Aegean (3000-1100 BCE): Crete, the Cyclades, Mainland Greece, and Western Anatolia.

C C X40.13. Shrines and Sanctuaries.
Survey Greek and Roman religious architecture and sacred space from the Bronze Age to the Hellenistic and Roman Empires.

C C X40.14. Sicily: Cultures and Conquest.
Examine Sicily from the earliest prehistoric settlements to its first Norman king, with a focus on questions of change, recurrence, and continuity as viewed within the dual frames of archaeology and history.

C C X40.2. Art and Politics in Imperial Rome.
Public art of the Roman Empire from Augustus to late antiquity, ca. 31 BC to AD 350.

C C X40.3. Greek Architecture.
The architecture of mainland Greece, Asia Minor, and Sicily from the Dark Ages to the end of the Hellenistic period (ca. 1000 to 30 BC), with emphasis on public buildings, both religious and secular.

C C X40.4. Roman Architecture.

C C X40.5. Hellenistic Art and Architecture.
Art of the Hellenistic period from the reign of Alexander the Great to the beginning of the Roman Empire, ca. 336 to 31 BC.

C C X40.6. Food, Health, and Culture in the Ancient Mediterranean.
Values and social practices in the ancient Mediterranean as expressed by foodways and nutritional choices.

C C X40.7. Pompeii.
Uses ancient literary texts and various analytical approaches to examine the ancient remains of Pompeii and Herculaneum in context.

C C X40.8. Archaeology of Greek Prehistory.
Explores the development of complex societies in ancient Greece by studying its prehistory through archaeology.

C C X40.9. Topography and Monuments of Ancient Rome.
Examines the architecture and urban development of Rome from its beginnings until late antiquity.

C C X48. Topics in Ancient Civilization.
The development and progress of ancient civilization, including history, philosophy, literature, and culture. No knowledge of Greek or Latin is required.

C C X48.10. Jesus in History and Tradition.
Critical issues, scholarly debates, and historical methods in studying the development of the Christian tradition regarding the figure of Jesus.

C C X48.11. Ancient Egypt.
Discussion of Egypt's culture, language, and history from the prehistorical period (13,000 BC) to the New Kingdom (1069 BC).

C C X48.14. Ancient Greek Medicine.
Examines ancient Greek medicine in light of the modern fields of pathology, surgery, pharmacology, therapy, obstetrics, psychology, anatomy, medical science, ethics, and education.

C C X48.15. Civil War in Rome.
Examines the sequence of civil conflict in Rome from the struggle of the orders through the rise of Constantine the Great.

C C X48.16. Moral Agency In Greek Tragedy.
Subjects include the masterpieces of Greek tragedy, the social and cultural background of the texts, and questions posed by the texts.

C C X48.17. Egyptian Hieroglyphics in Cultural Context.
The vocabulary and grammar of ancient Egypt as a guide to understanding artifacts and monuments from the different periods of Egyptian history, whether in museums, exhibitions, or on site overseas.

C C X48.19. Nero.
Nero's life in its larger social and historical context, as well as his reception in the medieval period and beyond.

C C X48.20. Roman Philosophy and Science.
Examines the aims, methods, and achievements of philosophy and science in the ancient Roman world.

C C X48.21. Lost Languages and Decipherment.

C C X48.23. Values and Leadership in Ancient World.

C C X48.24. Daily Life in Ancient Egypt.
Delve into all areas of Egyptian daily life from the dawn of the dynasties to the age of Cleopatra.

C C X48.3. Greek Private Life.

C C X48.4. History of Ancient Philosophy.
Development of Western philosophy from the pre-Socratics to the early Christian era; emphasis on Plato and Aristotle.

C C X48.5. Homosexuality in Antiquity.

C C X48C. Hermits, Monks, and Saints in Early Christianity.
Examine individual and communal forms of Christian monasticism from the first through fifth centuries CE. Explore the social, economic and religious factors that may have made a life of self-denial attractive to many early Christians and the role of authority in these movements.

C C X48D. Interpretation of Jesus' Death and Resurrection.
Examine the narratives of Jesus' death and resurrection and their subsequent interpretation over the last two thousand years. Analyze historical Christian and Islamic texts, contemporary debates and cultural context.

C C X48E. Plato and His Philosophy.
Intensive study of selected works by Plato.

C C X48F. Beyond the New Testament.
Study of early Christian writings that were not included in the Christian Bible. Examines issues such as the effect of narrative, religion and violence, gendered expectations for women and men, the uses of fantasy literature, and religious authority. Emphasis on systematic methods for disciplined interpretation.

C C X48G. Death and the Afterlife in Graeco-Roman Antiquity.
Explore the afterlife from Near Eastern myths and Homer through Greek and Roman antiquity to the early Church Fathers.

C C X48I. Revelation and Apocalyptic Literature.
Examine the Book of Revelation in the context of early Christian and Jewish literature. Study other apocalyptic texts, methods of textual analysis, and the ongoing effects of Revelation in modern American culture.

C C X48J. Paul and His Social World.
Examine the life and letters of the first-century Jewish missionary Paul by interpreting his writings within the context of diaspora Judaism and the broader Greco-Roman world. Explore his legacy within the context of early church history.

C C X48K. Archaic Greece: Society and Culture.

C C X48L. Horror in Classics and Film.
Examine themes of modern horror films as they appear across genres and periods of ancient texts.

C C X48M. Ritual and Belief in Ancient Greece.
Investigate the practices, premises, and cultural contexts of ancient Greek religion through direct study of ancient sources informed by modern critical approaches.

C C X48N. Myths and Legends of the Ancient Near East.
Explore myths and legends contained in a variety of ancient sources, including texts from Israel, Greece, Egypt, and Mesopotamia.

C C X48O. Aristotle.
Study the philosophy of Aristotle through the examination of key texts.

C C X48P. Africa and Rome.
Explore the history of Roman Africa with emphasis on what is now Tunisia and northern Algeria.

C C X48Q. Slavery and the New Testament.
Examine slavery in the New Testament.

C C X48R. Ancient Mediterranean Religion and Astrology.
Explore the role of astrology in ancient Mediterranean religious life.

C C X48S. Sex and Power: The Cleopatras.
Explore the social, economic, and political roles of women in the Hellenistic age through the lens of the royal women sharing the dynastic name 'Cleopatra.'

C C X48T. Archaeology of Jesus's World.
Explore archaeological methods in examining texts and artifacts from first century CE.

C C X48U. Romans in Court.
Examine how Roman law operated at three levels of granularity, focusing mainly on attested disputes that made it to court for resolution.

C C X48V. Ruling the Roman Republic.
Examine the core question about the way the Late Roman Republic was governed: To what extent and in what ways was the Republic "democratic or not?

C C X63. Conference Course in Classical Civilization.
Supervised work in various specialized aspects of classical civilization. No knowledge of Greek or Latin is required.

C C X70. Quantitative Criticism.
Introduction to collaborative research and cross-disciplinary methods in the study of language and culture. Explore the literature of Ancient Greece and Rome which provides a convenient model for longue duree cultural analysis, but examples discussed come from diverse fields.

C C X75. Topics in Seminar in Classical Studies.
Study of selected topics in classical studies. Some knowledge of Greek or Latin is expected.

C C X75.1. Roman Law.
Introduction to Roman law with close study of primary sources.

C C X75.10. Roman Social History.
Examine Roman social history: family structure and demography, gender systems, official social hierarchies, urban/rural interactions and labor. Consideration both of primary evidence and the historiography of the field.

C C X75.2. Aegean Prehistory.
Traces political, social, economic, and general cultural developments on Crete and the Greek mainland between roughly 2200 and 1100 BCE.

C C X75.3. Writing Ancient History Today.
Questions that engage ancient historians today and the methods that they use. Some background in ancient Greek history is recommended.

C C X75.4. The Athenian Empire.
Explores Athenian society, democracy, and empire from the development of Athenian hegemony in the 470s BCE through the break up of the Athenian Empire in 404 BCE.

C C X75.5. Space and Place.
Multidisciplinary approach to the cultural concepts of space and place using Greek and Roman literary, historical, and archaeological sources.

C C X75.6. Ancient Sparta.
Examines topics and problems in the social, political and economic history of the ancient city-state of Sparta.

C C X75.7. Cognitive History of the Ancient World.
Examines aspects of the organization of thought in the ancient world.

C C X75.8. Herodotus, Ethnography, and Archaeology.
Explore the ethnographic component of the Histories of Herodotus.

C C X75.9. Literacy, Numeracy, and Visuality.
Analyze literacy, numeracy, and visuality, that is "reading" and writing" by means of visual representations, largely by tracing the history of how modern scholars have analyzed those practices.

C C X79H. Honors Tutorial Course.
Supervised conference course for honors candidates in classics.

Graduate Courses

C C X19S. Topics in Classical Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C C X29S. Topics in Classical Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C C X80. Topics in Seminar in Classical Archaeology.
Topics given in recent years include methods and theory, Greek and Roman Naples, landscape archaeology, and Hellenistic and Roman Egypt.

C C X80J. Proseminar in Classical Literature.
Brief survey of the history of classical literature; orientation to the major periods and genres.

C C X81. Conference Course in Classical Civilization.
Studies in classical antiquity. A knowledge of the ancient languages is not required.

C C X82. Topics in Field Archaeology.
Involves the participation of the student in an archaeological excavation; the study of field techniques includes excavation procedure, documentation, conservation, and interpretation.

C C X83. Topics in Classical Civilization.
Studies in various aspects of Greek and Roman literature, history, and culture.

C C X83.1. Roman Imperial Funerary Monuments.

C C X83.2. Introduction to Diachronic Linguistics: Germanic.

C C X83K. Current Concepts and Research in Classics.
Overview of important theories, issues, and research in classics.

C C X87. Writing in Research Contexts.
Introduction to long form writing for researchers. Focus on planning larger-scale research projects, integrating data and theory, writing a literature review, and planning a long-for piece of writing based on research.

C C X97. Dissertation Prospectus Workshop.
Write the first draft of a dissertation prospectus and prepare to write a dissertation. Focus on refining the research area, identifying an archive, developing research protocols, connecting the research area with current and past work in the field, and establishing broader relevance for the area.

Professional Courses

C C X19S. Topics in Classical Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C C X29S. Topics in Classical Civilization.
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C E - Civil Engineering

Civil Engineering: C E

Lower-Division Courses

C E X01. Civil Engineering Systems.
Introduction to civil engineering as a career; engineering problem solving; use of computers for text, graphics, and data analysis; introduction to civil engineering measurements; breadth of disciplines within civil engineering; engineering ethics, sustainability.

C E X07K. Topics in Civil Engineering.

C E X11K. Introduction to Computer Methods.
Organization and programming of civil engineering problems for computer solutions.

C E X11S. Probability and Statistics for Civil Engineers.
Basic theory of probability and statistics with practical applications to civil engineering problems, including statistical inference and sampling. Additional subjects may include reliability and risk analyses, estimation and regression analyses, and experimental design.

C E X19F. Elementary Mechanics of Fluids.
Fluid properties, hydrostatics, elements of fluid dynamics, energy and momentum, boundary layers, similitude, pipe flow, metering instruments, drag forces.

C E X19S. Topics in Civil Engineering.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Fariborz Maseeh Department of Civil, Architectural, and Environmental Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C E X96M. Advanced Topics in Atmospheric Science.

C E X96M.1. General Topics.

C E X96M.2. Air Pollution Meteorology.

Basic meteorology applied to air pollution; diffusion of conservative and nonconservative pollutants; plume rise; air pollution models.

Upper-Division Courses

C E X21. Transportation Systems.

Planning, economics, location, construction, operation, maintenance, and design of transportation systems; concepts of various modes of transportation.

C E X24P. Properties and Behavior of Engineering Materials.

Structure, properties, and behavior of engineering materials, including concrete and metals. Laboratory exercises illustrate mechanical behavior of typical materials and demonstrate selected principles of mechanics.

C E X29. Structural Analysis.

Classical methods of analysis for determinate and indeterminate structures under stationary and moving loads.

C E X29S. Topics in Civil Engineering.

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Fariborz Maseeh Department of Civil, Architectural, and Environmental Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C E X31. Reinforced Concrete Design.

Design of reinforced concrete beams and columns.

C E X33T. Engineering Communication.

Technical communication skills for engineers, especially researching and writing technical documents for many kinds of readers, managing and documenting sources of information, using and explaining graphics, delivering oral presentations, working collaboratively, and eliciting information from experts and stakeholders.

C E X35. Elements of Steel Design.

Analysis and design of tension members, beams, columns, and bolted and welded connections.

C E X41. Introduction to Environmental Engineering.

Quantitative evaluation of the environmental, economic, and technical problems involved in control of pollutants of the air, water, and land.

C E X42. Water and Wastewater Treatment Engineering.

Application of chemical, biological, and physical principles to the analysis and design of treatment processes for drinking water, industrial process water, municipal wastewater, and water reuse applications.

C E X46. Solid Waste Engineering and Management.

Characteristics of municipal and industrial solid wastes, generation rates, collection systems, recycling, processing, and disposal.

C E X51. Concrete Materials.

Portland cement, aggregates, supplementary cementing materials, properties of fresh and hardened concrete, concrete durability, mixture proportioning, concrete construction, and special concretes.

C E X56. Elements of Hydraulic Engineering.

Flow in closed conduits, hydraulic machinery; open-channel flow; flow measurement; design of storm sewers.

C E X57. Geotechnical Engineering.

Engineering properties of soils; hydraulic conductivity and shear strength of soils; soil compaction and consolidation; stresses with the soil mass; settlement of foundations of structures; laboratory measurements.

C E X58. Introductory Ocean Engineering.

Wave theory and its applications to coastal engineering, wave energy conversion, and offshore structure technology. Includes fundamentals of inviscid and viscous flow of incompressible fluids, and applications of computational fluid dynamics (CFD) in design.

C E X60K. Foundation Engineering.

Effect of geotechnical conditions on the behavior, proportioning, and choice of foundation type; design of shallow and deep foundations; study of foundation case histories.

C E X62M. Advanced Reinforced Concrete Design.

Design of reinforced concrete buildings, including floor systems and structural walls.

C E X62N. Advanced Steel Design.

Design of steel buildings, beam columns, composite beams, plate girders, and connections.

C E X63. Advanced Structural Analysis.

Structural analysis for forces and deflections using stiffness and flexibility approaches; application of energy methods in structural analysis; stiffness methods for computer-based structural analysis.

C E X64. Design of Wastewater and Water Treatment Facilities.

Explore analysis, synthesis, and integrated design of municipal water and wastewater treatment plants.

C E X66K. Design of Bituminous Mixtures.

Fundamental properties of asphalt and aggregates, design and construction of asphalt mixtures, special mixtures, and superpave design method.

C E X67G. Design and Evaluation of Ground-Based Transportation Systems.

Methods for design and evaluation of transportation systems, emphasizing roadway and non-motorized travel, in light of traveler safety, system operations, construction and maintenance costs, environmental impacts, and other considerations.

C E X67P. Pavement Design and Performance.

Basic principles of design of pavements for highways, airfields, and railroads; pavement construction, maintenance, and rehabilitation.

C E X67R. Optimization Techniques for Transportation Engineers.

Overview of optimization techniques, including linear programming, nonlinear optimization, and network flow algorithms including shortest path, maximum flow, and minimum spanning tree. Examples and applications primarily drawn from transportation engineering, with connections to other areas.

C E X67T. Traffic Engineering.

Driver and vehicle characteristics, traffic studies, traffic laws and ordinances, intersection capacity, signs, markings, signals, bus transit, parking, design of street systems, and operational controls.

C E X69L. Air Pollution Engineering.

Characterization of sources, emissions, transport, transformation, effects, and control of outdoor and indoor air pollutants. Applications of chemistry, thermodynamics, and fluid mechanics in the selection and design of air pollution control equipment.

C E X69R. Indoor Air Quality.

Sources, properties, transport and fate, human exposure, and adverse responses to indoor air pollutants. Control strategies and engineered technologies to mitigate impacts of gaseous and particle phase air pollutants in indoor environments.

C E X70K. Environmental Sampling and Analysis.

Principles of environmental chemistry; measurement of contaminants in air, water, and land environments; applications to municipal, industrial, and ambient samples.

C E X70L. Climate Change Mitigation.

Explore the large-scale solutions to climate change systematically. Examine the fundamentals of climate science, mitigation of climate change through transformation of energy supply and end-use, geoengineering, and industrial carbon management. Discuss the social and economic context for engineered solutions.

C E X70P. Engineering Professionalism.

Examines professional engineering licensure, ethics, leadership, public service, and public policy, with an emphasis on multidisciplinary

perspectives, legal and business considerations, and the importance of lifelong learning. Includes participation in a culminating major design project in public service, reflecting knowledge from technical electives and base level coursework.

C E X71P. Engineering Professionalism.

Examines professional engineering licensure, ethics, leadership, public service, and public policy, with an emphasis on multidisciplinary perspectives, legal and business considerations, and the importance of lifelong learning. Includes participation in a culminating major design project in public service, reflecting knowledge from technical electives and base level coursework.

C E X74K. Hydrology.

Phases of the hydrologic cycle and associated transport processes; land surface-atmosphere interaction; soil infiltration; rainfall runoff; unit hydrograph; flow routing; hydrologic statistics; and extreme events, including design storms and flows.

C E X74N. Topics in Natural Water Systems Engineering.

C E X74N.1. River Mechanics.

Explore the application of engineering hydraulics to analysis of river behavior and sediment transport through complex natural topography. Examine basin-scale and reach-scale river dynamics as well as river restoration design and analyses.

C E X74N.2. Ecohydraulics.

Explore the application of engineering hydraulics to analysis of river and stream behavior at small scales that interact with ecology. Examine sustainable design with vegetation to mitigate sediment impacts as well as hydraulic effects on invasive species.

C E X74U. Topics in Urban Water Systems Engineering.

C E X74U.1. Urban Stormwater.

Explore the application of engineering hydraulics to design and analyses of urban stormwater infrastructure. Examine engineering hydrology for design storms; an introduction to hydraulic and hydrologic modeling tools; and design requirements for controlling urban water quality and enhancing sustainability.

C E X74U.2. Smart Water Infrastructure.

Explore the application of engineering hydraulics to design and analyses of urban water distribution systems. Examine computational modeling and control of pipe networks as well as considerations of variable user demand, fireflow, and contaminant transport.

C E X75. Earth Slopes and Retaining Structures.

Earth fills, excavations, and dams; soil compaction and ground improvement, seepage and dewatering; stability of natural slopes and embankments; earth-pressure theories; design of earth retaining structures.

C E X77K. Topics in Civil Engineering.

Various specified topics or conference course.

C E X77K.7. Independent Study.

Conduct independent research with a tenure track faculty member in the Fariborz Maseeh Department of Civil, Architectural, and Environmental Engineering. Prepare a project proposal and a final report, each of which is evaluated by the faculty supervisor.

C E X77R. Internship.

C E X79H. Undergraduate Honors Thesis.

Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis.

C E X96M. Advanced Topics in Atmospheric Science.

C E X96M.1. General Topics.

C E X96M.2. Air Pollution Meteorology.

Basic meteorology applied to air pollution; diffusion of conservative and nonconservative pollutants; plume rise; air pollution models.

Graduate Courses

C E X80D. Experimental Methods in Fluid Dynamics.

Explore experimental techniques and instrumentation for studying common turbulent flows. Examine fundamentals of signal processing, data pre- and post-processing techniques for optical and acoustic instrumentation, turbulent flow analysis, and experimental design. Utilize particle image velocimetry, laser induced fluorescence, and acoustic Doppler velocimetry.

C E X80P. Topics in Ocean Engineering Principles: Theory and Applications.

C E X80P.4. Boundary Element Methods.

Formulation and numerical implementation of boundary element methods; applications to problems in fluid mechanics, structural analysis, and solid mechanics.

C E X80P.5. Hydrodynamics of Marine Propulsors and Turbines.

Hydrofoil and lifting surface theory, actuator disk and lifting line theory, modeling via vortex lattice, panel methods, and Reynolds-Averaged Navier-Stokes solvers, optimum loading and blade design techniques for propellers and turbines, unsteady blade and shaft forces, and modeling of sheet cavitation.

C E X80S. Environmental Fluid Mechanics.

Fundamentals of fluid mechanics applied in natural systems; analysis of energy; momentum, diffusion, turbulence, and stratification in lakes, rivers, and estuaries.

C E X80T. Computational Environmental Fluid Mechanics.

Basics of numerical methods as applied to the solution of the steady and unsteady fluid flow equations, such as the Euler and the Navier-Stokes equations and the advection-diffusion equation. Emphasis on finite volume methods as applied to fluid mechanics problems in civil and environmental engineering.

C E X80W. Water Resources Engineering Research Seminar.

Presentations and discussions on various topics in water resources engineering.

C E X81D. Linear Regression and Discrete Choice Methods.

Examine econometric model estimation methods and use of behavioral models in service design, marketing, and prediction. Discuss practical problems in the context of transportation planning to gain familiarity with models used and experience in data handling and estimation.

C E X81E. Design of Energy Efficient and Healthy Buildings.

Design of buildings for low energy use and optimal indoor air quality. Includes ventilation, energy efficiency, moisture problems, and prevention by design.

C E X81P. Computer Methods in Structural Analysis.

Linear and nonlinear analysis of trusses and frames; introduction to structural stability; and computational aspects of linear and nonlinear structural analysis.

C E X81R. The Finite Element Method.

Introductory concepts; weighted residual methods; strong and weak forms; boundary conditions; global v. local basis functions; error estimates; smooth and nonsmooth problems; one-dimensional second- and fourth-order problems; two-dimensional potential and plate problems; two-dimensional and three-dimensional elasticity; dynamic and eigenvalue problems; numerical, computational, and meshing issues; applications using commercial software.

C E X81T. Numerical Modeling of Physical Systems.

Survey of numerical methods; weighted residuals, finite differences, finite elements, boundary elements; applications to equilibrium, eigenvalue, and propagation problems.

C E X81W. Introduction to Wave Physics.

An introductory course in the theory and modeling of propagating waves. Subjects may include scalar waves in 1-D and 2-D, traveling and standing waves, flexural waves in beams, dispersion, phase and group velocity, vector waves in 2-D and 3-D, waves in infinite media and semi-infinite media, P waves, SH waves, SV waves, Rayleigh and Love surface waves,

Stoneley waves, reflection and transmission at interfaces, numerical modeling, radiation conditions, scattering and radiation from obstacles, and fluid-solid interaction.

C E X82H. Structural Health Monitoring and Nondestructive Evaluation.
Explore the principal methods used for non-destructive evaluation (NDE) and structural health monitoring (SHM) of structural components. Examine relevant physical principles of continuum mechanics, electrical engineering, acoustics, and elastic wave propagation underlying the experimental methods. Examine sensor data acquisition and interrogation and ultrasonic digital signal processing. Utilize laboratory demonstrations on selected subjects.

C E X82L. Plastic Design in Metals.
Principles and methods of plastic analyses and design, and their applications to continuous beams, frames, plates, connections, and multistory buildings.

C E X82N. Structural Systems.
Application of systems engineering principles to planning, design, and construction of building and bridge structures with emphasis on performance requirements and economic factors.

C E X83C. Experimental Methods in Structural Engineering.
Survey of experimental methods used in structural engineering, including loading and measurement techniques and systems used in structural research.

C E X83D. Steel Bridge Design.
Design of steel highway bridges, including the analysis and design of composite girder, box girder, and cable-stayed bridges.

C E X83F. Structural Fire Engineering.
Behavior and design of structures subjected to fire; heat transfer fundamentals and modeling of fires; material properties at elevated temperature; structural fire resistance and protection; calculating structure-fire response.

C E X83L. Advanced Reinforced Concrete Members.
Behavior of reinforced concrete members; critical review of specifications; limit states; anchorage and development of reinforcement; shear; torsion.

C E X83N. Advanced Reinforced Concrete Structures.
Behavior of reinforced concrete structures, with emphasis on ductility and detailing of frames, slabs, and braced (shearwall) structures. Detailing for seismic loads.

C E X83P. Prestressed Concrete.
Theory, advantages, and limitations; various systems of prestressing; composite construction; continuous span theory.

C E X83R. Repair and Strengthening of Reinforced Concrete Structures.
Evaluation of condition, strength, serviceability, and ductility of existing structures; criteria for rehabilitation; retrofit techniques for change in function, loading, and seismic forces.

C E X83S. Structural Concrete Bridges.
Planning, design, and construction of reinforced concrete and prestressed concrete bridges, including arch, frame, girder, and cable stay systems; aesthetics, economy, and durability.

C E X83T. Plasticity in Structural Concrete.
Application of plasticity theory to structural concrete columns, girders, frames, and joints. Development and application of transparent detailing methods such as truss models, strut-and-tie models, and both strip and yield line methods for slabs.

C E X84P. Dynamic Response of Structures.
Single and multidegree-of-freedom systems; dynamic load factors, response to harmonic excitation; damping; modal analysis; direct integration of equations of motion; analysis in time and frequency domains; application to earthquake, wind, wave, and traffic loadings.

C E X84R. Earthquake Engineering.
Earthquake characteristics; seismic loads; elastic and inelastic response; analysis and design of buildings for earthquakes.

C E X84S. Structural Reliability.
Load and resistance factors in reliability-based design; first- and second-order reliability methods; Monte Carlo simulation techniques with variance reduction and importance sampling refinements; reliability of systems; fault-tree and event-tree models; inverse reliability procedures; and random fields and stochastic finite element analysis for reliability analysis.

C E X84T. Blast-Resistant Structural Design.
Physics of explosions and basic blast phenomenology; structural loading due to blast effects; nonlinear dynamic response of blast-loaded structures; protective design; progressive collapse.

C E X85D. Water Resources Planning and Management.
Application of engineering economics and operations research to the planning and management of water systems. Major subjects include water supply, water resources management, multi-objective planning, and optimization techniques. Focus on programming skills and implementation of the models using a programming language.

C E X85G. Transboundary Water Resources.
Introduction to planning, policy, and development of water resources in the international setting, with emphasis on transboundary situations. Basic concepts of water rights and international law pertaining to transboundary water use and protection; economic analysis and applications to transboundary water resources problems; international development goals and how these relate to water supply and use.

C E X85J. Hazardous Waste Management.
Legal and technological approaches to effective and sustainable control of hazardous wastes and contaminated sites, studied through problem evaluation and solution.

C E X85K. Topics in Water Quality.
Analysis of water quality in natural systems and of effects of wastewater discharges.

C E X85K.1. Stream, Impoundment, and Estuarine Analysis I.
Basic physical, chemical, and biological properties of streams, impoundments, estuaries, and coastal waters; methods for analysis of water quality problems.

C E X85K.2. Stream, Impoundment, and Estuarine Analysis II.
Application of methods of analysis to development of a water quality management plan for a water body in Texas.

C E X85K.3. Water Quality Modeling.
Mathematical modeling of water quality, including dissolved oxygen, nutrients, and toxic substances in lakes, reservoirs, rivers, and estuaries.

C E X85K.4. Water Pollution Ecology.
Advanced topics in the application of engineering solutions to ecological problems in freshwater and marine environments.

C E X85L. Topics in Water and Wastewater Treatment.
Principles of sustainable treatment of domestic and industrial water, wastewater, and sludges.

C E X85L.1. Physical and Chemical Treatment.

C E X85L.2. Biological Wastewater Treatment and Sludge Processing.

C E X85L.3. Advanced Treatment Processes.
Project-based course addressing advanced topics in treatment process design: alternative designs, computer models, laboratory testing, economics, and least-cost designs.

C E X85M. Unit Operations in Water and Wastewater Treatment.
Physical, chemical, and biological unit operations for sustainable water and wastewater treatment.

C E X85N. Industrial Wastewater Treatment.
Industrial wastewater characteristics; methods of in-plant control; application of various biological, chemical, and physical processes in practical water pollution control systems.

C E X85R. Land Treatment of Wastes.
Principles of the use of land in management of municipal and industrial wastewaters, sludges, and solids; includes problem evaluations.

C E X85S. Stochastic Hydrology.
Probability and statistics applied to the solution of hydrological problems; extreme event frequency analysis, time series analysis of hydrologic data, autocorrelation and spectral analysis, theory of regionalized variables and applications.

C E X85W. Drinking Water: Treatment and Public Health Issues.
Fundamentals and applications of drinking water treatment processes, interactions among treatment processes, source water quality, and public health issues.

C E X86M. Water Treatment and Wastewater Treatment Plant Design.
Design of water and wastewater treatment facilities; pumps and hydraulic considerations; design of wastewater collection systems; design of systems for handling and disposal of residuals. Specific facilities may be selected to meet individual interests.

C E X86P. Engineering Fracture Mechanics.
Application of fracture mechanics to fracture-safe design of metal structures; material behavior and analysis of components containing cracks.

C E X86R. Inelastic Behavior of Materials.
Introduction to theories of inelastic behavior; theory of plasticity; applications to materials such as steel, concrete, and soils; implementation of constitutive equations in structural analysis.

C E X87C. Geoenvironmental Engineering.
Hydraulic conductivity of soils; clay behavior; compacted clay barriers; unsaturated soil behavior and barriers; geosynthetics and geosynthetic barriers; contaminants and solid waste; liquid drainage layers; stability of landfills; contaminant transport through barriers.

C E X87G. Engineering Geology.
Fundamental concepts of geology, including geologic time and plate tectonics. Interactions among earth materials, landforms, and geologic processes across a range of spatial and temporal scales. Emphasizes common interests shared by engineers and geologists, as well as gaps between the disciplines, such as those posed by the geologic vocabulary.

C E X87L. Topics in Soil Mechanics I.

C E X87L.1. Consolidation and Shearing Properties of Soils.
Theoretical and experimental studies of the consolidation and shearing properties of both saturated and unsaturated soils.

C E X87L.2. Foundation Engineering.
Bearing capacity, design of piers and pile foundations.

C E X87M. Topics in Soil Mechanics II.

C E X87M.1. Stability of Earth Slopes.
Development and application of limit equilibrium procedures, including effects of seepage, rapid drawdown, and seismic loading and reinforcement for stability analysis of natural and constructed slopes.

C E X87M.3. Underground Openings.
Explore the engineering of underground openings in both soil and rock. Examine rock mechanics and rock mass characterization, tunnel design and construction methodologies, and pre- and post-excavation ground improvement with regards to design and construction of safe and economical tunnels.

C E X87R. Topics in Soil Mechanics III.

C E X87R.2. Soil and Rock Dynamics.
Wave propagation in soil and rock, foundation vibration and isolation, dynamic behavior of soil.

C E X87R.4. Earth Retaining Structures.
Types of earth retaining systems, earth pressure theory; gravity, semi-gravity, and modular walls; reinforcing elements; mechanically stabilized earth walls and reinforced soil slopes; soil nail walls; sheet pile walls, drilled shaft walls and anchored walls; advances in soil reinforcement.

C E X87R.5. Geotechnical Earthquake Engineering.
Application of soil dynamics to earthquake engineering; influence of soil conditions on ground motion characteristics; evaluation of site response using wave propagation techniques; liquefaction of soils; liquefaction mitigation; seismic response of earth structures; seismic slope stability.

C E X87T. Decision, Risk, and Reliability.
Principles and theory for modeling uncertainty in civil engineering, analyzing how uncertainties affect performance, and developing rational bases for design and decision making under uncertain conditions.

C E X88H. Climate Change Mitigation.
Explore the large-scale solutions to climate change systematically. Examine the fundamentals of climate science, mitigation of climate change through transformation of energy supply and end-use, geoengineering, and industrial carbon management. Discuss the social and economic context for engineered solutions.

C E X88N. Engineering and Management of Municipal and Industrial Residuals.
Characterization and collection of solid wastes; biological, chemical, and physical principles and integrated systems applicable to the treatment and disposal of municipal and industrial residuals.

C E X88Q. Air Quality, Aerosols and Health.
Explore physicochemical processes governing indoor and outdoor air quality, human exposure to gas-phase and particle-phase pollutants, and factors affecting human health. Examine the connection between air quality, regulatory perspectives, engineering solutions and acute and chronic environmental issues impacting human exposure. Discuss research questions through efficient data retrieval and run simple dispersion models.

C E X88R. Novel Air Quality Measurement Techniques.
Explore technological advancements in measurements of indoor and outdoor air quality. Discuss operation principles of novel real-time trace-gas sensors and mass spectrometers. Examine air quality measurements at different spatiotemporal scales, utilizing analytical instrumentation, data acquisition, and data processing. Explore research questions in air quality through hands-on laboratory and field measurements.

C E X89C. Advanced Technical Communication for Engineers.
Advanced work in theory and practice of communicating research and design results to a variety of audiences, in print, orally, and through multimedia. Students use their own work and writing projects as the material to communicate.

C E X89D. Sustainable Building Design.
Explore the physical basics of sustainable building design for reducing energy demand and providing on-site renewable energy.

C E X89H. HVAC Design.
Design of heating, ventilation, and air-conditioning systems.

C E X89S. Smart Buildings and Cities.
Explore applied machine learning for analyzing data in the domain of buildings (nexus of cities, water and energy).

C E X89T. Indoor Air Quality: Transport and Control.
Transport and control of indoor pollutants. Includes particulate removal and pollutant transport into and within indoor environments.

C E X89V. Modeling of Air and Pollutant Flows in Buildings.
Fundamentals of indoor airflow modeling, use of computational fluid dynamics (CFD) for air quality and thermal comfort analyses, application of CFD for analysis of air velocity, temperature, humidity, and contaminant distributions with different ventilation systems.

C E X90J. Engineering Microbiology.
Fundamentals of microbiology and biochemistry as applied to environmental pollution and sustainable treatment processes, energetics and kinetics of microbial growth, and biological fate of pollutants; introduction to laboratory techniques.

C E X90L. Environmental Analysis.
Advanced analytical procedures for the sampling, monitoring, and analyses of air, liquid, and other wastes.

C E X90N. Water Pollution Chemistry.
Advanced topics in the application of engineering solutions to chemical problems in freshwater and marine environments.

C E X90P. Environmental Organic Chemistry.
Advanced subjects in the environmental chemistry of organic contaminants in groundwater, soil, and air systems; includes sustainable chemistry.

C E X90Q. Chemical Dynamics in the Environment.
Environmental chemodynamics: interphase equilibrium, reactions, transport processes, and related models for anthropogenic substances across natural interfaces (air-water-sediment-soil) and associated boundary regions.

C E X90R. Engineering Microbiology Applications.
Application of microbiology and molecular biology tools for monitoring environmental systems and biological treatment processes.

C E X91C. Analysis and Design of Transportation Systems I.
Introduction to conceptual, methodological, and mathematical foundations of analysis and design of transportation services; review of probabilistic modeling; application of discrete choice models to demand analysis.

C E X91D. Analysis and Design of Transportation Systems II.
Operations research techniques for modeling system performance and design of transportation services; routing and scheduling problems, network equilibration, and spatially distributed queueing systems.

C E X91E. Advances in Transportation Demand Analysis.
Developments in the econometric and behavioral aspects of demand analysis and forecasting; supply-demand integration; dynamic models. Applications to passenger and freight transportation and other infrastructure services.

C E X91F. Advanced Theory of Traffic Flow.
Relations among traffic variables; distribution functions; single lane and multilane traffic flow; characterization of traffic in cities; kinematic waves; yellow signal dilemma; merging; fuel consumption; emissions; and special topics. Emphasis on the interplay among theory, experimentation, and observation.

C E X91J. Transportation Planning: Methodology and Techniques.
Analysis of a wide range of planning studies to establish the logic and foundation for the transportation planning process. Emphasis on techniques of estimation and forecasting population, economic activity, land use, and mobility patterns; determination of goals and objectives; decision making; economic analysis; and alternative evaluation.

C E X91L. Advanced Traffic Engineering.
Characterization and analysis of arterial street and freeway traffic operations using theoretical and experimental techniques, especially computer simulation. Introduction to the most current analysis and optimization tools for control device design and implementation.

C E X91M. Advanced Geometric Design.
Geometric design of highways and guideways, including topics on levels of service, alignment, vehicle operations, intersection and interchange design, roadside design, lighting, and economics.

C E X91N. Engineering System Evaluation and Decision Making.
Advanced methods for selection of transportation and other infrastructure systems in the presence of multiple criteria, multiple decision makers, and uncertainty.

C E X91P. Topics in Highway and Airport Pavement Systems.

C E X91P.1. Theory and Behavior of Pavements.
Theories of pavement behavior and concepts of pavement design.

C E X91P.2. Design and Performance of Pavements.
Pavement performance evaluation and the application of theory to the design of pavements.

C E X91P.3. Pavement Management Systems.
Defines the interrelationships among all aspects of pavement technology. Application of computer-based management methodology.

C E X91Q. Bituminous Materials.
Design and use of asphalt mixtures; chemical, physical, and rheological properties of asphalt; and practical applications in highways, airports, and other construction.

C E X91R. Airport Design and Operation.
Aircraft characteristics, site selection, airport configuration, capacity, terminal design, traffic control, and interfacing with other transportation modes.

C E X91T. Topics in Contemporary Transportation Issues.
Consideration, analysis, and evaluation of recent transportation-related innovations and developments.

C E X91W. Transportation Systems Operations and Control.
Concepts and advanced methods for the design of control strategies for transportation systems operations, including highway traffic systems (signalized street networks and freeways), transit systems, and private carrier operations, including airlines.

C E X92C. Transportation Network Analysis.
Transportation network analysis focusing on planning and optimization using static traffic assignment models. Subjects include deterministic and stochastic equilibrium, traditional and modern solution methods, shortest path algorithms, combined models, and basic nonlinear programming skills.

C E X92D. Dynamic Traffic Assignment.
Theory and practice of dynamic traffic assignment as an evolving field. Subjects include basic flow models (point queues, cell transmission model, and link transmission model), time-dependent shortest path algorithms, equilibrium algorithms (convex combinations, simplicial decomposition, and gradient methods), and case studies from practice.

C E X92E. Acquisition and Analysis of Transportation Data.
Methods and technologies for the acquisition and analysis of data on various aspects of transportation systems, including properties of different data sources and types; stated versus revealed preferences; traffic sensing; survey design; sampling strategies; probabilistic methods of data analysis; overview of statistical methods and various regression models, including random-utility, ordered-choice, simultaneous-equations, time-series, and spatial econometric models.

C E X92F. Sensors and Signal Interpretation.
Explore the physics concepts related with sensors, basic circuits, and wireless communications. Examine properties and specifications of sensors, and their importance in practical use cases. Discuss sensor noise properties and explore the use of signal processing in time and frequency domains to reduce noise. Explore data and model fusion using classical estimation methods (linear observers and Kalman filters).

C E X92H. Regional Transportation Planning: Applications and Tools.
Explore various aspects of regional transportation system performance forecasting, including methods for anticipating Americans' evolving travel choices. Examine key data sources and model specifications for planning activities; forecasting and validation of predictions, for personal vs. commercial travel; and system-wide applications for traffic and travel pattern forecasts.

C E X92L. Experimental Measurements of Soil Properties.
Theoretical and practical knowledge of transducers, sensors, and data acquisition systems for soil and general laboratory testing. Experimental techniques used to characterize properties of geomaterials.

C E X92M. Public Transportation Engineering.
Introduction to public transportation systems, including demand forecasting, operations, and design. Includes statistical methods, driver and vehicle scheduling, algorithms, and survey sampling techniques.

C E X92N. Topics in Infrastructure Systems.
Management principles, modeling techniques, computer applications, and emerging technologies for the analysis, engineering, and management of infrastructure systems.

C E X92N.1. Infrastructure Systems Management.
Concepts, principles, theories, and models for infrastructure management, with emphasis on civil infrastructure systems.

C E X92N.2. Reliability and Maintainability of Infrastructure Systems.
Theory of reliability, maintainability, and availability and its application for the analysis of infrastructure systems.

C E X92N.3. Intelligent Infrastructure Systems.
Concepts, frameworks, and models of intelligent infrastructure systems, with emphasis on the application of emerging technologies and advanced modeling techniques.

C E X92P. Sustainable Pavement Engineering.
Pavement design; back calculation; use of locally available materials for pavement construction; recycled asphalt pavements and shingles; warm mix and cold mix asphalt; industrial by-products and waste incorporated in pavement materials; emerging technologies for sustainable pavement design and pavement management.

C E X92R. Discrete Choice Theory and Modeling.
Methods and statistics of model estimation, with emphasis on maximum-likelihood; individual choice theory; binary choice models; unordered multinomial and multidimensional choice models; sampling theory and sample design; ordered models and aggregate prediction with choice models; introduction to advanced concepts, such as unobserved population heterogeneity, joint slated preference and revealed preference modeling, and longitudinal choice analysis.

C E X92S. Intermodal Transportation Systems.
Strategic planning of intermodal freight transportation systems (infrastructure and rolling stock). Freight logistics, intermodal technology, and intermodal terminal operations. Intermodal freight transportation policy, planning, and operational systems and programs.

C E X92T. Transport Economics.
Application of economic theory and principles to transportation systems analysis and evaluation. Subjects include individual demand decisions, optimal private and public transport supply (including pricing strategies and input demands), market imperfections and externalities, and welfare-based transport policy.

C E X92U. Transportation Systems Management.
Evolving concepts of transportation agency organization, management, and delivery of transportation programs, products, and services. Separation versus integration of transport policymaking and service delivery functions; emerging models for delivering programs and services, such as outsourcing, privatization, and state-owned enterprises; review of national and international experiences with innovative approaches and the benefits and costs associated with change.

C E X92V. Methods to Characterize Bituminous Materials.
Introduction to the design and performance prediction of asphalt mixtures. Experimental and computational methods used to characterize the chemical and mechanical properties and performance of bituminous materials at several different length scales. Includes computational models.

C E X92W. Characterization of Viscoelastic Materials.
Test methods and physical models used to characterize the mechanical response of linear and nonlinear viscoelastic materials. Use of correspondence principles to solve simple boundary value problems for linear viscoelastic materials. Introductory topics on modeling damage and nonlinear response of viscoelastic materials.

C E X93. Advanced Concrete Materials.
Comprehensive coverage of Portland cement concrete materials. Topics include cement and aggregate properties, chemical and mineral admixtures, concrete microstructure and the effects of chemical and mechanical properties, durability issues, concrete construction, and special concretes.

C E X93C. Experimental Methods in Cement Chemistry.
Cement chemistry, hydration, and microstructural formation; analytical techniques used in the investigation of cement and concrete.

C E X93D. Concrete Durability.
Examine comprehensive coverage of durability issues affecting portland cement concrete. Includes transport properties (e.g., diffusion, osmosis, sorption, etc.), alkali-silica reaction, external sulfate attack, delayed ettringite formation, corrosion of reinforcing steel, freezing and thawing, and salt scaling. Explore, for each durability issue, the underlying mechanism are presented, along with methods for preventing such distress in new concrete construction.

C E X93M. Topics in Environmental Engineering Research Seminar.
Presentation and discussion of environmental topics in surface water, groundwater, air resources, and land resources.

C E X93N. Novel Structural Materials.
Material selection criteria, including mechanical and environmental factors; selected case studies of emerging materials, including derivation of properties and potential applications.

C E X93S. Structural Engineering Research Seminar.

C E X94. Topics in Interaction of Soils and Structures.
Beams on foundation, laterally loaded piles, applications of the finite-element method, beam-columns with nonlinear soil support, and behavior of pile groups.

C E X94.1. Dynamic Soil-Structure Interaction.
Fundamentals of wave propagation; determination of foundation stiffnesses; mat foundations on the surface of a layered soil; embedded foundations; pile foundations; effect of foundation conditions on dynamic response of structures to applied loads (machine foundations) and to seismic excitation.

C E X94K. Topics in Engineering Hydrology.

C E X94K.1. Groundwater Pollution and Transport.
Groundwater flow and hydrogeologic modeling, sources of contamination, multiphase partitioning, advection-dispersion transport and modeling.

C E X94K.2. Surface Water.
Rainfall runoff processes, hydrograph theory, linear and nonlinear hydrologic system models, hydrologic and hydraulic streamflow routing, rainfall and flood flow frequency analysis, watershed models.

C E X94K.3. Geographic Information Systems in Water Resources.
Principles of geographic information systems, hydrology, and database management systems applied to water resources problems.

C E X94M. Advanced Analyses in Geotechnical Engineering.
Development and application of linear and nonlinear finite element procedures for solution of geotechnical engineering problems related to embankments, excavations, static soil-structure interaction, and seepage.

C E X95N. Industrialized Production of the Built Environment.
Explore the integration of mass manufacturing, digital technologies, and automated processes for the production of the built environment. Learn how such approaches can improve productivity, safety, quality, and sustainability. Discuss key concepts behind industrialization and examine key technologies spanning design, offsite manufacturing, and onsite assembly.

C E X95P. Topics in Project Automation.

C E X95P.1. Advanced CAD Procedures.
Introduction to advanced CAD procedures and CAD systems, and their influence on building design and construction.

C E X95P.2. Introduction to Construction Automation and Integration.
Construction automation and integration activities, methods for opportunity identification and financial analysis of systems, and tools from several disciplines that are used in construction automation and integration; students prepare a project that synthesizes this information.

C E X95P.3. Design of Automated Construction Systems.
The elements of construction systems, including mechanisms, sensors, and control; systems design methods and concerns. Students develop an individual design project.

C E X95P.4. Sensing in Civil Engineering.
Sensor types and properties, data acquisition, sensor data analysis, sensor fusion, and classes of civil engineering applications. Students are encouraged to work on projects related to their research areas.

C E X95Q. Topics in Project Controls.

C E X95Q.1. Project Controls.
Fundamentals of planning, scheduling, and cost management on projects. Topics include network scheduling, activity and resource management, cost loading and cost control, and computer tools used for project controls, such as schedule simulation and three-dimensional and four-dimensional CAD.

C E X95Q.2. Project Production Systems.
Advanced topics in project controls, including supply chain management, procurement, interorganizational controls and incentives, process modeling, and simulation.

C E X95Q.5. Financial Management for Engineering and Construction Firms.
Introduction to financial, managerial, and tax accounting concepts, as well as corporate finance and strategy as they relate to engineering and construction firms. Emphasis is on content, interpretation, and uses of various accounting reports and financial statements in general, as well as those specific to engineering and construction industries. Topics include determination and reporting of net income methods and financial position unique to engineering and construction firms, and theories underlying business financial statements, as well as the consideration of managerial accounting and financial management topics that cover the planning and controlling of business operations and how financial management impacts a company's overall business success.

C E X95R. Topics in Project Information Systems.

C E X95R.2. Project Information Management Systems.
Information systems design and management concepts and their implementation in construction projects. Data acquisition, transmission, and storage; database management systems and information systems design.

C E X95R.3. Decision and Risk Analysis.
Fundamentals of decision analysis and risk assessment; construction engineering/project management applications in decision analysis; methods of risk management; overview of project insurance.

C E X95R.4. Metrics.
Measurement systems and benchmarking approaches for many aspects of construction projects. Included are measurement systems for design effectiveness, construction productivity, safety, cost and schedule controls, and overall industry statistics.

C E X95R.5. Data Mining.
Fundamentals of data mining. Techniques for data classification, prediction, clustering, and association rules mining. Data mining as an advanced data analysis method in engineering and construction. Implementation issues.

C E X95R.6. Quantitative Methods for Project Analysis.
Practical methods of data analysis for evaluating project performance metrics. Includes quantitative methods for solving everyday problems such as bid selection, capital budgeting, assignment of resources, equipment replacement analysis, and the optimization of capital structure. Techniques for developing models under conditions of risk using Microsoft Excel and add-ins such as At Risk.

C E X95R.7. Building Information Modeling for Capital Projects.
Building information models in plan execution for a building construction project. Focus on implementation of building information modeling concepts throughout the lifecycle of a building, from planning and design to construction and operations.

C E X95R.8. Urban Systems Engineering.
Explore system thinking concepts and sociotechnical system modeling of civil infrastructure systems. Examine defining system boundaries, abstracting interdependencies and system structure, and implementing mathematical models for the analyses of systems.

C E X95S. Topics in Project Organization.

C E X95S.1. Human Resources Project Management.
Evaluation of individual, group, and organizational behavior in construction work. In-depth study of communication, decision making, and the relationship between controls and behavior.

C E X95S.2. Construction Productivity.
Construction productivity improvement by group field studies. In-depth study of the way overtime, changes, weather, and staffing levels influence productivity. Industrial engineering techniques are applied to the construction environment to improve the use of equipment and human and material resources.

C E X95S.4. Project Management.
Overall aspects of project and portfolio management from inception to successful operation: project selection and feasibility, contracting methods, project scheduling, cost control systems, project communications, project scope and quality management, human resource management, partner selection and management, project leadership, project closeout, and global project management.

C E X95T. Topics in Project Technology.

C E X95T.3. Heavy Civil Construction.
Methods and materials in heavy civil construction; earthwork, concrete, structural steel, and deep foundations; equipment selection, configuration, productivity, and safety issues; site and craft planning, environmental issues, and optimization modeling; and field studies.

C E X95T.6. Value Management Processes I.
Industry value management processes, including value engineering and life cycle costing, process simplification, function analysis concept development, design to capacity, constructability, modularization and preassembly, and design effectiveness.

C E X95T.7. Value Management Processes II.
Industry value management processes, including mechanical reliability modeling, predictive maintenance, design for maintainability, waste minimization and pollution prevention, sustainable design and construction, planning for startup, lean construction, postoccupancy evaluation, and knowledge management and lessons learned systems.

C E X95T.8. Industrial Construction.
Methods and materials in industrial construction; heavy lifts, mechanical equipment, process piping, electrical, and instrumentation work; equipment selection, configuration, productivity, and safety issues; preassembly, modularization, and work planning in the industrial environment; and field studies.

C E X95U. General Topics in Construction Engineering and Project Management.

C E X95U.1. Front-End and Contractor Planning.
Principles and applications of advanced project planning techniques for capital facility owners and contractors. Effective owner front-end planning of capital facilities, including team alignment, and preproject planning processes and tools. Contractor preconstruction planning, including team selection, scope and budget review, procurement, strategic sequencing, and planning assessment tools.

C E X95U.3. Advanced Legal Concepts.
Contracts, documentation requirements, claims avoidance, and settlement of claims by alternative dispute resolution. Students conduct and present in-depth studies of the most frequent causes of claims (delay, disruption, acceleration, soil conditions, and changes) and consider the way the court establishes causation and determines damages.

C E X95U.4. Construction Safety.
Causes and effects of construction safety incidents, proactive preventative strategies, and tactics.

C E X95V. Topics in Construction Engineering and Projects: Seminar/Conference.

C E X95V.1. Doctoral Research Methods Seminar.

Construction research methods seminar, including concepts and practice of research in construction engineering and management. Research methodologies and steps in the research process, including review and framing research questions. Students develop and critique a research proposal.

C E X95V.2. Conference Course.

C E X95V.3. Construction Industry Seminar.

Construction industry issues and best practices, such as front-end planning and zero accident techniques, developed by the Construction Industry Institute (CII). Guest lecturers include CII management staff and visiting industry leaders. Emphasis on implementation of proven practices on projects.

C E X96L. Topics in Air Resources Engineering.

Sources, transport, fate, impacts, characteristics, and control of air contaminants; source control and prevention; urban air quality; occupational and residential indoor air quality.

C E X96L.1. Air Pollution Chemistry.

Classification, transport, transformation, deposition, sampling, and analysis of particulate and gaseous air pollutants in urban, regional, and global-scale systems. Emphasis on sustainable engineering.

C E X96L.3. Air Pollution Control.

Design of air pollution control systems for stationary sources. Technical, regulatory, and economic fundamentals related to the control of gaseous and particulate emissions.

C E X96L.4. Indoor Air Quality: Physics and Chemistry.

Sources, transport, and fate of indoor air pollutants. Interactions between indoor pollutants and indoor materials. Indoor air chemistry. Human exposure to pollutants in indoor environments.

C E X96L.5. Atmospheric Transport and Dispersion Modeling.

Mathematical models of contaminant transport in the atmosphere; atmospheric turbulence and air pollution meteorology; Gaussian plume, gradient transport, and higher-order closure models; theoretical development and practical applications to engineering problems.

C E X96L.6. Human Exposure to Indoor Air Pollution.

Human exposure to air pollution in the built environment, including the effects of sustainable building design on human exposure to toxic air pollutants. Subjects may include inhalation intake fractions for risk calculations and comparisons of sources of air pollution, transmission of airborne infectious disease, pharmacokinetic modeling, and case studies involving several important air pollutants.

C E X96M. Advanced Topics in Atmospheric Science.

C E X96M.1. General Topics.

C E X96M.2. Air Pollution Meteorology.

Basic meteorology applied to air pollution; diffusion of conservative and nonconservative pollutants; plume rise; air pollution models.

C E X97. Special Topics in Civil Engineering.

C E X97.14. Design of Wood Members and Systems.

Design and behavior of solid wood and glued-laminated wood structural members; light-frame and heavy timber systems, including trusses and arches.

C E X97.16. Evaluation, Materials, and Techniques for Concrete Repair.

Causes of distress, evaluation methods, repair materials, repair techniques, and quality control methods for repair of concrete.

C E X97.17. Air Sampling and Analysis.

Collection and analysis of air samples for gaseous and particulate contaminants. Gas flow rate and calibration techniques, stationary source sampling and analysis, indoor air sampling, ozone and NOx ambient air monitoring.

C E X97.20. Computer Methods for Civil Engineers.

Essential methods for computer-aided problem solving in transportation and other civil engineering areas. Topics may include computer operating systems concepts; the Internet and World Wide Web site design; advanced programming with C programming language; data structures; file manipulation and management; Monte Carlo simulation techniques; interfacing with spreadsheets, SQL databases, and computer-aided design packages; introduction to Geographic Information Systems. Team programming is emphasized.

C E X97.22. Intelligent Transportation Systems Seminar.

Introduction to Intelligent Transportation Systems (ITS) concepts, evolution, and current initiatives. Program evolution from Mobility 2000, through IVHS and strategic planning activities by the Department of Transportation and ITS America, to current operational tests and deployment projects.

C E X97.32. Hydrodynamics of Propulsors and Dynamic Positioning Systems.

Hydrofoil and lifting surface theory, actuator disk and lifting line theory, vortex-lattice and panel methods, blade design techniques, propulsor-inflow and propulsor-hull interaction, unsteady blade and shaft forces, and modeling of sheet cavitation.

C E X97.35. Introduction to Structural Mechanics.

Discussion of force and stress, vectors and tensors; equilibrium; displacement and deformation; compatibility; constitutive equations, with examples from linear elasticity, linear viscoelasticity, and plasticity; principle of virtual work; elastic structures, principle of minimum potential energy, reciprocity theorem; critical equilibrium, stability; linear theories of beams, plates, and shells.

C E X97.4. Freight Transportation.

Topics include review of transport systems analysis; shipper objectives; demand and supply modeling; freight flow data; network analysis; truck size and weight policies; finance.

C E X97.50. Water Resources Development and Policies.

Analysis of water resources projects, particularly international water projects, with emphasis on engineering and planning considerations and their relation to governmental policies.

C E X97.54. Water Pollution Control.

The application and evaluation of new concepts in water pollution abatement and advanced water and wastewater treatment.

C E X97.56. Air Pollution Control.

Evaluation of new theoretical approaches to air pollution control.

C E X97.6. Traffic Science Seminar.

Topics range from fundamentals of vehicular traffic science to relevant methodologies in physics, applied mathematics, and operational science.

C E X97.78. Design of Offshore Structures.

Selection of design storm; wave forces on structures; preliminary analysis of steel jacket platforms; joint design; fatigue considerations; foundation design; dynamic effects and responses.

C E X97C. Master's Research.

C E X97D. Dissertation Research.

C E X97F. Forensic Engineering: Materials and Structures.

Methods of forensic analysis; role of the expert witness; methods of dispute resolution; case studies; term project.

C E X97K. Stability of Structures.

Stability as it relates to actual behavior and design; elastic and inelastic theories; evaluation of specifications; columns, beams, and frames.

C E X97L. Advanced Structural Metals.

Elastic and inelastic design methods for steel members, connections, and structures; torsion of open and closed sections, welding, plate buckling, and column stability; bracing design.

C E X97N. Nondestructive Testing Techniques.

Basic signal processing knowledge; introduction to wave propagation theory; nondestructive testing (NDT) principles and applications to steel structures; evaluation of concrete structures and foundations; NDT methods selection; emerging technologies.

C E X97Q. Special Independent Studies in Civil Engineering.
C E X98. Thesis.
C E X98D. Departmental Report.
Preparation of a report to fulfill the requirement for the master's degree under the departmental report option.
C E X98R. Master's Report.
Preparation of a report to fulfill the requirement for the Master of Science in Engineering degree under the Graduate School report option.
C E X98T. Supervised Teaching in Civil Engineering.
Special training in teaching methods and procedures for civil engineering courses, including laboratory courses; the development of new material and methods to update present courses.
C E X99W. Dissertation.

Professional Courses

C E X96M. Advanced Topics in Atmospheric Science.
C E X96M.1. General Topics.
C E X96M.2. Air Pollution Meteorology.
Basic meteorology applied to air pollution; diffusion of conservative and nonconservative pollutants; plume rise; air pollution models.

C L - Comparative Literature

Comparative Literature: C L

Lower-Division Courses

C L X01. Introduction to Comparative Literature.
Reading and interpretation of literary texts in translation drawn from cultures around the world, focusing on methods of criticism and analysis.
C L X05. Topics in Comparative Literature.
Study of masterpieces of world literature; of different literary genres; and the relationship between literature and other disciplines such as psychology, philosophy, and film.
C L X05.1. Forbidden Romance in Modern Chinese Literature.
Introduction to modern Chinese literature from the late Qing Dynasty (latter half of the nineteenth century) to the present.
C L X05.2. The Vampire in Slavic Cultures.
Examines the vampire in the cultures of Russia and Eastern Europe, including manifestations in literature, religion, art, film, and common practices from its origins to present.
C L X05.3. Movies Go To War.
A comparison of films from various nations about major twentieth century wars to the historical facts of the conflicts as practicums in critical comparative analysis of histories as representations.
C L X05.4. Grimms' Fairy Tales.
Reading and discussion of tales from the Grimms' collection, as well as some of the relevant secondary literature.
C L X05.5. Korean Literature and Film.
Explore the literature and film of Korea from earliest times to the present.
C L X05C. Dissent in Twentieth-Century Ukraine.
Survey Ukrainian authors from the 1920s to the present, examining writings from "Executed Renaissance," underground literature, and postmodernism. Focus specifically on works that challenge the paradigm of socialist realism by discussing forbidden subjects (famine, religion, Gulag) or accentuating themes that are not considered "major" (personal life).
C L X05D. Afro-Brazilian Diaspora.
C L X05E. Gods and Goddesses of India.
Explore a variety of gods and goddesses who have dominated the sacred landscapes of India and beyond, especially North America, from the past until now. Examine various issues relating to patriarchy, power, gender, sexuality, social hierarchy, and devotion.
C L X05S. The Soviet Hero in Literature and Culture.
Consider Soviet Culture by examining "heroes" from both real life and works of literature, cinema, and folklore. Explore the period from the Russian 19th century throughout the Soviet Era.
C L X15. World Literature.
Introduction to masterpieces of world literature, emphasizing historical, generic, and thematic connections.
C L X18Q. Supervised Research.

Upper-Division Courses

C L X20. Conference Course in Comparative Literature.
Independent study of literary projects under supervision of professors in comparative literature.
C L X23. Topics in Comparative Literature.
Study of masterpieces of world literature; of different literary genres; of the relationship between literature and other disciplines, such as psychology, philosophy, and film; and of special topics of a comparative nature.
C L X23.13. Introduction to Arabic Literature.
General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era.
C L X23.15. Israel Through Its Literature.
C L X23.16. The Scandinavian Contribution to World Literature.
Close readings of the most influential Scandinavian texts, including works by Nobel Prize-winning authors such as Knut Hamsun and Selma Lagerlof, as well as the playwrights August Strindberg and Henrik Ibsen while addressing important themes caused by the revolutionary transition to modernity in Scandinavia around 1900, including emancipation of women and sexuality.
C L X23.20. Rebels and Revolutionaries in Russian History and Literature.
Study of fictional and real rebels and revolutionaries across almost a century of Russian literature.
C L X23.27. The Major Works of Tolstoy.
Explores Russian writer Lev Nikolaevich Tolstoy, particularly his progression from idealizing family life and the Russian state to renouncing sexual love and national allegiances.
C L X23.29. The Russian Novel.
A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century.
C L X23.3. Autobiography: A Modern Literary Species.
C L X23.30. The Major Works of Dostoevsky.
Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky.
C L X23.31. War and Revolution in Russian Literature and Culture.
Examines Russian narratives of war and revolution as represented in fiction, cinema, and journalism.
C L X23.33. Feminism and Film: Women Filmmakers in Northern and Central Europe.
An introduction to the work of women filmmakers from Scandinavia, Germany, as well as to the viewing and interpretation of films in general.
C L X23.34. Russian Myths and Folktales.
Examination of the Russian folktale, its roots in ancient, pre-Christian Slavic religious tradition, its connections with other forms of folklore such as myth and legend, and its transformation in modern Russian literature. Subjects include the continuing influence of folklore explored through various aspects of Russian culture, including literature, music, ballet, film, and popular culture.
C L X23.36. Love in the East and West.
C L X23.37. The Qur'an.
Explore the history, language, style, and themes of the Qur'an.
C L X23.4. Self-Revelation in Women's Writing.
C L X23.40. Holocaust Aftereffects.
Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States.

C L X23.41. Decoding Classical Chinese Poetry.
Introduction to the classical Chinese poetic tradition from the seventh century B.C.E. through the ninth century C.E., focusing on the literary, cultural, historical, social, political, philosophical, and religious background against which representative works arose. Conducted in English and all readings will be in English translation. Knowledge of the Chinese language is not required.

C L X23.42. Anti-Semitism in History and Literature.

C L X23.44. Berlin.

C L X23.49. Northern European Comics.
A study of graphic novels from Scandinavia, Germany, and Holland to understand the art form of comics and the influence of the cultures in which they were produced. Readings, all in English, cover various genres and time periods.

C L X23.51. Viking Language: Runes and Sagas.

C L X23.52. Bad Language: Race, Class, and Gender.

C L X23.54. Russian Cinema From Potemkin to Putin.

C L X23.55. Russian Fairytales.

C L X23.58. Russian and Mexican Men in Popular Culture.
Study representations of masculinity in products of Mexican and Russian popular culture at the end of the twentieth and the beginning of the twenty-first centuries.

C L X23.59. The Ancient Historians.
Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage.

C L X23.6. Caribbean Literature.

C L X23.60. Danticat and Diaz.

C L X23.61. Classic Lyric Poems.

C L X23.62. Forugh Farrokhzad and Her Poetry.

C L X23.63. Iranian and Iranian-American Identity.

C L X23.64. Israel and Palestine: A Cultural Perspective.

C L X23.65. Youth and Violence in the Middle East and Eurasia.

C L X23.66. Twentieth-Century Persian Literature.

C L X23.69. The Arts of Hip Hop.

C L X23.71. Russia Through American Eyes.
Examine a wide array of American attitudes towards Russia and Russians. Using a variety of political, social, and cultural events and encounters, analyze the ways in which nationalism, imperialism, and geopolitics informed American narratives about Russia and Russians, assessments that range from enthusiasm and curiosity to condemnation and outright hostility.

C L X23.72. Performing LGBTQ+.

C L X23.73. Greek Tragedies and Postcolonial Dramas.
Study the adaptation of great dramatic literature of the Greek civilizations to their phenomenal evolution into popular African performances. Putting classical writings from Ancient Greek in dialogue with texts that formed the background of African anti-colonial revolutions, analyze how Africans have used these works to re-shape literary canon and given their world and their histories universal purchase.

C L X23.74. Queer Eastern Europe.
Explore LGBTQI stories and political struggles in Eastern Europe with a focus on the region's queer culture: literature, cinema, and the arts.

C L X23.75. Identity, Codes, and Culture.
Explore how to read identities as patterns in literary texts, linguistic and cultural corpora with digital methods, and come to a deeper understanding of individual texts and textual phenomena. Examine digital research methods, tools, and use cases. Work hands-on with literary and linguistic sources.

C L X23.76. Humor and Hardship in Arabic Literature.
Examine Arabic literary works (ninth through twentieth centuries) that display humor and its unspoken counterpart, hardship. Consult modern theories of humor and premodern Arabic-Islamic ideas of the jocular.

C L X23.77. Cultural Translation.
Examine theoretical readings and concrete examples of how translation politics, translation-induced reconstruction of literary systems, censorship, manipulation, and market dynamics affect the production, distribution, and reception of translated products in the realm of arts and entertainment, news media and politics, and various academic disciplines in the Middle East, United States, and beyond.

C L X23.78. Geography in Eastern Europe and Eurasia.
Explore alternatives to nation-state imaginaries across Eastern Europe and Eurasia. Examine spatial thinking, utopia, dystopia, the history of geosciences, counter-mapping, and the decolonial geopoetics of space.

C L X23.79. Russia's Soul: Spiritual Traditions.
Explore complex history of Orthodox Christianity, Judaism, Islam, and Buddhism in Russia. Examine important worship sites, including monasteries and pilgrimage destinations. Have discussions with Russian scholars of religion and practitioners of different faiths.

C L X23.8. Bulgakov's Master and Margarita.
Explores the novel in the context of other literary works by Bulgakov and its varied sources in world literature, music, and the visual arts.

C L X23C. Soviet Romance in Film.
Examine the construction of the ideology of love, intimate relations, and gender roles, deemed appropriate for a Soviet citizen, as it is demonstrated in a selection of films.

C L X23D. Representing Disaster in Japan.
Explore a range of human-made conflicts and natural disasters in Japan from earliest times to the present through literature, film, and new media to consider questions of history, representation, and mourning and memorialization.

C L X23E. The Environment and East Asia.
Examine the relationship between humans and the environment through the literature, film, and media of East Asia.

C L X23F. Animals in Asia.
Focus on how historical and modern-day philosophy, religious texts, and legal systems in South and East Asia provide the framework for probing the human-animal encounter and the tensions that arise due to human-animal interdependence.

C L X23G. History and Memory in Japan and Korea.
Explore the fraught and entangled histories of modern Japan and Korea as depicted in literature and film to consider experiences of imperialism, rapid modernization, war, decolonization, and trauma.

C L X23I. Translating Asia.
Explore various ways to define translation in the Asian context through translation theory and translated texts and how translation impacts and represents different Asian identities.

C L X23J. Germanic Novels: History, Culture, and Interpretation.
Explore several representative novels by German, Scandinavian, or Dutch writers, along with representative texts and essays on the novel as a genre and interpretative strategies. Examine these works in their literary and cultural contexts via lectures and discussions.

C L X23K. Literature, Culture, and Ecology in Northern and Central Europe.
Explore a variety of texts, films, and artifacts from Northern and Central Europe for the insights they provide about the interrelationships between nature and culture and strategies for developing a sustainable relationship to the world around us.

C L X23L. Nordic Noir.
Uncover the dark side of the Nordic countries, from gritty streets to icy fjords, and explore the history, culture, literature, and movies these societies produce.

C L X23M. Silent Film in Germany and Scandinavia.
Explore silent film and filmmaking in Germany and Scandinavia.

C L X23N. Germanic and Scandinavian Modernisms, 1870-1925.
Explore the cultural renaissance between 1880 and 1925 in Northern and Central Europe, covering the period often called the Modern Breakthrough in Scandinavia, but also known as la belle epoque in France and "the gilded age" in the United States.

C L X23O. The Bhagavad Gita: Interpretation and Ethics.
Explore one of the most influential books in Indian and global contexts, the Bhagavad Gita, through interpretations, commentaries, and scholarly materials. Navigate ethical dilemmas in the Bhagavad Gita and real-life situations.

C L X23P. Korean Cinema.
Explore Korean cinema, film history, and theory from the early twentieth century to the present.

C L X23Q. Elena Ferrante: Politics and Passion.

C L X23R. Diasporic Magic: Literature and Performance.

C L X23S. Cultural Memory and the Classic Chinese Novel.
Examine the metaphors and mythology from Chinese cultural memory that are present in classic novels, within literary and socio-historical contexts. Explore a cross-section of influential works from classical literature and the major founding schools of Chinese thought.

C L X23T. Scandinavian Cinema Since 1980.

C L X23U. Films of Ingmar Bergman.
An introduction to the films of Ingmar Bergman.

C L X23V. Arendt and de Beauvoir.

C L X23W. Contemporary Scandinavian Stories.
An analysis of contemporary Scandinavian literature and films, how they reflect Scandinavian reality, and how Scandinavian identity is created through sports, food, and politics.

C L X24C. Hans Christian Andersen.
Introduction to such Hans Christian Andersen tales as "The Little Mermaid," "The Ugly Duckling," and "The Emperor's New Clothes. Examination of their author and the romantic period in which they were written, as well as their historical, philosophical, and literary context.

C L X24D. Isak Dinesen/Karen Blixen.
An introduction to the twentieth-century Danish author Karen Blixen, focusing on her major themes such as gender and destiny, and examining her role as a literary figure.

C L X24E. Nobel Prizes: Literature and Politics.
An introduction to Nobel Prize winning authors from northern Europe in the context of literary prizes and the politics of literary reputation. Analyze and compare literary works, set novels into historical context, investigate what popular and scholarly reviews do, and research in both popular and scholarly sources.

C L X24F. Social Dramas of Henrik Ibsen.
A detailed introduction to Ibsen's social dramas (1877-1899), emphasizing their unity as a prolonged commentary on the society of his era and the variety of its human problems. Special emphasis on subjects such as: the family and the home; the public world of reputation, work, and citizenship; the predicaments of men and women in a male-dominated society; and the motives of our interventions into the lives of others.

C L X24G. Vikings and Their Literature.

C L X24I. Women and the Holocaust.
Introduction to both the history of Jewish and German women during World War II and the Holocaust, and to women's narratives and self-representations of this period. Historical sources, memoirs, films, and interviews will be used as source material.

C L X24J. Exhibitions and Public Spectacle.
Investigate exhibits, world's fairs, museum, monuments, theme parks, and historical reconstructions from Europe and the US, with attention to images of how their sponsoring nations or other entities want to be seen. Examine evidence for both the good and bad sides of national pride and identity. Explore examples of how large-scale culture projects and the public interact. Consider the lasting marks left on the cities and countries sponsoring them.

C L X24K. Squaring the Vienna Circle.
Traces the origin of the Vienna Circle of Logical Empiricism in nineteenth-century Europe, and introduces central texts and problems of intellectual history and historical epistemology at the roots of today's analytic philosophy.

C L X58Q. Supervised Research.

Graduate Courses

C L X80F. Foundations of Literary Theory and Criticism.
Explore a comparative study of theories of literary criticism in a broad historical perspective, including representative classic texts in critical theory.

C L X80K. Introduction to Comparative Literature.
One-credit-hour proseminar in methods of study and research in comparative literature.

C L X80M. Topics in Problems in Translation.
Detailed study of literary translations and of the translation process, and completion of one substantial translation.

C L X80P. Literary and Cultural Theory since 1900.
Explore a comparative study of major modern critical schools and figures in literary and cultural theory and criticism.

C L X81. Topics in The Comparative Study of Literary Periods and Movements.
The study of literary periods, aspects of periods, or movements from a comparative point of view; topics include mystical literature of the Middle Ages and Renaissance humanism.

C L X81.1. Modernisms and Modernity.

C L X82. Topics in Comparative Literature.
Study of genres, literary forms, the relationships of literature and other disciplines from a comparative point of view; topics include comedy, sensibility, and the East and the West.

C L X82.1. World Literature and Globalism: Theory and Practice.

C L X82.2. Women Writers and Intellectuals.

C L X86. Topics in Literature in a Comparative Context.
A study of topics with a single primary language focus, using a strongly comparative approach.

C L X91L. Conference Course in Comparative Literature.
Tutorial courses on individually designed basis available through the home departments of members of the comparative literature faculty.

C L X98. Thesis.

C L X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

C L X99W. Dissertation.

Professional Courses

C S - Computer Science

Computer Science: C S

Lower-Division Courses

C S X01K. Foundations of Logical Thought.
Introductory logic in the context of computing; introduction to formal notations; basic proof techniques; sets, relations, and functions.

C S X02. Computer Fluency.
An introduction to the fundamental concepts of computing: how computers work, what they can do, and how they can be used effectively. Some programming is required.

C S X03E. Elements of Computers and Programming.
Problem solving and fundamental algorithms for various applications in science, business, and on the World Wide Web, and introductory programming in a modern object-oriented programming language.

C S X03F. Ethical Foundations of Computer Science.
An introduction to reasoning about the effects of the technology created by computer scientists and understanding the ethical and real-world consequences of that technology. Emphasizes direct participation and discussion using case studies to illustrate ethical topics.

C S X04C. Competitive Programming.
Explores the algorithms needed to solve a given problem, reason about corner cases, and write correct implementations under time pressure. Focuses on skills useful for international programming competitions, whiteboard job interviews, and programming tasks that require quickly solving challenging problems with creative use of algorithms.

C S X04I. Essentials of AI for Life and Society.
Examine fundamental concepts for AI literacy, as well as the ethical and societal implications of AI technologies.

C S X05C. Computer Programming: C++.
Explores the syntax and concepts needed to program in C++.

C S X05P. Topics In Computer Programming Languages.
An introduction to programming in a particular computer language. Includes designing and implementing programs.

C S X08. Topics in Software Systems.
Introduction to the use of a particular software system. Students build applications that exploit the system being studied.

C S X09. Topics in Computer Science.

C S X09.1. Quantum Computing I.
Introduction to quantum information and communication.

C S X11. Discrete Mathematics for Computer Science.
A focus on discrete mathematical tools of fundamental importance to the working computer scientist. An emphasis is placed on using logical notation to express rigorous mathematical arguments. Subjects include proof by induction, introduction to graph theory, recurrences, sets, functions, and an introduction to program correctness.

C S X11H. Discrete Mathematics for Computer Science: Honors.
A focus on discrete mathematical tools of fundamental importance to the working computer scientist. An emphasis is placed on using logical notation to express rigorous mathematical arguments. Subjects include proof by induction, graph theory, number theory, combinatorics, recurrences, sets, functions, an introduction to program correctness, and discrete probability.

C S X12. Introduction to Programming.
First part of a two-part sequence in programming. Fundamental concepts of structured programming; procedures and data structures with a focus on problem solving strategies and implementation; introduction to concepts of informal specification, informal reasoning about program behavior, debugging, and ad hoc testing.

C S X12H. Introduction to Programming: Honors.
First part of a two-part sequence in programming. Fundamental concepts of structured programming; procedures and data structures with a focus on problem solving strategies and implementation; introduction to concepts of informal specification, informal reasoning about program behavior, debugging, and ad hoc testing.

C S X13E. Elements of Software Design.
Object-oriented design of software using Python, a modern high-level language. Introduction to abstract data types, fundamental algorithms, and basics of complexity analysis.

C S X14. Data Structures.
Second part of a two-part sequence in programming. Introduction to specifications, simple unit testing, and debugging; building and using canonical data structures; algorithm analysis and reasoning techniques such as assertions and invariants.

C S X14H. Data Structures: Honors.
Second part of a two-part sequence in programming. Introduction to specifications, simple unit testing, and debugging; building and using canonical data structures; algorithm analysis and reasoning techniques such as assertions and invariants.

C S X18H. Introduction to Computer Science Research: Honors.
Introduction to computer science research. Discuss various aspects of undergraduate research, including the benefits of undergraduate research, ways to get started in undergraduate research, the mechanics and expectations of an undergraduate honors thesis, and tips to help have a successful undergraduate research experience.

C S X19S. Topics in Computer Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Computer Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C S X29S. Topics in Computer Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Computer Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

C S X19S. Topics in Computer Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Computer Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C S X20N. Topics in Computer Science for Nonmajors.

C S X23E. Elements of Scientific Computing.
Explore the fundamentals of software issues related to scientific computing. Discuss subjects including floating-point computations, numerical computation errors, interpolation, integration, solution of linear systems of equations, optimization, and initial value problems of ordinary differential equations. Examine implementation of algorithms that are investigated using Python for all scientific computations.

C S X23H. Elements of Scientific Computing: Honors.
Fundamentals of software issues related to scientific computing. Subjects include floating-point computations, numerical computation errors, interpolation, integration, solution of linear systems of equations, optimization, and initial value problems of ordinary differential equations. Implementation of algorithms are investigated using MATLAB for matrix and vector computations. Examples are drawn from a variety of science and mathematics areas.

C S X24E. Elements of Graphics and Visualization.
Basics of two- and three-dimensional computer graphics systems, modeling and rendering, and selected graphics software APIs. Other topics may include interactive graphics, animation, graphical user interfaces, and the graphical presentation of information.

C S X26E. Elements of Networking.
Introduction to the principles and basic concepts of the Internet, networking applications and protocols, and simple client/server applications. Other topics may include network technologies and topologies, packet and circuit switching, LANS and WANS, Internet security, and network management.

C S X27E. Elements of Databases.
A practical introduction to database management systems, with discussion of database administration and management. Survey of logical modeling, database design with a focus on relational databases, SQL query language, and current applications. Subjects may include data

integrity, performance, concurrency, transaction processing, recovery, security, and Web applications.

C S X28E. Topics in Elements of Computing.

C S X29. Computer Organization and Architecture.

An introduction to low-level computer design ranging from the basics of digital design to the hardware/software interface for application programs. Includes basic systems principles of pipelining and caching, and requires writing and understanding programs at multiple levels.

C S X29E. Advanced Topics in Elements of Computing.

C S X29H. Computer Organization and Architecture: Honors.

An introduction to low-level computer design ranging from the basics of digital design to the hardware/software interface for application programs. Includes basic systems principles of pipelining and caching, and requires writing and understanding programs at multiple levels.

C S X29S. Topics in Computer Science.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Computer Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C S X29W. Cooperative Computer Science.

This course covers the work period of computer science students in the Cooperative Education program, which provides supervised work experience by arrangement with the employer and the supervising instructor.

C S X30E. Elements of Software Engineering I.

Explore software engineering using various programming languages. Use tools to improve the quality of software development.

C S X30F. F1/10 Autonomous Driving.

Introduction to algorithms required for autonomous driving, and more generally, autonomous mobile robots. Discuss motion control (model-predictive control, time-optimal control), sensing (filtering, clustering), planning (local obstacle avoidance, heuristic search, RRTs), and state estimation (particle filters).

C S X30H. F1/10 Autonomous Driving: Honors.

Introduction to algorithms required for autonomous driving, and more generally, autonomous mobile robots. Discuss motion control (model-predictive control, time-optimal control), sensing (filtering, clustering), planning (local obstacle avoidance, heuristic search, RRTs), and state estimation (particle filters).

C S X31. Algorithms and Complexity.

An investigation of algorithmic paradigms: divide and conquer, dynamic programming, greedy algorithms, graph algorithms, randomized algorithms, undecidability, NP-completeness, and approximation algorithms.

C S X31E. Elements of Software Engineering II.

Explore advanced aspects of software engineering using various programming languages. Use tools to improve the quality of software development.

C S X31H. Algorithms and Complexity: Honors.

An investigation of algorithmic paradigms: divide and conquer, dynamic programming, greedy algorithms, graph algorithms, randomized algorithms, undecidability; NP-completeness, approximation algorithm, sorting lower bound, selected topics from amortized analysis, network flow, and linear programming.

C S X33E. Elements of Data Integration.

Investigate data architectures and approaches for integrating siloed data with an emphasis on tooling and implementation of end-to-end solutions. Explore data sourcing, storage, ingestion, modeling, transformations, enrichment, aggregation, lineage, metadata, quality, and knowledge graphs.

C S X33P. Science of High-Performance Computing.

Explore aspects that impact high performance computing. Discuss goal-oriented programming" that derives programs hand-in-hand with their proof of correctness. Examine techniques for mapping the appropriate algorithms to computer architectures so that they can attain high performance.

C S X34. Technical Writing.

Application of techniques and strategies of effective technical writing, and of conventions used in documents such as letters, memos, proposals, abstracts, and reports.

C S X37. Theory in Programming Practice.

Application of program-analysis theory to program design. Methodologies for large-scale program design. Designed to help students bring together theoretical and programming skills.

C S X37H. Theory in Programming Practice: Honors.

Application of program-analysis theory to program design. Methodologies for large-scale program design. Designed to help students bring together theoretical and programming skills.

C S X39. Principles of Computer Systems.

An introduction to computer systems software abstractions with an emphasis on the connection of these abstractions to underlying computer hardware. Key abstractions include threads, virtual memory, protection, and I/O. Requires writing of synchronized multithreaded programs and pieces of an operating system.

C S X39H. Principles of Computer Systems: Honors.

An introduction to computer systems software abstractions with an emphasis on the connection of these abstractions to underlying computer hardware. Key abstractions include threads, virtual memory, protection, and I/O. Requires writing of synchronized multithreaded programs and pieces of an operating system.

C S X40D. Debugging Verifying Programs.

Basic concepts of formal methods with emphasis on using and applying mathematical logic plus finite state systems theory to program verification and debugging.

C S X41. Automata Theory.

An introduction to the formal study of automata and of related formal languages with applications in computer science.

C S X41H. Automata Theory: Honors.

An introduction to the formal study of automata and of related formal languages with applications in computer science.

C S X42. Neural Networks.

An introduction to deep learning covering basic building blocks and intuitions behind designing, training, and tuning of deep networks. Explore application areas including computer vision, sequence modeling in natural language processing, deep reinforcement learning, generative modeling, and adversarial learning.

C S X42C. Computational Brain.

An examination of the brain as a computational system composed of different layers of abstraction. Focus on scientific writing, with weekly reviews of relevant scientific papers.

C S X42S. Introduction to Speech and Audio Processing.

Explore the theory and practice that underlies modern automatic speech recognition (ASR) systems and related technologies. Analyze the acoustic theory of speech production, digital signal processing for speech signals, Hidden Markov Models, Gaussian Mixture Models, language models, finite state transducers, decoding algorithms, and deep neural networks.

C S X43. Artificial Intelligence.

An introduction to the field of artificial intelligence (AI), starting from foundations in search and knowledge representation, and then sampling from major AI topics such as probabilistic reasoning, intelligent agents (including for games), machine learning, planning, natural language processing, robotics, computer vision, and philosophical foundations. Programming projects are required.

C S X43H. Artificial Intelligence: Honors.
An introduction to the field of artificial intelligence (AI), starting from foundations in search and knowledge representation, and then sampling from major AI topics such as probabilistic reasoning, intelligent agents (including for games), machine learning, planning, natural language processing, robotics, computer vision, and philosophical foundations. Programming projects are required.

C S X44M. Autonomous Multiagent Systems.
An introduction to autonomous agents, with an emphasis on multiagent systems. Students use a robotics simulator. Emphasis on computer science research activities, including speaking, writing, programming, and working in groups.

C S X44R. Robotics.
A survey of methods and techniques important for intelligent robotics. Students work in teams, applying these methods to get intelligent behavior from physical robots.

C S X45. Programming Languages.
Survey of significant concepts underlying modern programming languages, including syntax, functions, expressions, types, polymorphism, assignment, procedures, pointers, encapsulation, classes, and inheritance, with some discussion of implementation issues. Prominent programming paradigms, such as sequential, concurrent, object-oriented, functional, and logic programming. Illustrative examples drawn from a variety of current languages.

C S X45H. Programming Languages: Honors.
A survey of significant concepts underlying modern programming languages, including syntax, functions, expressions, types, polymorphism, assignment, procedures, pointers, encapsulation, classes, and inheritance, with some discussion of implementation issues. Prominent programming paradigms, such as sequential, concurrent, object-oriented, functional, and logic programming. Illustrative examples drawn from a variety of current languages.

C S X46. Cryptography.
A theoretical introduction to cryptography. Subjects include private key cryptosystems, public key cryptosystems, digital signatures, secret sharing schemes, and the necessary mathematical background.

C S X47. Data Management.
Concepts of database design and database system implementation. Data models, query processing, database design theory, crash recovery, concurrent control, and distributed databases.

C S X49. Contemporary Issues in Computer Science.
An examination of social, professional, and ethical issues involved in the use of computer technology. Subjects may include software engineering ethics, computer safety and reliability, constitutional issues, intellectual property, computer crime, societal impact, emerging technologies, and philosophical issues.

C S X50C. Advanced Computer Architecture.
Relationships between programming and hardware design, high performance and low power microarchitectures, memory system design, technology and workload constraints on design, special techniques for coding, addressing, and control, and evaluation of design alternatives will be explored.

C S X50F. Operating Systems.
Advanced coverage of core operating systems (virtual memory, file systems, scheduling), and intermediate and advanced operating systems concepts: multiprocessing, multi-core computing, linking, kernel design, virtual machines, and security.

C S X50M. Energy-Efficient Computing.
Explore the technical aspects related to energy efficiency. Focus on hardware techniques for managing energy, operating system interfaces, cloud computing, high-performance computing, and Blockchain technology.

C S X53. Theory of Computation.
An introduction to computability theory and computational complexity, focusing on the limits of computation. Subjects include undecidability, NP-completeness, time and space complexity, circuit complexity, and randomized complexity.

C S X54. Computer Graphics.
Introduction to techniques for human-machine communication through imagery. Subjects include display hardware, transformations, interactive techniques, geometric modeling, two- and three-dimensional display algorithms, graphics software systems architecture, and hidden-line and surface elimination. Projects are assigned and in-depth exploration is encouraged.

C S X54H. Computer Graphics: Honors.
Introduction to techniques for human-machine communication through imagery. Explore display hardware, transformations, interactive techniques, geometric modeling, two- and three-dimensional display algorithms, graphics software systems architecture, and hidden-line and surface elimination.

C S X54P. Game Programming Paradigms.
Explore game programming paradigms in C++ using the Unreal Engine. Examine event-driven, component-oriented and object-oriented programming, as well as collaborative software development using source control, bug-tracking, and code documentation. Develop and apply skills towards building a game on the Unreal Engine.

C S X54R. Game Technology.
Examine major technological components of computer games and their integration, modeling and animation, physics simulation, networking for games, interface and interaction techniques, and special effects.

C S X54S. Game Development Capstone: Two-Dimensional Games.
Participation in an interdisciplinary team to gain a thorough understanding of the two-dimensional game development process, through modeling of the environment and practices that are used in game studios.

C S X54T. Game Development Capstone: Three-Dimensional Games.
Participation in interdisciplinary teams to gain a thorough understanding of the three-dimensional game development process, through modeling of the environment and practices that are used in game studios.

C S X56. Computer Networks.
Introduction to computer networks with emphasis on the Internet.

C S X56R. Introduction to Wireless Networks.
An introduction to basic knowledge in wireless networks ranging from the physical layer to the application layer, and across different types of wireless networks such as WiFi, cellular, and multihop networks.

C S X58H. Introduction to Quantum Information Science: Honors.
Introduction to the theory of quantum computing and information. Explore the rules of quantum mechanics (qubits, unitary transformations, measurements, density matrices); quantum gates and circuits; entanglement; the Bell inequality; protocols for teleportation, quantum key distribution, and other tasks; basic quantum algorithms such as Shor's and Grover's; basic quantum complexity theory; basic quantum error correction; decoherence and the measurement problem; and the challenges of building scalable quantum computers. Previous exposure to quantum mechanics is not required.

C S X60V. Virtualization.
Examine the latest in virtualization technologies such as virtual machines, containers and serverless computing.

C S X61. Introduction to Computer Security.
An introduction to computer security, both in the abstract and in the context of real systems, including recognizing potential threats to confidentiality, integrity and availability, and developing familiarity with current security-related issues in computer science.

C S X61C. Information Assurance and Security.
Selected subjects from the broad area of information assurance, including computer security, communications security, operations security, and risk assessment.

C S X61S. Network Security and Privacy.
An examination of common computer security threats; fundamental techniques for implementing secure software systems and networks; practical experience in attacking and defending networked systems.

C S X63G. Geometric Foundations of Machine Learning.
Explore geometric foundations of modern deep and reinforcement learning. Examine the mathematical, statistical, and computational optimization fundamentals that are the basis of computational, data driven machine learning models and Markov decision making processes. Discuss how data efficient and continuous action spaces are harnessed to learn the free energy Hamiltonian underlying dynamical systems, and multi-player games.

C S X63H. Principles of Machine Learning I: Honors.
Introduction to machine learning: data processing, regression, classification, clustering, dimensionality reduction, and neural networks.

C S X63M. Principles of Machine Learning I.
Introduction to machine learning: data processing, regression, classification, clustering, dimensionality reduction, and neural networks.

C S X64M. Principles of Machine Learning II.
Introduction to advanced machine learning: optimization methods, statistical inference and probabilistic modeling, generalization, and uncertainty quantification.

C S X65T. Trustworthy Machine Learning.
Explore ways in which contemporary machine learning (ML) algorithms can be untrustworthy, along with algorithmic approaches to mitigate these trust issues. Discuss algorithmic fairness, privacy in ML, ML security, and interpretability/explicability in ML. Examine fairness, security, and privacy issues in ML.

C S X67. Numerical Methods.
Subjects include systems of linear equations, numerical integration, ordinary differential equations, and nonlinear equations. Construction and use of large numerical systems. Influence of data representation and computer architecture on algorithm choice and development.

C S X69. Systems Modeling.
Introduction to performance modeling, with emphasis on computer systems. Modeling methodology, queueing network models, simulation, analysis of results.

C S X70. Undergraduate Reading and Research.
Supervised study of selected problems in computer science, by individual arrangement with supervising instructor.

C S X70F. Undergraduate Reading and Research: Writing.
Supervised study of selected problems in computer science, by individual arrangement with supervising instructor.

C S X71D. Distributed Computing.
Investigation of models, principles, and fundamental protocols, including event ordering and global predicate detection, atomic commit, state-machine replication, rollback recovery, primary backup, consensus for synchronous and asynchronous systems, and byzantine fault-tolerance.

C S X71G. Generic Programming and the STL.

C S X71L. iOS Mobile Computing.
Overview of mobile computing with an emphasis on developing applications for the iOS operating system.

C S X71M. Mobile Computing.
Overview of mobile computing. Emphasis on mobile application development. Use of mobile capabilities: sensors, location, telephony, and multimedia.

C S X71N. Natural Language Processing.
Explore modern natural language processing using machine learning and deep learning approaches. Examine linguistics fundamentals (syntax, semantics, distributional properties of language), machine learning models (classifiers, sequence taggers, deep neural networks), key algorithms for inference, and a range of applications. Build systems to do tasks including sentiment classification, text generation, and more.

C S X71P. Object-Oriented Programming.
Programming using class derivation, inheritance, and dynamic polymorphism. Application of a simple object-oriented design methodology to several software development problems.

C S X71R. Information Retrieval and Web Search.
Introduction to traditional and recent methodologies for indexing, processing, querying, and classifying unstructured and semi-structured textual data, including hypertext and World Wide Web documents.

C S X71S. Object-Oriented Software Engineering.
Object-oriented formulations of software systems as executable specifications, object-oriented analysis, design of software architectures, translation of high-level specification systems.

C S X73. Software Engineering.
Introduction to current knowledge, techniques, and theories in large software system design and development.

C S X73G. Social Impact Capstone.
Supervised study of social-impact related problems in computer science.

C S X73S. Software Design.
Model-driven engineering, UML metamodels and constraints, model transformatons, object-oriented refactorings, design patterns, object-oriented frameworks and plug-ins, layered and dataflow architectural styles, map-reduce parallel software architectures, and service-oriented architectures.

C S X74H. Advanced Undergraduate Supervised Research: Honors.
Engage in directed research in areas of computer science, under supervision of a faculty member, leading to a presentation.

C S X74L. Longhorn Startup.
Focus on skill development and mentoring in startup formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Emphasis on written and oral presentation of startup activities.

C S X74S. Longhorn Startup Seminar.
An introduction to the world of startups through the experiences of people who have built successes and learned from failures.

C S X75. Compilers.
An examination of formal description of languages, lexical analysis, syntax analysis, syntax-directed translation, run-time system management, code generation, code optimization, compiler-building tools.

C S X76. Computer Vision.
Explores computer vision, a discipline that develops methods that enable machines to interpret or analyze images and videos. Includes the study of image formation, feature detection, segmentation, multiple-view geometry, recognition and learning, and motion and tracking.

C S X77. Principles and Applications of Parallel Programming.
Models of parallel computation, fundamental concepts for representation of parallel computation structures, study of representative parallel programming systems, and programming of parallel algorithms and computations.

C S X77P. Programming for Performance.
Investigation on the performance-critical features of modern computer architectures and how applications can take advantage of them to obtain high performance.

C S X78. Undergraduate Topics in Computer Science.

C S X78.1. Quantum Computing II.
Introduction to quantum algorithms and programming.

C S X78H. Undergraduate Topics in Computer Science: Honors.

C S X79C. History and Computer Science Capstone.
Investigate questions at the intersection of history and computer science through collaborative projects. Develop computational tools and methods to study history. Explore how ideas in history and computer science can inform each other.

C S X79H. Computer Science Honors Thesis.
Conduct directed research in areas of computer science leading to an honors thesis.

C S X79N. Neuroscience and Computer Science Capstone.
Investigate questions at the intersection of neuroscience and computer science through collaborative projects. Develop computational tools and methods to study the brain and behavior. Explore how ideas from neuroscience and computer science can inform each other.

Graduate Courses

C S X19S. Topics in Computer Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Computer Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C S X29S. Topics in Computer Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Computer Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C S X80C. Compilers.
Basics of static analysis and transformation techniques; exploration in depth of one aspect of compilation and optimization.

C S X80D. Distributed Computing I.
Models of distributed systems; language issues, proving properties of distributed systems; time, clocks, partial ordering of events; deadlock and termination detection; diffusing computations; computing in hostile environments; distributed resource management.

C S X80I. Structure and Implementation of Modern Programming Languages.
Explore the breadth of these technologies for translating high-level program text to binary machine code within a unified cost-benefit-risk analysis framework. Illustrate system integration by building a series of compilers for LiveOak, a pedagogical, object-oriented language. Discuss lexical analysis, syntactic analysis, code generation, register allocation, language-level virtual machines, dynamic memory management, linking, and interoperability.

C S X80J. Operating Systems Implementation.
Seminar about how operating systems work. Readings and discussion about classic and recent research papers. Intensive programming assignments in the construction of a prototype operating system.

C S X80L. Advanced Operating Systems.
Study of the formal structure, design principles, organization, implementation, and performance analysis of multiprogramming and/or multiprocessor computer systems.

C S X80N. Systems Modeling.
Theory and applications of Markovian models: birth-death models, queueing models, and networks of queues. Numerical methods: computational algorithms, approximation techniques, discrete-event simulation. Performance of scheduling disciplines: priority, time-sharing, multiple access.

C S X80P. Parallel Systems.
Explores parallel systems, from languages to hardware, from large-scale parallel computers to multicore chips, and from traditional parallel scientific computing to modern uses of parallelism. Includes discussion of and research methods in graphics, languages, compilers, architecture, and scientific computing.

C S X80S. Theory and Practice of Secure Systems.
Survey of modern security, designed to introduce the basic techniques used in the design and analysis of secure systems.

C S X80V. Virtualization.
Discuss the latest in virtualization technologies, such as virtual machines, containers, serverless, etc. Explore CPU virtualization, memory virtualization, networking virtualization, storage virtualization, paravirtualization, containers, unikernels, and serverless computing.

C S X81K. Artificial Intelligence.
Use of computers in problem solving, game playing, theorem proving, natural language understanding, and related tasks; methods of search, knowledge representation, learning, and other topics.

C S X81S. Spoken Language Technologies.
Explore the theory and practice that underlies modern automatic speech recognition (ASR) systems and related spoken language technologies. Discuss the acoustic theory of speech production, digital signal processing for speech signals, Hidden Markov Models, Gaussian Mixture Models, language models, finite state transducers, decoding algorithms, and deep neural networks.

C S X81V. Visual Recognition.
Subjects include fundamental representations, learning approaches, matching-based algorithms, human activity models for video, and large-scale recognition.

C S X82M. Advanced Computer Architecture.
Algorithms and their realizations, special techniques for coding, addressing, and control; integration of computer units; relations between programming and design considerations.

C S X83C. Numerical Analysis: Linear Algebra.
Survey of numerical methods in linear algebra: floating-point computation, solution of linear equations, least squares problems, algebraic eigenvalue problems.

C S X83D. Numerical Analysis: Interpolation, Approximation, Quadrature, and Differential Equations.
Survey of numerical methods for interpolation, functional approximation, integration, and solution of differential equations.

C S X84G. Computer Graphics.
Advanced material in computer graphics, including in-depth treatments of techniques for realistic image synthesis, advanced geometric modeling methods, animation and dynamic simulation, scientific visualization, and high-performance graphics architectures.

C S X84M. Multimedia Systems.
Theoretical and practical issues in advanced systems, including multimedia systems, digital audio and video compression techniques, operating system and network support for digital audio and video, and multimedia conferencing systems.

C S X84P. Physical Simulation of Computer Graphics.
Explore the key concepts and algorithms for simulating physical systems; starting from the ground up with particle systems and mass-spring networks, rigid and elastic bodies, collisions, cloth, and fluids.

C S X84R. Geometric Modeling and Visualization.
Computational image processing, computational geometry and geometric modeling algorithms with an emphasis on spatial realism, and the programmatic use of physiological simulation and visualization to quantitatively depict how things work at the molecular, cellular, tissue, organ, and system levels.

C S X84V. Introduction to VLSI Design.
Basic techniques required to design custom negative metal oxide semiconductor digital integrated circuits.

C S X86C. Dependable Computing Systems.
System models from synchronous to asynchronous, with emphasis on in-between models such as the timed asynchronous model. Control structures such as timed state-transition systems, and constraints in temporal and real-time logics. Analysis techniques such as model checking of timed systems, and extended Presburger arithmetic. Basic building blocks such as clock synchronization, synchronous atomic broadcast, time-bounded membership protocols, real-time scheduling theory, and state recovery methods. Practical implementation issues

such as special operating system data structures and algorithms, open system design, and security concerns.

C S X86D. Database Systems.
Introduction to the principles of database systems, including fundamental ideas and algorithms used in the construction of centralized database management systems, distributed database management systems, and database machines and their roles in Internet infrastructure. Topics include data storage and indexing algorithms, query processing and optimization, concurrency control, recovery, XML and object-oriented databases, database evaluation and tuning, and recent directions in database research.

C S X86K. Numerical Treatment of Differential Equations.
The analysis of numerical methods for solving ordinary and partial differential equations.

C S X86L. Programming Languages.
Topics include formal syntax representations, program correctness, typing, and data abstraction. Features and problems in languages that allow parallelism. Exploration of different programming styles, such as imperative, functional, logic, data flow, and object-oriented programming.

C S X86M. Communication Networks.
Switching techniques, network and protocol architectures, communication protocols, resource allocation problems, internetworking, design and analysis methods.

C S X86P. Android Programming.
Study Android APIs and learn to build significant Android applications. Explore general principles of software engineering and mobile app development.

C S X86S. Network Protocol Security.
Techniques and research in Internet and network security.

C S X86W. Wireless Networking.
Fundamental concepts and principles of wireless network technologies and protocol design, ranging from physical layer to application layer, and in-depth studies of current wireless research.

C S X88. Natural Language Processing.
Computational methods for syntactic and semantic analysis of structures representing meanings of natural language; study of current natural language processing systems; methods for computing outlines and discourse structures of descriptive text.

C S X88C. Combinatorics and Graph Theory.
Counting, matching theory, extremal set theory, Ramsey theory, probabilistic method, linear algebra method, coding theory. Applications to computer science, including randomized algorithms.

C S X88D. Data-Driven Algorithm Design.
Analyze recent developments on the role of machine learning in designing algorithms from the dual viewpoints of tailoring algorithm design to exploit the availability of data as well as tailoring learning to optimize for algorithm performance.

C S X88E. Approximation Algorithms and Complexity.
Explore approximation algorithms for NP-hard problems, online algorithms, approximation in P, and other subjects related to approximation algorithms and their limitations. Examine combinatorial algorithms, as well as algorithms based on linear programming and semidefinite programming. Identify the Probabilistically Checkable Proofs (PCP) Theorem, discuss its applications, and prove a weak version of it.

C S X88F. Automata and Formal Languages.
Formal grammars, languages and related classes of automata, language hierarchies, operations on languages, decidability, related complexity issues, closure properties, other classes of automata.

C S X88G. Algorithms: Techniques and Theory.
Explore advanced subjects in algorithm design and analysis including algorithmic paradigms, data structures, maximum flow, randomized algorithms, NP-completeness, and approximation algorithms.

C S X88H. Cryptography.
Surveys the foundations of cryptography from formal notions of security to fundamental protocols, including one-way functions, encryption, pseudorandom generators, signature schemes, and zero-knowledge.

C S X88J. Optimization.
Explore the background on convex sets and functions, linear programming, convex programming, and iterative first-order and second-order methods.

C S X88K. Online Learning and Optimization.
Explore algorithms for convex optimization and algorithms for online learning. Focus on algorithms for large scale convex optimization. Discuss problems in machine learning. Apply these ideas to online learning.

C S X88L. Introduction to Mathematical Logic.
Introduction to some of the principal topics of mathematical logic: propositional and predicate calculus; Goedel's completeness theorem; first-order theories; formalizing mathematical reasoning; first-order arithmetic; recursive functions; Goedel's incompleteness theorems; axiomatic set theory.

C S X88M. Communication Complexity.
Covers the most important models of communication complexity and their applications, including recent research results and various open problems.

C S X88P. Parallel Algorithms.
Theory of parallel computation: Parallel algorithm design and analysis on shared memory machines; parallel complexity; other models of parallel computation; lower bounds.

C S X88Q. Quantum Information Science.
Introduction to the theory of quantum computing and information. Examine the rules of quantum mechanics (qubits, unitary transformations, density matrices); quantum gates and circuits; entanglement; the Bell inequality; protocols for teleportation, quantum key distribution, quantum money and other tasks; basic quantum algorithms such as Shor's and Grover's; basic quantum complexity theory; and the challenges of building scalable quantum computers.

C S X88R. Randomized Algorithms.
The design and analysis of efficient randomized algorithms.

C S X88S. Formal Semantics and Verification.
Sequential execution: partial and total correctness; deductive, operational, and denotational semantics; formal derivation of programs; parallel execution: partial correctness, deadlock, and starvation; methodology, parallel versus distributed execution.

C S X88T. Theory of Computation.
Examine polynomial hierarchy, circuit lower bounds, randomized computation, approximability, communication complexity, pseudorandom generators, and probabilistically checkable proofs.

C S X88U. Planning, Search, and Reasoning Under Uncertainty.
Introduction to three key foundational problems in AI: planning, search, and reasoning under uncertainty. Investigate how to define planning domains, including representations for world states and actions, covering both symbolic and path planning. Study algorithms to efficiently find valid plans with or without optimality, and partially ordered, or fully specified solutions.

C S X89C. Continuous Algorithms.
Explore the design and analysis of algorithms for continuous spaces, focusing on optimization, numerical linear algebra, sampling, and applications to machine learning.

C S X89L. Automated Logical Reasoning.
Subjects include automated reasoning techniques for propositional logic, first-order logic, linear arithmetic over reals and integers, theory of uninterpreted functions, and combinations of these theories. Examines automated logical reasoning both from a theoretical and practical perspective, giving a hands-on experience building useful tools, such as SAT and SMT solvers.

C S X89M. Principles of Object-Oriented Software Technology.
Fundamental principles of object-oriented software engineering, including design and implementation of object-oriented analysis methods, software architectures, translators of high-level programming language representations, translations to multiple-software architectures.

C S X89R. Recursion and Induction I.
The development of a formal theory for reasoning about computer programs, with emphasis on recursively defined functions in the LISP style and proof by mathematical induction. Heavy emphasis on student discovery and presentation of proofs.

C S X90D. Distributed Computing II.
Synchronous and asynchronous algorithms, with particular emphasis on notations for expressing the algorithms and logics for reasoning about them. Algorithms from a variety of application areas and for a variety of architectures.

C S X90S. Sublinear Algorithms.
Study algorithms that can process very large data sets, with a focus on streaming algorithms, compressed sensing, and property testing.

C S X91D. Data Mining: A Mathematical Perspective.
Mathematical and statistical aspects of data mining. Topics include supervised learning (regression, classification, support vector machines) and unsupervised learning (clustering, principal components analysis, dimensionality reduction). Uses technical tools that draw from linear algebra, multivariate statistics, and optimization.

C S X91K. Artificial Intelligence II.
Advanced course in artificial intelligence. Topics include planning, probabilistic reasoning, truth maintenance, abduction, model-based diagnosis, and speech recognition.

C S X91L. Machine Learning.
Computing systems that automatically improve their performance with experience, including various approaches to inductive classification such as version space, decision tree, rule-based, neural network, Bayesian, and instance-based methods; as well as computational learning theory, explanation-based learning, and knowledge refinement.

C S X91M. Case Studies in Machine Learning.
Explore major concepts, techniques, algorithms, and applications in machine learning. Evaluate machine learning methods and discuss practical case studies to produce solutions for real-world data analysis problems.

C S X91R. Robot Learning.
Survey a wide range of modern techniques in robotics that learn from data, largely focusing on robot perception and decision making. Explore 3D vision, representation learning, active perception, reinforcement learning, imitation learning, and applications in robot manipulation.

C S X92C. Methods and Techniques for Parallel Programming.
Models of parallel fundamental concepts for representation of parallel computation structures, study of representative parallel programming languages, formulation of languages and translation methods, translation of parallel programs to multiple targets, laboratory exercises in parallel programming.

C S X92F. Automated Software Design.
Model-driven engineering; UML metamodels and constraints, model transformations, software product lines, feature models, feature modularity, feature algebras, feature interactions, multi-dimensional separation of concerns, design-by-transformation, parallel software architectures, correct-by-construction, architecture refinement, optimization, and extension, program refactorings, design patterns, refactoring scripts, category theory, functors, commuting diagrams.

C S X93C. Agent-Based Electronic Commerce.
Focuses on the intersection of computer science (including multiagent systems and machine learning), economics, and game theory. Explores economic mechanisms of exchange suitable for use by automated intelligent agents, including auctions and auction theory, game theory and mechanism design, and autonomous bidding agents. Students demonstrate programming proficiency in a trading agent competition.

C S X93D. Topics in Numerical Analysis.
Recent topics have included numerical methods in ordinary differential equations, numerical methods in partial differential equations, computational problems in linear algebra, numerical solution of systems of equations, numerical methods in functional approximation, numerical integration.

C S X93N. Numerical Solution of Elliptic Partial Differential Equations.
The numerical solution of large systems of linear algebraic equations arising in the solution of elliptic partial differential equations by discretization methods.

C S X93P. Program Synthesis.
Study the methods for automatically discovering programs that implement given high-level specifications, which can take many forms, including formal constraints, input-output examples, demonstrations, and natural language. Examine contemporary algorithms for program synthesis to bring together symbolic techniques for pruning and search, numerical techniques for finding optimal parameters, and statistical techniques for interpreting ambiguous specifications and learning to search.

C S X93R. Autonomous Robots.
Explore an advanced overview of autonomous mobile robotics, including control, perception, and planning. Examine algorithms and data structures related to these, cover widely adopted and state of the art techniques. Implement and extend such algorithms on real robots.

C S X94C. Algorithms for Computational Biology.
Algorithm design in computational molecular biology, with a focus on multiple sequence alignment and phylogeny (evolutionary history) reconstruction. Topics include the design and analysis of algorithms under probabilistic models of evolution, heuristics, and exact solutions for NP-hard optimization problems.

C S X94D. Deep Learning.
Explore the basic building blocks and intuitions behind designing, training, tuning, and monitoring of deep networks. Examine both the theory of deep learning, as well as hands-on implementation sessions in pytorch. Explore a series of application areas of deep networks in: computer vision, sequence modeling in natural language processing, deep reinforcement learning, generative modeling, and adversarial learning.

C S X94F. Knowledge Representation and Reasoning.
Surveys the research and practice of building knowledge systems, including knowledge representation, automated reasoning, knowledge acquisition, and explanation generation.

C S X94N. Neural Networks.
Biological information processing; architectures and algorithms for supervised learning, self-organization, reinforcement learning, and neuro-evolution; theoretical analysis; hardware implementations and simulators; applications in engineering, artificial intelligence, and cognitive science.

C S X94P. Automatic Programming.
Automatic generation of computer programs from high-level specifications. Program analysis, optimization, and transformation; partial evaluation; object-oriented programming; transformation of formal specifications; specialization of generic procedures; views.

C S X94R. Reinforcement Learning: Theory and Practice.
Introduces the theory and practice of modern reinforcement learning, with emphasis on temporal difference learning algorithms.

C S X95. Topics in Conference Course.

C S X95L. Topics in Conference Course.

C S X95T. Topics in Computer Science.
From eight to fifteen topics are offered each semester.

C S X95T.1. Parallel Computations.

C S X95T.10. Foundational Techniques of Machine Learning and Data Sciences.

Introduction to computational and mathematical tools of data science. Cover statistical estimation and optimization algorithms, neural networks, geometry of high dimensional spaces, randomized methods, sparse approximation, and dimension reduction techniques.

C S X95T.9. Introduction to Ethical AI and Robotics.

Introduction to ethical issues and challenges that could and do arise when creating AI-based systems. Explore case studies anchored by readings illustrating the current and future possible uses of robots as well as the broad themes of ethical and responsible AI. Address how things have gone wrong in the past and open debates regarding how best to design, deploy, and regulate AI systems.

C S X96. Research Practice and Experience.

Designed to provide an early research experience for new doctoral students in computer science. Students conduct an independent research project and present the results.

C S X96M. Advanced Networking Protocols.

Topics include routing, multiple access, internetworking, security, performance models, and verification methods.

C S X98. Thesis.

C S X98T. Supervised Teaching in Computer Science.

Supervised teaching experience, and seminar focused on curriculum construction and teaching methods.

C S X99W. Dissertation.

Professional Courses

C S X19S. Topics in Computer Science.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Computer Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C S X29S. Topics in Computer Science.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Computer Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

C T - Civic Thought

Civic Thought: C T

Lower-Division Courses

Upper-Division Courses

Graduate Courses

C T X81. Problems in the Study of Civic Thought.

C T X82. Topics in Seminar in Civic Thought.

C T X84. Topics in Problems in Constitutionalism.

C T X86. Topics in Problems in Statecraft.

C T X87. Topics in Seminar in Economy and Civics.

C T X88. Topics in Studies in Strategy.

Professional Courses

CDI - Critical Disability Studies

Critical Disability Studies: CDI

Lower-Division Courses

CDI X17C. Topics in Critical Disability Studies.

CDI X19S. Topics in Critical Disability Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Social Work. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

CDI X29S. Topics in Critical Disability Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Social Work. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CDI X55. Topics in Critical Disability Studies.

CDI X55.1. Social Construction of Disability.

Focus on the social and cultural context of disability, with an emphasis on how disability is defined and understood at the micro and macro levels. Examine the longstanding social oppression of the disability community, as well as ways to initiate social change.

CDI X55.2. Making Systems Work for People with Disabilities.

Explore an overview of disability policy. Examine the history of the disability rights movement, relevant federal and state legislation, legal and ethical issues, services and supports through federal and state programs, the political economy of disability, and disability culture, advocacy, and leadership issues.

CDI X55.3. Aging and Disability.

Introduction to individuals who are either chronologically older or who may be experiencing functional changes typical of older persons. Identify strategies for support for families, friends, service providers, organizations, and members of the community to improve the lives of older persons.

CDI X55.4. Family Support, Self-Determination, and Disability.

Examine strategies for working with and supporting families who have a member with a disability. Explore the use of these strategies by teachers, professionals in the disability field, self-advocates, and families.

CDI X55.5. Developmental Disabilities and Self Advocacy.

Explore lifespan issues for individuals with developmental disabilities. Examine the impact of social and cultural values, including attitudes toward children and adults with developmental disabilities, institutionalization, service options, sexuality, forced sterilization, self-advocacy movements, and aging.

CDI X55.6. Women and Disability.

Examine the meaning and experience of being female and disabled. Explore the intersection of sex-roles stereotypes, disability stereotypes, and cultural stereotypes.

CDI X55.7. Sexuality and Disability.

Discuss the intersection of sexuality and disability and the complex historical influences that impact discussions of sexuality in relationship to disability. Explore the social justice issues surrounding disability and sexuality using the perspective of social work values and ethics to guide learning. Examine the concepts of diversity and inclusion in relation to disability and sexuality.

CDI X55.8. Leadership Training: Autism.

Explore interdisciplinary leadership training on Autism Spectrum Disorders (ASD) and other related disabilities in social work and other health professions. Advance knowledge and skills in improving health

care delivery for all children with developmental disabilities. Examine the importance of understanding the integration of services, developing community partnerships, and promoting innovative practices to enhance cultural competency, family-centered care, and interdisciplinary partnerships.

CDI X55.9. Incarceration and Disability.

Graduate Courses

Professional Courses

CED - Classical Education

Classical Education: CED

Lower-Division Courses

CED X13. Classical Pedagogy.

CED X15. Topics in Classical Education.

CED X19S. Topics in Classical Education.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Civic Leadership. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

Upper-Division Courses

CED X29S. Topics in Classical Education.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Civic Leadership. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

CED X34. Foundations in Classical Education.

CED X35. Advanced Topics in Classical Education.

CED X75. Practicum in Classical Teaching.

Graduate Courses

Professional Courses

CGS - Cognitive Science

Cognitive Science: CGS

Lower-Division Courses

Upper-Division Courses

CGS X60. Topics in Cognitive Science: The Study of Mind.

An introduction to the study of mind known as cognitive science, focusing on key areas such as vision and language, cognition and problem solving, artificial intelligence.

CGS X60.1. Introduction to Cognitive Science.

CGS X65. Bias.

An interdisciplinary introduction to bias from the perspectives of psychology, political science, business, philosophy, and linguistics.

Graduate Courses

CGS X80. Advanced Topics in Cognitive Science.

CGS X80.1. Introduction to Cognitive Science.

Professional Courses

CH - Chemistry

Chemistry: CH

Lower-Division Courses

CH X01. Principles of Chemistry I.

CH X01C. Foundations of Chemistry I.

An introduction to chemistry for chemistry majors. Includes gases, atomic theory, bonding, and thermodynamics.

CH X01N. Chemistry in Our World I.

Designed for non-science and Textiles and Apparel majors. Examine the nature of matter, energy, chemical reactions, and chemical thermodynamics. Discuss how these fundamentals of chemistry relate to real-world applications. Not intended as preparation for Chemistry 301.

CH X02. Principles of Chemistry II.

Development and application of concepts, theories, and laws underlying chemistry.

CH X02C. Foundations of Chemistry II.

An introduction to chemistry for chemistry majors. Includes equilibria, kinetics, nuclear chemistry, inorganic chemistry, and electrochemistry.

CH X02N. Chemistry in Our World II.

Designed for non-science and Textiles and Apparel majors. Survey organic chemistry including the nature of chemical bonding, molecular structure, nomenclature, and reaction types. Examine polymers and nutrition. Discuss how these fundamentals of chemistry relate to real-world applications.

CH X04. Introduction to Chemical Practice.

Introduction to the techniques of modern experimental chemistry. Designed to provide basic laboratory and analytical skills. May include organic, analytical, and physical chemistry, as well as materials science.

CH X04M. Introduction to Chemical Practice I.

Introduction to the techniques of modern experimental chemistry. Designed to provide basic laboratory and analytical skills. May include organic, analytical, and physical chemistry, as well as materials science.

CH X04N. Introduction to Chemical Practice II.

Introduction to the techniques of modern experimental chemistry. Designed to provide basic laboratory and analytical skills. May include organic, analytical, and physical chemistry, as well as materials science.

CH X06K. Undergraduate Research.

Introduction to research practices; supervised individual undergraduate research in chemistry.

CH X07. Topics in Conference Course.

Supervised study in chemistry.

CH X07K. Introduction to Science Outreach in Elementary Schools.

Developing and presenting level-appropriate science laboratories to students in local elementary schools. A hands-on, discovery learning approach to science is emphasized.

CH X07L. Peer Teaching.

Students act as peer teaching assistants in other University chemistry courses, mainly large general chemistry lecture sections.

CH X08. Topics in Chemistry.

CH X10K. Organic Chemistry Laboratory.

Primarily for premedical, predental, life sciences, and pharmacy majors.

CH X10L. Organic Chemistry Laboratory.

Primarily for premedical, predental, life sciences, and pharmacy majors.

CH X17. Descriptive Inorganic Chemistry.

Synthesis and properties of inorganic, bioinorganic, and organometallic compounds.

CH X19C. Professional Development for Chemists.

Explore professional development in chemistry, excellence in research, scientific communication, ethics, and career planning.

CH X19S. Topics in Chemistry.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CH X82T. Advanced Study and Research: UTeach.

Designed for beginning graduate students seeking review of modern chemical concepts.

CH X97P. Problems in Chemistry.

Upper-Division Courses

CH X20C. Organic Chemistry Laboratory.

CH X20K. Health Professions Organic Chemistry Laboratory.

CH X20M. Organic Chemistry I.

Primarily for premedical, predental, life sciences, and pharmacy majors. Development of organic chemical structure, nomenclature, and reactivity.

CH X20N. Organic Chemistry II.

Primarily for premedical, predental, life sciences, and pharmacy majors. The development of organic chemical functional group reactivity, reaction mechanics, with analogous aqueous transformations in biochemical settings.

CH X28C. Structure and Reactivity of Organic Molecules I.

Explore the development of organic chemical structure, nomenclature, and reactivity.

CH X28K. Organic Chemistry Laboratory.

CH X28L. Organic Chemistry Laboratory.

CH X28M. Organic Chemistry I.

Primarily for chemistry and chemical engineering majors. The development of organic chemical structure, nomenclature, and reactivity.

CH X28N. Organic Chemistry II.

Primarily for chemistry and chemical engineering majors. The development of organic chemical reactivity, with an emphasis on synthesis and polymers.

CH X29C. Structure and Reactivity of Organic Molecules II.

Explore the development of organic chemical reactivity, with an emphasis on synthesis and polymers.

CH X29S. Topics in Chemistry.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CH X31. Inorganic Chemistry.

Survey of the chemistry of the elements, incorporating both descriptive and theoretical aspects. Open-ended experiments designed to illustrate a variety of synthetic techniques.

CH X41. Special Topics in Laboratory Chemistry.

Examples of topics are physical measurements techniques; electronics for scientists; advanced synthetic chemistry (organic or inorganic); separation techniques.

CH X44. Chemical Education: Secondary School.

Issues and techniques in secondary school teaching of chemical sciences.

CH X44K. Chemical Education Laboratory I.

Development of classroom demonstrations, laboratory experiments, and teaching aids for secondary school teaching of the chemical sciences.

CH X44L. Chemical Education Laboratory II.

Development of classroom demonstrations, laboratory experiments, and teaching aids for secondary school teaching of the chemical sciences.

CH X53. Physical Chemistry I.

Equations of state, laws of thermodynamics, ideal and nonideal solutions, phase equilibria, thermodynamics of chemical reactions.

CH X53K. Physical Chemistry Laboratory.

CH X53M. Physical Chemistry I for Life Sciences.

Thermochemistry and kinetics of reactions in cells, enzyme catalysis, electrical and transport properties of membranes.

CH X54. Quantum Chemistry and Spectroscopy.

Fundamental principles of quantum mechanics, exactly soluble model problems, electronic structure of atoms and molecules, spectroscopy.

CH X54C. Statistical Mechanics.

An introduction to statistical mechanics.

CH X54K. Physical Chemistry Laboratory.

CH X54L. Physical Chemistry II.

Molecular energy levels, statistical thermodynamics (macroscopic thermodynamic functions from molecular input), and physical and chemical kinetics, with emphasis on the molecular viewpoint.

CH X54M. Introduction to Computational Methods in Chemistry.

Construction and implementation of numerical algorithms for solving differential equations which are common in chemistry. Subjects include chemical reaction rates, quantum mechanics, molecular dynamics, normal modes of vibration, and Monte Carlo methods.

CH X54P. Advanced Chemistry: Molecular Biophysics.

Examine organizing principles of biological systems on a molecular level using mathematical models rooted in physics and chemistry. Develop skills to create quantitative models of biophysical processes, scientific writing, presentation, and data analysis.

CH X54S. Elements of Spectroscopy.

Fundamentals of spectroscopy, with knowledge of elementary quantum mechanics. Separation of electronic, vibrational, rotational and spin quantum states; interaction of radiation and matter; theory and application of different types of spectroscopy including photoelectron, electronic absorption and emission, vibrational (infrared and Raman), rotational and magnetic resonance.

CH X55. Fundamentals of Analytical Chemistry.

Chemical and instrumental methods in analytical chemistry.

CH X56. Analytical Chemistry.

CH X65N. Structures and Function of DNA Materials.

Explore DNA's role in molecular and materials engineering, utilizing its predictable hybridization to build programmable structures.

CH X66C. Advanced Inorganic Chemistry: Organometallics Catalysis.

An in-depth and mostly chronological study of the evolution of organometallic and inorganic coordination chemistry, and its continued critical importance in a range of industrial processes. Covers a range of topical catalytic processes, paying particular attention to how chemical bonding and kinetics can be exploited to affect the relative rates of reaction.

CH X66D. Bio-inorganic Chemistry and Spectroscopy.

Covers the roles of transition metals in biology, mostly with respect to protein structure, function, and catalysis. Also covers methods of spectroscopy that are used to probe the geometrical and electronic structure of metal ions in proteins. Exposure to modern areas of study in bio-inorganic chemistry. Explores the principles of transition metal chemistry in the context of biological systems.

CH X66E. Chemistry of the s-, p-, d-, and f-Block Elements.

Focuses on the electronic structure of molecules and complexes, and how such information can predict important properties such as chemical reactivity, spectroscopy, and magnetism. Intended for upper-division chemistry majors with a basic understanding of concepts in inorganic chemistry.

CH X67C. Materials Chemistry.

Introduction to structural and physical properties of materials and synthetic strategies for making new materials in the nanoscale and mesoscale regimes, in addition to covering instrumental methods used to probe materials properties. Some aspects of applications (semiconductor devices, solar and fuel cells, smart and responsive materials) will be covered to illustrate the kinds of material properties that need to be considered in designing novel materials of specific function.

CH X67P. Introduction to Polymer Science.

Explore an overview of macromolecular soft materials including the fundamentals of polymer chemistry, physics, and engineering.

CH X68. Advanced Topics in Chemistry.

CH X68.1. Research Methods: UTeach.

Students use mathematics and science skills to solve research problems.

CH X68.2. Advanced Topic in Analytical Chemistry.

CH X68.3. Advanced Topic in Inorganic Chemistry.

CH X68.4. Advanced Topic in Organic Chemistry.

CH X68.5. Advanced Topic in Physical Chemistry.

CH X69K. Techniques of Research.

Advanced laboratory practice and introduction to research.

CH X71K. Science Outreach in Elementary Schools.

Students develop and present level-appropriate science laboratories to students in local elementary schools. Students also plan and create the infrastructure needed to administer the science program in concert with the science curriculum at a specific elementary school. A hands-on, discovery learning approach to science is emphasized.

CH X72S. Study and Research Abroad: Austin International Framework.

Designed specifically for students participating in the AIF program. Facilitates student-led mini-seminars and video conference call discussions. Explores student research and wider learning and cultural experiences in Austin and abroad.

CH X75C. Physical Organic Chemistry.

Explore reaction mechanisms and reactivity of organic chemicals and high-energy intermediates. Develop skills to design experiments and explain observed phenomena.

CH X75K. Individual Study in Chemistry.

Supervised reading or individual tutorial sessions on advanced topics in chemistry.

CH X75P. Advanced Topics in Polymer Science.

CH X75P.1. Advanced Polymer Synthesis.

Explore a comprehensive overview of how to design and synthesize polymers found in everyday life. Discuss the everyday utility of synthetic polymers to put their significance into context.

CH X75P.2. Polymer Physical Chemistry.

Examine the statistical, mechanical, and thermodynamic basis of polymer properties in melts, gels, and solutions. Explore the conformations and sizes of polymer molecules; the properties and structure of glassy, crystalline, and elastic (rubbery) polymers; the thermodynamics of polymer solutions, blends, and semi-crystalline materials; and the self-assembly of block polymers.

CH X75P.3. Advanced Polymer Engineering.

Examine a multi-length scale (molecular, mesoscopic, and macroscopic) picture of mechanical and transport properties in polymeric materials, essential for rationally engineering polymers while addressing challenges in recycling, energy, healthcare, and sustainability.

CH X76K. Advanced Analytical Chemistry.

CH X78L. Capstone Research and Thesis.

Develop a capstone project with a faculty adviser, with a focus on advanced laboratory techniques and experimental design.

CH X79H. Chemistry Honors Tutorial Course.

Laboratory research project in a specific field of chemistry under the supervision of one or more faculty members.

CH X82T. Advanced Study and Research: UTeach.

Designed for beginning graduate students seeking review of modern chemical concepts.

CH X97P. Problems in Chemistry.

Graduate Courses

CH X80L. Inorganic Reactions and Structures.

CH X80M. Topics in Advanced Chemistry.

CH X80N. Advanced Inorganic Chemistry: Spectroscopy and Structure.

Advanced inorganic chemistry, with emphasis on structure, spectroscopy, and ligand field theory.

CH X80R. Dual MD/PhD Program with UT Medical Branch.

Preclinical medical study at the University of Texas Medical Branch at Galveston.

CH X80T. Current Concepts in Chemistry and Biochemistry: UTeach.

Designed for beginning graduate students seeking a review of modern chemical concepts.

CH X81M. Advanced Analytical Chemistry.

Theory and application of special methods and recent advances.

CH X82J. Survey of Physical Chemistry.

Surface chemistry and catalysis, transport properties, macromolecules, electrochemistry and electrolyte solutions, molecular thermodynamics, solution kinetics, and photochemistry.

CH X82K. Advanced Physical Chemistry: Introduction to Quantum Mechanics.

CH X82L. Advanced Physical Chemistry: Statistical Mechanics.

CH X82M. Advanced Physical Chemistry.

Quantum chemistry.

CH X82T. Advanced Study and Research: UTeach.

Designed for beginning graduate students seeking review of modern chemical concepts.

CH X86J. Advanced Organic Chemistry.

Advanced organic chemistry, with emphasis on theory and reaction mechanisms.

CH X86K. Advanced Organic Chemistry.

Advanced organic chemistry, with emphasis on synthetic methods.

CH X87K. Biochemical Techniques.

Discussion of procedures and equipment used in modern biochemical investigation, with laboratory work to provide experience in techniques of general importance.

CH X90. Topics in Chemistry: Seminar.

CH X90.1. Analytical-Physical Chemistry.

CH X90.2. Organic Chemistry.

CH X90.4. Inorganic Chemistry.

CH X90K. Advanced Topics in Inorganic Chemistry.

Topics include magnetic resonance; organometallic, main-group, and transition metal chemistry; nonaqueous solvents; high-temperature superconductors; new developments in synthetic chemistry; and aspects of inorganic chemistry relevant to material science.

CH X90K.1. Advanced Inorganic Chemistry: Organometallics Catalysis.

Explores the evolution of organometallic and inorganic coordination chemistry, and its importance in a range of industrial processes; and covers a range of topical catalytic processes.

CH X90K.2. Advanced Inorganic Chemistry: Bio-Inorganic Chemistry.

Explores the roles of transition metals in biology, mostly with respect to protein structure, function and catalysis. Examines established and developing methods of spectroscopy used to probe the geometrical and electronic structure of metal ions in proteins. Analyzes modern areas of study in bio-inorganic chemistry, especially relating to the roles of metals in metalloenzymes, but also including emerging topics such as metallodrugs, metal-based imaging agents, and molecular sensors. The principles of transition metal chemistry will be explored, expanded and demonstrated in the context of biological systems.

CH X90L. Advanced Topics in Analytical Chemistry.

Topics include electrochemistry, electronics, mathematical methods, mass spectrometry, and optical methods.

CH X90L.1. Advanced Analytical Chemistry: Electrochemistry.

Designed to introduce the fundamental principles of electrochemistry. An overview of the structure and properties of the electrode/solution interface is presented, and followed by a more detailed discussion of how thermodynamics, kinetics, and mass transfer affect electrochemical

processes. Includes specific electrochemical methods, including potential step and sweep techniques, pulse voltammetry, impedance spectroscopy, and hydrodynamic methods. Focuses on specialized electrochemical phenomena, including: photoelectrochemistry, coupled electrochemical and homogeneous reactions, and bulk electrolysis. Introduces the use of digital simulations to solve electrochemical problems.

CH X90L.2. Advanced Analytical Chemistry: Mass Spectrometry.

Overview of the instrumentation, methods, and theory of mass spectrometry and gas-phase ion chemistry. Subjects include ionization methods, mass analyzers, vacuum components and pressure measurement, ion activation methods, analytical figures of merit, and integration of mass spectrometry with separation methods. Other subjects include gas-phase thermochemistry, kinetic theory of ion fragmentation, interpretation of mass spectra, and special subjects that may include ion mobility, proteomics, imaging, and elemental analysis, among others.

CH X91. Advanced Topics in Organic Chemistry.

Topics include organic photochemistry; molecular orbital theory; free radical chemistry; organometallic compounds; nuclear magnetic resonance and mass spectrometry; organic synthesis.

CH X91P. Introduction to Polymer Science.

Explore an overview of macromolecular soft materials including the fundamentals of polymer chemistry, physics, and engineering.

CH X92H. Biomolecular Structure by Nuclear Magnetic Resonance Spectroscopy.

Theory and application of modern nuclear magnetic resonance spectroscopy methods. Emphasis on applications to biological macromolecules, including protein and nucleic acid structure determination.

CH X92J. Molecular Biology of the Yeast Saccharomyces.

The use of yeast as a tool for the study of important areas of eukaryotic biology; the use of classical and molecular genetic techniques in the study of gene expression, DNA replication and repair, development and growth control, protein targeting, and metabolism.

CH X92N. Physical Chemistry of Macromolecular Systems.

Theory of macromolecular solutions and methods for characterization of macromolecular systems.

CH X92T. Biotransformations of Drugs and Other Nonnutritive Compounds.

Absorption and metabolism of naturally occurring and synthetic nonnutritive compounds.

CH X92U. Comparative Biochemistry.

Comparative aspects of protein structure, metabolism, respiration, and cellular regulation.

CH X92W. Analytical Student Seminar.

Student seminar presentations covering current research topics.

CH X93L. Advanced Topics in Physical Chemistry.

CH X93P. Advanced Topics in Polymer Science.

CH X93P.1. Advanced Polymer Synthesis.

Explore a comprehensive overview of how to design and synthesize polymers found in everyday life. Discuss the everyday utility of synthetic polymers to put their significance into context.

CH X93P.2. Polymer Physical Chemistry.

Examine the statistical, mechanical, and thermodynamic basis of polymer properties in melts, gels, and solutions. Explore the conformations and sizes of polymer molecules; the properties and structure of glassy, crystalline, and elastic (rubbery) polymers; the thermodynamics of polymer solutions, blends, and semi-crystalline materials; and the self-assembly of block polymers.

CH X93P.3. Advanced Polymer Engineering.

Examine a multi-length scale (molecular, mesoscopic, and macroscopic) picture of mechanical and transport properties in polymeric materials, essential for rationally engineering polymers while addressing challenges in recycling, energy, healthcare, and sustainability.

CH X95F. Genetics.

Basic principles of Mendelian and molecular genetics, and an exploration of the genetic toolbox using examples of analytic methods and modern genetic manipulations. Focus on the genetic analysis of model organisms. Use of genetic tools in dissecting complex biological pathways, developmental processes, and regulatory systems.

CH X95H. Cell Biology.

Detailed consideration of mechanisms of growth control, cell cycle regulation, mitosis, cell signaling, protein targeting, and the integration of these processes.

CH X95K. Topics in Advanced Individual Study in Chemistry.

Supervised reading or individual tutorial sessions on advanced topics in chemistry.

CH X97C. Problems in Chemistry.

CH X97P. Problems in Chemistry.

CH X97S. Advanced Topics in Chemistry.

CH X98. Thesis.

CH X98T. Professional Development for Graduate Students in Chemistry.

Provides professional development skills to graduate students in chemistry. Subjects include excellence in teaching, scientific communication, grantsmanship, ethics, and career planning.

CH X99W. Dissertation.

Professional Courses

CH X82T. Advanced Study and Research: UTeach.

Designed for beginning graduate students seeking review of modern chemical concepts.

CH X97P. Problems in Chemistry.

CHE - Chemical Engineering

Chemical Engineering: CHE

Lower-Division Courses

CHE X02. Introduction to Chemical Engineering.

Introduction to chemical engineering, including problem solving and study skills. Opportunities and responsibilities of a career in chemical engineering.

CHE X03. Introduction to Undergraduate Research.

Introduction to undergraduate research including the structure of academic research, how to access research resources on campus, and foundational skills to succeed in a research environment

CHE X10. Introduction to Computing.

Computer programming focusing on basics of computing, high-level programming environments, and spreadsheets, with application to chemical engineering.

CHE X11. Engineering Sustainable Technologies.

Flows of materials and energy in engineering environments at local, regional, and global scales, and the interaction of those anthropogenic flows with natural cycles of materials and energy. Discusses biogeochemical flows (grand cycles) and anthropogenic material flows at the national level, in industrial sectors, and for consumer products.

CHE X17. Introduction to Chemical Engineering Analysis.

Principles and applications of material and energy balances in process analysis.

CHE X18C. Peer Mentorship.

Best practices for delivery of tutoring and/or grading for undergraduate chemical engineering majors.

CHE X19. Transport Phenomena.

Basic study of momentum, energy, and mass transport. Includes viscous and turbulent flow, heat transfer, and mass diffusion.

CHE X19S. Topics in Chemical Engineering.

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad

Office. Credit is recorded as assigned by the study abroad adviser in the McKetta Department of Chemical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CHE X73K. Process Design and Operations.
Process design, economics, and safety; design projects representing a variety of industries and products.

Upper-Division Courses

CHE X22. Thermodynamics.
Introductory course in thermodynamics with special reference to chemical process applications: basic laws, thermodynamic properties of single component systems, expansion and compression of fluids, heat engines, multicomponent systems, physical equilibrium, chemical equilibrium.

CHE X22M. Molecular Thermodynamics.
Statistical and molecular concepts, especially the role of the microscopic chemical potential.

CHE X23. Chemical Engineering for Micro- and Nanofabrication.
Definition and description of the terminology and processes of microelectronics, including semiconductor facilities and chemical processes for integrated circuit manufacture, with an emphasis on unit processes; the major unit process, including thin-film metals and dielectrics deposition and etching, silicon oxidation and etching, ion implantation, diffusion, lithography, planarization, and process control; and an overview of promising nanopatterning and nanofabrication techniques, such as particle-beam imaging, nanoimprint, and near-field probe imaging, implantation, diffusion, lithography, planarization, and process control.

CHE X29S. Topics in Chemical Engineering.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the McKetta Department of Chemical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CHE X33T. Engineering Communication.
Advanced technical communication skills, with emphasis on writing strategies for technical documents, oral presentations, and visual aids.

CHE X37. Quantitative Analysis of Cellular and Molecular Biology.
Analyzes biological systems from stoichiometric, thermodynamic, and kinetic perspectives. Case studies will illustrate how these principles are used to understand disease, control cellular behavior, and design protein-based therapeutics.

CHE X38. Biochemical Engineering.
Introduction to basic biological processes including transcription, translation, protein/enzyme function, cellular energetics, protein secretion and modifications. Application of quantitative engineering principles to the analysis of biological processes, including thermodynamics, kinetics and stoichiometry.

CHE X39. Introduction to Biochemical Engineering.
Microorganisms in chemical and biochemical syntheses; genetic manipulation of cells by classical and recombinant DNA techniques. Enzyme technology; design of bioreactors and microbial fermentations; separations of biological products.

CHE X39P. Introduction to Biological Physics.
Diffusion, dissipation, and driving forces in cellular processes. Locomotion of bacteria, basic modeling of biomolecular folding and binding events, osmotic flows, and self-assembly in cells.

CHE X39T. Cell and Tissue Engineering.
Introduction to biomedical research in tissue engineering. Includes case studies of tissues and organs of the body, physiology and biology of tissue, pathologies of tissue, current clinical treatments, the role of engineers in development of new technologies to diagnose and treat pathologies, quantitative cellular and molecular techniques, and applications of synthetic and natural biomaterials.

CHE X41. Design for Environment.
Overview of environmental assessment tools for chemical processes and products, including life cycle and risk assessments. Overview of design tools for improving environmental performance of chemical processes, including unit operations and flowsheet analysis methods.

CHE X42. Chemical Engineering Economics and Business Analysis.
Study of the economic decisions faced by chemical engineers. Discounted cash flow techniques. Personal finance, managerial economics, and other special topics.

CHE X43. Molecular Simulation of Materials.
Introduction to basic molecular simulation techniques including molecular mechanics, molecular dynamics, and Monte Carlo method. Understanding of principles underlying these techniques, and how these techniques can be used to study the physical and chemical properties and behavior of materials at the molecular level. More advanced topics include molecular simulations in various ensembles (NVE, NVT, NPT, grand canonical), free energy computations, controlling dynamics, and association-bias Monte Carlo method. Elementary knowledge of physical chemistry, classical mechanics, and statistical thermodynamics is assumed.

CHE X44. Introduction to Therapeutics.

CHE X46F. Atmospheric Chemistry and Physics.
Examine the sources of air pollutants and the chemical reactions and physical processes that affect them. Explore tropospheric chemistry and the microphysics, chemistry, and thermodynamics of atmospheric nanoparticles. Discuss aerosol transmission of viruses and mitigation of that transmission, as well as recent advances in understanding air pollution and its health effects.

CHE X48. Numerical Methods in Chemical Engineering and Problem Solving.
Numerical solutions to algebraic and differential equations; numerical methods to integration, interpolation, and regression analysis, with application to chemical engineering.

CHE X49D. Dynamics in Ecology and the Environment.
Examine the Earth's natural processes, populations, and systems. Explore the Earth's dynamic systems and how they change with time in response to a variety of disturbances. Use mathematical models to aid in understanding these dynamic systems and to estimate the impact of manmade disturbances. Discuss current environmental and ecological problems.

CHE X50. Chemical Engineering Materials.
Metallic, ceramic, polymeric, and composite materials. Crystal structures, phase diagrams, diffusion, and mechanical properties. Emphasis on structure-property-processing relationships.

CHE X53K. Applied Statistics.
Statistical methods such as data exploration and summary, least-squares fitting, probability and probability distributions, statistical inference and hypothesis testing, analysis of variance, design of experiments, statistical quality control, and use of professional statistical software.

CHE X53M. Measurement, Control, and Data Analysis Laboratory.
Laboratory safety; measurement and statistical analysis of transport process variables like temperature, pressure, and flow rate; computer data acquisition; feedback control; statistical process control and design of experiments; and production of professional-level lab reports.

CHE X54. Transport Processes.
Design and analysis of heat exchangers, fluid-flow systems and equipment, and interphase-contact devices.

CHE X55. Introduction to Polymers.
Synthesis, structural characterization, physical properties, and applications of polymers.

CHE X56. Optimization: Theory and Practice.
Techniques of optimization, including formulation of optimization problems, one-dimensional search techniques, analytical methods, and n-dimensional search techniques; application of methods to process-industry problems.

CHE X57. Technology and Its Impact on the Environment.
Study of sources and fates of environmental pollutants; environmental quality standards--their measurement and regulation; and pollution control design procedures.

CHE X59. Energy Technology and Policy.
Technology and policy related to energy supply and demand, oil and gas production, coal utilization, hydrogen production, fuel cells, transportation, nuclear power, solar and wind energy, biomass utilization, energy conservation, and climate change.

CHE X60. Process Control.
Analysis of process dynamics and methods for the design of automatic control systems for chemical process plants.

CHE X63. Separation Processes and Mass Transfer.
Design and analysis of equilibrium and mass transfer based on separations such as absorption, chromatography, crystallization, distillation, extraction, and membrane-based processes.

CHE X64. Chemical Engineering Process and Projects Laboratory.
Experimental studies of unit operations. Laboratory safety. Statistical data analysis. Written and oral reports.

CHE X64S. Chemical Process Safety.
Emphasizes quantitative engineering analysis based on the application of mass and energy balances, fluid mechanics of incompressible, compressible and two-phase fluids, heat transfer and conservation of energy, diffusion and dispersion under highly variable conditions, reaction kinetics, and process control. Subjects include various probabilistic and statistical methods to characterize accident and loss performance, techniques for process hazard analysis, risk assessment, and accident investigations.

CHE X72. Chemical Reactor Analysis and Design.
Planning and design of commercial chemical and biochemical reaction systems for producing fuels, polymers, specialty and consumer products, pharmaceuticals, solid-state devices, and other products.

CHE X73K. Process Design and Operations.
Process design, economics, and safety; design projects representing a variety of industries and products.

CHE X76K. Process Evaluation and Quality Control.
Use of statistical techniques to evaluate, compare, and optimize processes. Design of experiments for improved product quality control.

CHE X77C. Undergraduate Research Practicum.
Discuss best practices for participation in research for undergraduate chemical engineering majors.

CHE X77D. Undergraduate Research Practicum.
Discuss best practices for participation in research for undergraduate chemical engineering majors.

CHE X77K. Undergraduate Research Project.
Recommended for students considering graduate study. Topic to be selected in conjunction with individual chemical engineering faculty member, with approval by the department chair. A final written report is required.

CHE X77L. Undergraduate Research Project.
Subject matter to be selected in conjunction with individual chemical engineering faculty member, with approval by the department chair. A final written report is required.

CHE X79. Topics in Chemical Engineering.
Special topics of current interest.

CHE X79.2. Nanomaterials Chemistry and Engineering.

CHE X79.3. Greenhouse Gas Control Technology.

CHE X79.43. Entrepreneurship.

CHE X79.6. Materials Physics.

CHE X79.64. From Data to Decisions.

CHE X79.8. Advanced Nanotechnology and Innovation for Beginners.

CHE X79H. Undergraduate Honors Thesis.
Research performed during two consecutive semesters under the supervision of a chemical engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the department chair. The student makes two oral presentations and writes a thesis.

CHE X79I. Undergraduate Research Internship.
Participate in an internship or career experience program.

Graduate Courses

CHE X73K. Process Design and Operations.
Process design, economics, and safety; design projects representing a variety of industries and products.

CHE X80C. Laboratory Safety.
Safe laboratory practice. Training in use of fire extinguishers and first aid. Case studies of laboratory accidents.

CHE X80D. Research and Achievements Seminar.
Seminar series covering recent research and technical achievements in Chemical Engineering.

CHE X81N. Fluid Flow and Heat Transfer.
Advanced treatment of fluid flow and heat transfer problems in chemical engineering.

CHE X81P. Advanced Analysis for Chemical Engineers.
Applications of mathematical methods to chemical engineering problems, with emphasis on differential equations, linear analysis and matrices, and real analysis and complex variables.

CHE X81Q. Quantitative Analysis of Cellular and Molecular Biology.
Analyzes biological systems from stoichiometric, thermodynamic, and kinetic perspectives. Case studies illustrate how these principles are used to understand disease, control cellular behavior, and design protein-based therapeutics.

CHE X84E. Electrochemistry and Electrochemical Engineering.
Fundamental principles of electrochemistry combined with mass transfer including applications in analytical chemistry as well as industrial electrochemistry.

CHE X84K. Chemical Kinetics and Surface Chemistry.
Application of chemical reaction kinetics to the prediction and determination of reaction rates and reaction selectivity.

CHE X84S. Current and Emerging Trends in Chemical Engineering Research.
Overview of current and emerging trends in chemical engineering research with frequent guest presentations by leading scholarly and industrial researchers in the discipline.

CHE X84T. Topics in Chemical Engineering.

CHE X85. Research.

CHE X85C. Research.

CHE X85M. Surface Phenomena.
Liquid/fluid interfaces including equilibrium and nonequilibrium phenomena. Topics covered include capillarity, thermodynamics, surface rheology, and streaming potentials.

CHE X85P. Optimization: Theory and Practice.
Techniques of optimization, including formulation of optimization problems, one-dimensional search techniques, analytical methods, and n-dimensional search techniques; application of methods to process-industry problems.

CHE X86K. Theory of X-Ray Diffraction.
Application of basic diffraction theory to polycrystalline and single crystal materials.
CHE X86L. Laboratory Experiments in X-Ray Diffraction.
Application of X-ray diffraction techniques to the examination of polycrystalline and single crystal materials.
CHE X87K. Advanced Thermodynamics.
Applications of thermodynamics to chemical engineering processes.
CHE X87M. Mass Transfer.
Advanced treatment of diffusional mass transfer operations in chemical engineering.
CHE X88K. Separations Processes.
Advanced treatment of modern chemical engineering separations processes.
CHE X91. Elements of Modern Control Theory.
Introduction to fundamentals of dynamic optimization and system theory; applications to engineering processes.
CHE X91J. Reaction Kinetics.
CHE X91M. Mathematical Modeling of Engineered Systems.
Introduction to fundamentals of dynamic system modeling and associated numerical solution methods with applications to engineering systems.
CHE X91S. Molecular Simulation of Materials.
Introduction to basic molecular simulation techniques including molecular mechanics, molecular dynamics, and Monte Carlo method. Understanding of principles underlying these techniques, and how these techniques can be used to study the physical and chemical properties and behavior of materials at the molecular level. More advanced subjects include molecular simulations in various ensembles (NVE, NVT, NPT, grand canonical), free energy computations, controlling dynamics, and association-bias Monte Carlo method. Elementary knowledge of physical chemistry, classical mechanics, and statistical thermodynamics is assumed.
CHE X92. Polymer Science.
Details of polymerization mechanisms; structure-property relationships, fundamentals of processing, and characterization of high polymers.
CHE X92P. Introduction to Polymer Materials Science.
Synthesis, structural characterization, physical properties, and applications of polymers.
CHE X95C. Chemical Processes for Microelectronics.
Introduction to the chemical processes and the manufacturing operations used in microelectronics device fabrication.
CHE X95E. Polymer Science and Engineering Laboratory.
Training in the preparation and instrumental characterization of polymers, blends, and compounds.
CHE X95G. Chemical Engineering Economics and Business Analysis.
Study of the economic decisions faced by chemical engineers. Discounted cash flow techniques. Personal finance, managerial economics, and other special topics.
CHE X95J. Product and Process Development.
Product and process innovation in the process industries; screening criteria; needs-requirements research; evaluation.
CHE X95K. Design for Environment.
Overview of environmental assessment tools for chemical processes and products, including life cycle and risk assessments. Overview of design tools for improving environmental performance of chemical processes, including unit operations and flow sheet analysis methods.
CHE X97M. Graduate Research Internship.
Research associated with enrollment in the Graduate Research Internship Program (GRIP).
CHE X98. Thesis.
CHE X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
CHE X98T. Supervised Teaching in Chemical Engineering.
Teaching under the close supervision of the instructor for one to four semesters; weekly group meetings; individual consultation; reports.
CHE X99W. Dissertation.

Professional Courses

CHE X73K. Process Design and Operations.
Process design, economics, and safety; design projects representing a variety of industries and products.

CHI - Chinese

Chinese: CHI

Lower-Division Courses

CHI X04. Accelerated First-Year Chinese.
Learn Modern Standard Chinese (Mandarin).
CHI X06. First-Year Chinese I.
Modern Standard Chinese (Mandarin). Intended for students who do not understand or speak Mandarin Chinese.
CHI X07. First-Year Chinese II.
Continuation of Chinese 506, 606. Intended for non-native speakers of Chinese.
CHI X12. Accelerated Second-Year Chinese.
Continuation of Chinese 604.
CHI X12K. Second-Year Chinese I.
Modern Standard Chinese (Mandarin). Intended for non-native speakers of Chinese.
CHI X12L. Second-Year Chinese II.
Intended for non-native speakers of Chinese. Continuation of Chinese 312K, 412K.
CHI X19S. Topics in Chinese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CHI X29S. Topics in Chinese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

CHI X19S. Topics in Chinese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CHI X20K. Readings in Modern Chinese I.
Readings in expository prose: selections from journals, newspapers, and other sources.
CHI X20L. Readings in Modern Chinese II.
Readings in modern fiction, poetry, and drama.
CHI X22. Introduction to Classical Chinese.
Beginning study of wen yen, the particles, and syntax of the Chinese classics.
CHI X25K. Advanced Conversation I.
Drill in conversation on general topics.

CHI X25L. Advanced Conversation II.
Practice in speaking Modern Standard Chinese.
CHI X26. Business Chinese.
Advanced Chinese conversation, with emphasis on business vocabulary.
CHI X29S. Topics in Chinese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CHI X30. Topics in Advanced Chinese.
Fourth-year Chinese readings on special topics.
CHI X30D. Chinese across Disciplines.
Reading and discussion of Chinese language materials related to the subject matter of another designated course in Asian studies. Meetings with the instructor will be devoted to the discussion of linguistic problems, literary features, and crucial passages.
CHI X40. Topics in Chinese Literature.
Study of Chinese literary texts in the original.
CHI X40.1. Contemporary Chinese Literature.
Selected literary works from contemporary China (post 1949), in their original language. Focuses on translation and linguistic analysis, as well as discussion of the texts as works of literature.
CHI X40.2. Prose Writings by Lu Xun.
CHI X40.3. Modern Chinese Literature.
Selected literary works from modern China (pre 1949), focusing on translation, linguistic analysis, and discussion of these works as cultural and literary products within their socio-historical contexts.
CHI X40.4. Chinese Fiction from Taiwan.
Readings of works of fiction produced in contemporary Taiwan (1949 to present day) in Chinese. Readings include mainstream literature, stories written by writers of the Modernist and Nativist schools, and urban fiction since the late twentieth century.
CHI X41. Classical Chinese Poetry.
Study of Chinese poetry in the original.
CHI X60. Conference Course in Chinese Language and Literature.
Supervised individual study of selected problems in Chinese language or literature.

Graduate Courses

CHI X19S. Topics in Chinese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CHI X29S. Topics in Chinese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CHI X81. Conference Course in Chinese Language and Culture.
Supervised individual study in Chinese language or culture.
CHI X84. Topics in Chinese Language and Culture.
Study of various aspects and periods of Chinese language or culture.
CHI X84.1. Chinese Film and Literature.
Chinese literature and film from the early twentieth century to the present within the sociohistorical context of modern China.
CHI X84.3. Contemporary Chinese Literature.
CHI X84.5. Modern Chinese Literature.
CHI X84.7. Readings in Chinese Journals.

Professional Courses

CHI X19S. Topics in Chinese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CHI X29S. Topics in Chinese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CIV - Civics

Civics: CIV

Lower-Division Courses

CIV X01. Perennial Problems in Civic Thought.
Examine civic conflicts and controversies, with a view to understanding their root causes. Explore readings from classic and contemporary texts on political theory, ethics, and practice.
CIV X01C. Being Human.
Examine classic texts that explore what it means to be human and consider their implications for politics, economics, society, morality, and religion.
CIV X01D. Pursuing Happiness.
Survey social science research on the key determinants of human happiness and considers the implications of this research for civic life.
CIV X01J. First Year Foundations I.
Discuss foundations for success in life, college, and career. Develop skills for civic leadership, well-being, and academic scholarship.
CIV X01K. First Year Foundations II.
Discuss career discernment, explore career opportunities, and develop skills for civic leadership, internship, and career success.
CIV X02. Truth and Persuasion.
Examine what humans can know, how they reason, what thinking is, and how humans communicate to persuade others. Discuss readings in logic, epistemology, and rhetoric including classical writers such as Plato, Aristotle, Cicero, and Quintilian as well as modern and contemporary thinkers and leaders, with emphasis on case studies of effective persuasion.
CIV X02C. Classics of Social and Political Thought.
Explores the origins of social scientific thought in the history of political philosophy and traces the development of one or more of the social sciences in modern times. Focuses on fundamental ideas about human nature, civil society, and politics, explored through reading such authors as Aristotle, Aquinas, Locke, Rousseau, Marx, Weber, Durkheim, and Freud.
CIV X03C. Foundations of American Civics.
Examine debates about constitutionalism and citizenship in American and Texas political experience. Investigate the philosophical and historic foundations of American institutions from the founding period through the contemporary era. Discuss the rights and responsibilities of citizenship.

CIV X03J. Origins of American Institutions.
Examine the roots of American institutions and practices from ancient times (Greek city-states, the Mosaic law, Roman politics), medieval practices and institutions, English constitutional history (Magna Carta, Glorious Revolution), and the Enlightenment (Locke, Montesquieu, Sydney). Discuss the American colonial experiment in self-government. Explore the Revolution, the Articles of Confederation, and the Constitutional convention. Address the early republic and significant constitutional moments in American experience.

CIV X03K. Democracy and Capitalism.
Examine classical liberal thought as it relates to political and economic liberty. Investigate how classical liberal ideas about political and economic liberty influence the modern development of democracy and capitalism. Explore potential tensions between democracy and capitalism. Study empirical evidence and classic writings on relationship between democracy, capitalism, and human flourishing.

CIV X04. Foundations of Research Methods for Civics.
Introduction to statistical methods used in civics with emphasis on concepts and applications. Utilize a variety of real data to discuss key concepts, such as sampling distributions and basic data analyses.

CIV X05. Excellence of Character: The Virtues.
Investigate the nature, grounds, and consequences of moral excellence in political communities. Discuss close reading of classical texts (such as Aristotle, Marcus Aurelius, Cicero, Aquinas), contemporary philosophical analysis (such as Foot, Anscombe, MacIntyre), results of scientific research, and reflections on history, biography, and literature (such as Shakespeare, Austen). Focus on application to contemporary problems.

CIV X09. Topics in Civics.

CIV X10K. Ethics and Leadership in Ancient Greek Drama.
Study selected plays of Sophocles, Euripides, Aeschylus, Aristophanes, and others with a focus on themes of virtue, justice, and leadership qualities.

CIV X10L. Ethics and Leadership in Shakespeare's Drama.
Study selected plays of Shakespeare, focusing on themes virtue, justice, and leadership qualities.

CIV X12P. Constitutional Principles: Core Texts.
Close readings from primary texts that have shaped or that reflect deeply upon American democracy, including the Declaration of Independence, The Federalist Papers, and Tocqueville's Democracy in America.

CIV X13. Civic Leadership: Global Perspectives.
Discuss classic and contemporary texts on civic leadership from a range of cultures and periods, including different ways of understanding, organizing, and leading in civic life.

CIV X19S. Topics in Civics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Civic Leadership. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

Upper-Division Courses

CIV X20. Constitutionalism: Ancient and Modern.
Examine the ancient and medieval origins of modern constitutionalism. Explore the works of authors such as Plato, Aristotle, Cicero, Augustine, Machiavelli, Montaigne, Hobbes, Locke, Montesquieu, Rousseau, Gibbon, Hamilton, Madison, Tocqueville, Thoreau, Marx, Mill, Arendt, Berlin, Rawls, and Nozick.

CIV X21. Topics in Constitutional History and Principles Research.

CIV X21.1. Constitutional History and Principles Research.

CIV X21J. Economics and Constitutionalism.
Investigate economic growth as a function of constitutions that protect the rule of law and well-defined property rights. Examine social and economic outcomes under different rules. Explore constitutional disputes over economic issues such as taxation, eminent domain, labor law, and regulation. Consider how different constitutional arrangements affect economic well-being.

CIV X22. Topics in Western Civilization Research.

CIV X22.1. Western Civilization Research.

CIV X22J. The Quest for Community.
Examine how human communities are structured, and how this structure can foster or distort moral character and promote or obstruct happiness. Explore socialization; social capital; the role of rituals, symbols, hierarchy, historical memory, arts and literature, and religion. Discuss readings from classical texts and from contemporary sociology, social psychology, political theory, history, and literature.

CIV X22K. Politics and the Transcendent.
Examine the relationship between theology (both revealed and natural) and political theory in the Western world. Discuss the political significance of theological ideas such as the proposition that all human beings are created equal; that all human beings are created in the image of God; beliefs in divine providence and judgment; metaphysical foundations of natural law and free will.

CIV X23. Topics in Ethics and Leadership Research.

CIV X23.1. Ethics and Leadership Research.

CIV X23J. Ethical Analysis for Civic Leaders.
Analyze the ethical challenges civic leaders face. Explore different ethical frameworks for approaching the responsibility of civic leadership. Discuss case studies of leaders and difficult leadership decisions through biographies, historical studies, and films.

CIV X24. Topics in Rights, Freedoms, and the Rule of Law Research.

CIV X24.1. Rights, Freedoms, and the Rule of Law Research.

CIV X25. Topics in Civic Thought and Culture Research.

CIV X25.1. Civic Thought and Culture Research.

CIV X25K. Economic Analysis for Civic Leaders.
Discuss a practical application of the studies of strategic behavior to leadership. Examine games leaders must play and strategies they can use to orient a team toward a common goal.

CIV X26. Topics in Strategy and Statecraft Research.

CIV X26.1. Strategy and Statecraft Research.

CIV X29S. Topics in Civics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Civic Leadership. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

CIV X31F. American Political Economy.
Survey the ideas that have structured the American economic system and the implications of these ideas for civic life and citizenship. Explore the philosophical and theoretical questions of political economy, as well as the policy challenges of the modern welfare state and globalization. Discuss readings that may include Adam Smith, Alexander Hamilton, Franklin Delano Roosevelt, as well as modern economists and social scientists.

CIV X37. Policy Research Lab.
Introduction to statistics, econometrics, and data science as tools necessary for policy and social science research. Discuss policy questions as well as policy and social science tools to evaluate those questions. Apply these tools to real-world data to answer crucial policy questions. Investigate appropriate data usage, employ cutting-edge statistical tools, and evaluate how to use these tools to understand the world.

CIV X57L. Amending the United States Constitution.
Examine the evolution of the United States Constitution from the founding to the present, with a focus on the major forces and fault lines

that have made the Constitution today one of the world's most difficult to amend.

CIV X60. Advanced Topics in Constitutional History and Principles.
Analyze the history of the writing, approval, development, and interpretation of the United States Constitution.

CIV X60.1. Advanced Constitutional History and Principles.

CIV X61. Advanced Topics in Western Civilization.
Discuss one or more great works influencing the development of the Western intellectual tradition by such authors as Sophocles, Herodotus, Thucydides, Plato, Aristotle, Tacitus, Augustine, Aquinas, and Dante.

CIV X61.1. Advanced Western Civilization.

CIV X62. Advanced Topics in Ethics and Leadership.
Discuss an advanced study of ethical considerations in leadership and ethical resources for leadership.

CIV X62.1. Advanced Ethics and Leadership.

CIV X63. Advanced Topics in Rights, Freedoms, and the Rule of Law.
Discuss an advanced study of topics in rights, freedoms, and the rule of law.

CIV X63.1. Advanced Rights, Freedom, and the Rule of Law.

CIV X64. Advanced Topics in Civic Thought and Culture.
Discuss an advanced study of topics in civic thought and culture.

CIV X64.1. Advanced Civic Thought and Culture.

CIV X65. Advanced Topics in Strategy and Statecraft.
Discuss an advanced study of topics in strategy and statecraft.

CIV X65.1. Advanced Strategy and Statecraft.

CIV X66. Advanced Topics in Civics.

CIV X67. Advanced Topics in Readings in Civic Thought.
Discuss advanced topics that examine a single major work in civics, significant theme in civics, or select works of a significant author in civics.

CIV X67.1. Readings in Civic Thought.

CIV X72. Topics in Independent Research in Constitutionalism.

CIV X73. Topics in Independent Research in Western Civilization.

CIV X74. Topics in Independent Research in Civic Leadership.

CIV X75. Internship.
Develop resume, cover letters, job search profiles, networking, and interviewing techniques. Build skills for internship, including how to think, how to lead, and how to follow. Study ethical and strategic exemplars in leadership. Analyze ethical and strategic lessons of internship.

CIV X75J. Internship: Career Planning.
Address issues related to career planning to establish an internship search. Develop resume, cover letters, job search profiles, networking, and interviewing techniques. Conduct informational interviews. Apply for internships.

CIV X75K. Internship: Leadership Development.
Build skills for internship, including how to think, how to lead, and how to follow. Understand workplace cultures. Study ethical and strategic exemplars in leadership.

CIV X75L. Internship: Reflection and Analysis.
Write substantial reflection that connects internship experience with themes in civics coursework. Analyze ethical and strategic lessons of internship.

CIV X77I. Internship in Civic Leadership.
Participate in a professional internship in civic leadership. Reflect on internship to improve ability to both articulate preferences and skills, and to match them with appropriate career-related choices.

CIV X78I. Internship in Civic Leadership.
Participate in a professional internship in civic leadership. Reflect on internship to improve ability to both articulate preferences and skills, and to match them with appropriate career-related choices.

CIV X79. Internship in Civic Leadership.
Perform fieldwork in research and analysis related to civic leadership.

CIV X79J. Thesis I.
Capstone of the civics honor degree. Develop and defend a coherent and persuasive argument on a significant question.

CIV X79K. Thesis II.
Capstone of the civics honors degree. Develop and defend a coherent and persuasive argument on a significant question.

CIV X79L. Capstone in Civics.

Graduate Courses

Professional Courses

CLD - Communication and Leadership

Communication and Leadership: CLD

Lower-Division Courses

CLD X01. Introduction to Communication and Leadership.
Introduces the study of leadership with an emphasis on communication dimensions and interdisciplinary understanding of social problems. Serves as a foundation for subsequent coursework in the areas of communication and leadership.

CLD X02. Topics in Communication and Leadership.
Contemporary issues and practices in communication and leadership.

CLD X03. Leadership Presence and Presentation.
Discuss the theory and application of the fundamentals of professional speaking, leader presence, persuasive arguments, and presentations for the modern workforce.

CLD X04. Introduction to Philanthropy.
Offers an introduction to philanthropy, focusing on the process of private giving as well as the work of private foundations.

CLD X14. Fundamentals of Philanthropy.
Builds on Introduction to Philanthropy, considering the process of creating and evaluating philanthropic initiatives.

CLD X19S. Topics in Communication and Leadership.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Communication. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

CLD X20. Topics in Communication and Leadership.
Contemporary issues and practices in communication and leadership.

CLD X21. Seminar on Communication and Leadership.
Builds on the foundation introduced in Communication and Leadership 301 advancing student work in theories, processes, and practices of leadership and communication.

CLD X22. Independent Study.
Pursue special supervised individual research studies.

CLD X24. Communication and Leadership in Higher Education.
Investigate the ways in which leadership and communication intersect with a range of audiences from students and faculty to parents and legislators.

CLD X25. Leadership in Non-Profit Organizations.
Discuss the change-makers in the nonprofit sector, and discover the knowledge, skills, and strategies needed to excel in the art of communication within non-profit leadership.

CLD X29S. Topics in Communication and Leadership.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Communication and Leadership degree. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CLD X30. Philanthropy Capstone.
Analyze the effectiveness of nonprofit organizations and how to think about and apply the ethics, strategy, and practice of philanthropic giving.

CLD X32. Facilitative Leadership.
Explore facilitation and consensus-building into leadership in the private, nonprofit, and public sectors; how to engage stakeholders in powerful, productive, and prudent ways; and how to collaborate with team members to advance a leader's vision.

CLD X40. Communication for Civic Engagement.
Examine theories and applied practices for impactful and effective civic education.

CLD X45. Topics in Fundamentals and Skills.
Examine contemporary issues and practices in communication and leadership fundamentals and skills.

CLD X51. Internship in Communication and Leadership.
Practical work experience related to the practice of ethical leadership and communication.

CLD X60. Communication for Executive Leadership.
Explore the theories, strategies, and skills required for organizational leaders to be effective and lead strong teams.

CLD X65. Topics in Social Issues.
Study communication and leadership in social issues.

CLD X71. Capstone Course in Communication and Leadership.
Engagement in experiential learning. Development and presentation of ideas and plans for addressing a leadership challenge given by a partner organization.

CLD X79. Undergraduate Thesis.
Write and research two consecutive semesters under the supervision of a College of Communication faculty member; subjects are selected by the student with approval from the faculty member.

Graduate Courses

Professional Courses

CMS - Communication Studies

Communication Studies: CMS

Lower-Division Courses

CMS X01. Topics in Communication Studies.

CMS X06M. Professional Communication Skills.
Designed to help students develop skills in one-on-one interactions, small group communication, and presentation skills. Basic communication theories as they relate to skill development are explored.

CMS X07K. Internship.
Internship to be arranged by student and approved by instructor. Focuses on career goals of students in communication positions with public and private organizations.

CMS X09T. Introduction to Sports Communication.
Introduction to the study of sports as a communication phenomenon. Discuss sports across communication contexts, methods, and theories.

CMS X10. Forensics Workshop.
Training for participation in extracurricular speech activities, including intercollegiate debate.

CMS X10K. Team-Based Communication.
Analysis of small-group communication: cohesiveness, social climate, role structure, leadership, conformity, dynamics of interaction; participation in small-group communication situations.

CMS X13M. Organizational Communication.
Communication processes within government, private, and volunteer organizations.

CMS X14L. Language, Communication, and Culture.
The role of language in communication. Analysis of the complexity of human languages, languages in contact, language modality, and communication interaction.

CMS X15M. Interpersonal Communication Theory.
Introduction to the study of communication in relationships; topics include self-disclosure, conflict, long-distance relationships, stereotyping, and persuasion.

CMS X16L. Interviewing Principles and Practices.
Introduction to interviewing theory, emphasizing the acquisition and application of interviewing skills.

CMS X17C. Speech in American Culture.
The impact of public discourse on the ideas and issues of culture and history in the United States.

CMS X18L. Strategic and Risk Communication.
Introduction to the closely related areas of strategic communication, being purposeful and goal driven in messaging across various contexts, and risk communication, exchanging/assessing risk information to manage decisions across various contexts.

CMS X19S. Topics in Communication Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the appropriate College of Communication department. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CMS X29S. Topics in Communication Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Communication Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CMS X77K. Faculty-Initiated Research.
Supervised research on a project designed by a faculty member.

Upper-Division Courses

CMS X19S. Topics in Communication Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the appropriate College of Communication department. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CMS X20. Advanced Presentation Skills.
Designed to help students develop skills in delivering informative and persuasive presentations and speeches. Study of major theories related to oral presentations. Focus on audience analysis and adaptation, building strong arguments, speech organization, and use of new technologies.

CMS X21D. Communicating for Development and Philanthropy.
An exploration of the special communicative dimensions of the development and philanthropy fields, including how to apply theories of building relationships and persuasion to the context of development and philanthropy for nonprofit organizations.

CMS X22E. Communication Ethics.
Examination of the ethical issues involved in communication. Subjects addressed include our role in interactions we are party to; media

coverage of issues of a sensitive or potentially harmful nature; and how our interactions with others reflect and shape who we are.

CMS X23R. Rhetoric: East and West.

Examination of the ways people from different cultures communicate and argue, and how cultures use logic, stories, myth, images, and the spoken word to make their points.

CMS X27. Urban Communication.

Examines communication between and within cultures in urban communities, especially immigrants and marginalized groups. Special focus on understanding the role cross-cultural relations play in shaping the identity of community members.

CMS X29S. Topics in Communication Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Communication Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CMS X30. Interpersonal Health Communication.

The fundamental interpersonal communication processes that are involved in managing physical and mental health. Includes stigma and illness identity, social support, patient-provider communication, end-of-life care, and health education.

CMS X30D. Health Decision Making.

Explore the connection between evidence-based health communication practices and evidence-based health decision making. Practice making sense of complicated and ambiguous health information, and examine theoretical concepts that describe and explain how people interact with such health information.

CMS X30P. Communicating with Patients.

Analyze the communicative work done by healthcare providers. Examine the provider-patient encounter and the ecology of related communication processes.

CMS X31K. Speech Writing and Criticism.

Composition and analysis of oral messages; emphasis on creating and arranging ideas, style, delivery, critical method.

CMS X32. Argumentation and Advocacy.

Nature of argumentative controversy; variables of form, method, and ethics; analysis of argumentative rhetorical works.

CMS X32D. Digital Ethics.

Explores the ethical issues inherent in the use of digital and online media. Discusses a range of current issues and subjects through the application of important moral theories, attending to how new technologies often challenge knowledge of morality, virtue, and the good life. Analyze case studies to encourage reflection and discussion over contemporary issues in digital ethics. Subjects include the ethics of hacking, Anonymous operations, online privacy, blogging ethics, online shaming and activism, revenge pornography, online free speech, social media and virtue, as well as other contemporary topics.

CMS X32K. Theories of Persuasion.

A study of motivational factors involved in persuasive speaking to secure belief and action.

CMS X33. Case Studies in Argumentation.

Study of argumentation theories. Includes analysis of case studies taken from areas of law, public policy, popular culture, and history.

CMS X34F. Fake News.

Examine the interplay of journalism, satire, and propaganda in their current and historic forms - from comedians on late-night television to active measures in international espionage. Consider the social and political forces that draw us to this type of information, how to deal with it when we encounter it, and what its implications are for geopolitics in the twenty-first century and within our own participatory democracy.

CMS X34K. Nonverbal Communication.

Survey of the effects of space, physical appearance, movement, eye behavior, and vocal behavior on interpersonal communication.

CMS X35. Strategic Sales and Event Planning.

Theory and practice related to the preparation of large-scale sales events and conferences. Designed to develop communication skills and planning techniques. May include client research, investigation of potential venues, telephone-based information interviews, individual or group sales presentations, and event overviews.

CMS X37. Building Sales Relationships.

Explores the theoretical and practical role of communication in the development of long-term client relationships. Explores the consultative sales process, including prospecting, assessing needs, handling objections, presenting, closing, and following up with clients. Focuses on how technology can help or hinder communication.

CMS X37C. Selling in Healthcare Industries.

Examine opportunities related to professional sales and business development in the healthcare industry. Explore the theoretical and practical role of communication in the development of long-term client relationships. Investigate the consultative sales process, including prospecting, assessing needs, handling objections, presenting, closing, and following up with clients.

CMS X38. Leadership Stories.

Uses fictional and nonfictional stories, as well as examples taken from virtual reality, to explore the meaning of leadership. Designed to help students develop a conceptual, practical, and personal understanding of the meaning of leadership.

CMS X38L. Leadership and Public Memory.

Examines how public memory is created, shaped, and shared through processes and forms like commemorations, museum exhibits, historic sites, and monuments.

CMS X39K. Working Virtually.

Explore the dynamics of new work arrangements and the factors that shape communication when working in dispersed work arrangements. Examine important skills for navigating these new ways of working.

CMS X39L. Social Interaction in Virtual Environments.

Examines fundamental principles connected to the uses and effects of new technologies. Covers social networking sites, online dating, and virtual group collaboration.

CMS X40D. Expertise and Power in the Digital Commons.

Explore what it means to produce and/or possess knowledge in the digital era. Examine how the World Wide Web functions as an archive of information; how science enters public conversations in digital forums; how networked infrastructure facilitates the production of digital information; and how big data may be the future of expertise. Approach digital culture through the idea of the commons, assuming an interdisciplinary perspective, drawing insight from various literatures and methodologies.

CMS X40K. Communication and Social Change.

Analysis of how persuasion is used in mass movements: civil rights, consumerism, feminism, pacifism, religious sects.

CMS X40M. Social Media and Social Movement: Then and Now.

Explores the role media plays in documenting and shaping the successes and failures of contemporary causes. Considers how these movements use social media to their advantage and the responses from government and other institutions.

CMS X41. Digital Communications.

Uses communication and interdisciplinary perspectives to explore interactions involving technology. May include the study of impression formation, identity, surveillance, privacy, distributed teams, trust and deception, online gaming, social support, and uses and impacts of new information and communication technology.

CMS X42C. Communication and Civic Participation.
An exploration of the status of American democracy, particularly as it pertains to those born between 1960 and 1990. Subjects include the meaning of citizenship and democratic participation, and the strengths and limitations of marketing efforts targeted at getting youth involved in the democratic system.

CMS X42K. Political Communication.
A study of the role of symbols in political communication and the techniques and strategies employed by politicians; special attention is given to recent election campaigns.

CMS X44K. Lying and Deception.
Examines lying and deception as civil, strategic, and manipulative behavior. Secrets, privacy, disclosures, and confidentiality are examined in a variety of familiar contexts.

CMS X45. Media Effects and Politics.
The theoretical models and research methods used to study media effects. Emphasis on the political implications of media-effects research and on how media-effects theories can help clarify political issues. May include television violence, the political impact of the news, and the use of media for educational purposes.

CMS X45G. Communicating to Government.
Analyze confident, effective, and ethical communication in regards to policy makers, elected officials, legislative and governmental agencies. Discussion of legal and ethical considerations introduced by governmental communications, as well as strategies and materials for effective communication. Includes guest speakers, and interactive opportunities around the Texas legislature and/or local governmental bodies.

CMS X45K. Perspectives on Rhetoric.
Four different meanings of rhetoric; how these meanings contribute to the current understanding of communication studies.

CMS X45N. Political Narratives.
Examines stories and how they are told during political rituals, under campaign pressures, on the nightly news, and in the daily newspaper: visually, verbally, online, and in person.

CMS X45P. Communication and Public Opinion.
An investigation of the definition and measurement of public opinion. Explores the relationship between communication and public opinion, how changes to public opinion are affected, and the influence of perception of public opinion on personal opinion.

CMS X45V. American Voices.
Examines what is most distinctive about American speech, American film, American advertising, American politics, the American press.

CMS X46. Using Communication Technology at Work.
Examines how communication technologies affect workplace communication. Considers case studies involving the use of social networking, handheld devices, and e-mail by for-profit and nonprofit organizations.

CMS X46C. The Cutural Impact of Innovation.
Examine the fundamentals of humanistic thought for both critiquing and creating innovation.

CMS X47E. Arguing the End of the World.
Discussion of apocalyptic, millenarian, or millenialism way of thinking and how it affects religious, social, and other personal beliefs.

CMS X47K. Rhetoric of Popular Culture.
The ways that film, television, music, fashion, the Internet, and other discourses of popular culture influence public attitudes, perceptions, and social relations.

CMS X47S. Communicating with Stuff.
Examine how we use material objects and actions as a means of communication, especially objects found in popular culture.

CMS X48. Communication Research Methods.
A practical introduction to research methods, focusing on designing a study, conducting research, analyzing data, and presenting results. Studies survey design, interviews, focus groups, and experiments.

CMS X48K. Visual Media and Interaction.
The role of visual resources and symbols in social interaction and public life; the representation of interaction and human relationships in visual media (photography, advertising, fine arts, and film).

CMS X49M. Advanced Analysis of Popular Culture.
Advanced critique and analysis of rhetorical dimensions in texts of popular culture. Readings in theory and methods for understanding persuasive influence in television, film, music videos, and the Internet.

CMS X50C. Crowds, Clouds, and Community.
Explores the use of social network theory and analysis to understand the connectivity and complexity of teams, families, organizations, and communities. Consider examples of network analytic approaches to theorize, visualize, analyze, and understand, for example, criminal networks, professional service firms, government contracting, social media platforms, virtual worlds, interorganizational dynamics, post disaster recovery, and ad hoc organizational forms.

CMS X50M. Field Study in Organizational Communication.
Students acquire information through interviews and observation, devise appropriate coding schemes, and compose synoptic reports of their findings and recommendations.

CMS X51. Communication for Cooperation and Competition.
Theoretical perspectives and experiential learning on the ways people reconcile the need to be individualistic (competitive) with the need to be community members (cooperative). Individual aggression and submission; the rewards of competition and cooperation; and organizational structures that lead to cooperation and competition.

CMS X52. Organizational Leadership.
Theories, styles, and components of organizational leadership; communication behaviors of leaders in organizations. History of the study of leadership; new theories and concepts related to leaders as managers of organizational culture and change.

CMS X52D. The Dark Side of Organizational Communication.
Examine key organizational processes that often operate in the shadows through a communication-based approach. Assess how individuals and organizations respond ethically to these processes. Survey hidden organizations and the ethical response to dark collectives in society.

CMS X53C. Communication for Innovation.
Examines the critical role that communication and communicative processes play in developing innovative ideas, products, and ways of approaching problems. Analyze behavioral theories and empirical studies to understand the challenges associated with facilitating innovation in organizations and learn strategies for improving work effectiveness. Subjects include motivation, decision making, organizational culture, information sharing, and idea generation.

CMS X53S. Social Media and Organizations.
Explores the relationship between social media use and organizational communication. Subjects include how organizations use social media for communication with external stakeholders and to facilitate internal communications processes.

CMS X54. Conflict Resolution.
Systematic analysis of conflict and communication to examine some of the effects of communication on conflict and of conflict on communication. Readings, analysis of conflicts, and practice with and evaluation of communication behaviors thought to be effective in conflict talk.

CMS X55K. Intercultural Communication.
Theories of speech and language that concern interaction between persons from different cultures who speak different languages or dialects.

CMS X55S. Communicating with Animals.
Introduction to research and writing about communication among animals and between animals and their human caretakers.

CMS X55T. Communication and Thought.
Integrates the emergence of collaborative thought from human communication. Analysis of language and communicative development,

conversational pragmatics, perspective-taking, and social network analysis.

CMS X56C. Collective Action.
Examine how globalization and technology have impacted how people organize and communicate to achieve better collective outcomes about public good.

CMS X56T. Organizational Transparency.
Examine fundamental dynamics of transparency as a form of communication. Explore a range of problems related to organizational transparency and critically assess organizational transparency as an ethical practice.

CMS X57. Family Communication.
Some of the common issues that face those who live in, counsel, and conduct research with families. The development of traditional families in the United States, different family structures that make up modern society, current issues that affect families, and the impact of communication on family experiences.

CMS X58. Communication and Personal Relationships.
The nature of human interaction in various types of relationships (friends, dates, spouses, roommates), the nature of communication at different stages in a relationship, and the nature of communication at different life stages.

CMS X58C. Identity In Relationships.
Examine the influence of the unique combination of gender, ethnicity, age, sexual orientation, education, income, ability, and more as they relate to relationships with friends, families, partners, and selves.

CMS X59. Language, Culture, and Communication of Hip-Hop.
Uses hip-hop music as a model for understanding a speech community. Focuses on language innovation and the creation of new social networks, forms of communication, and cultural meaning and values.

CMS X59C. Inside the American Conversation.
A look at a handful of conversations in America, from phone calls between family members and dating couples in the 1980s, contemporary 'hybrid' face-to-face/cell-phone conversations to interviews with Donald Trump and 'The Wire'. Explores what these conversations tell us about social life and how it changes, about people's concerns, cultural difference, and the diversity of ways of using language that is a hallmark of American society.

CMS X59H. Honors Tutorial Course: Reading.
Intensive reading and research as planned by the departmental honors committee.

CMS X59T. How People Talk.
Explore how people creatively use, manipulate, and re-invent language when they talk to each other. Examine qualitative research methods, including conversation and discourse analysis, interactional sociolinguistics, ethnography of speaking, and microethnography.

CMS X60. Analyzing Social Interaction.
Introduction to concepts and research methods related to the study of how verbal and nonverbal communication is used in everyday situations. Includes collecting and analyzing sound and video data. Designed to help students develop skills in interpreting human social interactions.

CMS X60P. Expertise and Public Culture.
Introduction to the various functions that scientists and other experts serve in public discourse. Explore how scientists and experts influence public opinion, policy, and cultural attitudes. Examine how new media habits and digital networks offer platforms for experts and laypersons to communicate.

CMS X60R. Virtual Rhetoric.
Examine how the universal presence of visual imagery makes it difficult to critically evaluate the images we see. Practice evaluating visual arguments to become a more critical consumer of visual communication.

CMS X62D. Decolonizing Communication Studies.
Examine the intersections of race, ethnicity, nationality, language, gender, and other aspects of identity marginalization related to communication theories and practices. Survey theories of decolonization and how to apply those in communication studies.

CMS X62E. Environmental Communication.
Explore various environmental philosophies as they relate to communication contexts. Assess how communication plays a role in environmental issues such as journalism and news reporting, sustainability, consumerism, politics, environmental organizations, and ecotourism. Examine how environmental theories and communication contexts play out in local, national, and international debates and contexts.

CMS X63C. Communication and Sports.
Explore interpersonal, mediated, organizational, and public communication in sports. Examine foundational myths and metaphors that demonstrate the various ways in which sport is used to communicate in public life.

CMS X63P. Politics and Protest in Sports.
Examine history to understand how and why sports can be powerful for contemporary political communication and symbolism.

CMS X64K. Gender and Communication.
Focuses on how communication influences ideas about sex, gender, and identity, from interpersonal relationships to the mass media, and from legislative debates to social movements.

CMS X64M. Pre-Graduate School Mentorship.
Introduction for undergraduates to graduate study in a discipline of their choosing.

CMS X65K. Male-Female Communication.
Studies of speech patterns related to the concepts of male and female, including sexism in speaking, patterns of male and female speaking, patterns of listening to males and females, speech in courtship and family, speech and sexual discrimination in careers.

CMS X65L. Communication, Controversy, and Citizenship.
Designed to help students develop the listening, speaking, and argumentation skills used to deliberate over controversial and sensitive subjects. Deliberations focus primarily on the meaning of citizenship.

CMS X66. Rhetoric, Love, and Democracy.
Covers ideas about human symbolism and discourse; focuses on the effects of rhetorical perspectives on how people make meaning of the world.

CMS X66C. Celebrity Culture.
Examines the importance of fame and celebrity throughout the nineteenth, twentieth, and twenty-first centuries, in relation to education, entertainment, and politics.

CMS X66D. Rhetoric of Horror.
A survey of horror studies keyed specifically to rhetorical issues, or the ways in which horror literature, cinema, and television influence people by rehearsing social problems in disguise.

CMS X66F. Rhetoric of Film.
Film theory and history taught from a rhetorical perspective. Covers the film industry, technology, and the elements of narrative, image, and sound. Emphasis on theory about film and film criticism.

CMS X66M. Rhetoric and Popular Music.
Explores music and its relation to identity; how gender, race, and sexual identity are constructed with and within musical texts; meanings and importance of authenticity; and the effectiveness of music as a political tool.

CMS X66R. Religious Communication and Paranormalism.
Explores secular and religious instances of ambivalence, and its uses and effects.

CMS X66S. Science Fiction and Communication.
Examine major concepts in science fiction, with an emphasis on science fiction film adaptation (from novel to screen). Explore theories of communication implied by science fiction.

CMS X67. Topics in Communication Studies.
CMS X67.1. Applied Interpersonal Communication.
CMS X67.10. Global Communication.
Explore a broad history of global connections, global policies, and legal frameworks. Develop global communication strategies and tactics. Examine intercultural communication, cultural humility, and cultural competence.
CMS X67.2. Campaign Communication.
CMS X67.3. Communication and Thought.
Investigates the emergence of collaborative thought from human communication.
CMS X67.5. Ethnography of Live Music in Austin.
Explores music and musicians in Austin, with a focus on ethnographic research through observation, interviews, analysis, and writing.
CMS X67.6. Pragmatism and Group Dynamics.
Explores how individual beliefs and expectations determine the quality of group communication.
CMS X67C. Topics in Corporate Communication.
CMS X67C.1. Corporate Identity, Image, and Reputation.
Examine the fundamental role that communication plays in corporate identity development, image creation, and reputation management, and how those interrelated constructs relate to various other organizational processes.
CMS X67C.2. Crafting Corporate Communication Messages.
Practice crafting a variety of professional messages that are clear, concise, audience-specific, and that effectively achieve their goal.
CMS X67C.3. Disaster and Crisis Communication.
Demonstrate how communicating and using appropriate technology make the difference in how people prepare, respond, and recover from disasters as well as how organizations manage crises.
CMS X67C.4. The Art of Meetings.
Discover how to participate in, plan, execute, and follow up to virtual and in-person meetings as a leader.
CMS X67G. Topics in Global Communication.
CMS X67I. Topics in Interpersonal Communication.
CMS X67I.1. Immigration and Communication.
Explore a range of immigration subjects and analyze literature from a social ecological framework to uncover the theoretical and practical implications of research on communication and immigration.
CMS X67I.2. Risk Communication.
Analyze areas such as risk assessment, risk perception, message design, media options, and barriers to effective risk communication. Consider how access to risk information, perceptions of risk, and reactions to risk messages vary depending on the audience.
CMS X67I.3. Dark Side of Interpersonal Communication.
Examine recent and noteworthy scholarship in the social scientific literature regarding the often-stigmatized processes of interpersonal/relational communication. Distinguish aspects of communication that are typically seen as dysfunctional, problematic, and destructive; aspects of communication that appear to be negative but also serve a function or produce desirable outcomes; and aspects of communication that are poorly understood or hidden in the shadows of other scholarly work.
CMS X67P. Topics in Political Communication.
CMS X67P.1. Social Media and Politics.
Explore how ordinary citizens, politicians, and activists engage with politics on social media platforms. Trace the effects such political engagement has on both the political landscape and the platforms themselves. Analyze how communication theories around self presentation, imagined audience, affordances, and identity shape political communication on social media.
CMS X67P.2. Social Media Analysis.
Analyze content on social media platforms using computational methods. Use the Python programming language to understand how individuals, companies, political campaigns, and social movements communicate using social media to advance their goals. Combine data collection, analysis, and visualization to develop insights using social media data.
CMS X67P.3. Dark Side of Political Rhetoric.
Survey the ways in which the figure of the devil has been invoked in cultural politics, beginning with Milton's Paradise Lost (1667) and concluding with the influence of QAnon conspiracy theory in present-day electoral politics.
CMS X67S. Topics in Strategic and Risk Communication.
CMS X67S.1. AI in Strategic Contexts.
Analyze the dynamic synergy between artificial intelligence (AI) and strategic communication; learn to harness AI technologies for more effective, forward-thinking messaging and story-telling initiatives.
CMS X67S.2. Sales Leadership and Technology.
Explore the core principles of sales leadership strategies and the vital role technology plays in driving sales success.
CMS X67S.3. Communicating Brands.
Introduce, advocate for, and build personal and professional brands.
CMS X67T. Topics in Sports Communication.
Examine sports communication through a focus on a specific athlete, case, era, issue, or problem.
CMS X70K. Internship in Communication Studies.
Internships to be arranged by student and approved by instructor. Focuses on career goals of students in communication positions with public and private organizations.
CMS X71D. Difficult Conversations.
Explores the interpersonal, social, and language factors that impact difficult conversations.
CMS X71K. Practicum in Conflict Mediation.
Provides hand on training and practice in conflict intervention techniques, including various forms of mediation, facilitation and dialogue.
CMS X71M. Communication Studies Internship.
CMS X72D. The Politics of National Memory.
Explores issues of power in our nation's capital. Students study Washington, DC via visits to sites around the city.
CMS X72K. Advanced Organizational Communication.
In-depth discussion and treatment of advanced organizational communication topics, including socialization and role development, workplace attachments, organizational culture, ethics, structure, conflict, power, decision making and empowerment, technology, and various forms of external communication with relevant organizational stakeholders.
CMS X72T. Time Matters.
An exploration of twentieth and twenty-first century time management issues resulting from the development of communication technologies. Subjects include the concept of twenty-four-hour, seven-day-a-week availability; information overload; increased work hours; sleep deprivation; hurry sickness; multitasking; the human experience of time across diverse social, cultural, and historical contexts; and other time-related issues that shape, and are shaped by, communication behaviors.
CMS X73D. Advocacy and Politics.
An introduction to the issues faced when advocating for an issue, idea, or one's self. The course aims to have students grasp concepts they will see and experience during their internship in Washington, DC.
CMS X77K. Faculty-Initiated Research.
Supervised research on a project designed by a faculty member.
CMS X78K. Student-Initiated Research.
Supervised independent research on a project initiated, designed, and implemented by the student. Student secures consent of a faculty member willing to supervise the project prior to registering.
CMS X79H. Honors Tutorial Course: Special Project.
The writing of a thesis or the presentation of a creative project; final comprehensive examination.

Graduate Courses

CMS X19S. Topics in Communication Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the appropriate College of Communication department. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CMS X29S. Topics in Communication Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Communication Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CMS X77K. Faculty-Initiated Research.
Supervised research on a project designed by a faculty member.

CMS X80E. Conference Course in Communication Studies.
Readings in the literature of communication studies designed to expand the graduate student's opportunity for individual consultation both in research and in informational aspects of the work.

CMS X83K. Communication Theory.
Survey of philosophical and language-based approaches to communication; theory construction, research practices, scholarly writing.

CMS X84K. Topics in Communication and Ethnography.

CMS X84K.3. Microethnography of Interaction.
Introduction to the study of details of human interaction: the moment-by-moment organization of speech and embodied communication; the roles of different media of communication, such as language, gesture, and space; the construction of context; uses of the material environment; and the distribution of information in collaborative work settings.

CMS X84K.4. Communication and Ethnography.
Studies the use of language and communication in ethnographic methods, data collected, and in final reports in a broad range of approaches such as observation and participant-observation, field notes, surveys, interviews of various kinds, textual analysis, and experimental interventions.

CMS X86H. Topics in Seminar in Health Communication.
Theory and research in health communication.

CMS X86H.1. Managing Health Information.
Introduction to research and theories that examine why and how people exchange, conceal, and otherwise interact with health-related information. Explores the antecedents, processes, and outcomes of communicating about matters of health and illness, with a focus on implications for personal well-being, relational quality, and public health.

CMS X86H.2. Interdisciplinary Seminar in Health Communication.
Exploration of the interdisciplinary nature of health communication from an ecological perspective, ranging from intra-personal and interpersonal factors through the roles of populations and policies. Examination of the contributions to health communication from diverse disciplines including healthcare, public health, communication, and psychology. Explores issues related to research, practice, leadership, and partnerships.

CMS X86H.3. Communicating with Patients.
Examine communication research, theory, and skill development relevant to health provider and patient encounters of all kinds.

CMS X86K. Topics in Theories of Interpersonal Communication.

CMS X86K.1. Interpersonal Communication Theory.
Exploration of theoretical perspectives such as general systems theory; symbolic interactionism; rules theory; theories of language and nonverbal coding; theories of meaning; theories of information processing; and theories of persuasion. Theories pertinent to interpersonal, group, and mass interaction.

CMS X86K.4. Discourse Analysis.
Examines similarities and differences in the main kinds of discourse analysis and their basic assumptions and typical questions. Designed to develop skills at examining a piece of text or lecture to produce persuasive scholarly analysis.

CMS X86L. Topics in Group Communication.

CMS X86L.1. Group Communication Processes.
Study of theory and research in the dynamics of small groups, with emphasis on the interaction of message variables with other variables such as leadership, affiliation, cohesiveness, and social power.

CMS X86L.3. Communicating in Groups and Teams.
Focuses on the concepts and theories of communicative processes in task-oriented groups and work teams. Readings cover theory and research related to communication problems, dynamics, and practices in group and team settings. May also include the study of team development, decision making, and trends in group communication research.

CMS X86N. Topics in Research in Communication Studies.

CMS X86N.1. Quantitative Research Methods.
Broad coverage of social scientific techniques for collecting and analyzing communication data; includes measurement, design, and other areas. Some sections focus on organizational research.

CMS X86N.2. Qualitative Research Methods.
The use of observational and interviewing research techniques for studying human communication.

CMS X86P. Topics in Issues in Interpersonal Communication.

CMS X86P.1. Nonverbal Communication.
Current theory and research in such areas as involvement and intimacy, gender, touch, space, environment, nonverbal behavior in children, appearance, and lying. Various methods and measurement techniques for assessing eye gaze, body motion, facial actions, vocal signals, and multichannel events.

CMS X86P.10. Stress and Coping.
Exploration of how people interact with each other and with their environments during times of change and stress, including the emotions, cognitions, and behaviors that occur when people talk about upsetting or traumatic events and circumstances.

CMS X86P.11. Advocacy.

CMS X86P.12. Language, Persuasion, and Social Influence.
Examine how people employ and exploit linguistic precision, flexibility, and creativity in the service of influencing the beliefs and attitudes of others.

CMS X86P.5. Negative Interpersonal Communication.
An overview of negative features of communication in interpersonal relationships. Examines avoidance, secrets, conflict, relational transgressions, negative emotions, and aggression and abuse.

CMS X86P.6. Dark Side of Interpersonal Communication.
Provides an overview of issues related to the "dark side" of communication in interpersonal relationships. Subjects include undesired features of interpersonal relationships, seemingly productive communication patterns that are dysfunctional, as well as seemingly destructive patterns that are functional.

CMS X86P.7. Stereotyping and Prejudice in Interpersonal Communication.
Examines problems posed by stereotyping and prejudice in interpersonal communication, and the research and theory aimed at reducing their impact. Designed to provide opportunities to seek constructive ways of defining and addressing stereotyping and prejudice; emphasis on recent research in the formation, maintenance, and application of stereotypes.

CMS X86P.8. Metaphor in Communication.
Examines the conceptual structure and expressive forms of the metaphor. Includes the study of classical and contemporary treatment of metaphor in linguistics, philosophy, and rhetoric. Also includes

recent social scientific research on the use of figurative devices, such as metaphor, analogy, idiom, hyperbole, and euphemism, in strategic communication, specifically in managerial communication, political speeches, and religious discourse.

CMS X86P.9. Perspective Taking.

Examines social scientific research and theories that illuminate human ability to understand or adopt the perspective of others.

CMS X86R. Topics in Issues in Relational Communication.

CMS X86R.1. Communication in Relationships.

Theories of development and change; research methods; relationship types; gender and roles; emotion; self-disclosure; secrets; lying; compliments; conflict; complaints; persuasion; dissolution processes; rejuvenating, repairing, and maintaining relationships.

CMS X86R.2. Family Communication.

Communication and attraction, courtship, marriage, the role of children in the marital relationship, sibling relationships, the effect of spouses' occupations on the family, and dysfunctional families.

CMS X86S. Communication, Cognition, and Emotion.

The cognitive elements involved in social interaction, such as memory, comprehension, plans, decision making, and schemas.

CMS X88C. Doctoral Comprehensive Examination Preparation.

Research and reading in preparation for doctoral comprehensive examinations in communication studies.

CMS X89C. Topics in Seminar in Peace and Conflict.

A survey of the literature and research in the communication of peace and conflict.

CMS X89C.1. Conflict and Communication.

Focus on the relationships between social structures and communication as they relate to conflict. Explores research on interpersonal conflict, theory and research on intercultural/-social communication, identity, and language. Analyze how gender, race, culture, region, age, class & sexual orientation, national identities, and so on are developed & reflected in communication.

CMS X90M. Topics in Seminar in Language, Culture, and Interaction.

CMS X90M.2. Intercultural Communication.

A selective and critical overview of current approaches to intercultural communication in disciplines such as communication studies, sociology, sociolinguistics, conversation analysis, and anthropology.

CMS X90M.3. The Body in Communication.

Exploration of embodied interaction as 'intercorporeality' and provides students with a methodology for research on bodily practices of communication and social action.

CMS X90M.4. Conversation Analysis.

The foundations of an interaction-based understanding of language. Texts reflect the evolution of the conversation-analytic paradigm of interaction and language study, and students explore the core organizations that conversation analysts have investigated: turn-taking, repair, turn-construction/action-design, recipient-design, and others.

CMS X90M.5. Language.

Introduction to the evolution, structure, and cultural foundations of human language, grounded in advanced contemporary work in anthropology, communication studies, and linguistics.

CMS X90M.6. Analyzing Embodied Communication.

Exploration of embodied interaction as 'intercorporeality' and provides students with a methodology for research on bodily practices of communication and social action.

CMS X90N. Topics in Political Discourse.

CMS X90N.2. Rhetoric of Social Movements.

Philosophies, strategies, and effects of modern sociopolitical and religious movements designed to produce change.

CMS X90N.3. Campaign Communication.

An introduction to research surrounding the actors and texts of political campaigns. Covers voters, candidates, consultants, new constituencies, advertisements, debates, speeches, news coverage, party conventions, and new media environments. Focuses on how political discourse affects political life in the United States.

CMS X90N.4. Politics, Media, and Society.

Examines political life in the United States in relation to television and new media.

CMS X90N.5. Politics, Media, and the Individual.

Current research and theory in the area of media and politics with particular emphasis on individual-level effects.

CMS X90N.6. Communication and Public Opinion.

Explores questions concerning communication, the media, and public opinion. Theoretical and empirical research from sociology, political science, social psychology, and mass communication may be discussed.

CMS X90N.7. Political Language.

Explore an overview of political language, including questions such as: What makes political language "political?" Has such language changed in character over time? Do political styles differ from culture to culture? Do the mass media change how politicians talk? How are social media affecting citizens' patterns of political engagement?

CMS X90N.8. Social Media Effects.

Examine the effects of social media on society, with a particular emphasis on social media's political effects, the empirical evidence, newer methodologies, and what we know and do not know.

CMS X90P. Topics in Rhetorical Theory.

CMS X90P.1. Contemporary Rhetorical Theory.

Investigation of recent definitions, issues, and trends in rhetorical theory, with emphasis on the philosophical bases of rhetoric and the relationship of rhetoric to other disciplines.

CMS X90P.10. History of Communicative Inquiry.

Explore the conceptual and disciplinary history of "the object" of a given academic field and the various ways in which subjects have conceived of the object, from the "reason" of philosophers to what counts as knowledge in the humanities and social sciences.

CMS X90P.11. Decolonizing Communication.

Explore advanced readings in rhetorical theories on decoloniality, postcolonial theory, globalization, modernity, race, ethnicity, gender, class, and sexuality.

CMS X90P.4. Burke and Symbolic Form.

Covers a selection of books by rhetorical theorist Kenneth Burke, as well as books and articles by recent scholars that use his ideas.

CMS X90P.5. Foundations of Rhetorical Theory.

Examines historical writings about rhetoric in the Western tradition, up through the Enlightenment. Covers various important figures in the history of rhetoric, including Plato, the sophists, Aristotle, Cicero, Quintilian, Augustine, Christine de Pizan, Vico, and Ramus.

CMS X90P.6. Rhetoric of Style.

A consideration of social style, including dress, entertainment, vehicles, and living arrangements as a system of communication. Special emphasis on the expressive and practical functions of such symbolic displays.

CMS X90P.7. Rhetoric and Ideology.

Explores Marxist contributions to rhetorical theory and criticism, with emphasis on ideology and hegemony.

CMS X90P.8. Rhetoric of Publics and Counterpublics.

Investigation of the role of rhetoric in public life in capitalism in history and today. Covers the roles of rhetoric and rhetorical criticism in the production and maintenance of publics, and discusses the formation and activities of social movements.

CMS X90P.9. Narrative, Myth, and Rhetoric.

Engages two important and interrelated areas of study in rhetoric: narrative and myth. Explores the psychological foundations of myths, how mythic criticism might proceed, as well as critiques of mythic criticism from a variety of disciplines.

CMS X90R. Topics in Seminar in Rhetorical Criticism.

CMS X90R.1. Basic Rhetorical Criticism.

Elementary methods of analyzing public discourse, including the ways and the reasons that rhetorical analysis is attempted.

CMS X90R.10. Theories of Subjectivity.

Survey of contemporary theory with attention to subjectivity. Authors may include Alain Badiou, Judith Butler, Jodi Dean, Gilles Deleuze, Rene Descartes, Michel Foucault, Immanuel Levinas, Karl Marx, Friedrich Nietzsche, and Slavoj Zizek.

CMS X90R.2. Advanced Rhetorical Criticism.

Survey of six popular schools of thought, including dramatism, Marxism, and structuralism, and their implications for textual analysis.

CMS X90R.3. Feminist Theory and Rhetorical Criticism.

In-depth consideration of the premises underlying American and European feminism and the effects of such premises on critical experience. Special attention to the ways contemporary texts become gendered.

CMS X90R.4. Rhetoric and Popular Culture.

Survey of the ways film, television, popular literature, and consumer culture influence our attitudes and values. Consideration of a wide variety of contemporary theorists as well as experience in analyzing contemporary textual artifacts.

CMS X90R.6. The Object.

Investigation of conceptual and disciplinary anxieties about the object of speech in relation to the history of communication studies, and the deliberate jettisoning of the object in relationship to the history of cultural studies.

CMS X90R.7. The Subject.

Survey of contemporary theory with attention to subjectivity. Authors may include Alain Badiou, Judith Butler, Jodi Dean, Gilles Deleuze, Rene Descartes, Michel Foucault, Immanuel Levinas, Karl Marx, Friedrich Nietzsche, and Slavoj Zizek.

CMS X90R.8. Idiom of Haunting.

Examines haunting as a central experience of modern subjectivity rooted in the ontotheological concept of communication. Explores, through the idiom of haunting and ghosts, how the arrival of postmodernity (particularly in respect to mass media technology) has altered how we think about communication and subjectivity in both popular and scholarly ways.

CMS X90R.9. Rhetoric and Psychoanalysis.

A survey of the various schools of psychoanalysis, and the ways scholars have related psychoanalysis to the object of rhetoric.

CMS X90S. Topics in Seminar in Organizational Communication.

CMS X90S.1. Narrative Communication in Organizations.

Current theories of narrative and their applications to organizations. Topics include gossip, day-to-day news, and dramatic enactments of organizational communication.

CMS X90S.10. Survey of Organizational Communication.

Explores contemporary issues and processes in organizational communication. Graduate students summarize research and conduct original research in an organization.

CMS X90S.11. Measurement Workshop: Scale Development and Instrument Design.

Provides in-depth instruction on issues related to scale development and questionnaire design, ranging from establishing validity to increasing response rate.

CMS X90S.12. Engaged Communication Scholarship.

Explore the theories and methods helpful during engaged research projects. Includes practical theory (e.g., action research, communication design, grounded practical theory) and research methods common to consulting and engaged scholarship (e.g., ethnographic interviewing, survey design, organizational shadowing, and natural experiments).

CMS X90S.13. Disaster Communication and the Future.

Examine foundational interdisciplinary theories and meaningful community involvement to reveal the pivotal role communication, organizing, and technologies play in disasters, crises, and emergencies.

CMS X90S.2. Power and Politics in Organizational Communication.

The communication implications of sociological and managerial approaches to the study of power and politics, with emphasis on ideas about structure, culture, ideology, information, conformity, voice, and dissent.

CMS X90S.6. Social Network Analysis.

Focus on quantitatively and qualitatively mapping and measuring the connections, relationships, and flows between entities, such as individuals, teams, groups, organizations, and other information sources.

CMS X90S.7. On Time.

Introduction to the field of chronemics, the study of time as it is bound with communication, via a broad survey of literature across several disciplines. A range of contemporary communication challenges, as well as opportunities for positive communication and organizational scholarship will be interrogated.

CMS X90S.8. Communicating Knowledge.

A broad range of theoretical approaches and empirical research related to the communication of knowledge, including the study of both organizations and processes of organizing among workers. Subjects include: communities of practice, boundary objects, innovation, knowledge management, transactive memory, expertise, and ICT use.

CMS X90S.9. Health, Safety, and Technology in Organizations.

Examination of the theoretical and empirical research that bridges between organizational, health, and emergency communication with a focus on the role technology plays in these contexts.

CMS X90T. Topics in Organizational Communication Theory.

CMS X90T.2. Organizational Communication: Macro.

An introduction to selected macro-level or systemic variables in organizations, such as structure, technology, and environments, and to the ways these variables relate to organizational communication processes.

CMS X90T.3. Postmodern Organizational Communication Theory.

An attempt to integrate the concern in cultural studies for structure with the stream of organizational theory that focuses on chaos. Readings include Clifford and Markus, Clifford, Deleuze and Guattari, March and Olsen, Weick.

CMS X90T.4. Foundations of Organizational Communication Theory.

Introduction to the major approaches of understanding organizational communication. Examines the theoretical background and analytic skills to navigate tensions among varied approaches at micro-and-macro-levels; explores contemporary scholarship in organizational communication research in a historical context.

CMS X90T.5. Careers: Theory and Practice.

Examination of the current interdisciplinary definitions, theories, and practices regarding careers and work in contemporary society. Addresses subjects such as employability and/or entrepreneurship, the effect of contemporary technologies, internal/subjective v external/objective success, and work/life balance.

CMS X90U. Consultation in Organizations.

A review of social science literature and its application to problem solving and organizational development in field settings.

CMS X92P. Topics in Seminar in Communication Technology.

CMS X92P.3. Communication in Virtual Groups.

Examines how people think, feel, and communicate in geographically distributed groups using new technologies. Covers impression formation, impression management, anonymity and social identity, group norms,

liking, conformity, trust, conflict, building common ground, and social influence processes.

CMS X92P.4. Communication Technology Use in Organizations.
Examines the theoretical and empirical work on the communicative functions of technology in the workplace.

CMS X92P.5. Computer-Mediated Communication Models and Methods.
Examines the theoretical and methodological assumptions of computer-mediated communication research. Topics include online impression formation and impression management, online romantic relationships, digital deception, online identity shift effects, and the effects of perceived anonymity when using new communication technologies.

CMS X92P.6. Grant Writing in Communication.
Discussion of the grant writing process, including reviewing actual grant proposals for analysis and critique.

CMS X95C. Topics in Strategic Communication.
Analyze strategic communication issues.

CMS X95C.1. Persuasion, Advocacy, and Social Influence.
Examine research and theory on interpersonal influence--what it takes to successfully persuade others in personal and organizational environments.

CMS X95C.10. Crisis Communication.
Examine frameworks through which crises may be addressed by leaders and members of groups, organizations, and communities by using past crises as case studies.

CMS X95C.11. Conflict and Negotiation.
Explore conflict, negotiation, and mediation with respect to interpersonal, group, organizational, and community contexts, with a focus on political conflict, its systemic causes, and possible solutions.

CMS X95C.12. Leadership in the Social World.
Examine how to lead in the social media age. Explore creating compelling content, developing a distribution strategy, using social media to guide decision making, driving social media use, and enabling a supportive infrastructure.

CMS X95C.13. Media, Messaging, and Perceptions.
Explore how communication and media contribute to representations and assumptions about social groups. Analyze messaging, power dynamics, and identity to develop more accurate and responsible communication practices.

CMS X95C.2. The Art and Science of Social Media.
Examine how to effectively engage with social media as both a consumer and an individual producer or creator. Explore personal brand identity, theories of human behavior and media consumption, and the rapidly changing media environment.

CMS X95C.3. Communicating for Careers.
Examine the current theories and practices regarding careers in communication. Create content for a portfolio in areas of interest as a resource for future employment.

CMS X95C.4. Team Building.
Explore how to foster effective teams through communication interventions.

CMS X95C.5. Resisting Stereotyping and Prejudice.
Examine problems posed by stereotyping and prejudice in communication and evidence-based research aimed at reducing their impact. Explore opportunities to seek constructive ways of identifying, defining, and addressing stereotyping and prejudice while engaging in communities.

CMS X95C.6. Personal Identity Branding.
Examine the skills and content involved in positioning individuals as experts or leaders in their field, increasing their credibility, distinguishing them from others, and expanding their circle of influence.

CMS X95C.7. Social Media Strategies.
Examine content creation, management of followers, and critical consumption of messages on social networks.

CMS X95C.8. Managing Change through Communication.
Explore strategies for creating, controlling, and adapting to change in organizations and groups. Examine how to deal with transformations in an organization's or group's goals, processes, or members.

CMS X95C.9. Communication and Leadership.
Examine leadership styles, predictors of effective leadership, and outcomes related to leadership in different contexts. Explore how to generate clear, persuasive messages and connect with audiences.

CMS X95M. Capstone in Strategic Communication.
Pursue the research interests and skills developed in other communication classes in-depth.

CMS X95S. Topics in Sport Communication.
Analyze issues in sports communication.

CMS X95S.1. Sports Audio and Video Storytelling.
Examine the skills needed to produce audio and video packages used on radio, long-form podcasting, and broadcast and digital sports journalism. Explore techniques used to tell a story with an audio or video narrative.

CMS X95S.2. Political and Crisis Communication in Sports Media.
Examine frameworks through which crises may be addressed by athletes, coaches, teams, and leagues by using past crises as case studies. Explore the role of athlete activism.

CMS X95S.3. Negotiation in Sports.
Explore negotiating philosophies, strategies, and tactics while developing negotiating skills during role-playing negotiations.

CMS X98. Thesis.

CMS X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

CMS X98T. Supervised Teaching in Communication Studies.
Teaching communication studies under supervision.

CMS X99W. Dissertation.

Professional Courses

CMS X19S. Topics in Communication Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the appropriate College of Communication department. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CMS X29S. Topics in Communication Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Communication Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CMS X77K. Faculty-Initiated Research.
Supervised research on a project designed by a faculty member.

COE - Computational Engineering

Computational Engineering: COE

Lower-Division Courses

COE X01. Introduction to Computer Programming.
Basic computer programming concepts applied to engineering computations. Development of structured solutions to engineering and mathematical problems and an understanding of coding practices. Programming in MATLAB and C++.

COE X11K. Engineering Computation.
Fundamental numerical methods and software tools used in engineering computation. Subjects include linear systems of equations, matrix computations, nonlinear equations, least squares approximations,

interpolation, numerical integration and numerical solution of differential equations.

COE X19. Topics in Computational Engineering.

COE X19S. Topics in Computational Engineering.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Aerospace Engineering and Engineering Mechanics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

COE X21K. Computational Methods for Structural Analysis.

Matrix structural analysis of systems that can be idealized as being comprised of axial bar elements, beam elements, and frame elements. Notion of element-by-element assembly of the governing system of algebraic equations. A systematic introduction to (and use of) the fundamental idea of a weak statement of a boundary value problem, particularly as concerns the numerical treatment/approximation of such problems. Interpretation of the weak-statement in terms of the principle of virtual work. Galerkin's method as applied to structural analysis. An introduction to the classical Galerkin finite element method with application to structures and plane elasticity. Energy principles and their utility in solving problems in solid mechanics, as well as their connection to the finite element method.

COE X22. Scientific Computation.

Explores the basic tools needed for developing scientific computing software. These include advanced programming languages (e.g. C, C++, python), object oriented programming and data structures. Subjects may include abstract data types; creation, initialization, and destruction of objects; class hierarchies; polymorphism, inheritance and dynamic binding; generic programming using templates, linked lists, queues, stacks, trees and algorithms such as searching, sorting, and hashing.

COE X29S. Topics in Computational Engineering.

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's International Engineering Education Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Aerospace Engineering and Engineering Mechanics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.

COE X32. Software Engineering and Design.

Covers methods and tools for planning, designing, implementing, validating and maintaining large software systems. May include project work to build a software system as a team, using appropriate software engineering tools and techniques.

COE X47. Introduction to Computational Fluid Dynamics.

Development and implementation of finite-difference schemes for numerical solution of subsonic, transonic, and supersonic flows. Emphasis on convection and diffusion equations of fluid dynamics. Evaluation of accuracy, stability, and efficiency.

COE X52. Topics in Advanced Scientific Computations.

Topics in advanced numerical methods and scientific computation. Subject matter may vary.

COE X62. Engineering Probability and Statistics.

Introduction to mathematical representations and computations to qualitatively and quantitatively describe data, compare data, ascribe distributions to apparent patterns and structure in data via inference methods. Describe and model discrete and continuous random variables.

COE X71. Applied Mathematics I.

Subjects include real analysis of functions of one variable, linear operator theory, and ordinary differential equations.

COE X72. Applied Mathematics II.

Subjects include elements of complex analysis, Fourier and Laplace transforms, partial differential equations, perturbation methods, analysis of functions of several variables.

COE X74. Senior Design Project.

Design projects from multiple engineering disciplines done with teams of students, using computational methods for analysis and experimental data for validation; ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects.

COE X74D. Computational Systems Senior Design I.

Introduction to computational systems engineering: the systems engineering process, requirements, design fundamentals, trade studies, cost and risk analyses, integration, technical reviews, case studies, and ethics. Produce written reports and oral presentations.

COE X74E. Computational Systems Senior Design II.

Produce design projects from multiple engineering disciplines done in teams, using computational methods for analysis and experimental data for validation; ethics of design for safety and reliability; and with emphasis on written and oral reporting of engineering projects.

COE X79H. Undergraduate Honors Thesis.

Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. Entails an oral presentation and a written thesis.

COE X79K. Research in Computational Engineering.

Directed study or research in a selected area of computational engineering.

COE X79L. Topics in Computational Engineering.

Current topics in computational engineering.

COE X79L.1. Introduction to Machine Learning and Data Sciences.

Focus on algorithms, mathematics, implementations (on Scikit-learn), and real-life applications of machine learning and data sciences including machine learning algorithms such as supervised learnings (linear models, support vector machines, kernel methods, tree-based algorithms), unsupervised learnings (Density estimation, clustering, dimensionality reduction, PCA), and deep neural networks. Explore the foundations of machine learning including optimization, probability, advanced linear algebra, statistics, and methods to evaluate machine learning methods.

COE X79L.2. Simulation-based Aerodynamic Design and Analysis.

COE X79L.3. Computational Methods.

Examine basics of vectors and matrices, linear equations, regression and classification, similarity measures, the Discrete Fourier Transform (DFT), linear filters, and power spectrum estimates. Focus on applying matrix methods to practical applications, such as tomography, image processing, data fitting, time series prediction, optimal control, finance, and machine learning. Utilize MATLAB or Python to do computations with vectors and matrices and run numerical experiments with real-world data sets.

COE X79L.4. Fundamentals and Geophysical Applications of Imaging Radar Systems.

Explore how radar images are formed and manipulated, as well as applications of the systems to problems such as measurement of the Earth crustal deformation. Focus on radar as a signal processing problem, radar image formation and radar interferometry. Discuss system design, scattering from natural surfaces, range and azimuth processing algorithms, and processor design.

COE X79L.5. Biomechanics of Tissues, Scaffolds, and Cells.

COE X79L.6. Software Design for Responsible Intelligent Systems.

Discuss the design, implementation, operation, and assurance of intelligent software systems based on data intensive computing

and machine learning techniques. Utilize real-world datasets from engineering disciplines.

COE X79L.7. Parallel Computing for Science and Engineering.

Explore fundamentals of parallel programming for scientific and engineering applications. Examine the study of general parallel computing principles, including asymptotics; current computer architectures and how parallelism manifests itself in them.

Graduate Courses

Professional Courses

COM - Communication

Communication: COM

Lower-Division Courses

COM X01C. Freshman Seminar.

Small-group seminar involving reading, discussion, writing, and oral reports. Introduction to University resources, including libraries, computer and research facilities, and museums. Several sections are offered each semester, with various topics and instructors.

COM X01E. Introduction to Communication Foundations.

Introduction to the various communication fields and their key concepts and axioms. Includes multicultural communication, global communication, media literacy, and social media.

COM X01L. Introduction to Communication and Leadership.

Introduces the study of leadership with an emphasis on communication dimensions and interdisciplinary understanding of social problems. Serves as a foundation for subsequent coursework in the areas of communication and leadership.

COM X02. Introduction to Health Communication.

Covers contemporary issues in health communication theory and practice with an emphasis on interdisciplinary perspectives.

COM X02E. Interdisciplinary Communication Foundations.

Explore in greater depth the concepts that connect and unite diverse areas of communication theory and practice.

COM X03. Introduction to Contemporary Media Literacy.

Offers an introduction to media literacy, which enables us to create and critique contemporary media, and explores the expanding nature of literacy in a digital world with particular focus on its role in social and political contexts.

COM X04. Global Communication.

Introduces the subject of global media and communication as significant industries, texts, and technologies that contribute to our cultural identities, social worlds, political practices, and economic consequences.

COM X05. Beyond the Bridge.

Provides an overview of the concepts involved in career decision-making and the career planning process.

COM X06. Introduction to Communication Research Methods.

An introduction to quantitative and qualitative designs, sampling, measurement, data collection, and analytic procedures in communication research.

COM X07. Overview of Social Justice and Media.

An introduction to the communication of social justice, especially through the lens of nonfictional and fictional media.

COM X07H. Life of the Mind: Honors.

A guided experience in critical thinking and discussion based on consideration of cross-disciplinary modes of inquiry to probe big questions about knowledge, meaning, and communication throughout history.

COM X08. Creative Communication of Scientific Research.

Learn to communicate about science, technology, and medicine to broad audiences in order to increase understanding of the impact these fields have on human lives.

COM X08H. Life of Community: Honors.

Considers the social responsibilities of intellectual leadership and the role of communication in a world characterized by political divisions, varieties of inequality, and global challenges to health and sustainability.

COM X10. Topics in Texas Sports and Media.

Introduction to various contemporary and historical issues, emphasizing interdisciplinary perspectives and critical discourse.

COM X10.1. Soccer: The Culture and Politics of the World Cup.

As the world's most popular sports event prepares to dominate television screens, social media timelines, and town squares around the globe, examine the cultural footprint of the quadrennial gathering and its impact on the sporting world and society as a whole. Review the cultural and political history of the World Cup and will follow the tournament toward its conclusion.

COM X10H. Honors Pathway.

Complete program criterion, including capstone or thesis information session attendance, required form submissions, and other criteria as assigned.

COM X12. First-year Seminar.

Introduction to campus an college resources for first-year students. Supports the Moody foundations courses.

COM X13. Success Scholars Seminar.

Introduction to Moody resources and exploration of skills such as managing finances, navigating the scholarship application and preparing for a career. Build community among Moody Success Scholars.

COM X14. Special Topics in Communication.

Contemporary issues and practices in communication.

COM X15. Topics in Leadership and Communication.

Contemporary issues, practices, and skills related to leadership and communication.

COM X16. Photographic Communication.

Introduction to photographic technique and recent trends, evaluation, visual design, and use of images in the media. Students must provide their own digital 35-mm format camera.

COM X17. Special Topics in Communication.

Contemporary issues and practices in communication.

COM X18. Special Topics in Communication.

Contemporary issues and practices in communication.

COM X18C. Topics in Forum Seminar Series.

Lectures and discussions on various contemporary issues. Emphasis on multidisciplinary perspectives and critical discourse.

COM X19. Topics in International Learning Seminars.

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.

COM X19S. Topics in Communication.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Communication Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

COM X29S. Topics in Communication.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the appropriate College of Communication department. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

COM X15. Topics in Leadership and Communication.
Contemporary issues, practices, and skills related to leadership and communication.

COM X19S. Topics in Communication.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Communication Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

COM X20. Advanced Topics in Texas Sports and Media.
Critical assessment of various contemporary and historical issues, emphasizing interdisciplinary perspectives.

COM X20L. Seminar on Communication and Leadership.
Builds on the foundation introduced in Communication 301L, advancing student work in theories, processes, and practices of leadership and communication.

COM X21. Communicating Social Justice Capstone.
Produce content incorporating practical and theoretical understandings of media's role in promoting and/or obstructing social justice.

COM X23. Topics in Communication Internship.
Practical work experience, arranged by the student and approved by instructor.

COM X23.1. Sports Media Internship.

COM X23.2. Social Change Internship.

COM X23.3. Global Experience Internship.

COM X23.4. Science Communication Internship.

COM X24. Topics and Skills in Communication.
Contemporary issues, practices, and skills related to communication and the entertainment industries, including studies in the business of entertainment, the creative process, and contemporary Hollywood cinema.

COM X24.1. Semester in Los Angeles: How Hollywood Works.
Explores the commercial challenges that face producers and network and studio executives, and addresses the continual struggle between creativity and the bottom line. Taught in Los Angeles, California.

COM X24.2. Semester in Los Angeles: Development Process of Film and Television.
Examines the development process in both film and television; preparing pitches, coverage, and development notes; identifying strengths and weaknesses of literary material typical of that submitted to studios, networks, and production companies. Taught in Los Angeles, California.

COM X24.3. Semester in Los Angeles: Inside the Music Industry.
Examine how the music industry really works, how it relates to other divisions of the entertainment industry, and the effects that changing technologies have on it.

COM X24.4. Semester in Los Angeles: New Media and Emerging Entertainment.
Explores burgeoning areas of digital entertainment including broadband, video-on-demand, interactive television, mobile entertainment, and interactive digital gaming. Taught in Los Angeles, California.

COM X24.5. Careers in Entertainment-Los Angeles.
Explores specific career interests with a focus on skills, experience, training, and contacts that are required in Los Angeles. Taught in Los Angeles, California.

COM X24C. Fundamentals of Business Communication.
Explore strategic business communications skills, including effective oral, written, and digital communication, across diverse audiences, presentations, and document types. Examine audience analysis, basic communication theory, interpersonal communication, and teamwork.

COM X24H. Introduction to Business Communication: Honors.
Explore strategic business communications skills, including effective oral, written, and digital communication, across diverse audiences, presentations, and document types. Examine audience analysis, basic communication theory, interpersonal communication, and teamwork.

COM X24M. Introduction to Business Communication.
Explore strategic business communications skills, including effective oral, written, and digital communication, across diverse audiences, presentations, and document types. Examine audience analysis, basic communication theory, interpersonal communication, and teamwork.

COM X25. Topics in Leadership and Communication.
Contemporary issues, practices, and skills related to leadership and communication.

COM X25S. Topics in Sports Media.
Special topics in the role and convergence of sports and the media.

COM X25S.1. Sports, Media, and the Integration of American Society.
Role and convergence of sports, entertainment, and the media in American society and culture from Reconstruction through the present, including the role of institutions in these categories and their relationship to the integration of American society.

COM X26. Independent Study.
Pursue special supervised individual research studies.

COM X27. Independent Study in Social Justice.
Pursue special supervised individual research studies in social justice.

COM X29. Topics in International Learning Seminars.
Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.

COM X29S. Topics in Communication.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the appropriate College of Communication department. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

COM X30. Research in Texas Sports and Media.
Supervised research with a faculty member; research may consist of an individual project or assisting a faculty research project.

COM X30H. Honors Capstone.
Independent project agreed upon by the student and instructor, includes a variety of approaches in a variety of media, from creative work, to campaign planning and implementation, research papers, long-form journalism, community engagement, and service learning initiatives.

COM X31. Health Communication: Theory, Practice, and Innovation.
Explore contemporary issues in health communication theory and practice with an emphasis on interdisciplinary perspectives.

COM X33T. Communication and Engineering Careers.
Study foundational communication skills associated with a successful engineering career, aiding in preparation for career fairs and interviews, communicating with non-technical audiences, diversity and inclusion, and teamwork.

COM X34. Special Topics in Communication.
Contemporary issues and practices in communication.

COM X35. Special Topics in Communication.
Contemporary issues and practices in communication.

COM X36. Special Topics in Communication.
Contemporary issues and practices in communication.

COM X40. Leadership and Urban Engagement.
Explore leadership skills and goals in the urban context. Read and discuss leadership challenges that arise when stakeholders come

together to plan, make decisions, and take action in organizational and community settings.

COM X40H. Honors Reflection.
Reflect on the honors experience.

COM X50. Communication Internship.
Internships to be arranged by student and approved by instructor.

COM X50L. Semester in Los Angeles Internship.
Practical work experience in the entertainment industry in Los Angeles. Students must make their own arrangements to secure relevant internships.

COM X51L. Internship in Communication and Leadership.
Practical work experience related to the practice of ethical leadership and communication with a non-profit community, or philanthropic organization.

COM X60H. Independent Study: Honors.
Pursue special supervised individual research studies.

COM X61. Advanced Communication Research Design.
Advanced studies in quantitative and qualitative designs, sampling, measurement, data collection, and analytic procedures in communication research.

COM X70. Advanced Topics in Communication.

COM X70H. Topics in Advanced Communication Studies: Honors.
Special topics for students in the Moody College of Communication Honors Program.

COM X70L. Capstone Course in Communication and Leadership.
Engagement in experiential learning. Development and presentation of ideas and plans for addressing a leadership challenge given by a partner organization.

COM X79. Advanced Communication Internship.
Practical work experience related to the student's area of interest in the communication field.

COM X79C. Undergraduate Thesis.
Write and research two consecutive semesters under the supervision of a College of Communication faculty member; subjects are selected by the student with approval from the faculty member.

COM X79H. Honors Thesis.
Write and research two consecutive semesters under the supervision of a College of Communication faculty member; subjects are selected jointly by the student and the faculty member with approval by the director of the Honors Program.

Graduate Courses

COM X15. Topics in Leadership and Communication.
Contemporary issues, practices, and skills related to leadership and communication.

COM X19S. Topics in Communication.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Communication Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

COM X29S. Topics in Communication.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the appropriate College of Communication department. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

COM X81. Topics in Seminar in Communication.
Communication in a pluralistic society; nature of theory development; state of communication theory; conceptual models; sources of communication theory: semantic, linguistic, perceptual, sociological; information theory.

COM X85. Topics and Skills in Communication.
Contemporary issues, practices, and skills related to communication.

COM X88C. Science Communications Seminar.
Professional development supplemental to primary studies. Designed to develop skills in the effective communication of scientific concepts.

COM X88D. Science Communications Practicum.
Professional development supplemental to primary studies. May be taking concurrently with the Science Communication Seminar. Opportunities to focus on skill development while receiving constructive assessment and evaluation.

COM X98T. Supervised Teaching in Communication.

Professional Courses

COM X15. Topics in Leadership and Communication.
Contemporary issues, practices, and skills related to leadership and communication.

COM X19S. Topics in Communication.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Communication Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

COM X29S. Topics in Communication.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the appropriate College of Communication department. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CON - Conducting

Conducting: CON

Lower-Division Courses

Upper-Division Courses

Graduate Courses

CON X80. Graduate Course in Performance: Advanced Conducting.

CON X80K. Master's Conducting: Chorus.

CON X80S. Master's Conducting: Orchestra.

CON X80W. Master's Conducting: Band.

CON X90. Advanced Graduate Course in Performance: Advanced Conducting.

CON X90K. Doctoral Conducting: Chorus.

CON X90S. Doctoral Conducting: Orchestra.

CON X90W. Doctoral Conducting: Band.

Professional Courses

CRP - Community and Regional Planning

Community and Regional Planning: CRP

Lower-Division Courses

CRP X01Q. Topics in Community and Regional Planning.

CRP X19S. Topics in Community and Regional Planning.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Architecture. University credit is awarded for work in an

exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

CRP X20Q. Topics in Community and Regional Planning.

CRP X29S. Topics in Community and Regional Planning.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Architecture. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CRP X69K. Principles of Physical Planning.

Introductory course in the physical dimension of urban planning.

Graduate Courses

CRP X80F. Topics in Foundations of Planning.

Conceptional foundations of community and regional planning.

CRP X80F.1. Planning History, Theory, and Ethics.

CRP X80F.2. Foundations of Planning Law.

CRP X80F.3. Public Economics and Finance.

CRP X80Q. Topics in Community and Regional Planning.

CRP X80W. Topics in Disaster Recovery.

CRP X81M. Topics in Foundational Methods in Planning.

CRP X81M.2. Qualitative and Participatory Methods.

CRP X81Q. Quantitative Methods.

CRP X82C. Topics in Physical Planning and Design.

Subjects may include place-making, landscape and urban design, and physical planning and design at the national, regional, or local level.

CRP X82C.1. Urban Design Practice.

CRP X82C.10. Principles of Physical Planning.

CRP X82C.11. The Future: Views in Planning.

CRP X82C.12. Geodesign.

CRP X82C.2. Design for Planners I.

CRP X82C.3. Design for Planners II.

CRP X82C.4. Urban Land Institute Workshop.

CRP X82C.5. Garden City to New Community.

CRP X82C.6. Urban Landscapes and Place-Making.

CRP X82C.7. Spatial Analysis and Design.

CRP X82C.9. Social Life of Public Places.

CRP X83. Topics in Environment and Natural Resources.

Seminars and workshops on subjects including environmental and ecological analysis and planning topics. Workshops are based on active research or cooperation with public or private clients.

CRP X83.1. Techniques in Environmental Analysis.

CRP X83.12. Environmental Law and Public Health.

CRP X83.13. Land Use and Environmental Dispute Resolution.

CRP X83.14. Bioregional Planning.

CRP X83.15. Brownfields.

CRP X83.16. Green and Gray Infrastructure.

CRP X83.2. Coastal Zone Planning.

CRP X83.3. Environmental Impact Assessment.

CRP X83.4. Disasters and Resilience: Planning and Response.

CRP X83.6. Urban Environmental Analysis.

CRP X83.7. Introduction to Urban Ecology.

CRP X84. Topics in Transportation.

Neighborhood, city, and regional transportation policy and practice.

CRP X84.1. Urban Transportation Planning.

CRP X84.10. Bicycle and Pedestrian Transit Planning.

CRP X84.11. Megaregional Planning.

CRP X84.12. Transportation Equity Analysis.

CRP X84.13. Women and Transportation.

CRP X84.3. Planning for Accessibility.

CRP X84.4. Land Use and Transportation Planning.

CRP X84.5. International Transportation Issues.

CRP X84.6. Metropolitan Transportation Studies with Geographic Information Systems.

CRP X84.7. Transit-Oriented Development.

CRP X84.9. Transportation Planning and Policy.

CRP X85C. Topics in Economic and Community Development.

Seminars and workshops on subjects including theory and analysis of social and economic sustainability of communities and regions and community led responses and initiatives.

CRP X85C.1. Urban and Regional Theory.

CRP X85C.10. Right to the City.

CRP X85C.11. City and Regional Planning in Texas.

CRP X85C.12. Building a Sustainable Region.

CRP X85C.15. Migratory Urbanism.

CRP X85C.2. Urban Economic Development Policy.

CRP X85C.3. Sustainable Urban Economic Development Planning.

CRP X85C.4. Community Development.

CRP X85C.5. Development and Planning in Latin America.

CRP X85C.6. International Sustainable Social Development.

CRP X85C.7. Social, Spatial, and Environmental Justice.

CRP X85C.8. Built Environment and Public Health.

CRP X85C.9. Sustainable Cities.

CRP X85D. Planning Studio.

An integrative and comprehensive planning studio project course, involving application of theory, research, fieldwork, and oral, graphic, and written communication.

CRP X86. Topics in Applied Planning Techniques.

Quantitative and qualitative methods of planning analysis, spatial analysis and mapping, and visual communication techniques.

CRP X86.11. Geographic Information Systems in Planning.

CRP X86.12. Financing Real Estate Projects: Non-Profit and For-Profit.

CRP X86.13. Art of Community Engagement.

CRP X86.14. Smart City.

CRP X86.2. Applied Methods.

CRP X86.4. Qualitative Research Methods.

CRP X86.5. Urban Geographic Information Systems.

CRP X86.8. Research Design.

CRP X86.9. Sustainable Land Use Planning.

CRP X86K. Introduction to Visual Communications and Geographic Information Systems for Planners.

CRP X87C. Topics in Infrastructure Planning.

Policy and techniques for providing soft and hard urban infrastructure; infrastructure planning and analysis.

CRP X87C.1. Infrastructure Planning and Development.

CRP X87C.2. Water Resources Planning.

CRP X87C.3. Urban Parks and Open Space Planning.

CRP X87C.5. Urban Agricultural Systems.

CRP X87C.6. Resource Management and Recycling.

CRP X87C.7. Race and the Built Environment.

CRP X88. Topics in Housing.

Planning and housing policies and programs related to production and access to housing; community strategies for meeting housing needs.

CRP X88.1. Housing Demand and Production.
CRP X88.2. Housing and Culture.
CRP X88.3. Affordable Housing Planning and Policy.
CRP X88.4. Affordable Housing Development and Design.
CRP X88.5. Housing Practice and Public Policy in Latin America.
CRP X89C. Topics in Land Use and Land Development.
Analysis of land use patterns, planning principles, and strategies for achieving sustainability goals, and private land development principles and practices.
CRP X89C.1. Planning for Land Development.
CRP X89C.2. Research in Land Development.
CRP X89C.3. Landscape and Culture.
CRP X89C.4. Images of the City.
CRP X90. Topics in Conference Course in Community and Regional Planning.
Readings and case studies in current topical issues in planning and planning education.
CRP X90.1. Readings in International Planning.
CRP X91D. Topics in Doctoral Seminar.
Advanced theory and research methodology.
CRP X91D.1. Colloquium on Planning Issues.
CRP X91D.2. Planning Theory Seminar.
CRP X91D.3. Research Methodology Seminar.
CRP X92C. Topics in Historic Preservation.
Includes topics in architectural history, with a focus on the twentieth century and Modernism; architectural conservation; preservation planning and cultural resource management; and design.
CRP X92C.1. History of American City Building.
CRP X92C.2. Preservation History and Theory.
CRP X92C.3. National Registry of Historic Places Documentation.
CRP X92C.4. Research Seminar in Sustainable Preservation.
CRP X92C.5. Historic Preservation: Planning and Practice.
CRP X92C.6. Historic Preservation: Preservation Law.
CRP X95C. Planning Studio.
An integrative and comprehensive planning studio project course, involving application of theory, research, fieldwork, and oral, graphic, and written communication.
CRP X95D. Planning Studio.
Continuation of Community and Regional Planning 395C.
CRP X96. Independent Research in Community and Regional Planning.
CRP X97. Planning Internship.
Includes placement with a public or private planning agency, faculty supervision, and presentation of report.
CRP X98. Thesis.
CRP X98R. Master's Professional Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
CRP X99W. Dissertation.

Professional Courses

CRW - Creative Writing

Creative Writing: CRW

Lower-Division Courses

CRW X15D. Playwriting I.
The study and practice of writing plays.
CRW X15F. Introducton to Writing Fiction.
Intended for students with minimal prior experience in creative writing.
CRW X15P. Introduction to Writing Poetry.
Intended for students with minimal prior experience in creative writing.
CRW X19S. Topics in Creative Writing.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

CRW X25. Topics in Creative Writing.
Detailed study and practice of the techniques of biography, creative nonfiction, or other special topics of creative writing; includes reading and analysis of contemporary models.
CRW X25.1. Writing Border Narratives.
Examines the United States and Mexico border through the use of the personal essay in its various forms. Students write personal essays that focus on their relationships to the border.
CRW X25C. Writing Climate Fiction.
Study and practice the techniques of writing climate fiction. Read and analyze contemporary models.
CRW X25E. Personal Essay.
CRW X25F. Fiction Writing.
Detailed study and practice of the techniques of fiction writing; includes reading and analysis of contemporary models.
CRW X25G. Green Poetry.
CRW X25M. Creative Writing.
Detailed study and practice of the techniques of fiction, poetry, and other genres of creative writing; includes reading and analysis of contemporary models.
CRW X25P. Poetry Writing.
Detailed study and practice of the techniques of poetry writing; includes reading and analysis of contemporary models.
CRW X25S. Screenwriting.
Study and practice the techniques of screenwriting. Read and analyze contemporary models.
CRW X25T. Writing for Black Performance.
CRW X29S. Topics in Creative Writing.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CRW X30. Literature for Writers.
Readings in fiction, poetry, drama, literary criticism, biography, and autobiography from the point of view of a creative writer.
CRW X35. Business of Writing.
Study the book publishing landscape including traditional and non-traditional career paths available to writers and those interested in the publishing industry. Analyze the publishing process, from concept to finished book: the acquisition, editorial, publicity, marketing, and sales stages of a book's life.
CRW X40D. Playwriting II.
Emphasis on the form and writing of the full-length play or equivalent.
CRW X40F. Short Story Workshop.
Practice in writing the short story, with study of contemporary models.
CRW X40P. Poetry Workshop.
Practice in writing poetry, with study of contemporary models.
CRW X55D. Playwriting III.
Focus on experiments in revising dramatic text in order to create a common vocabulary around narrative structure. Revision often includes the creation of multiple new drafts, digging through past drafts for abandoned themes, lost focus, and new inspiration as well as exploring character, narrative, and/or language.

CRW X55F. Advanced Fiction Workshop.
A third semester seminar-style workshop in fiction for experienced creative writers.

CRW X55P. Advanced Poetry Workshop.
A third semester seminar-style workshop in poetry for experienced creative writers.

CRW X60. Intensive Creative Writing.
An accelerated seminar-style workshop for highly motivated students. Designed to be taken over two consecutive summer terms; offered only during the summer semester.

CRW X70H. Honors Creative Writing Project.
For advanced students already proficient in writing who wish to work under supervision on specific and substantial projects.

CRW X75. Conference Course in Creative Writing.
Continue independent work in a creative project with a faculty advisor.

Graduate Courses

Professional Courses

CSE - Computational Science, Engineering, and Mathematics

Computational Science, Engineering, and Mathematics: CSE

Lower-Division Courses

Upper-Division Courses

CSE X70. Individual Reading and Research.
Supervised study or research in a selected area of computational science, engineering, and mathematics by individual arrangement with a supervising instructor.

Graduate Courses

CSE X80. Tools and Techniques of Computational Science.
Advanced introduction to the practical use of high performance computing hardware and software engineering principles for scientific technical computing. Topics include computer architectures, operating systems, programming languages, data structures, interoperability, and software development, management, and performance.

CSE X82G. Computer Graphics.
Advanced material in computer graphics, including in-depth treatments of techniques for realistic image synthesis, advanced geometric modeling methods, animation and dynamic simulation, scientific visualization, and high-performance graphics architectures.

CSE X82M. Foundational Techniques of Machine Learning and Data Sciences.
Introduction to computational and mathematical tools of data science. Cover statistical estimation and optimization algorithms, neural networks, geometry of high dimensional spaces, randomized methods, sparse approximation, and dimension reduction techniques.

CSE X83C. Numerical Analysis: Linear Algebra.
Survey of numerical methods in linear algebra: floating-point computation, solution of linear equations, least squares problems, algebraic eigenvalue problems.

CSE X83D. Numerical Analysis: Interpolation, Approximation, Quadrature, and Differential Equations.
Survey of numerical methods for interpolation, functional approximation, integration, and solution of differential equations.

CSE X83K. Numerical Analysis: Algebra and Approximation.
Advanced introduction to scientific computing, theory and application of numerical linear algebra, solution of nonlinear equations, and numerical approximation of functions.

CSE X83L. Numerical Analysis: Differential Equations.
Advanced introduction to the theory and practice of commonly used numerical algorithms for the solution of ordinary differential equations, and elliptic, parabolic, and hyperbolic partial differential equations.

CSE X84K. Theory of Probability.

CSE X84L. Theory of Probability.
Continuation of Computational Science, Engineering, and Mathematics 384K and Mathematics 385C.

CSE X84R. Mathematical Statistics I.
The general theory of mathematical statistics. Includes distributions of functions of random variables, properties of a random sample, principles of data reduction, an overview of hierarchical models, decision theory, Bayesian statistics, and theoretical results relevant to point estimation, interval estimation, and hypothesis testing.

CSE X84S. Mathematical Statistics II.
Continuation of Computational Science, Engineering, and Mathematics 384R and Mathematics 384C.

CSE X84T. Regression Analysis.
Simple and multiple linear regression, inference in regression, prediction of new observations, diagnosis and remedial measures, transformations, and model building. Emphasis on both understanding the theory and applying theory to analyze data.

CSE X84U. Design and Analysis of Experiments.
Design and analysis of experiments, including one-way and two-way layouts; components of variance; factorial experiments; balanced incomplete block designs; crossed and nested classifications; fixed, random, and mixed models; and split plot designs.

CSE X85M. Methods of Mathematical Physics I.
Theory of analytic functions; linear algebra and vector spaces; orthogonal functions; ordinary differential equations; partial differential equations; Green's functions; complex variables.

CSE X85N. Methods of Mathematical Physics II.
Continuation of Computational Science, Engineering, and Mathematics 385M and Physics 381M. Topology, functional analysis, approximation methods, group theory, differential manifolds.

CSE X85R. Real Analysis.
Measure and integration over abstract spaces; Lebesgue's theory of integration and differentiation on the real line.

CSE X85S. Complex Analysis.
Introduction to complex analysis.

CSE X86C. Methods of Applied Mathematics.
Topics include basic normed linear space theory; fixed-point theorems and applications to differential and integral equations; Hilbert spaces and the spectral theorem; applications to Sturm-Liouville problems; approximation and computational methods such as the Galerkin, Rayleigh-Ritz, and Newton procedures.

CSE X86D. Methods of Applied Mathematics.
Topics include distributions, fundamental solutions of partial differential equations, the Schwartz space and tempered distributions, Fourier transform, Plancherel theorem, Green's functions, Sobolev spaces, weak solutions, differential calculus in normed spaces, implicit function theorems, applications to nonlinear equations, smooth variational problems, applications to classical mechanics, constrained variational problems.

CSE X86L. Mathematical Methods in Science and Engineering.
Explore mathematical frameworks for understanding and solving practical problems. Examine basic concepts in multidimensional real analysis, ordinary differential equations and dynamical systems, elementary calculus of variations, Hilbert space theory and duality, Sturm-Liouville theory, Lax-Milgram and Babuska-Necas Theorems, and applications to partial differential equations.

CSE X86M. Functional Analysis in Theoretical Mechanics.
An introduction to modern concepts in functional analysis and linear operator theory, with emphasis on their application to problems in theoretical mechanics; topological and metric spaces, norm linear spaces, theory of linear operators on Hilbert spaces, applications to boundary value problems in elasticity and dynamical systems.

CSE X89C. Introduction to Mathematical Modeling in Science and Engineering I.
First part of a two-part introduction to the elements of classical mechanics, physics, chemistry, and biology needed to begin work in computational engineering and sciences. Develops from first principles the classical mathematical theories underlying many of the models of physical phenomena important in modern applications.

CSE X89D. Introduction to Mathematical Modeling in Science and Engineering II.
Second part of a two-part introduction to elements of classical mechanics, physics, chemistry, and biology needed to work in computational engineering and sciences. Develops from first principles the classical mathematical theories underlying many of the models of physical phenomena important in modern applications.

CSE X90. Individual Research.
Individual study or research in computational science, engineering, and mathematics arranged by mutual agreement between student and supervising faculty member.

CSE X90T. Training in the Teaching of Computational Science, Engineering, and Mathematics.

CSE X92. Topics in Computer Science.
Advanced topics in the theory and application of computer science. Recent topics include geometric modeling and visualization, and high-performance and parallel computing.

CSE X92.1. Parallel Algorithms in Scientific Computing.
Explore the application of parallel algorithms in machine learning, graph analytics, and modeling and simulation. Examine high-performance computing, parallel non-numerical and numerical algorithms for shared and distributed memory architectures. Discuss examples including sorting, merging, searching, linear algebra, graph algorithms, KD-trees, and fast transforms. Explore theory, programming, and performance optimization and analysis.

CSE X93. Topics in Numerical Analysis.
Advanced topics in the theory and application of numerical analysis. Recent topics include numerical methods for partial differential equations, computational problems in linear algebra, iterative methods and fast algorithms, numerical methods in functional approximation, and computational and variational methods for inverse problems.

CSE X93.1. The Finite Element Method.
Examine introductory concepts such as weighted residual methods; strong and weak forms; boundary conditions; global v. local basis functions; error estimates; smooth and nonsmooth problems; one-dimensional second- and fourth-order problems; two-dimensional potential and plate problems; two-dimensional and three-dimensional elasticity; dynamic and eigenvalue problems; numerical, computational, and meshing issues; applications using commercial software.

CSE X93F. Finite Element Methods.
Derivation and implementation of the finite element method; basic coding techniques; application to problems of stress and diffusion.

CSE X93H. Advanced Theory of Finite Element Methods.
Contemporary topics in the theory and application of finite element methods.

CSE X93N. Numerical Methods for Flow and Transport Problems.
Approximate solution methods for flow and transport problems in engineering and applied science. Finite element, finite difference, and residual methods for linear and nonlinear problems.

CSE X93P. Computational and Variational Methods for Inverse Problems.
Examine computational and variational methods for inverse problems governed by partial differential equations, including variational formulations, ill-posedness, regularization, adjoint methods for sensitivity analysis, variational discretization, and efficient large-scale optimization algorithms. Explore a brief introduction to the Bayesian formulation and relationship to the deterministic setting. Discuss examples drawn from different areas of science and engineering, including continuum fluid and solid mechanics, geophysics, and image processing.

CSE X94. Topics in Probability and Statistics.
Advanced topics in the theory and application of probability and statistics. Recent topics include nonparametric statistics and advanced probability.

CSE X94.1. Stochastic Processes I.
Study Ito-diffusion processes, stochastic calculus, and stochastic integration. Explore stochastic differential equations and their connection to classical analysis. Discuss an introduction to optimal stochastic control of diffusion processes, the Hamilton-Jacobi-Bellman equation (classical and viscosity solutions), singular stochastic control, and linear filtering. Present applications, mainly from mathematical finance, inventory theory, decision analysis, and insurance. Examine brief overview of multi-scale problems in stochastic analysis.

CSE X96. Topics in Applied Mathematics.
Advanced topics in the theory and application of applied mathematics. Recent topics have included partial differential equations, dynamical systems, kinetic theory, quantum mechanics, ergodic theory, statistical mechanics, Hamiltonian dynamics, nonlinear functional analysis, Euler and Navier-Stokes equations, microlocal calculus and spectral asymptotics, calculus of variations, and nonlinear partial differential equations.

CSE X96.1. Partial Differential Equations I.
Analyze nonlinear partial differential equations, emphasizing elliptic and parabolic equations.

CSE X97. Topics in Computational Science and Engineering.
Advanced topics in the theory and application of computational science and engineering.

CSE X97.1. Multiscale Methods in Computational Fluid Dynamics.
Explore stabilized and variational multiscale methods in computational fluid dynamics with a focus on advective-diffusive equations, the Boltzmann equation, and the compressible and incompressible Navier-Stokes equations.

CSE X97.2. Nonlinear Static and Dynamic Finite Element Analysis.
Explore code architecture and fundamental analytical technologies used in the nonlinear finite element and isogeometric analysis of solids and structures.

CSE X97.3. Validation and Uncertainty Quantification in Computational Models.
Assess reliability of computational models of physical systems through validation and uncertainty quantification. Develop uncertainty analysis in terms of Bayesian probability and inference, and techniques for probabilistic model validation.

CSE X97.4. Computational Modeling of the Cardiovascular System.
Explore mathematical models and simulation of the cardiovascular system, with an emphasis on the biomechanical function of the heart, heart valves, and the vasculature. Analyze mathematical models at the level of single cells, tissues, and whole organs. Discuss image-to-model software basics to allow creation of a model of choice from any available imaging data for a project of interest.

CSE X97.5. Biomechanics of Tissues, Scaffolds, and Cells.
Discuss biosolid mechanics, covering the complex mechanical behaviors of living tissues and related biomaterials, with a focus on modeling how they respond under loading. Examine major application areas to provide context to the theory and applications. Explore necessary mathematical, mechanics, and biological fundamentals in the context of applications and problems in biomedical research and medical devices.

CSE X97.6. Introduction to Computational Oncology.
Develop a familiarity with the common computational techniques used in modeling various aspects of cancer at multiple spatial and temporal scales. Investigate how computational modeling offers unique and

complementary information to traditional methods of cancer research. Examine the integration of theory and experiment while identifying the current barriers preventing computational modeling from having a broader impact on both cancer biology and clinical oncology.

CSE X97.7. Introduction to Mathematical and Physical Biology.
Discuss the common mathematical and physical techniques used in modeling various aspects of biology at multiple spatial and temporal scales. With emphasis placed on the integration of theory and experiment, identify the current barriers preventing computational modeling from having a broader impact in biology.

CSE X97.8. Biomedical Imaging: Signals and Systems.
Explore the physical principles and signal processing techniques used in thermographic, ultrasonic, and radiographic imaging, including image reconstruction from projections such as CT scanning, MRI, and millimeter wave determination of temperature profiles.

CSE X97.9. Mathematical Physiology.
Explore mathematical modeling in physiology, how physiological problems can be formulated and modeled, and how such models give rise to interesting and challenging functional features. Examine several exemplar physiological systems. Discuss the mathematical aspects of growth and remodeling in living systems, an area unique to living systems.

CSE X97H. Graduate Research Internship.
Practical work experience in a research/industrial setting. Internship to be arranged by student and approved by instructor.

CSE X98. Thesis.

CSE X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

CSE X99W. Dissertation.

Professional Courses

CTI - Core Texts and Ideas

Core Texts and Ideas: CTI

Lower-Division Courses

CTI X01G. Introduction to Ancient Greece.
Greatness of Greece as reflected in Greek history, literature, philosophy, art, religion, and politics. No knowledge of Greek is required.

CTI X02. Classics of Social and Political Thought.
Explores the origins of social scientific thought in the history of political philosophy and traces the development of one or more of the social sciences in modern times. Focuses on fundamental ideas about human nature, civil society, and politics, explored through reading such authors as Aristotle, Aquinas, Locke, Rousseau, Marx, Weber, Durkheim, and Freud.

CTI X03. Competing Visions of the Good Life.
Introduces the great rival conceptions of the moral basis and goals of political life as elaborated by revolutionary thinkers throughout the history of political philosophy, including Aristotle, Aquinas, Locke, late modern critics of the Enlightenment, and others.

CTI X04. Topics in World Religions: Traditions and Texts.
A study of basic religious texts, including both the Hebrew Bible and New Testament, examined from various perspectives (including comparative, historical, philosophical, and literary), with emphasis on the fundamental questions and ideas raised in those texts.

CTI X05G. Introduction to the Old Testament.
Introduction to the many interpretations of the Hebrew Bible (the Old Testament) and its meaning in the context of its historical and cultural setting in the ancient Near East.

CTI X05N. Introduction to the New Testament.
Examines representative examples of the texts found in the Christian New Testament and selected noncanonical writings. Focuses on historical setting and systematic methods of interpretation.

CTI X06D. History of the Religions of Asia.
Eastern religions: an introduction to the basic forms and the historical development of the religious traditions of India, China, and Japan.

CTI X10. Topics in Core Texts and Ideas.
Introduction to fundamental texts and questions that have helped shape the world.

CTI X10.3. Introduction to the Philosophy of Religion.
A critical examination of various conceptions of God and of the relationship of the human and the divine.

CTI X15C. The Bible and Its Interpreters.
Seeks to develop a wide-ranging familiarity with the Jewish and Christian Bibles and with the dominant modes of ancient, medieval, and early modern biblical interpretation. Readings include an extensive range of primary sources, including both the Scriptures themselves and some of their most influential exegetes.

CTI X19S. Topics in Core Texts and Ideas.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

CTI X20. The Classical Quest for Justice.
Introduces students to classical political thought through a study of seminal works of antiquity, focusing on those of Plato and Aristotle.

CTI X21. The Theoretical Foundations of Modern Politics.
Examines competing foundations of the ongoing development of political and social modernity. Examines a selection of major authors from Machiavelli to Nietzsche.

CTI X21F. Spinoza and Modernity.
Introduction to the core of Spinoza's writings and the diverse reactions they have elicited. Examines Spinoza's refusal of mind-body dualism, as well as a transcendent god or ideal as a way of understanding Spinoza's concepts and ideas.

CTI X22. Critics of Modern Liberalism.
Selected critics of the philosophy of the Enlightenment from both the Left and the Right, and from the time of Rousseau to the present.

CTI X23. Might and Right among Nations.
Major alternative approaches to the question of the moral character of international relations, as elaborated by some of the greatest political thinkers.

CTI X24. Politics and Literature.
Explores the "old battle between the poets and philosophers," in which the two sides battle for recognition as the deepest source of wisdom about politics and ethics. Includes readings from great works of political philosophy and literature.

CTI X25. Morality and Politics.
Interdisciplinary readings from major works exploring issues of ethics and leadership.

CTI X25C. Citizenship and Patriotism.
Examine the idea of patriotism and citizenship over history, from classical antiquity to contemporary times. Analyze the moral and political value of patriotism, nationalism and cosmopolitanism.

CTI X25D. Chinese Ethics and Political Philosophy.
Examine Chinese ethical and political philosophy, with an emphasis on the Confucian tradition, through close reading of major works. Analyze ideas from the course both philosophically and historically.

CTI X25M. Liberty and Empire: Machiavelli.
Explore Machiavelli's reputations through the examination of his works and analyze how those reputations relate to Machiavelli's own positioning and self-understanding.

CTI X25P. Thomas Paine, Liberalism, and the Enlightenment.
Analyze the purpose and philosophy of Thomas Paine's writings in their relation to the political thought and politics of his time.

CTI X26C. Constitutional Interpretation.
Designed to improve reasoning and communication skills through constitutional interpretation. Determining what the Constitution means, how to determine what it means, and who should determine what it means.

CTI X26J. African American Social and Political Thought.
Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought.

CTI X26L. Civil Liberties.
Explore the United States constitution and Supreme Court with a focus on civil rights and liberties.

CTI X26R. Regime Perspectives on American Politics.
Explore American politics and culture and examine how the parts of America fit together as a whole.

CTI X26S. Structure of Individual Liberties.
Explore the ways in which the Constitution protects individual rights while accommodating the often competing claims of state, groups, and communities.

CTI X27C. Archaic Greece: Society and Culture.

CTI X27D. The History of Rome: The Republic.
A survey of Roman history from the founding of Rome to the death of Julius Caesar.

CTI X27E. Roots of Democracy.
Examine the historical development and ideological underpinnings of Athenian democracy, the first known democracy, from the sixth to fourth centuries BCE. Explore a broad range of primary sources and some secondary scholarships and gain a familiarity with the key principles and practices of this unique participatory government in its political, historical, and intellectual context.

CTI X28D. Death and the Afterlife in Graeco-Roman Antiquity.
Explore the afterlife from Near Eastern myths and Homer through Greek and Roman antiquity to the early Church Fathers.

CTI X29. The Ancient Historians.
Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage.

CTI X29S. Topics in Core Texts and Ideas.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

CTI X30J. Jerusalem and Athens.
Examine the age-old confrontation between the teaching of the Bible and the politics and philosophy of the ancient Greeks.

CTI X30M. Machiavelli: Politics and Culture.
Through Niccolo Machiavelli's chief writings, consider the local, regional, Mediterranean, European, and global aspects of his work.

CTI X30R. The Political Thought of the Reformation.
Examine the thought of the Reformation, especially of Martin Luther and John Calvin, including both their chief theological ideas and the implications of these ideas for politics and ethics. Explore the themes of justification; free will and predestination; original sin; the doctrine of the two kingdoms; the roots and nature of political authority; the question of toleration; the relationship between divine, natural, and civil law; and the status of the papacy.

CTI X31. Origins of Liberalism.
Examine the theory of liberal democracy through a study of its development in historical, religious, and political contexts.

CTI X32. The Sacred and the Secular in Modern European Thought.
Introduces key themes and methodologies of intellectual history and social theory by exploring the dueling approaches to secularization and sacralization in modern European thought.

CTI X33. Rousseau and His Legacy.
Examine Rousseau's complex legacy through the reading of his essential political texts and reading contemporary responses to his thought.

CTI X35C. History of Christian Philosophy.
Examines the history of Christian philosophy through classic Christian thought, concerning what can be known and how people should live.

CTI X35E. Hegel and the Formation of Modern European Identity.
An in-depth study of how Hegel identifies the social conditions necessary for personal self-realization but also for freedom by means of political community.

CTI X35M. Marx and Marxist Theory.
Introduction to the writings of Karl Marx as well as to those of his intellectual successors in Europe and around the globe in the nineteenth and twentieth centuries.

CTI X38. The Question of Relativism.
Examine the idea of relativism: what relativism is, what the fact and value distinction is, how the idea of moral relativism has shaped modern political thought, and what the arguments for and against relativism are. Explore the philosophic roots of the position in authors like Max Weber and Friedrich Nietzsche, as well as critics of relativism like Leo Strauss.

CTI X39. The Pursuit of Happiness.
Investigate happiness and how it is attained. Examine contrasting perspectives on happiness or human flourishing offered by major thinkers, both religious and secular, representing different epochs, cultures, and theoretical approaches.

CTI X39M. The Meaning of Life.
Investigate the meaning of life, exploring pre-modern perspectives, modern views including those of the nineteenth through twenty-first centuries, and contemporary problems such as whether AI poses new threats to meaning in life.

CTI X40. Ancient Epic.
Explore epic poems of Greece and Rome in translation.

CTI X41. Moral Agency In Greek Tragedy.
Subjects include the masterpieces of Greek tragedy, the social and cultural background of the texts, and questions posed by the texts.

CTI X42. Satan and the Idea of Evil.
Explore the history and breadth of Satan's role as a character (or background presence) in literature while developing close-reading techniques for literary analysis that can be applied across diverse eras, forms, and genres.

CTI X43. Love in the East and West.

CTI X44. Epics and Heroes of India.
Focus on India's classical epics, the Mahabharata and the Ramayana, with emphasis placed on understanding the epic characters in relation to the heroic traditions of premodern India, as well as on the role of the epics in contemporary Indian political and religious culture.

CTI X44D. Dante.

CTI X44E. War and Epic Literature.
Examine the genre of epic literature through its evolving representation of war and conflict, with specific attention paid to political, social, historical, and artistic contexts, as well as to its historical reception in art, literature, film, and music.

CTI X44M. Italian Masterpieces.
Study of representative texts in visual arts, film, literature, and opera, from the Renaissance to the present, in their historical context.

CTI X45L. Leadership: King Arthur to Queen Elizabeth.
Explores major works of English literature, poetry, and drama from the 14th-16th century and European philosophy, with special attention to the universal question: what makes a good leader? Historical and current analysis of how authors model the duties of good citizens in idealized and critical depictions of fictional leaders--like King Arthur and his knights--and real leaders--like Richard II, Henry V, and Elizabeth I, as well as works written to advise rulers on good governance.

CTI X45M. John Milton and the Enlightenment.
Examine the impact of Milton's political and social writings by pairing Milton's political prose with eighteenth-century Enlightenment texts from both sides of the Atlantic. Discover the role Milton's ideas played in shaping the foundations of liberty in both Britain at the Glorious Revolution and in North America at the American Revolution.

CTI X46. The Major Works of Dostoevsky.
Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky.

CTI X47. The Russian Novel.
A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century.

CTI X48. War and Revolution in Russian Literature and Culture.
Examines Russian narratives of war and revolution as represented in fiction, cinema, and journalism.

CTI X50. Masterworks of World Drama.
Studies major tragedies, comedies, and historical plays from various epochs, including at least one of Shakespeare's plays. Explores themes related to ethics, politics, and human nature, as well as the craft of the playwright. Students attend and discuss at least one play performance.

CTI X51. The Idea of the Beautiful.
Classical philosophical discussions of the idea of the beautiful (or noble or sublime), illustrated through selected works of art, drama, and literature. Explores the human perception of and response to beauty and its relation to such ideas as happiness and the promise of happiness, moral nobility or selflessness, and the divine. Philosophical works are studied in connection with examples drawn from the arts and are considered in their historical contexts.

CTI X52D. Early Italian Renaissance Art to 1470.
Traces the beginnings of the "rebirth" (renaissance) of the visual arts, from the end of the Middle Ages to the heyday of the Medici. Works of art are analyzed both in formal terms and in relation to contemporary society, religion, philosophy, economics, statecraft, gender, and other significant issues.

CTI X54. Abraham and Abrahamic Religions.
Examines the figure of Abraham as portrayed in the Bible and the reception of that portrayal in Judaism, Christianity, and Islam.

CTI X54F. The Five Books of Moses.
Study the socio-historical circumstances that gave shape to the first five books of the Bible: Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. Examine how these five books achieved the status of sacred literature.

CTI X54J. The Book of Job.

CTI X54L. Law and Justice in the Bible.
Examine the legal traditions of the Torah (Pentateuch) and what they reveal about the practice of law and justice in ancient Israel and the wider biblical world.

CTI X54P. Biblical Prophecy.
An introduction to the diversity of prophetic literature in the Old Testament, its historical development, social context, and Near Eastern parallels.

CTI X55. The Bible in the Colonial Americas.
Varied perspectives on the central role played by the Old Testament in the construction of colonial cultures in the Americas.

CTI X55C. Law, Liberty, and Faith.
Consider medieval ideas about the proper relation between law, liberty, and faith, and the arguments against them made by modern philosophers and theologians.

CTI X55R. The Age of Reformation.
Examines late medieval religion, the rise of Protestant movements, and the Catholic response in their cultural, political, and social contexts.

CTI X55S. Origin of the Idea of Religious Liberty.
Explore the origin of the idea of religious liberty in the history of political philosophy, focusing on its early modern development in core texts.

CTI X55T. Debating the Bible in the Twenty-First Century.
Examine the ways in which individuals, primarily in the United States, have regarded the Bible as relevant or irrelevant to contemporary life. Discuss contemporary controversial issues in which the Bible has played a role and how these relate to earlier controversies, such as the position of the Bible on slavery.

CTI X57. Islamic Theology.

CTI X63. The French Revolution and Napoleon.
Analysis of the social, political, and economic origins and outcomes of the French Revolution and Napoleon's empire.

CTI X65. Classics of Social Scientific Thought.
Studies a selection of foundational modern classics in economics, psychology, sociology, political science, and anthropology, drawn mainly from the nineteenth and twentieth centuries.

CTI X71. Einstein in the Age of Conflict.
Following the life and work of Albert Einstein, course examines the rise of the theories of relativity and quantum mechanics upon the stage of international political upheaval.

CTI X71D. Darwin on Origin of Species.
Explore Darwin's argument for evolution in its original context.

CTI X71M. History of Mathematics.
Survey major mathematical developments beginning with the ancient Greeks and tracing those developments through Hindu-Indian mathematics, Arabic mathematics, and European mathematics up to the nineteenth century.

CTI X71N. Newton's Principia.
Examine key sections of Newton's Principia Mathematica Philosophiae Naturalis.

CTI X71S. Science and Religion to Newton.
Explore the complex relationship between science and religious faith in medieval and early modern Europe beginning with Galileo Galilei's trial before the Roman Inquisition. Examine themes including the understanding of God and nature, authority (classical and scriptural) versus observation, the wide range of knowledge-making practices, the persistence of magic, and the influence of power and patronage.

CTI X71T. Science and Religion from Newton to the Present.
Explore historical views regarding the relationship between science and religion since the time of Isaac Newton. Analyze controversies about mechanical philosophy, natural theology, evolution, the Big Bang, free will, selfish genes, and miracles through primary source readings. Explore the societal impacts of these controversies.

CTI X72. Darwin and the Politics of Evolution.
A careful reading of Darwin's influential Origin of the Species by Means of Natural Selection, together with an examination of the religious, political, and scientific controversies the book has inspired from its first publication to the present day.

CTI X72M. Great Works in Biology.
Explore the history of biology through a close study of several major texts. Analyze controversies about authority, classification, extinction, evolution, and genetics. Emphasize primary source readings from influential figures who addressed these and other relevant questions.

CTI X73. Great Works In Medicine.
Examine signature works in the history of medicine.

CTI X74. Biology, Behavior, and Injustice.
Explores questions about human behavior related to biological factors as compared with personal experiences and societal standards.

CTI X75. Topics in Core Texts and Ideas.
Study of classic texts, connected historically or thematically.

CTI X75.1. The Qur'an.
Explore the history, language, style, and themes of the Qur'an.

CTI X75.4. Art and the City in Renaissance Italy.
Art, architecture, and emerging civic identity in Florence, Siena, Venice, and other Italian Renaissance city-states.

CTI X75.5. Science and Religion: Newton-Present.
Examine classic texts, connected historically or thematically.

CTI X75.7. Archaic and Classical Greece.
Survey of Greek history from the emergence of the city-states to the rise of Macedonia.
CTI X75.8. Values and Leadership in Ancient World.
CTI X79. Conference Course.
Intensive tutorial study of selected major texts.

Graduate Courses
Professional Courses

CZ - Czech

Czech: CZ

Lower-Division Courses

CZ X01C. Intensive Czech I.
Emphasis on developing oral proficiency in Czech using intensive methods of instruction.
CZ X06. First-Year Czech I.
Emphasis on four-skills proficiency: listening, speaking, reading, and writing.
CZ X07. First-Year Czech II.
Emphasis on four-skills proficiency: listening, speaking, reading, and writing.
CZ X11C. Intensive Czech II.
Continuing intensive development of proficiency in Czech, with a focus on speaking and the reading of authentic texts.
CZ X12K. Second-Year Czech I.
Listening, speaking, reading, and writing at the second-year level.
CZ X12L. Second-Year Czech II.
Listening, speaking, reading, and writing at the advanced, second-year level.
CZ X19S. Topics in Czech.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CZ X29S. Topics in Czech.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

CZ X19S. Topics in Czech.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CZ X25. Third-Year Czech I.
Oral expression, reading, and composition.
CZ X26. Third-Year Czech II.
Continuation of Czech 325: Oral expression, reading, and composition.
CZ X28. Topics in Advanced Czech.
CZ X29S. Topics in Czech.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CZ X79. Conference Course in Czech Language or Literature.
CZ X79H. Honors Tutorial Course.
Supervised individual research on a literary honors paper of some length.

Graduate Courses

CZ X19S. Topics in Czech.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CZ X29S. Topics in Czech.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CZ X92. Topics in Czech Language.
Topics may include Czech linguistics, pedagogy, and comparative language study.
CZ X95. Conference Course.
Survey of Czech literature, language, culture, linguistics, history, and politics.

Professional Courses

CZ X19S. Topics in Czech.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
CZ X29S. Topics in Czech.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

D S - Decision Science

Decision Science: D S

Lower-Division Courses

D S X19S. Topics in Decision Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

D S X29S. Topics in Decision Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an

exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

D S X35. Introduction to Decision Science.

Examine modeling of business problems using methods from decision analysis, simulation and optimization.

D S X35H. Introduction to Decision Science: Honors.

Examine modeling of business problems using methods from decision analysis, simulation and optimization.

D S X72T. Topics in Decision Science.

D S X72T.11. Computational Finance.

Introduction to the analysis and implementation of numerical methods used in finance. Explore numerical techniques in derivative pricing and optimal asset allocation, such as Monte Carlo and quasi-Monte Carlo simulation, methods for solving partial differential equations, and dynamic programming.

D S X72T.16. Optimization Method in Finance.

Explore quantitative methods and techniques in optimization and simulation, and their use in financial decision making. Discuss theory and application in portfolio selection, options and other derivative pricing, index tracking, risk measures, volatility estimating. Examine linear, quadratic, nonlinear, and integer programming; dynamic programming; robust optimization; Monte Carlo methods and variance reduction techniques. Emphasis will be placed on problem solving with advanced computational programming languages.

Graduate Courses

Professional Courses

DAN - Danish

Danish: DAN

Lower-Division Courses

DAN X04. Accelerated First-Year Danish.

DAN X12. Accelerated Second-Year Danish.

DAN X19S. Topics in Danish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded in an affiliated studies program.

DAN X29S. Topics in Danish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

DAN X19S. Topics in Danish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded in an affiliated studies program.

DAN X27. Advanced Danish I.

DAN X28. Advanced Danish II.

DAN X29S. Topics in Danish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

DAN X30D. Danish across Disciplines.

Read and discuss Danish language materials related to the subject matter of another designated course.

DAN X79. Conference Course in Danish Language or Literature.

Supervised individual study of selected problems in Danish language or literature.

Graduate Courses

DAN X19S. Topics in Danish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded in an affiliated studies program.

DAN X29S. Topics in Danish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Professional Courses

DAN X19S. Topics in Danish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded in an affiliated studies program.

DAN X29S. Topics in Danish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

DCH - Dutch

Dutch: DCH

Lower-Division Courses

DCH X04. Accelerated First-Year Dutch.

DCH X12. Accelerated Second-Year Dutch.

DCH X19S. Topics in Dutch.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

DCH X29S. Topics in Dutch.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

DCH X19S. Topics in Dutch.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

DCH X27. Advanced Dutch I.

DCH X28. Advanced Dutch II.

DCH X29S. Topics in Dutch.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

DCH X30D. Dutch across Disciplines.
Read and discuss Dutch language materials related to the subject matter of another designated course.

DCH X75. Studies in Dutch Literature.
Selected topics in Dutch and Flemish literature. Conducted in Dutch.

DCH X79. Conference Course in Dutch Language or Literature.
Supervised individual study of selected problems in Dutch language or literature.

Graduate Courses

DCH X19S. Topics in Dutch.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

DCH X29S. Topics in Dutch.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Professional Courses

DCH X19S. Topics in Dutch.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

DCH X29S. Topics in Dutch.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

DES - Design

Design: DES

Lower-Division Courses

DES X01. Introduction to Design Thinking.
Introduces design thinking and design methods, with a focus on design process.

DES X02. Topics in Technologies in Design Practice.
Introduces a variety of technology and software used by design professionals.

DES X02C. Introduction to 2D Design.
Explore the fundamental principles and methods of 2D design making, including an introduction to software.

DES X02D. Introduction to 3D Design.
Introduction to theories, principles, methods, techniques, tools, and software for 3D design.

DES X02E. Introduction to Interaction Design.
Introduction to theories, methods, and techniques for designing time-based and interactive experiences, including video, motion graphics, and web and mobile applications.

DES X03. Introduction to Graphic Design.
Lecture/seminar/studio course. Introduces the fundamental principles, conventions,and techniques of graphic design.

DES X04. Design Studio I.
Explore the vocabulary, principles and techniques of design across disciplines through project work in a studio setting.

DES X05. Design Studio II.
Build upon vocabulary, principles and techniques of design across disciplines through project work in a studio setting.

DES X06. Design Studio III.
Refine and apply vocabulary, principles and techniques of design across disciplines through project work in a studio setting.

DES X07. Design and Culture.
Explore the broad social, economic, technological, and political forces that shape design, and how design influences the human experience in today's world. Examine the critical discourse surrounding the creation, production, consumption, and interpretation of design.

DES X07C. Everyday Design.
Explore the influence of design in daily life, its impact on society, and how design disciplines shape the world through purposeful choices and creative practices.

DES X08. Introduction to Design Theory and Criticism.
Lecture/seminar course. Introduces design theory and criticism, examining how people's beliefs and values inform the way they make, understand, and evaluate works of design.

DES X09. Introduction to Design.
Studio course. Introduction to the design process, including research, ideation, prototyping, critique, and iteration. Projects also introduce the vocabulary, principles, strategies, techniques, and conventions of drawing and rendering used by design professionals.

DES X10C. Introduction to Design Research.
Examine the role of research in the design process, and explore a variety of research methods.

DES X10T. Topics in Innovative Design.

DES X11C. Portfolio Critique.
Develop a portfolio of work to present for feedback.

DES X11J. Design Technologies I.
Studio course. Projects introduce the vocabulary, principles, strategies, techniques, and conventions of color, composition, rendering, photography, and typography used by design professionals.

DES X11K. Design Technologies II.
Studio course. Projects introduce techniques and theories for designing time-based and interactive experiences, including video, motion graphics, and web/mobile applications.

DES X12. Visual Syntax in Communication.
Introduction to fundamental typographic elements: visual composition and form-making, sequence and narrative, and contrast and hierarchy. Final project is a portfolio to be submitted for sophomore performance review.

DES X12G. Typography in Communication.
Studio course. Introduction to fundamental typographic elements: visual composition and form-making; sequence and narrative; and contrast and hierarchy.

DES X13. Introduction to Design History.
Introduction to the history of design, with a focus on key themes and ideas.

DES X14. Introduction to Industrial Design.
Introduction to theories, principles, methods, and techniques for industrial design in a studio format.

DES X15C. Sketching.
Introduction to elements, techniques, processes, and tools for sketching in design practice. Explore sketching as a way to convey ideas.

DES X19S. Topics in Design.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad office. Credit is recorded as assigned by the Design Assistant Chair of the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

DES X20. Design Theories and Methods.
Lecture/seminar/studio course. Introduces cultural and aesthetic theories pertinent to design, as well as research methods for generating and prototyping ideas.

DES X21. Images in Communication.
Studio course. Explores the selection and creation of images appropriate to specific communication goals and contexts, such as promotional images, infographics, logos, instructions, and/or narratives.

DES X21C. Portfolio Critique.
Develop a portfolio of work to present for feedback.

DES X22. Design and the Social Environment.
Studio course. Involves researching a contemporary social issue; define an area of opportunity; and design graphics, objects, services, and/or systems that respond ethically to the issue.

DES X23. Color in Theory and Practice.
Explore contemporary color notation systems and color management techniques. Survey economic, health and safety, environmental, cultural, legal, political, and other ethical considerations pertinent to using color.

DES X24. Design Research and Methods.
Lecture/studio course. Lectures and projects introduce problem-framing and problem-solving techniques and a variety of design research, ideation, prototyping, and iterative methods.

DES X25. Typography I.
Studio course. Projects introduce the fundamental principles, conventions, and techniques of typography.

DES X26. Objects and Spaces.
Studio course. Projects introduce rendering and prototyping techniques used for solving problems in three-dimensional media such as product design, packaging design, environmental graphics, and/or architectural/landscape design.

DES X27. Prototyping Physical Space.
Studio-based exploration of the iterative development of low-resolution immersive environments.

DES X28. Print and Packaging.
Studio-based exploration of the print environment, and build technical skills and process management skills.

DES X29S. Topics in Design.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad office. Credit is recorded as assigned by the Design Assistant Chair of the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

DES X30T. Topics in Innovative Design.
Exploration of innovative topics in design.

DES X31. Portfolio and Performance Review.
Develop and review a portfolio of work, guided by feedback from the instructor, group critiques, and reviews with visiting critics.

DES X34. Introduction to Interaction Design.
Studio course. Projects introduce theories, methods, and techniques for designing time-based and interactive experiences, including video, motion graphics, and web/mobile applications.

DES X34C. Interaction Design I.
Explore theories, methods, and techniques for designing time-based and interactive experiences, including video, motion graphics, and web and mobile applications.

DES X35. Typography II.
Studio course. Students use typographic principles to design complex print and on-screen publications.

DES X36. History of Design.
Lecture/seminar course. Surveys the history of graphic and/or industrial design from c.1450 to the present, with an emphasis on the last 150 years.

DES X37. Topics in Design History.
Lectures and discussions focusing on specialized or advanced topics in the history of design.

DES X37.1. History of Graphic Design.
Survey the history of graphic design from c.3000 BCE to the present, with an emphasis on the last 200 years.

DES X37.2. History of Industrial Design.
Surveys the history of industrial design from 1750 to the present, with an emphasis on the last 150 years.

DES X37.3. Research Methods in Design History.
Introduces a variety of research methods in design history.

DES X37C. Graphic Design History.
Survey the history of graphic design from c.3000 BCE to the present, with an emphasis on the last 200 years.

DES X38. Topics in Design.
Examine specialized or advanced topics in design.

DES X39T. Topics In Design Theory.
Examine advanced topics in the study of cultural, aesthetic, and practice-based theories pertinent to design.

DES X40. Design Systems.
Development of flexible, integrated design systems such as identities, wayfinding, and service design.

DES X40C. Identity Systems.
Examine the relationship between business and graphic design to simplify, unify, and amplify a brand's identity in a studio format.

DES X40D. Brand Storytelling.
Examine the relationships between research, strategy, identity, human-centered design, and storytelling to articulate and communicate a brand's purpose in a studio format.

DES X40G. Branding and Visual Identity Systems.
Studio course. Explores the purposes and constraints of branding and visual identity design, and creative systems that can be applied consistently across media and materials.

DES X41. Advanced Issues in Visual Syntax.
Exploration of advanced issues in typography.

DES X41G. Typography III.
Studio course. Advanced projects in typography; introduction to type design, material explorations, environmental type design, and expressive distortion

DES X42. Design and Persuasion.
Development and presentation of coherent informational and persuasive visual statements.

DES X42G. Information and Persuasion.
Studio course. Explores ways to communicate information accurately, clearly, and persuasively through informational graphics and data visualization.

DES X43. Design Research and Methods II.
Studio course. Students use insights gleaned from comparison research, user testing, and/or product reviews to refine existing prototypes or products.

DES X44. Objects and Spaces II.
Studio course. Advanced practice in problem-solving, rendering, and prototyping in three-dimensional media, such as product design, packaging design, environmental graphics, and architectural/landscape design.

DES X45. Design Writing.
Lecture/seminar course. Students propose and carry out original research and writing projects with the aim of submitting their writing for publication.

DES X46. Project Studio.
Studio course. Professional experience solving real-world problems, including commissioned projects, student-initiated projects, and/or pro bono projects.

DES X47. Publication Studio.
Studio course. Advanced publishing projects in print and/or digital media.

DES X48. Information Visualization.
Studio course. Students devise ways to communicate information accurately, clearly, and memorably.

DES X49. Interaction Design II.
Lecture/studio course. Students design visually pleasing, responsive, user-centered web and mobile interfaces.

DES X50. Special Topics in Design.
Studio course. Projects focusing on contemporary design practice, featuring approaches and subfields not represented elsewhere in the curriculum.

DES X51. Design Perspectives.
Studio course. Workshops and projects led by industry professionals, visiting lecturers, and/or University faculty and graduate students, featuring design approaches, subfields, practices, and media.

DES X52. Service and Systems Design.
Studio course. Students design effective user-centered systems and services.

DES X53. Advanced Topics in Interaction Design.
Studio Course. Students undertake advanced projects in interaction design. Topics may include user research, user interface design, service design, usability, and accessibility.

DES X54. Design Issues.
Lecture/seminar course. Students engage with contemporary issues in design through reading, discussion, and writing.

DES X55. Interaction Design III.
Studio course. Advanced projects in visually pleasing, responsive, user-centered web and mobile interfaces.

DES X56. Topics in Graphic Design.
Topics in graphic design.

DES X56.1. Spatial Graphic Design.
Examine the relationship between the built environment and typography, image, symbol, material, and visual storytelling in the context of artistic, social, and cultural movements in a studio format.

DES X57C. Interaction Design III: Experiential and Spaces.
Examine communication through physical material and space. Explore topics such as experiential design, branded environments, and exhibition design in a studio format.

DES X57D. Interaction Design IV: Objects and Media.
Studio-based exploration of the practical, theoretical, and speculative ability for products, objects, digital space, and media to communicate in context of the Internet of Things.

DES X58C. Industrial Design I.
Explore methods and techniques for industrial design.

DES X58D. Industrial Design II.
Build upon methods and techniques for industrial design.

DES X58E. Industrial Design III.
Refine and apply methods and techniques for industrial design.

DES X58G. Advanced Topics in Industrial Design.
Examine advanced theories, principles, methods, and techniques for industrial design in a studio format.

DES X59. Professional Practices in Design.
Lecture/studio course. Lectures introduce professional practices in design, intellectual property issues, contracts, pricing, accounting, tax preparation, business plans, promotion, etc.

DES X60. Design Internship.
Introduces students to ethical standards and professional practices in design; allows completion of an approved professional internship.

DES X60I. Internship in Design.
Participate in a professional design internship in a field of interest.

DES X70. Senior Project in Design.
Studio course. Students define their own research problem and propose appropriate design solutions, guided by feedback from desk critiques with the instructor, group critiques, and reviews with a visiting critic.

DES X70C. Individual Projects in Design.
Define research problem and propose appropriate design solutions, guided by feedback from desk critiques with the instructor, group critiques, and reviews with a visiting critic.

DES X71. Design Practicum Internship.
Lecture/internship course. Resume and portfolio preparation; discussion of professional ethics and responsibilities; professional internship.

DES X74. Capstone Design Project.
Studio course. Students define their own research problem and propose appropriate design solutions, guided by feedback from desk critiques with the instructor, group critiques, and reviews with a visiting critic.

DES X74P. Senior Portfolio.
Develop, curate, review, and present a portfolio of original design work.

DES X75. Capstone Design Exhibition.
Studio course. Students collaboratively curate, design, and install a senior BFA exhibition, and publish collateral materials that publicly showcase their capstone projects.

DES X75S. Senior Showcase.
Curate, design, and install a showcase of design projects.

DES X76. Independent Study: Design.
Student-defined projects completed under faculty supervision.

Graduate Courses

DES X80. Topics in Core Course in Design.
Introduction to design process, research, and methodologies.

DES X81. Core Laboratory 1.
Practice laboratory for a variety of design methodologies.

DES X82. Critique Studio.
Context and structured dialogue regarding areas of, and the student's own direction in, graduate research.

DES X83. Graduate Projects.

DES X84. Design Documentation and Storytelling.
Covers portfolio creation and other tools related to documenting and communicating design work.

DES X84C. Design Criticism.
Thinking, writing and talking about design.

DES X84D. Design Perspectives.
Explore design approaches, subfields, practices, and media through workshops, projects or lectures led by industry professionals, visiting instructors, and/or University faculty and graduate students.

DES X84E. The Art of Critique.
Explore methods, frameworks, and practice in giving and receiving feedback in a design studio setting.

DES X84F. Materials Exploration.
Consider materials in design applications.

DES X84G. User Research.
Explore generative and evaluative methods for design research, research synthesis techniques, and the design of research field studies for design applications.

DES X84H. Design Theory and Method.
Examine theory and methods in design.

DES X84J. Design in Context.
Explore the social, political, historical, legal and economic contexts of design.

DES X84K. Introduction to Campus Resources for Designers.
Introduction to design-related resources on campus including the Library, materials lab, fabrication lab, and publication studio.

DES X85C. Studio I.
Explore principles and techniques of design across disciplines through project work in a studio setting.

DES X85D. Studio II.
Build upon principles and techniques of design across disciplines through project work in a studio setting.

DES X85E. Studio III.
Refine and apply advanced principles and techniques of design across disciplines through project work in a studio setting.

DES X85F. Studio IV.
Culminate previous knowledge of principles and techniques of design across disciplines through project work in a studio setting.

DES X85G. Foundation Studio I.
Introduction to vocabulary, principles, strategies, techniques and conventions foundational to design in a studio format.

DES X85H. Foundation Studio II.
Build upon vocabulary, principles, strategies, techniques and conventions foundational to design in a studio format.

DES X85J. Foundation Studio III.
Refine vocabulary, principles, strategies, techniques and conventions foundational to design in a studio format.

DES X85K. Topics in Visual Design Studio.
Studio-based exploration of techniques and concepts specific to visual design.

DES X85L. Topics in Interaction Design Studio.
Studio-based exploration of techniques and concepts specific to interaction design.

DES X85M. Topics in Industrial Design Studio.
Studio-based examination of techniques and concepts specific to industrial design.

DES X85N. Topics in Service Design Studio.
Studio-based exploration of techniques and concepts specific to service design.

DES X85T. Topics in Design Studio.
Develop studio projects focusing on specialized or advanced topics or methods.

DES X85V. Topics in Visiting Designer Studio.
Projects developed by visiting designer on technique and concepts related to their practice in a studio format.

DES X86. Design History.

DES X87. Graduate Internship in Design.
Professional design internship in a field of the student's interest.

DES X87H. Internship in Healthcare Design.

DES X88. Introduction to Design Thinking.
A preliminary foundation in the emerging practice of human-centered design, the methodology driving design thinking as a way of achieving innovation across sectors.

DES X88C. Topics in Design Seminar.
Examine specialized or advanced topics in design.

DES X88D. Topics in Service Design Seminar.
Examine specialized or advanced topics in service design.

DES X88E. Topics in Industrial Design Seminar.
Examine specialized or advanced topics in industrial design.

DES X88F. Topics in Interaction Design Seminar.
Examine specialized or advanced topics in interaction design.

DES X88G. Topics in Visual Design Seminar.
Examine specialized or advanced topics in visual design.

DES X90. Topics in Advanced Design Skills.

DES X90.1. Design in Health Studio.
Collaborate with clients in teams, and apply design skills to immediate challenges in the health space.

DES X90.2. Storytelling for Presentation.
Explore the frameworks for good storytelling as applied to professional presentation and written work.

DES X90.3. Graphic Design Tools.
Explore 2D Visualizations tools for print and screen.

DES X90.4. Eliciting and Inspiring Participant Data.
Explore tactics and techniques of several common primary research methodologies including contextual inquiry, intercept interviews, personal inventories, empathy modeling, and others.

DES X90.5. Sketching for Communication.
Examine the elements of sketching to visualize concepts.

DES X90.6. 3D Prototyping.
Use rapid prototyping methods to test ideas iteratively with an emphasis on products and the built environment.

DES X91. Core Laboratory 2.
Designed to provide students with the opportunity to test and expand their design research through writing and various methods of dissemination.

DES X92. Professional Communication of Research.
Seminar addressing strategies for communicating design research processes and results to a variety of audiences through vehicles such as exhibitions, scholarly reports, and video recordings.

DES X93. Topics in Design Theory and Research.
Investigates current discourse within design studies.

DES X94. Topics in Advanced Design.
Examine design practices in all areas, and their relationship to research.

DES X94.1. Health Systems Design.
Explore aspects of complex health ecosystems. Examine the principles and methods of interconnection. Design future systems that elicit new behaviors.

DES X94.2. Anthropology and Design.
Explore anthropological and ethnographic tools that can attune practitioners to social and cultural differences and their implications.

DES X94.4. Design in Health: Introduction To Collaboration.
Examine nuanced and complex considerations for designing in the health space. Explore design practice and challenging legacy health notions.

DES X94.5. Final Project In Design.
Design and lead a project with the guidance of a faculty member.

DES X94.6. Health Care Law/Policy.
Examine current health law and policy.

DES X95. Topics in Fieldwork in Design.
Students conduct fieldwork as part of a collaborative research team and/or under the direction of a project supervisor.

DES X96. Business of Design.
Explore the integration of design into business and business into design.

DES X97. Service Design.
Apply design thinking to service-based sectors such as hospitality, healthcare, food service and others.
DES X97C. Design Pedagogy and Instruction.
Covers theory and research related to the pedagogy of design. Explores creation of design learning experiences.
DES X97P. Teaching Practicum.
Applied teaching in design subjects.
DES X98P. Capstone Project.
Utilize design methodologies and techniques on an applied project.
DES X98R. Master's Report.
DES X98S. Master's Exhibition.
DES X98T. Supervised Teaching in Design.
Training and teaching under the close supervision of the course instructor for one semester; group meetings with the instructor, individual consultations, and reports throughout the teaching period.

Professional Courses

DEV - Developmental Studies

Developmental Studies: DEV

Lower-Division Courses

DEV X00M. Basic Mathematics and Algebra Skills.
Developmental mathematics instruction paired with a core math course. Emphasis is on mathematical concepts that support success in the core math course.
DEV X00R. Basic Reading Skills.
Developmental reading and writing instruction paired with a credit reading intensive course. Emphasis is on strategies for improving reading comprehension across the disciplines, reading study skills, and elements of composition.
DEV X00W. Basic Writing Skills.
Developmental reading and writing instruction paired with a credit writing intensive course. Emphasis is on strategies for improving reading comprehension across the disciplines, reading study skills, and elements of composition.
DEV X01M. Developmental Mathematics I.
Developmental mathematics instruction paired with a core math course. Emphasis is on mathematical concepts that support success in the core math course.
DEV X02M. Developmental Mathematics II.
Continuation of Developmental Studies 301M. Includes linear equations, systems of equations, integers, exponents and scientific notation, factoring polynomials, rational expressions and equations, radical expressions, and geometric problems.
DEV X03M. Basic Mathematics and Algebra Skills Review.
DEV X03S. Analytical Reading and Writing.
Examination of fundamental concepts in analytical reading from different disciplinary perspectives, with an emphasis on sociocultural influences on comprehension and writing styles.

Upper-Division Courses

Graduate Courses

Professional Courses

DGI - Digital Game Industries

Digital Game Industries: DGI

Lower-Division Courses

DGI X01. Video Games: Concept to Console.
Introduction to the foundational aspects of the digital game industry and the essential communication skills required to be successful in the field.
DGI X02. Digital Game Industries.
Explore the foundational aspects of digital game industries and production with an emphasis on communication skills.
DGI X05. Topics in Digital Game Industries.
Discuss contemporary issues and practices in digital game industries.
DGI X19S. Topics in Digital Games.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Texas Global Office. Credit is recorded as assigned by the study abroad adviser in the DGI minor. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

DGI X20. Topics in Digital Game Industries.
Examine contemporary issues and practices in digital game industries.
DGI X21. Independent Study.
Pursue special supervised individual research studies.
DGI X22. Game Usability Analysis.
Explore usability in digital games.
DGI X29S. Topics in Digital Game Industries.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Texas Global Office. Credit is recorded as assigned by the study abroad adviser in the DGI minor. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
DGI X50. Digital Game Industry Internship.
Arrange and work in an internship.
DGI X70. Advanced Topics in Digital Game Industries.
Study advanced skills and practice in digital games across a range of media integrations.

Graduate Courses

Professional Courses

DSC - Data Science

Data Science: DSC

Lower-Division Courses

Upper-Division Courses

Graduate Courses

DSC X81. Probability and Simulation-Based Inference for Data Science.
Introduction to inference, through the simulation process. Explore probability, exponential families, conditional probabilities and Bayes theorem, inference and Maximum Likelihood estimation, confidence intervals, and hypothesis testing (emphasis on simulation).
DSC X82. Foundations of Regression and Predictive Modeling.
Introduction to the basics of regression-based modeling. Explore simple and multiple regression, interpretation of models and coefficients, prediction and estimates, regularization processes, and generalized linear models.
DSC X83. Advanced Predictive Models for Complex Data.
Explore advanced techniques used in practice for regression-based models. Examine time series and longitudinal data, repeated and mixed models, spatially correlated data, and Random Forest models.
DSC X84. Design Principles and Causal Inference.
Explore the field of "big data" and the rigors of determining applicable design structures from that data. Examine classic design structures, non-typical data structures and novel design processes, and causal inference, and explore data-based decision making.
DSC X85. Data Exploration, Visualization, and Foundations of Unsupervised Learning.
Examine visualization techniques used in practice to discover insights about data. Explore data quality and relevance, data ethics and providence, clustering, dimension reduction, and reproducibility.

DSC X87. Topics in Statistics for Data Sciences.
Explore topics in data science with a general overview of statistics theory and application.
DSC X88. Natural Language Processing.
Explore computational methods for syntactic and semantic analysis of structures representing meanings of natural language, the study of current natural language processing systems, and methods for computing outlines and discourse structures of descriptive text.
DSC X88G. Algorithms: Techniques and Theory.
Explore algorithm design and analysis including algorithmic paradigms, maximum flow, randomized algorithms, data structures, NP-completeness and approximation algorithms.
DSC X88J. Optimization.
Explore a background on convex sets and functions, linear programming, convex programming, and iterative first-order and second-order methods.
DSC X89. Data Structures.
Examine programming skills, including testing, debugging, and the basics of programming methodology. Explore fundamental concepts in data structures and algorithms.
DSC X91L. Principles of Machine Learning.
Examine computing systems that automatically improve their performance with experience, including various approaches to inductive classification such as version space, decision tree, rule-based, neural network, Bayesian, and instance-based methods; as well as computational learning theory, explanation-based learning, and knowledge refinement.
DSC X94D. Deep Learning.
Explore the basic building blocks and intuitions behind designing, training, tuning, and monitoring of deep networks. Examine both the theory of deep learning, as well as hands-on implementation sessions in pytorch. Explore a series of application areas of deep networks in: computer vision, sequence modeling in natural language processing, deep reinforcement learning, generative modeling, and adversarial learning.
DSC X94R. Reinforcement Learning.
Introduction to the theory and practice of modern reinforcement learning, with emphasis on temporal difference learning algorithms.
DSC X95T. Topics in Computer Science for Data Sciences.
Explore topics in data science with a general overview of computer science application.

Professional Courses

E - English

English: E

Lower-Division Courses

E X03C. Plan II World Literature Part I.
Reading of masterpieces of world literature and intensive training in writing and in critical analysis of literature.
E X03D. Plan II World Literature Part II.
Reading of masterpieces of world literature and intensive training in writing and in critical analysis of literature.
E X10C. Literature and Community Engagement.
E X10D. Introduction to Digital Studies.
Explore the critical application of exploratory techniques in digital scholarship in the humanities, including principles of exploratory data analysis programming language to perform both analysis and visualization. Critique how text, images, and audio are analyzed and represented from a humanistic perspective that considers intersectional power dynamics surrounding ability, class, gender, and race in culture.
E X10F. Literature, Film, and Other Arts.
Survey of preeminent films of the twentieth century alongside a consideration of the literary works that most influenced them. Explores different modes of close reading and skills to critically analyze texts in a variety of literary and media formats. Focus on connections between different modes of modern expression and critical analysis.
E X10G. Introduction to Comics Studies.
E X10S. The Films of Alfred Hitchcock.
Survey the films of Alfred Hitchcock. Examine the question of film as a visual medium and Hitchcock as a visual artist, with close attention to his techniques of storytelling through moving pictures and the performances of the actors.
E X10T. The Taylor Swift Songbook.
E X14J. Topics in Literature Across the Curriculum.
Readings selected to highlight the connections between literary study and other fields of inquiry.
E X14J.1. Literature and Film.
E X14J.3. Literature and Theatre.
E X14J.4. Harry Potter's Secret Language.
E X14L. Topics in Introduction to Literary Studies.
Emphasis on skills and methods used in upper-division English courses; intensive practice in writing; and an introduction to field-specific research.
E X14L.10. GoodReads.
An introduction to literary analysis, focusing on building a literary community.
E X14L.3. Banned Books and Novel Ideas.
E X14L.4. Texts and Contexts.
E X14L.5. Reading Poetry.
E X14L.8. The Pulitzer Prize.
An introduction to literary analysis focusing on works that have been awarded the Pulitzer Prize for fiction, drama, and/or poetry.
E X14L.9. Cult Classics.
An introduction to literary analysis focusing on works that have become cult classics.
E X14T. Advanced Placement Credit in English.
Used to record coursework credit based upon an appropriate Advanced Placement Literature and Composition examination score.
E X14V. Topics in Introduction to Literature and Culture.
Readings focus on minority and ethnic American literatures in their cultural contexts with an emphasis on skills and methods. Intensive practice in writing and an introduction to field-specific research.
E X14V.1. African American Literature and Culture.
Explores texts, drawn from a variety of genres and periods, that indicate the range of African American experiences and how those experiences are influenced by issues such as class, ethnicity, gender, sexuality, and race.
E X14V.2. Asian American Literature and Culture.
Explores how authors and artists over the course of the past century have imagined what it means to be Asian American. Covers a diverse range of Asian immigrant histories and the formation of Asian American identities according to ethnicity, gender, sexuality, class, and citizenship.
E X14V.3. Mexican American Literature and Culture.
Representative Chicano writers and genres, such as poetry, prose fiction, and theatre.
E X14V.4. Gay and Lesbian Literature and Culture.
American writing by gay, lesbian, bisexual, transgender, or queer authors and/or with gay, lesbian, bisexual, transgender, or queer themes.
E X14V.5. Native American Literature and Culture.
Studies Native American literature from different regions and cultures and considers this literary tradition in tribal national and United States national contexts.
E X14V.6. Women, Gender, Literature, and Culture.
An introduction to literary analysis focusing on women's and gender studies.
E X14V.7. Jewish American Literature and Culture.
Examine Jewish American literature in its cultural contexts with an emphasis on skills and methods. Explore texts, drawn from a variety of genres and periods, that indicate the range of Jewish American

experiences and how those experiences are influenced by issues such as citizenship, class, ethnicity, gender, and sexuality.

E X16L. British Literature.
Introduction to masterpieces of the British literary tradition, emphasizing historical, generic, and thematic connections.

E X16M. American Literature.
Introduction to masterpieces of the American literary tradition, emphasizing historical, generic, and thematic connections.

E X16N. World Literature.
Introduction to masterpieces of world literature, emphasizing historical, generic, and thematic connections.

E X16P. Masterworks of Literature.
Introduction to masterpieces of literature, emphasizing historical, generic, and thematic connections.

E X18M. Introduction to the English Language.
Basic linguistic concepts; phonology, syntax, and vocabulary of English; historical, regional, and social variation; applications of linguistics in educational and social action.

E X18Q. Supervised Research.
Student-initiated research conducted with instructor supervision.

E X19D. Blackness and Comics.
Examine the relationship between race and the sequential aesthetics of comic books and comic strips. Explore comics strips, underground comics, and superhero comics from the colonial period to the present day.

E X19L. Latinx Digital Worlds.
Explore how Latinx communities (traditionally figured as on the wrong side of the "digital divide") have embraced, mobilized, and sometimes usurped emerging digital tools and spaces to forge community and create new forms of culture, memory, and activism.

E X19S. Topics in English.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

E X29S. Topics in English.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

E X91L. Conference Course on Special Topics.

Upper-Division Courses

E X19S. Topics in English.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

E X20L. Major Writers of the Restoration and Eighteenth Century.
A study of the principal writers: Dryden, Pope, Swift, Johnson, Boswell, Burns, and others.

E X21. Shakespeare.
A selection from the works of William Shakespeare.

E X21K. Introduction to Criticism.
Introduction to major terms, issues, and approaches in literary criticism, and their application to the reasoned discussion of poetry, fiction, and drama.

E X21L. American English.
An overview of the historical development of English in the Americas. Attention to regional, social, and ethnic differences, and their implications for public education.

E X21P. Shakespeare through Performance.
An intensive study of the plays of William Shakespeare, with emphasis on performance as a means of interpretation and an aid to comprehension.

E X23D. Topics in Diverse Perspectives.
Study literature and other forms within cultural and historical contexts, focusing on any one or more of the following: gender, race, ethnicity, culture, language, and/or globalization.

E X23E. Writing Slavery.
Explores the controversial rewriting of slavery in a presentist context by contemporary authors. Addresses challenges that archival limitations and revisionist writings about slavery pose for academic disciplines, literary instruction, and/or pedagogy.

E X23F. African American Writers in France.

E X23G. American Literary Masculinities.
Explores constructions of masculinity in American literature from a generally, but not exclusively, feminist perspective. Subjects include what masculinity has meant at different times in United States history, and how it has varied in meaning and significance according to broad categories of identity such as social class, race, region, and queerness.

E X23J. Jewish Stereotypes in American Literature and Culture.
Examine stereotypes that have come to define Jewishness in American culture by focusing both on the antisemitic tropes perpetuated by non-Jewish representations of 'the Jew' in literary classics and on the archetypes employed as coping mechanisms in cultural representations created by Jews themselves. Analyze how stereotypes become enmeshed in cultural consciousness and investigate ways in which representations of ethnic, religious, and racial minorities are governed by these kinds of one-dimensional archetypes.

E X23L. English as a World Language.
An account of the spread of English around the world; national, social, and regional varieties.

E X23N. Critical Race Theory and the Novel.

E X23P. Physicians and Their Fictions.

E X23Q. Queer of Color Critique.

E X23R. Migration Literature.

E X23S. The Global Short Story.

E X23T. Envisioning Muslims: The Middle Ages and Today.
Examine representations of Muslims in the dominant cultural media of the European Middle Ages, and in cultural media of the twentieth- and twenty-first centuries. Explore how Europeans envisioned Muslims, and how Muslims envisioned themselves.

E X23U. Race, Gender, and Political Economy in United States Literature.
Explore the intersection of race, class, and gender relations, gender expression, and gender norms as constitutive of real and imagined political economies in literature and films by black, indigenous, and Latine authors and producers in the United States.

E X23V. Multiethnic Popular Culture.
Examine a selection of popular genres through the lens of contemporary multiethnic and world literature and culture.

E X23W. Women's Autobiographical Writing.
Examines the autobiographical impulse in women's writing by exploring the concept of the individualistic self versus the sense of self as a part of community and duty, and the way in which that communal self can both partake of humankind and participate in self-actualization.

E X24C. The Graphic Novel.
An analysis of the graphic novel. Representative authors include Lynd Ward, Jaime and Gilbert Hernandez, Art Spiegelman, Alan Moore, Neil Gaiman, Chris Ware, Marjane Satrapi, and Alison Bechdel.

E X24F. The Faustus Legend in Theatre, Fiction, and Film.

E X24L. Literature, Health, and Medicine.

Examine literature about illness, healing, health, and health care. Explore the overlapping fields of literature and medicine and the health or medical humanities, with some attention also paid to disability studies. Consider the role that literature and the humanities can play in the education of health professionals.

E X24M. Troubled Literary Marriages.

Examine how the personal lives of authors may be expressed in their works. Use biographies, memoirs, letters, and the words of the authors, both in their creative and private lives, to explicate some of the major texts of the twentieth century.

E X24O. Fiction and Medievalism.

Through selected works of fiction, literary criticism, poetry, visual arts, and film, explore how the category of 'the medieval' has been constructed, and its imagery activated, in post-medieval settings from the eighteenth century onwards.

E X24R. Film Adaptations and Complexity.

E X24S. Folklore and Literature.

Introduction to folklore methods as they relate to the study of literature.

E X25S. Perversity and Self-interest.

E X25T. Media Theory and Literary Criticism.

E X26K. The Literature of the Middle Ages in Translation.

Romances, chronicles, legends, tales, and plays by English, Celtic, and Continental writers.

E X26L. Survey of Middle English Language and Literature.

Language and literature from 1100 to 1500.

E X27. The British Novel in the Eighteenth Century.

Representative novels and novelists from 1700 to 1832, including typical works of Defoe, Richardson, Fielding, Sterne, Austen, and Scott.

E X28. The British Novel in the Nineteenth Century.

Representative works by such writers as Dickens, Thackeray, the Brontes, Eliot, Meredith, and Hardy.

E X29R. The Romantic Period.

The prose and poetry of writers such as Blake, Wordsworth, Coleridge, Byron, Keats, Shelley, and others.

E X29S. Topics in English.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

E X33P. Contemporary African Writing in English.

E X35P. Business of Writing.

Study the book publishing landscape including traditional and non-traditional career paths available to writers and those interested in the publishing industry. Analyze the publishing process, from concept to finished book: the acquisition, editorial, publicity, marketing, and sales stages of a book's life.

E X36E. British Literature: Beginnings through the Renaissance.

A survey of major writers, poetry, and prose.

E X37. American Literature: From the Beginnings to 1865.

A survey of major writers, poetry, and prose.

E X37E. British Literature: The Restoration through the Romantic Era.

A survey of major writers, poetry, and prose.

E X38. American Literature: From 1865 to the Present.

A survey of major writers, poetry, and prose.

E X38E. British Literature: The Victorian Era through World War II.

A survey of major writers, poetry, and prose.

E X40. The American Novel before 1920.

Representative novels by such writers as Brown, Melville, Fern, Hawthorne, Twain, Crane, James, Wharton, and Dreiser.

E X40G. Contemporary Gothic.

E X40S. Literature and Culture of the 1960s.

E X41I. Irish Literature and Politics in the 20th Century.

E X41T. Digital Theatres.

E X42C. Black Cops in African American Popular Culture.

Explore the history of black policing in America and representations of black police officers in popular literature and film of late Twentieth Century America.

E X42D. 21st Century Latinx Literature.

Explore Latinx literature from the past two decades including both literary form and political engagement, with an emphasis on Latina, queer, and nonbinary writers.

E X42F. Life and Literature of the Southwest.

Examine literature reflecting the social inheritance of the Southwest through verse, fiction, travels, and memoirs.

E X42J. Latinx Young Adult Literatures.

E X42L. Latinx Legend Tripping.

Explore narrative folklore from diverse traditions across the United States based Latinx diaspora. Focus on supernatural legends and the creation of the female "monster".

E X42M. Life and Literature of the US-Mexico Borderlands.

Examine the literature of the US-Mexico borderlands experience, with an emphasis on the historical and social conditions that characterize this unique region. Explore this in the context of prose fiction, as well as drama, film, and poetry.

E X42P. Black Horror and Psychoanalysis.

Explore the intersection of race, horror aesthetics, and psychoanalytic theory.

E X42S. Southern Literature.

Introduction to and survey of the literature of the United States South. Explores methods of literary and cultural interpretation with focus on critical thinking, reading, and writing skills.

E X42T. Life and Literature of Texas.

Examines how Texas authors describe and explore the diversity and complexity of a state often seen in terms of myth and caricature. Works include literature from across the state by writers such as Katherine Anne Porter, Larry McMurtry, Cormac McCarthy, among others.

E X43C. Caribbean Literature.

E X43D. Disability, Race, and Sexuality in Literature and Culture.

E X43E. Latinx Short Story.

E X43F. Black Film at the Oscars.

E X43G. Global Environmental Literature and Film.

E X43I. Immigration Literature.

E X43J. Literature and Social Justice.

E X43L. Modernism and Literature.

Strands of thought and literature that form the network of modernist writing.

E X43M. Black Queer Literature and Film.

Analyzes written works, films, and videos by and about lesbians, bisexual, transgender, and gay black people, with an emphasis on understanding the historical and theoretical construction of sexual and gender identities and sexual/cultural practices in black communities.

E X43N. The Nobel Prize.

E X43O. Contemporary United States Latina/o Literature and Culture.

E X43P. Postmodern Literature.

Survey of postmodern writing. As a period, the postmodern extends roughly from the era after World War II, and follows the modern, a term often applied to literature produced since the start of World War I.

E X43Q. Lesbian, Gay, Bisexual, Transgender, and Queer Literature and Culture.
E X43R. Contemporary Native American Literature.
E X43S. Sustainability and Representation.
E X43T. Contemporary Asian American Novels.
E X43U. Literature, Health, and Disease.
E X43V. Literature of AIDS in Africa.
Examine the emerging cultural representations of AIDS in sub-Saharan Africa through journalistic, social science, and historical accounts. Explore the difficulty of representing the various aspects of a public-health crisis.
E X43W. Contemporary African American Women's Fiction.
E X44C. Young Adult: Fiction and Film.
See the works as embedded in specific historical, artistic, and cultural contexts that must be engaged in order to understand their expressed values and concerns about youth culture, specifically and comparatively. Discussions and analyses focus on aesthetics, form, and genre, framed by critical approaches and reading strategies rooted in film, genre, feminist, cultural, ethnic, and gender studies.
E X44D. Australian Literature and Film.
E X44E. New York School Poets and Artists.
E X44F. Film Theory.
E X44G. Gossip and Poetry.
E X44I. Twenty-First Century Poetry.
E X44J. Binge-Watching: A Cultural History.
E X44M. Major Film Movements.
E X44N. Film Noir.
E X44O. Popular Music and Youth Subcultures.
E X44P. Hollywood Babylon.
Explore Hollywood's symbolic role in American culture, and the genre of the Hollywood story, as seen in an array of representations of Hollywood (primarily in films and novels, but also in essays, poems, paintings, photographs, songs, fan magazines, and notorious counter-historical accounts such as Kenneth Anger's Hollywood Babylon).
E X44Q. Crime and Capitalism in African American Popular Culture.
Examine the intersection of crime and capitalism in black literature, motion pictures and music of late twentieth and early twenty-first Centuries.
E X44R. Childhood and Adolescence in Literature and Film.
Examine historical to contemporary representations of childhood and adolescence in literature, film, culture, and society.
E X44S. Film Auteurs.
E X44T. The Animated Film as Text.
E X44V. Music Videos: History and Theory.
E X44W. Citizen Kane and Company: The Essential Films.
Examine a select body of films, ranging from the early sound era to the present, that changed the vernacular of filmmaking, opened up new generic or stylistic directions, or epitomized the work of a widely influential director. Explore film history and theory, an introduction to the study of film genres and movements, the major tactics and techniques of film analysis, and the rigorous study of filmic texts.
E X45D. Drugs in African American Popular Culture.
Examine the legal, political, and philosophical intersection of blackness, whiteness, and drugs in the late twentieth century through film, music, and literature.
E X45F. Food Writing, Culture, and Environment.
Trace the origins of food writing and explore the ways the genre engages with contemporary issues of cultural definition, political action, and global sustainability while activating various definitions of taste and judgment ascribed to aesthetic and philosophical pursuits.
E X45S. Gender and Speculative Fiction.
Examine how writers have used speculative fiction--including science fiction, utopia, and dystopia--as a tool to explore gender, race, sexuality, humanity, ethics, disability, and the environment.
E X45T. The Theater in Austin.
E X45W. English Syntax for Writing.
E X46C. Contemporary Poetry (1945 to the present).
Survey poetry written in English from 1945 to the present. Examine how it has responded to and helped to shape the cultural and aesthetic questions of its times. Consider poetic movements and developments such as the so-called "middle generation," the Black Mountain School, the Beats, the San Francisco Renaissance, the New York School, Confessional poetry, Deep Image poetry, the Black Arts Movement, the Movement, Language writing, post-confessional lyric, hybrid poetics, and conceptual poetry, among others.
E X46V. Hitchcock's Vertigo in Context.
E X48. The Short Story.
Extensive readings and analyses of stories by major modern writers such as Faulkner, Hemingway, Joyce, Chekhov, and Kafka, as well as contemporary writers.
E X48C. Julia Alvarez and Sandra Cisneros.
E X48J. J. M. Coetzee.
E X48M. Cormac McCarthy.
Explore the work of Cormac McCarthy (1933-2023) and its representation of the United States South, Southwest, and Mexico.
E X48P. Plath and Sexton.
Explore the works of Sylvia Plath and Anne Sexton.
E X48S. Zadie Smith.
E X48T. J.R.R. Tolkien.
E X48U. Bruce Springsteen.
E X48W. Wes Anderson.
E X49D. Danticat and Diaz.
E X49S. Topics on Major Authors.
Intensive study of the works of a single major author or two major authors.
E X49S.1. Jane Austen.
E X49S.10. Graham Greene.
E X49S.11. Nathaniel Hawthorne.
E X49S.12. Alice Munro.
E X49S.13. Charles Dickens.
E X49S.14. David Foster Wallace.
E X49S.15. Edgar Allan Poe.
E X49S.16. Ernest Hemingway.
E X49S.17. George Eliot.
E X49S.18. Chaucer and Shakespeare.
E X49S.19. Shakespeare and Marlowe.
E X49S.2. The Brontes.
E X49S.20. Greta Gerwig.
Examine the works of a single major author or two major authors.
E X49S.3. James and Wharton.
E X49S.4. James Joyce.
E X49S.5. Toni Morrison.
An examination of select novels by the Nobel Laureate and Pulitzer Prize-winning novelist focuses on the positional uniqueness that womanism shares with a predominant feminism, which surfaces in historicized familial relationships.
E X49S.6. Walt Whitman.
E X49S.7. Oscar Wilde.
E X49S.8. Virginia Woolf.
Examines critical and fictional works of Virginia Woolf and the author's continuing legacy and influence. Explores the value and limitations of high modernism; English literary heritage and tradition; feminism; creative and critical definitions of gender and sexuality; intellectual activism, including Woolf's critiques of patriarchy, war, and fascism; and Woolf and imperialism and colonialism.

E X49S.9. William Faulkner.
E X49W. Bob Dylan.
E X50E. Topics in Language and Literature: Beginnings to 1630.
E X50E.3. Literature and the Visual Arts.
Examines the relationship between words and images across a broad historical sweep.
E X50M. Topics in Language and Literature: 1630 to 1830.
E X50R. Topics in Language and Literature: 1830 to 1940.
E X50R.1. Law, Society, and the Novel in Nineteenth-Century Britain.
E X50R.3. Literature, Cultural Memory, and the American Civil War.
Examines the American Civil War not in terms of its military or political history but in relation to the ways literary and cultural texts have remembered and rewritten it.
E X50R.4. The Paperback.
Introduction to basic bibliography terminology and book history by tracking the evolution of the modern paperback, from 1850 to now, by means of author case studies.
E X50V. Topics in Language and Literature: 1940-Present.
E X50W. American Women Writers.
E X51D. Angels and Devils in Victorian Fiction.
E X51E. Victorian Oxford.
Consider and discuss Oxford University and the city of Oxford through the lens of nineteenth-century texts set in and around the region.
E X51F. Literature and Business in Nineteenth-Century Britain.
E X51L. London: One Hundred Years Ago.
E X51O. Literature of Oxford.
E X51P. Paradise Lost: Reception History.
E X51V. Nineteenth Century Novels and Their Adaptations.
Analyze how late twentieth- and twenty-first century adaptations change nineteenth-century novels to appeal to modern audiences.
E X52C. Classical Backgrounds of Literature.
E X52D. American Dante.
Examine the influence of the Italian poet Dante on American culture from the nineteenth century to the present.
E X52I. Interwar United States Literature.
E X52K. Arthurian Literature and Film.
A survey of the major Arthurian narratives from their origins in the Middle Ages to the present in various textual (prose, poetry, drama) and visual (illustration, film, graphic) forms.
E X52V. Viking Literature.
A survey of early Norse and Anglo-Scandinavian prose and verse--saga; chronicle, heroic epic, and mythological (eddic and skaldic) verse--with attention to the image of the viking in contemporary popular culture.
E X53R. Literature of the Harlem Renaissance.
E X53W. Women in the Nineteenth-Century British Novel.
E X54C. Crime Fiction.
E X54D. Post-Darwin Novel.
E X54M. From Middlemarch to Modernism.
E X54P. Modern Poetry (1900-1945).
Survey poetry written in English from 1900 to 1945, including consideration of significant nineteenth-century precursors. Examine modern poetry's characteristic formal techniques, its preoccupations, and its key poets. Consider poetic movements and developments such as the "new" poetry, Georgian poetry, Regionalism, the poetry of World War I, Imagism, High Modernisms, so-called "Sentimental" Modernism, the New Criticism, the Harlem Renaissance, Documentary Poetry, and Objectivism, among others.
E X55V. Vampires and Dandies.
E X56. The European Novel.
Selected masterpieces of continental fiction in English translation; representative novelists of the nineteenth and twentieth centuries.
E X58D. Dickinson and Whitman.
Explore the works of Emily Dickinson and Walt Whitman.
E X58E. Eliot and Hardy.
Explore the works of George Eliot and Thomas Hardy.
E X58F. Faulkner and O'Connor.
Explore the works of William Faulkner and Flannery O'Connor.
E X58J. The Bible as Literature.
In-depth literary study of the Bible, with emphasis on the formal features of narrative, hymn, prophecy, apocalypse, gospel, and epistle.
E X58K. The Bible in British and American Literature.
The reading of biblical masterpieces as literature; consideration of different versions of the Bible and their influence on British and American literature.
E X58P. Robert Frost.
E X58Q. Supervised Research.
Student-initiated research conducted with instructor supervision.
E X58R. Research Apprenticeship.
Supervised research on a faculty-initiated project.
E X59. British Drama from 1660 to 1900.
Representative drama texts from the Restoration to the beginnings of modern theatre, including Behn, Sheridan, Wilde, and Shaw.
E X60C. Postcolonial Literature.
Examine the struggles of the migrant and exile with questions of identity, belonging, home, citizenship, and culture.
E X60K. English Grammar.
The study of traditional and transformational grammar. Attention to social differences in language relevant to the teaching of English.
E X60R. Literary Studies for High School Teachers of English.
Intended for students seeking a secondary school teaching certificate. The principles and practices of teaching literature in secondary schools.
E X61K. British Drama to 1642.
A survey of early British drama, usually including works by Marlowe, Kyd, Shakespeare, Jonson, Webster, and Middleton.
E X61S. The Scriblerians.
Explore selected works of members of The Scriblerus Club, formed as a counter-culture response to the elite British literary scene from which they were excluded in the early- to mid-1700s, which include works by Alexander Pope, Jonathan Swift, and John Gay.
E X62L. The Contemporary British Novel.
Representative novels, including those of Joyce, Lawrence, and Woolf.
E X63. Milton.
All the poetry of Milton, with particular attention to Comus, Samson Agonistes, and Paradise Lost.
E X63K. Classic to Romantic.
The theory and practice of Classicism in literature and other arts; the rise of the Romanticists in the eighteenth century.
E X63S. Early Black Atlantic.
E X64E. African American Language.
Introduction to the history and contemporary form of African American Language (AAL). Through readings, examine the linguistic description of essential features, the use of AAL in the creation of culturally and historically influential texts, and AAL as a subject of public discussion.
E X64M. History of the English Language.
Development of sounds, forms, and vocabulary of the English language from its origins to the present.
E X64P. Old English.
An introduction to Old English with sufficient grammar for a reading knowledge of Old English texts. A course in language, not in linguistics.
E X64T. The English Language and Its Social Context.
English language history, theory, and research for students of literature and rhetoric. May include such topics as language diversity and variation, linguistic attitudes, language variety and education, and language and public policy.

E X64V. Sailors, Explorers, and the British Novel.

E X66D. Dante.

E X66K. Shakespeare: Selected Tragedies.

Explore and analyze six selected Shakespeare tragedies to differentiate these plays from those in other genres (comedy, history, romance); examine the elements of Shakespeare's language and stagecraft that contribute to the lasting cultural prominence of his work.

E X67C. Conference Course in Literature and Language.

For students who wish to work under supervision on specific projects in literature or language.

E X67E. English Internship.

Research and staff experience working in an appropriate agency or private business.

E X68D. Bradstreet and Wheatley.

Explore the works of Anne Bradstreet and Phillis Wheatley.

E X68H. Honors Tutorial Course I.

Research into and development of a thesis topic and proposal.

E X68S. Scott and Wordsworth.

Explore the works of Walter Scott and William Wordsworth.

E X69. Twentieth-Century Drama.

Ibsen and other major dramatists; tradition and innovation in the substance and form of selected modern plays.

E X69H. Honors Tutorial Course II.

Writing and defense of an Honors thesis. Individual instruction.

E X70. Victorian Prose: Essays and Ideas.

The prose writer as artist and sage in the cultural, political, religious, and scientific controversies that influence the modern tradition. Representative writers: Carlyle, Mill, Newman, Arnold, Darwin.

E X70H. Honors Tutorial Course for Teachers.

Research into and development of a thesis topic and proposal followed by the writing and defense of a thesis.

E X71C. Early Celebrity Culture.

E X71S. Shakespearean Afterlives.

E X71T. Love and Betrayal in Troy.

E X72L. The American Renaissance.

Selected writers of the pre-Civil War Romantic movement, including Emerson, Douglass, Fuller, Hawthorne, Melville, Thoreau, Whitman, and others.

E X72M. American Realism.

Selected writers of the post-Civil War realistic movement: Howells, Twain, James, Jewett, Freeman, Crane, and others.

E X73M. Early Globalisms, 500-1500 CE.

Examine, through global literature, the interconnected worlds, humans, activities, and cultures in the approximate time frame of a thousand years to discover what they reveal of early globalisms.

E X73R. Race in the Middle Ages.

E X74C. Medieval Romance.

E X74G. Beowulf.

An extended reading of the work in its cultural and literary context.

E X74K. Elizabethan Poetry and Prose.

Renaissance thought and culture as revealed in the lyric and narrative poetry and in the prose masterpieces.

E X74L. The Earlier Seventeenth Century: Donne, Jonson, and Their Contemporaries.

Poetry and prose, 1600 to 1660: the metaphysical and other leading traditions in poetry; the early poems of Milton; the essay, the character, and other prose forms.

E X75D. Narratives of Discovery and Conquest.

E X75J. Drama of Jamestown.

E X75L. Victorian Literature.

Poetry and prose, 1832 to 1901; parallel reading in the novel and drama, and attention to the social and intellectual background of the period.

E X75R. The Image of the Cannibal in the Renaissance.

E X76. Chaucer.

Introduction to Chaucer's narrative and poetic art, as shown in a selection from the dream poems, Troilus and Criseyde, and the Canterbury Tales.

E X76F. Gender, Class, and Ethnicity in American Literature and Film.

E X76R. African American Literature through the Harlem Renaissance.

A survey of African American writing, including autobiography, poetry, fiction, and drama. Authors may include Douglass, Jacobs, Frances E. W. Harper, Chestnutt, Du Bois, Hurston, and Hughes.

E X76S. African American Literature since the Harlem Renaissance.

The development of African American poetry, drama, fiction, and nonfiction since the Harlem Renaissance. Authors may include Wright, Ellison, Baldwin, Malcolm X, Baraka, Morrison, Shange, and Charles Johnson.

E X77K. The American Novel after 1920.

Representative works by such writers as Faulkner, Hemingway, Fitzgerald, Larsen, Hurston, Morrison, Bellow, Erdrich, and Tan.

E X77M. The American Novel after 1960.

Examines American novels and short stories from the 1960s to the present. Considers the aesthetic and narrative innovations of the period in light of social, historical, technological, and political developments. Representative authors include Pynchon, Roth, Morrison, DeLillo, Silko, Robinson, Egan, and Diaz.

E X78E. Edmund Spenser.

E X78S. Shakespeare at Winedale.

Study and readings of selected works and criticism, culminating in public performance of the plays. For English 678SB, students are required to be in residence at Winedale near Round Top, Texas.

E X79. American Literature and Thought: 1600-1840.

Early American literature as an embodiment of American thought and experience. Such topics as European ideas in the New World; the political ideas of Hamilton, Jefferson, and Jackson; nationalism; industrialism.

E X79D. Digital Research Lab.

Participate in original faculty research in the Digital Humanities in a project-based, hands-on setting.

E X79K. American Literature and Thought: 1840-1920.

Such topics as transcendentalism, manifest destiny, Utopian thought, and the impact of the theory of organic evolution.

E X79L. Contemporary Drama.

Major playwrights since 1950, such as Williams, Shepard, Beckett, Stoppard, Churchill, Fugard, and Pinter.

E X79P. Drama in Performance.

Intensive study of drama through active performance as a means of interpretation and an aid to comprehension.

E X91L. Conference Course on Special Topics.

Graduate Courses

E X19S. Topics in English.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

E X29S. Topics in English.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

E X81E. Practicum in Editing.
Practice editing a literary journal.
E X81F. Literature for Writers.
Analyze readings in fiction, poetry, drama, literary criticism, biography, and autobiography from the point of view of a creative writer rather than that of a scholar.
E X82J. Studies in Linguistic Analysis.
Lectures, textual analysis, outside readings.
E X82L. Topics in Linguistics and Literature.
Intensive study of specialized subjects.
E X83L. Topics in The Teaching of English Composition and Literature.
A study of the major components of the English program in secondary school or college.
E X83L.1. World Literature and Globalism: Theory and Practice.
E X84K. Topics in Methods of Literary Research.
Issues addressed include methods of literary and cultural interpretation, archival research, academic publishing, and professional development.
E X84K.2. Disciplinary Inquiries.
E X84L. Scholarly Publication.
E X84M. Professional Outcomes.
E X85F. Workshop in Fiction.
E X85W. Creative Writing: Workshop in Fiction and Poetry.
Intended for graduate students who are not in a master of fine arts program.
E X86P. Workshop in Poetry.
E X87M. Topics in Rhetoric.
Advanced study of topics in rhetorical theory and in ancillary disciplines.
E X87N. Topics in Methods of Research in Rhetoric and Composition.
A study of the theory, practice, and history of research in rhetoric and composition.
E X87P. Topics in Productions in Rhetoric.
Applications of rhetoric to professional writing.
E X87R. Topics in Rhetorical History.
Topics include classical rhetoric, medieval and Renaissance rhetoric, eighteenth- and nineteenth-century rhetoric, and twentieth-century rhetoric.
E X88D. Topics in Digital Humanities.
Explore language and digital technology.
E X89M. Topics in British and American Literature.
Selected British and American writers and issues.
E X89P. Topics in Women, Gender, and Literature.
E X90M. Topics in European Literature.
A study of the impact of European writers on British or American literature.
E X91F. Field and Prospectus Examination.
Prepare for required Field and Prospectus examinations under the supervision of a faculty member.
E X91L. Conference Course on Special Topics.
E X92M. Topics in English Literature.
E X93C. Topics in Criticism and Theory.
Explore topics in literary and cultural criticism and theory.
E X95M. Topics in American Literature.
E X95N. Topics in the History of Language.
E X95N.1. Old English.
E X96E. Topics in Language and Media.
Discuss and interpret visual, audio, or digital media.
E X96E.1. Introduction to Film Analysis.
E X96E.2. Film Analysis for Literary Scholars.
E X96L. Topics in the English Language.
E X97M. Topics in the Literatures and Cultures of the English Speaking World.
E X97N. Topics in Ethnic and Third World Literatures.
E X98. Thesis.
Research and writing of a thesis under the supervision of the chair of the supervising committee and subject to the approval of the committee and the graduate dean.
E X98D. Digital Studies Practicum.
Practical work on a faculty-led digital studies research project, planned and carried out in consultation with the supervising instructor.
E X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
E X98T. Supervised Teaching in English.
E X99W. Dissertation.

Professional Courses

E X19S. Topics in English.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
E X29S. Topics in English.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
E X91L. Conference Course on Special Topics.

E M - Engineering Mechanics

Engineering Mechanics: E M

Lower-Division Courses

E M X06. Statics.
Vector algebra, force systems, free-body diagrams; engineering applications of equilibrium, including frames, friction, distributed loads; centroids, moments of inertia.
E M X11M. Dynamics.
Kinematics, dynamics, and energy and momentum methods for points as well as 2D/3D rigid bodies. Describe and predict the motion of different types of rigid bodies in space and time. Vibrations of simple systems.
E M X19. Mechanics of Solids.
Internal forces and deformations in solids; stress and strain in elastic and plastic solids; application to simple engineering problems.
E M X19S. Topics in Engineering Mechanics.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's International Engineering Education programs.
E M X19T. Topics in Engineering Mechanics.

Upper-Division Courses

E M X39. Advanced Strength of Materials.
Curved beams, shear deformation, beam columns, beams on elastic foundations; inelastic behavior of members; elementary plate bending.
E M X60. Topics in Engineering Mechanics.
Advanced work in the various areas of engineering mechanics, based on recent developments.

E M X79S. Topics in Engineering Mechanics.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's International Engineering Education Programs.

Graduate Courses

E M X80. Theory of Plasticity.
Physical basis of plastic deformation; mathematical theory of incremental plasticity; total theories; numerical implementation; slip and physical theories of plastic deformation; rate dependent (viscoplastic) models; applications to several engineering problems.

E M X81. Advanced Dynamics.
Dynamics of systems of particles and rigid bodies; vibration theory; analytical dynamics, including Lagrangian and Hamiltonian formulations; dynamic stability; continuous systems.

E M X82. Nonlinear Analysis.
Methods for analyzing various types of nonlinear differential equations of dynamical systems; exact methods, perturbation and averaging techniques, direct method of Liapunov.

E M X84K. Continuum Mechanics.
Foundations of the general nonlinear theories of continuum mechanics; general treatment of motion and deformation of continua, balance laws, constitutive theory; particular application to elastic solids and simple materials.

E M X84L. Structural Dynamics.
Free and forced vibration of single-degree-of-freedom, multiple-degree-of-freedom, and continuous systems. Lagrange's equations and Hamilton's principle; discretization of continuous systems; numerical methods for response and algebraic eigenvalue problems.

E M X86K. Analytical Methods I.
Basic topics in real and complex analysis, ordinary and partial differential equations, and other areas of applied mathematics with application to applied mechanics.

E M X86L. Analytical Methods II.
Continuation of Engineering Mechanics 386K.

E M X86M. Functional Analysis in Theoretical Mechanics.
An introduction to modern concepts in functional analysis and linear operator theory, with emphasis on their application to problems in theoretical mechanics; topological and metric spaces, norm linear spaces, theory of linear operators on Hilbert spaces, applications to boundary value problems in elasticity and dynamical systems.

E M X86N. Qualitative Methods in Nonlinear Mechanics.
A study of methods for assessing the qualitative behavior of solutions to equations governing nonlinear continuum mechanics.

E M X87. Foundations of Fluid Mechanics.
Governing equations in differential and integral forms; applications to both inviscid and viscous flow problems.

E M X88. Solid Mechanics I.
Mathematical description of stress, deformation, and constitutive equations of solid mechanics; boundary value problems of elasticity.

E M X88F. Fracture Mechanics.
Griffith theory of brittle crack propagation, other theories, crack toughness testing concepts.

E M X88L. Solid Mechanics II.
Continuation of Engineering Mechanics 388. Additional topics in elasticity, plasticity, viscoelasticity, variational methods, and other areas of solid mechanics.

E M X88M. Micromechanics.
Constitutive characterization of materials based on their microstructure. Relationships between internal structure and mechanical properties for composites, polycrystals, and polymers on the basis of linear elasticity, plasticity, and theories that account for rate-dependence.

E M X88N. Mechanics of Soft Materials.
Introduction to soft tissues and soft tissue mechanics; continuum mechanics (kinematics, stress, balance laws and hyperelasticity); and nonlinear finite element analysis in soft tissue mechanics.

E M X88S. Soft Tissue Biomechanics.
Introduction to soft tissues and soft tissue mechanics; continuum mechanics (kinematics, stress, balance laws and hyperelasticity); and nonlinear finite element analysis in soft tissue mechanics.

E M X88T. Thin Film Mechanics.
Discuss an extensive overview of mechanics-related subjects including stress, strain, fracture, delamination, instability, characterization, and important applications of thin films.

E M X88V. Theory of Viscoelasticity.
Introduction to linear viscoelasticity; methods of characterizing viscoelastic material behavior; analytical and approximate solution techniques for engineering problems, including contact, wave propagation, and thermoviscoelastic problems.

E M X89J. Experimental Mechanics.
Principles and techniques of measurement in mechanics; includes discussion of strain gauges, optical interference methods, photoelasticity, and dynamic measurements.

E M X91. Behavior and Mechanics of Active/Smart Materials.
Continuum physics and thermodynamics including thermal, mechanical, electrical and magnetic behaviors of active/smart materials. Linear and non-linear behavior of ferroelectrics, ferromagnetic materials, and shape memory alloys. Crystal symmetry, domain structure, phenomenological constitutive models, phase-field modeling, and dielectric elastomers.

E M X92R. Random Vibrations.
Introduction to probability theory and its application to random excitation of linear and nonlinear systems; a probabilistic discussion of failure and fatigue in structures.

E M X93N. Numerical Methods for Flow and Transport Problems.
Approximate solution methods for flow and transport problems in engineering and applied science. Finite element, finite difference, and residual methods for linear and nonlinear problems.

E M X94. Structural Stability.
Fundamental theory of buckling of elastic structural elements such as bars, frames, rings, plates, and shells; also special stability topics including inelastic buckling, creep buckling, and buckling under dynamic loading.

E M X94F. Finite Element Methods.
Derivation and implementation of the finite element method; basic coding techniques; application to problems of stress and diffusion.

E M X94G. Computational Techniques in Finite Elements.
Organization and data management in finite element codes; element models and calculations; equation solving; preprocessing and postprocessing.

E M X94H. Advanced Theory of Finite Element Methods.
Contemporary topics in the theory and application of finite element methods.

E M X94V. Wave Propagation I.
Solutions of linear wave equations; waves in elastic media, including plates and cylinders; transient waves, transform methods, asymptotic approximation.

E M X97. Topics in Advanced Engineering Mechanics.

E M X97.1. Advanced Topics in Viscoelasticity.

E M X97.2. Individual Research.

E M X97.3. Advanced Computational Flows and Transport.

E M X97.4. Grid Generation and Adaptive Grids.

E M X97.5. Adaptive Boundary/Finite Element Methods.

E M X97.6. Introduction to Machine Learning and Data Sciences.
Discuss machine learning algorithms, including linear models, kernel machines, tree-based algorithms, density estimation, clustering, dimensionality reduction and deep neural networks; foundations of machine learning, including optimization theory, probability theory, advanced linear algebra, statistics; evaluation of machine learning methods; and convolutational neural networks.

E M X97R. Individual Research.
Must be arranged by mutual agreement between student and faculty member.
E M X97S. Mechanics Seminar.
Current topics in mechanics.
E M X97T. Computational Mechanics Seminar.
Current topics in computational mechanics.
E M X98. Thesis.
E M X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
E M X98T. Supervised Teaching in Engineering Mechanics.
Teaching methods and objectives, criteria for evaluating teaching effectiveness, procedures and regulations, laboratory teaching.
E M X99W. Dissertation.

Professional Courses

E S - Engineering Studies

Engineering Studies: E S

Lower-Division Courses

E S X01. Engineering Design and Problem Solving.
Intended for non-Cockrell School of Engineering students. Introduction to the scope of engineering, foundations of engineering science, and engineering design.
E S X02. Spatial Visualization.
Instruction in the learned ability to mentally manipulate two- and three-dimensional structures.
E S X19. Topics in Engineering.
E S X19S. Topics in Engineering Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
E S X60. Service Learning for Engineers.
Supervised participation in a service-learning project that helps meet a community need.

Upper-Division Courses

E S X21G. GLUE Undergraduate Research.
Research experience and seminar for undergraduate engineers. Seminar involves workshops, discussion, and oral reports. Semester long research project required.
E S X22. Topics in Professional Development.
Small-group seminar involving reading, discussion, and oral reports.
E S X22.1. EOE Career Development Seminar.
Introduction to skills and professional practices in engineering.
E S X22.2. EOE Leadership Development Seminar.
Introduction to professional practices that focus on self-awareness and in-depth discussion of leadership styles and skill development.
E S X22.3. WEP Leadership Seminar.
Practical applications to assess leadership and communication styles.
E S X25C. Humanitarian Product Design.
Design a product that addresses the needs of people in marginalized communities such as those living in refugee camps or in other severely resource-limited environments. Examine and apply design tools, project management methods, and other principles of product development. Present project to an advisory board.
E S X25D. Humanitarian Product Prototyping.
Build and test prototype. Examine and apply design tools, project management methods, and other principles of product development. Present project to an advisory board.
E S X25K. Cooperative Engineering.
Covers the work period of engineering students in the Cooperative Engineering Program.
E S X25L. Cooperative Engineering.
Covers the work period of engineering students in the Cooperative Engineering Program.
E S X25N. Cooperative Engineering.
Covers the work period of engineering students in the Cooperative Engineering Program.
E S X29S. Topics in Engineering Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
E S X33T. Engineering Communication.
Explore technical communication skills for engineers, especially researching and writing technical documents for many kinds of readers, managing and documenting sources of information, using and explaining graphics, delivering oral presentations, working collaboratively, and eliciting information from experts and stakeholders.
E S X58C. Industrial Design I.
Explore methods and techniques for industrial design.
E S X60. Service Learning for Engineers.
Supervised participation in a service-learning project that helps meet a community need.
E S X60M. Experiments in Materials Science and Engineering.
Hands-on lab-based course designed to teach practical techniques in the synthesis and characterization of materials and their properties, and to use experiments to explore fundamental and potentially abstract materials concepts.
E S X69N. Sustainability Issues in Energy.
Introduction to sustainable energy in the context of sustainable development goals and the technologies that can help achieve them. Discuss carbon capture and sequestration; geothermal energy; hydrogen storage and distribution; solar, wind, and biomass power generation; and batteries and distribution networks.
E S X70H. Engineering Entrepreneurship.
Principles of engineering entrepreneurship, including legal aspects and the ethics of practice.
E S X70L. Nanofabrication and Nanomaterials.
Covers the basic tools and materials involved in the fabrication processes needed to create nano-scale structures and functional nanomaterials.
E S X70M. Nanodevices.
Covers the basic theory behind nano-scale devices used in the electronics, display, and energy industries.
E S X70N. Nanotechnology Innovation.
Provides a framework for innovation with a specific focus on applications of nanotechnology.
E S X70O. Nanometrology and Big Data.
Explore key concepts of metrology and data analytics in nanomanufacturing systems. Discuss the key steps in big data analytics which enable transformation of metrology and sensing data into optimal decisions. Examine key enabling methodologies and examples for statistical and dynamic modeling of big data in nanomanufacturing systems, as well as how those models are used for system-wide optimal decisions in terms of process control and system operations.
E S X77. Topics in Engineering.
E S X77.1. Longhorn Startup Seminar.
Overview of entrepreneurship using real-world examples.

E S X77.2. 21st Century Grand Challenges.
Explore the five components of the NAE Grand Challenges Scholars Program: grand challenges research and design, interdisciplinary curriculum, entrepreneurship, global perspectives, and service learning.

E S X77E. Interdisciplinary Entrepreneurship: Elective.
Projects must differ significantly from those developed for Electrical Engineering 364D and 364E. Focus on skill development and mentoring in start-up formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Includes discussion of intellectual property, social issues in design, as well as ethical and safety considerations. Emphasis on written and oral presentation of start-up activities.

E S X77K. Project Development with Underserved Communities.
Focus on skills to initiate, evaluate, and plan an international engineering service project with an underserved community.

E S X77L. Project Design with Underserved Communities.
Focuses on design of basic infrastructure systems in developing countries.

E S X77M. Project Implementation with Underserved Communities.
Taught on location in international locations such as India, Tanzania, and Guatemala. Entails implementation of project, collecting information for future projects, and checking on previously completed PUC projects if applicable.

E S X79K. Undergraduate Research Experience.
Directed study or research in a selected area of engineering.

E S X79L. Women in Engineering Leadership Seminar.
Lectures, discussions, and exercises related to various leadership issues.

E S X79M. Undergraduate Research Experience.

Graduate Courses

E S X60. Service Learning for Engineers.
Supervised participation in a service-learning project that helps meet a community need.

E S X80L. Nanofabrication and Nanomaterials.
Provides an understanding of the basic tools and materials involved in the fabrication processes needed to create nano-scale structures and functional nanomaterials.

E S X80M. Nanodevices.
Provides an understanding of the basic theory behind important nano-scale devices used in the electronics, display, and energy industries.

E S X80N. Nanotechnology Innovation.
Provides a framework for innovation with a specific focus on applications of nanotechnology.

E S X80O. Nanometrology and Big Data.
Explore key concepts of metrology and data analytics in nanomanufacturing systems. Discuss the key steps in big data analytics which enable transformation of metrology and sensing data into optimal decisions. Examine key enabling methodologies and examples for statistical and dynamic modeling of big data in nanomanufacturing systems, as well as how those models are used for system-wide optimal decisions in terms of process control and system operations.

E S X97. Special Subjects in Engineering.

Professional Courses

E S X60. Service Learning for Engineers.
Supervised participation in a service-learning project that helps meet a community need.

ECE - Electrical and Computer Engineering

Electrical and Computer Engineering: ECE

Lower-Division Courses

ECE X02. Introduction to Electrical Engineering.
Examine the scope and nature of professional activities of electrical engineers, including problem-solving techniques; analysis and design methods; engineering professional ethics; analysis of analog resistive circuits, including Thevenin/Norton equivalents, mesh analysis, and nodal analysis; and operational amplifiers (DC response).

ECE X02H. Introduction to Electrical Engineering: Honors.
Examine the scope and nature of professional activities of electrical engineers, including problem-solving techniques; analysis and design methods; engineering professional ethics; analysis of linear and non-linear analog circuits, including Thevenin/Norton equivalents, two-port networks, frequency domain analysis, mesh analysis, and nodal analysis; and operational amplifiers (DC response).

ECE X06. Introduction to Computing.
Introduction to computing including bits and operations on bits, number formats, arithmetic and logic operations, and digital logic. Explore the Von Neumann model of processing including memory, arithmetic logic unit, registers, and instruction decoding and execution. Examine structured programming and debugging, machine and assembly language programming, the structure of an assembler, physical input/output through device registers, subroutine call/return; trap instruction, stacks and applications of stacks.

ECE X06H. Introduction to Computing: Honors.
Introduction to computing including bits and operations on bits, number formats, arithmetic and logic operations, and digital logic. Explore the Von Neumann model of processing including memory, arithmetic logic unit, registers, and instruction decoding and execution. Examine structured programming and debugging, machine and assembly language programming, the structure of an assembler, physical input/output through device registers, subroutine call/return; trap instruction, stacks and applications of stacks.

ECE X07E. Elements of Electrical and Computer Engineering.
Introduction to electrical engineering: direct current circuit analysis, resistors, LEDs, switches, current and voltage measurements. Introduction to computer engineering: number systems, digital logic, storage, finite state machines, programming basics, microcontrollers.

ECE X07H. Engineering Leadership: Honors.
Explore different research areas in electrical and computer engineering and participate in community service projects within the discipline.

ECE X08S. Topics in Technical Skills.
Explore the development of a specific technical skill.

ECE X09K. Topics in Electrical Engineering.

ECE X09P. Introduction to Professional Engineering.
Explore professional skills including academic success, career development, and engineering ethics.

ECE X09S. Development of a Solar-Powered Vehicle.
Analyze, design, and construct a solar-powered car for national competitions involving other universities. Study electrical, mechanical, and aerodynamic systems.

ECE X11. Circuit Theory.
Examine capacitance and inductance; first- and second-order transient circuit response, including operational amplifier circuits; sinusoidal steady state analysis; Bode plots; complex power in single and balanced three-phase systems; transformers; two-port networks (Z-parameters and Y-parameters); and computer-aided analysis and design.

ECE X11H. Circuit Theory: Honors.
Examine capacitance and inductance; first- and second-order transient circuit response, including operational amplifier circuits; sinusoidal

steady state analysis; Bode plots; complex power in single and balanced three-phase systems; transformers; two-port networks (Z-parameters and Y-parameters); and computer-aided analysis and design.

ECE X11S. Tools to Enhance Academic Success.
Explore the components necessary to enhance academic success in engineering coursework including academic self-regulation, time management, self-discipline, goal-setting, weekly and semester planning, growth mindset, self-motivation, management of anxiety and stress, learning and memory, learning strategies, retrieval practices, and exam preparation.

ECE X12. Software Design and Implementation I.
Explore basic problem solving, design and implementation techniques for imperative programming; structured programming in the C/C++ language; programming idioms. Examine software design principles, including modularity, coupling and cohesion; software engineering tools; elementary data structures; and asymptotic analysis.

ECE X12H. Software Design and Implementation I: Honors.
Explore basic problem solving, design and implementation techniques for imperative programming; structured programming in the C/C++ language; programming idioms. Examine software design principles, including modularity, coupling and cohesion; software engineering tools; elementary data structures; and asymptotic analysis.

ECE X13. Linear Systems and Signals.
Examine representation of signals and systems; system properties; sampling; Laplace and z-transforms; transfer functions and frequency response; convolution; stability; Fourier transform; feedback; and control applications. Explore computer analysis using MATLAB or Python.

ECE X13H. Linear Systems and Signals: Honors.
Examine representation of signals and systems; system properties; sampling; Laplace and z-transforms; transfer functions and frequency response; convolution; stability; Fourier transform; feedback; and control applications. Explore computer analysis using MATLAB or Python.

ECE X16. Digital Logic Design.
Explore boolean algebra; analysis and design of combinational and sequential logic circuits; state machine design and state tables and graphs; simulation of combinational and sequential circuits; applications to computer design; and hardware description languages (HDLs) and field-programmable gate arrays (FPGAs).

ECE X19H. Introduction to Embedded Systems: Honors.
Examine embedded systems; machine language execution; assembly and C language programming; local variables and subroutines; input/output synchronization; analog to digital conversion and digital to analog conversion; debugging; and interrupts.

ECE X19K. Introduction to Embedded Systems.
Explore embedded systems; machine language execution; assembly and C language programming; local variables and subroutines; input/output synchronization; analog to digital conversion and digital to analog conversion; debugging; and interrupts.

ECE X19S. Topics in Electrical and Computer Engineering.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the Department of Electrical and Computer Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ECE X21K. Mixed Signal and Circuits Laboratory.
Explore digital and analog parametric testing of mixed-signal circuits and systems, including frequency response, harmonic and intermodulation, and noise behavior; use of system-level test equipment, including network analyzers, spectrum analyzers, and probe stations; coherent versus noncoherent measurements; and design for testability.

ECE X22C. Software Design and Implementation II.
Explore methods for engineering software with a focus on abstraction; specification, design, implementation, and testing of object-oriented code using a modern development tool-set for complex systems; design and implementation of object-oriented programs in Java; abstract data types; inheritance; polymorphism; parameterized types and generic programming; the operation and application of commonly used data structures; exception handling and fault tolerance; algorithm analysis; and teamwork models.

ECE X25. Electromagnetic Engineering.
Examine electrostatics and magnetostatics; properties of conductive, dielectric, and magnetic materials; solutions of Maxwell's equations; uniform plane wave applications; and frequency- and time-domain analyses of transmission lines.

ECE X25K. Antennas and Wireless Propagation.
Explore solutions of time-varying Maxwell's equations with applications to antennas and wireless propagation; antenna theory and design, array synthesis; electromagnetic wave propagation, scattering, and diffraction; and numerical methods for solving Maxwell's equations.

ECE X25S. Internship in Electrical and Computer Engineering.
Practical work experience in industry or a research lab under the supervision of an engineer or scientist. Requires a substantial final report.

ECE X29S. Topics in Electrical and Computer Engineering.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Electrical and Computer Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ECE X31. Electrical Circuits, Electronics, and Machinery.
Explore brief theory of direct and alternating current circuits; single-phase and three-phase power transmission; electronic devices and instrumentation; and electromechanics.

ECE X33T. Engineering Communication.
Explore advanced engineering communication skills, with emphasis on technical documents, oral reports, and graphics. Participate in collaborative work involving online communication and research.

ECE X34K. Quantum Theory of Electronic Materials.
Introduction to quantum mechanics; atoms and molecules; electron statistics; quantum theory of solids; electronic phenomena in semiconductors; and device applications based on these phenomena.

ECE X34M. Magnetic Materials and Devices.
Explore the fundamentals and applications of magnetic materials, in particular to nano-devices; examine the origin of magnetism in oxides and metals; magnetic switching mechanisms, and how spin structures arise such as domain walls and topologically-protected spin states; discuss applications to future computing nano-devices.

ECE X38. Fundamentals of Electronic Circuits I Laboratory.
Explore the analysis and design of electronic circuits using semiconductor devices. Examine basic device physics and small-signal modeling for diodes, bipolar junction transistors, and metal-oxide-semiconductor transistors; operation region and biasing; basic switching circuits; single-stage and multi-stage amplifier design and analysis; input and output impedance characteristics of amplifiers; frequency response; AC and DC coupling techniques; and differential amplifiers and output stages.

ECE X38K. Analog Electronics.
Explore the analysis and design of analog electronic circuits; transistor models; single-ended amplifiers; differential amplifiers; operational amplifiers; frequency response; feedback theory; stability analysis; circuit nonidealities; op-amp-based circuits; output stages; power amplifiers; passive and active analog filters; and relaxation oscillators

ECE X38L. Analog Integrated Circuit Design.
Explore the analysis and design of analog integrated circuits; transistor models; simple and advanced current mirrors; single-ended amplifiers; differential amplifiers; operational amplifiers; frequency response; feedback theory; stability analysis; circuit nonidealities and noise; output stages; and analog filters. Examine computer-aided design (CAD) tools for circuit analysis and design.

ECE X39. Solid-State Electronic Devices.
Examine semiconductor materials; atomic orbitals to energy band structure of semiconductors; charge carrier transport, electron-hole generation and recombination; p-n junctions and Schottky barriers; bipolar and field-effect transistors; and optoelectronic devices.

ECE X39S. Solar Energy Conversion Devices.
Investigate basic principles of photovoltaic devices which convert light into charge carriers (electrons and holes). Examine electrons and holes in semiconductors, generation and recombination, junctions, analysis of the p-n junction, silicon and III-V semiconductor solar cell design and optimization, thin film solar cell technologies, managing light, strategies for higher efficiency, and a brief overview of non-photovoltaic approaches to solar energy conversion.

ECE X40. Integrated Circuit Nanomanufacturing Techniques.
Examine integrated circuit processing; crystal growth and wafer preparation; epitaxial growth; oxidation, diffusion, and ion implantation; thin-film deposition techniques; and lithography and etching.

ECE X40P. High-Throughput Nanopatterning.
Explore sub-50nm fabrication using mechanical patterning techniques; overview of photolithography, mechanical nanopatterning processes, hot embossing, and UV imprint lithography; wafer-scale and roll-to-roll nanopatterning with applications in electronics, photonics, and nanomedicine; physics of nanoreplication, process limits, template (mold) fabrication, defect mechanisms, and factors affecting throughput.

ECE X41. Electric Drives and Machines.
Explore fundamentals of electric machines. Examine electromechanical energy conversion; magnetic circuits, transformers, and energy conversion devices; and power electronics. Discuss motor drive fundamentals and applications.

ECE X45L. Embedded Systems Design Laboratory.
Explore the design of microcontroller-based embedded systems; interfacing from both a hardware and software perspective; and applications, including audio, data acquisition, and communication systems.

ECE X45M. Embedded and Real-Time Systems Laboratory.
Explore real-time operating systems; implementation of context switching, threads, multitasking, real-time scheduling, synchronization, communication, storage, file systems, memory management, process linking and loading, hardware interfacing, and networking; debugging and testing; operating system performance, including latency, jitter, deadlines, deadlocks, and starvation; real-time systems, including data acquisition, sensing, actuating, digital control, signal processing, and robotics.

ECE X45S. Real-Time Digital Signal Processing Laboratory.
Explore digital signal processing algorithms; simulation and real-time implementation of audio and communication systems; filters; pulse shaping and matched filters; modulation and demodulation; adaptive filters; carrier recovery; symbol synchronization; equalization; quantization; and data conversion.

ECE X47. Modern Optics.
Explore modern optical wave phenomena with applications to imaging, holography, fiber optics, lasers, and optical information processing.

ECE X48. Laser and Optical Engineering.
Explore principles of operation and applications of lasers, optical modulators, and optical detectors.

ECE X51H. Probability and Random Processes: Honors.
Examine probability, random variables, statistics, and random processes, including counting, independence, conditioning, expectation, density functions, distributions, law of large numbers, central limit theorem, confidence intervals, hypothesis testing, statistical estimation, stationary processes, Markov chains, and ergodicity.

ECE X51K. Probability and Random Processes.
Examine probability, random variables, statistics, and random processes, including counting, independence, conditioning, expectation, density functions, distributions, law of large numbers, central limit theorem, confidence intervals, hypothesis testing, statistical estimation, stationary processes, Markov chains, and ergodicity.

ECE X51M. Digital Signal Processing.
Explore sampling, aliasing, truncation effects; discrete and fast Fourier transform methods; convolution and deconvolution; finite and infinite impulse response filter design methods; Wiener, Kalman, noncausal, linear phase, median, and prediction filters; and spectral estimation.

ECE X55. Electrical and Computer Engineering Seminar.
Hear presentations by speakers from industry, government, academia, and professional private practice. Explore environmental and other ethical concerns, safety awareness, quality management, technical career descriptions, and professionalism with a focus on engineering communication.

ECE X55L. Engineering Leadership Seminar.
Hear presentations by speakers from industry, government, academia, and professional private practice. Explore environmental and other ethical concerns, safety awareness, quality management, technical career descriptions, and professionalism.

ECE X55R. Undergraduate Research Seminar.
Explore areas of research in electrical and computer engineering.

ECE X60. Special Problems in Electrical and Computer Engineering.
Investigate special problems as approved by the electrical and computer engineering department.

ECE X60C. Algorithms.
Explore advanced problem-solving methods; algorithm design principles; complexity analysis; the study of the nature, impact, and handling of intractability; and the study of common algorithmic classes and their applications.

ECE X60F. Introduction to Software Engineering.
Introduction to the discipline of software engineering. Explore software system creation and evolution; fundamental concepts and principles of software product and software process systems, including requirements, architecture and design, construction, deployment, and maintenance; and documentation and document management, measurement and evaluation, software evolution, teamwork, and project management.

ECE X60G. Programming Paradigms.
Study programming language constructs, scripting languages, object-oriented languages, functional languages, language semantics, software engineering design, and design patterns.

ECE X60J. Data Science Laboratory.
Explore predictive modeling, regression and classification, data cleaning and preprocessing, feature engineering, unsupervised methods, principal component analysis, data clustering, model selection and feature selection, entropy and information theory, neural networks, deep learning, and machine learning for signals and time-series data.

ECE X60K. Introduction to Digital Communications.
Examine characterization of baseband and passband communication signals and channels, digital modulation, and pulse shaping; optimum receivers in additive white Gaussian noise including matched-filtering, machine learning (ML), and mean average precision (mAP) detection and their bit error probability for M-ary modulation; inter-symbol interference channels, finite impulse response (FIR) and infinite impulse response (IIR) equalization, multicarrier modulation, orthogonal frequency-division multiplexing (OFDM) and frequency domain equalization. Introduction to information theory, channel capacity, error control codes, and ML sequence detection (Viterbi decoding). Explore applications to stationary wireless and wireline channels.

ECE X60M. Digital Systems Design Using Hardware Description Languages.
Explore organization, design, simulation, synthesis, and testing of digital systems; hardware description languages (HDLs); field programmable gate arrays (FPGAs); hardware implementation of arithmetic and other algorithmic processes; state machine charts; microprogramming; and microprocessor design.

ECE X60N. Computer Architecture.
Examine characteristics of instruction set architecture and microarchitecture; physical and virtual memory; caches and cache design; interrupts and exceptions; integer and floating-point arithmetic; I/O processing; buses; pipelining, out-of-order execution, branch prediction, and other performance enhancements; design trade-offs; and case studies of commercial microprocessors. Explore behavioral-level design of a microarchitecture in a laboratory setting.

ECE X60P. Concurrent and Distributed Systems.
Investigate concurrency, lock-based and lock-free synchronization, resource allocation, multi-threaded programming, distributed systems programming, mutual exclusion, global snapshots, global property evaluation, message ordering, consensus, Byzantine agreement, and commit protocols.

ECE X60R. Introduction to VLSI Design.
Explore theory and practice of very-large-scale integration (VLSI) circuit design. Examine metal-oxide-semiconductor (MOS) transistors; static and dynamic complementary metal-oxide-semiconductor (CMOS) combinational and sequential circuits; design of adders, multipliers, and shifters; performance, power consumption and testing. Use computer-aided design (CAD) tools for layout, timing analysis, synthesis, physical design, and verification.

ECE X60S. Digital Integrated Circuit Design.
Examine circuit-level aspects of metal oxide silicon (MOS) and bipolar integrated circuit technologies. Explore logic gates and latches; propagation delays; and circuit simulation models.

ECE X60T. Software Testing.
Explore basic concepts and techniques used in testing software and finding bugs. Examine process, unit, integration, and system testing; manual and automatic techniques for generation of test inputs and validation of test outputs; and coverage criteria. Focus on functional testing.

ECE X61C. Multicore Computing.
Explore theoretical and practical aspects of designing multicore software systems; programming constructs for concurrent computation; openMP; sequential consistency; linearizability; lock-based synchronization; lock-free synchronization; wait-free synchronization; consensus number; software transactional memory; testing and debugging parallel programs; race detection; concurrent data structures such as stacks, queues, linked lists, hash tables, and skiplists; formal models; temporal logic; reachability analysis; and parallel graph algorithms.

ECE X61D. System Design Metrics.
Examine engineering design, manufacturing, and lifetime support issues; implications of customer perceptions of quality on design; economics of design; and legal implications of design decisions.

ECE X61E. Machine Learning and Data Analytics for Edge Artificial Intelligence.
Examine edge computing; Internet-of-Things (IoT); cyber-physical systems; energy-aware machine learning (ML); deep learning; model compression; knowledge distillation; federated learning; ML security; system optimization; model-architecture co-design; object detection; and social sensing.

ECE X61G. Engineering Program Analysis.
Explore program analysis; compilers; interpreters; code instrumentation; control-flow analysis; data-flow analysis; static single assignment form; dependency analysis; incremental analysis; autotuning; and just-in-time compilation.

ECE X61L. Software Engineering and Design Laboratory.
Examine generation of concrete software engineering artifacts at all stages of the software life-cycle processes; stakeholder needs to system requirements mapping; object-oriented design and analysis; and test driven development. Study design principles and methods; design and modeling tools; collaborative development environment; design patterns and refactoring; integration and testing tools. Examine emerging concepts in cloud native devops, including microservices, containers, and application programming interfaces (APIs). Explore design and development of at-scale software system using modern software development techniques, including re-usable front-end and back-end components, and cloud deployment.

ECE X61M. Software Architectures.
Explore the definitions, motivations, and utility of software system architectures from a technical and business perspective; derivation, specification, and analysis of architectural views in support of different phases in the system engineering lifecycle; methods to judge architectural quality; and communication of architectural views to a wide range of system stakeholders.

ECE X61N. Information Security and Privacy.
Explore information valuation; information classification; information confidentiality, integrity and availability; access control models; trusted identity, trust frameworks. Examine cryptology, designing information system security and privacy, threats and vulnerabilities. Introduction to network, software, and web security; risk assessments; data breach incident response; privacy laws and regulations.

ECE X61P. Data Science Principles.
Examine principles of unsupervised and supervised learning; exploratory data analysis; feature engineering; predictive modeling for regression and classification; clustering algorithms; neural networks and stochastic gradient descent methods; scalable models for Big Data sets; case studies; and programming predictive models in Python and R.

ECE X61Q. Requirements Engineering.
Explore the methods and technology for acquiring, representing, documenting, verifying, validating, and maintaining requirements; text-based, graphic-based, and computational requirements model representations; requirements analysis to synthesize and resolve conflicts among disparate stakeholder viewpoints; requirements traceability and evolution; and change management.

ECE X61R. Radio-Frequency Electronics.
Examine modeling of active and passive devices and transmission line structures at high frequencies. Explore analysis and design of radio-frequency electronic circuits including amplifiers, mixers, multipliers, detectors, and oscillators; transistor-, circuit-, and system-level design methods, challenges, and topologies; noise and distortion analysis; and evaluation of modern radio systems.

ECE X61S. Operating Systems.
Introduction to operating system design and implementation; the shell; process management and system calls; memory management; thread management, scheduling, synchronization and concurrency; file systems; input/output systems; virtual machines; and networking and security.

ECE X61T. Compilers.
Explore program compilation and translation from high-level into machine languages; compiler structure; syntax analysis; semantic analysis; type systems; code generation; intermediate language and representation; control and data flow analysis; and optimization techniques.

ECE X62G. Smart Grids.
Explore the fundamentals of smart electric power grids; smart grid architecture, communications, measurement, sensing, design, performance, standards and cyber security; distributed energy, renewable sources, and energy storage; and interoperability.

ECE X62K. Introduction to Automatic Control.
Explore analysis of linear automatic control systems in time and frequency domains; stability analysis; state variable analysis of continuous-time and discrete-time systems; root locus; Nyquist diagrams; Bode plots; sensitivity; and lead and lag compensation.

ECE X62L. Power Electronics Laboratory.
Explore the analysis, design, and operation of power electronic circuits; power conversion from AC to DC, DC to DC, and DC to AC; rectifiers, inverters, and pulse width modulated motor drives. Examine the use of energy from renewable sources such as photovoltaics and wind in a laboratory setting.

ECE X62M. Power Electronics II.
Examine pulse-width-modulated power converters, rigorous physical design and device selection, gate driving, thermal design, magnetics design, small-signal modeling and control, and EMI filtering. Explore design and prototyping.

ECE X62Q. Power Quality and Harmonics.
Examine and analyze power quality and harmonic phenomena in electric power systems, including characteristics and definitions, voltage sags, electrical transients, harmonics, mitigation techniques, and standards of power quality and harmonics.

ECE X62R. Renewable Energy and Power Systems.
Examine renewable energy sources and their integration into power systems. Explore wind energy: resources, turbines, blades, rotor power characteristics, generators, active and reactive power, variability, and voltage regulation; solar energy: resources, solar radiation measurements, photovoltaic materials and properties, photovoltaic electrical characteristics, and system integration; and demonstrations with commercial-grade solar panels and laboratory-scale wind turbines.

ECE X62S. Development of a Solar-Powered Vehicle.
Analyze, design, and construct a solar-powered car for national competitions involving other universities. Study electrical, mechanical, and aerodynamic systems.

ECE X63M. Microwave and Radio Frequency Engineering.
Examine design principles in microwave and radio frequency systems; transmission lines and waveguides; S-parameter representation; impedance matching; microwave network analysis; microwave devices and components; and electromagnetic effects in high-speed and high-frequency applications.

ECE X63N. Engineering Acoustics.
Principles of acoustics, with applications drawn from audio engineering, biomedical ultrasound, industrial acoustics, noise control, room acoustics, and underwater sound.

ECE X64C. Corporate Senior Design Project.
Undertake design and experimental projects in the laboratories of local companies. Examine the ethics of design for safety and reliability. Designed for electrical engineering students working full-time in the industry.

ECE X64D. Introduction to Engineering Design.
Introduction to the engineering design process. Explore the assessment and documentation of engineering problems and customer needs, such as acquiring, documenting, and verifying requirements; high-level system design principles; effects of economic, environmental, ethical, safety, and social issues in design; writing and presenting design specifications; and effective teamwork.

ECE X64E. Interdisciplinary Entrepreneurship.
Start a company with a team. Explore skill development and mentoring in start-up formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Discuss the role of intellectual property and the social issues in design, as well as ethical and safety considerations.

ECE X64G. Multidisciplinary Senior Design Project.
Undertake design and experimental projects with teams from multiple engineering disciplines. Examine the ethics of design for safety and reliability.

ECE X64H. Honors Senior Design Project.
Implement the previously developed engineering system design, including design review, prototyping, project testing and any subsequent design modifications; addressing economic, environmental, ethical, safety, and social issues; documentation of each of the preceding and publicly presenting design results; and working effectively in teams.

ECE X64K. Senior Design Project.
Implement the previously developed engineering system design, including design review, prototyping, project testing and any subsequent design modifications; addressing economic, environmental, ethical, safety, and social issues; documentation of each of the preceding and publicly presenting design results; and working effectively in teams.

ECE X64R. Research Senior Design Project.
Implement the previously developed engineering system design, including design review, prototyping, project testing and any subsequent design modifications; addressing economic, environmental, ethical, safety, and social issues; documentation of each of the preceding and publicly presenting design results; and working effectively in teams.

ECE X64S. Start-Up Senior Design Project.
Complete a practical engineering product design; validate the design through prototype construction and testing, modeling and simulation, and manufacturability analysis. Develop a completed company prospectus and seek venture funding for the project.

ECE X66. Engineering Economics I.
Explore business organization; discounted cash flow calculations, including present-worth and rate-of-return calculations; replacement analyses; financial analyses; accounting and depreciation; income taxes; inflation; risk analysis, utility theory, decision models, sequential decision making; and value of information.

ECE X66K. Engineering Economics II.
Explore the fundamentals of risk management, including portfolio theory, capital asset pricing theory, and optimal project mix; hedging financial risk; advanced economic analysis of alternative energy systems; and advanced mathematical modeling techniques for economic analysis.

ECE X66L. Statistics for Manufacturing.
Explore statistical analysis applied to the development and control of manufacturing operations. Examine quality control, statistical process control, and design of experiments.

ECE X68L. Power Systems Apparatus and Laboratory.
Explore fundamentals of power systems emphasized through laboratory experiments; complex power, three-phase circuits, per-unit system, transformers, synchronous machines, transmission line models, steady-state analysis, induction machines, capacitor banks, protective relaying, surge arrestors, and instrumentation.

ECE X69. Power Systems Engineering.
Examine power systems engineering. Explore complex power, phasors, balanced three phase power systems, transformers and per-unit systems, transmission line parameters, steady state operation of transmission lines, the power flow problem, symmetrical faults, power system controls, economic operation of power systems, optimal power flow, and deregulation and restructuring of electricity markets.

ECE X69L. Relay Protection of Power Systems.
Examine the theory, principles, and practices for protecting medium-voltage industrial power systems and high-voltage transmission grids, including symmetrical components; fault calculations and grounding; protection of motors, generators, cables, and transmission lines; and relay settings, fusing, and coordination of multiple protection devices.

ECE X70. Automatic Control II.
Introduction to modern control theory, nonlinear and optimal control systems; controllability, observability, stability; state feedback, observers, eigenvalue assignment.

ECE X70K. Computer Control Systems.
Explore the analysis and design of linear discrete time control systems; z-transform theory; modified z-transforms; stability; multirate systems;

digital simulation of discrete time systems; and synthesis of algorithms for computer controllers.

ECE X70L. Introduction to Manufacturing Systems Automation.
Explore applications of automation techniques to manufacturing systems, robotics, and computer vision.

ECE X70N. Introduction to Robotics and Mechatronics.
Examine structures for industrial robots; geometry and transformation; direct and inverse kinematics; differential kinematics; dynamics; trajectory planning; actuators and sensors; adaptive control and learning compliance; vision and pattern recognition; and expert systems.

ECE X71C. Wireless Communications Laboratory.
Examine the fundamentals of wireless communication from a digital signal processing perspective; linear modulation, demodulation, and orthogonal frequency division multiplexing; synchronization, channel estimation, and equalization; communication in fading channels; and wireless standards.

ECE X71D. Introduction to Neural Networks.
Explore characteristics of artificial neural networks, feedforward networks, and recurrent networks; learning algorithms; self-organization; biological links; and data mining and other applications.

ECE X71M. Communication Systems.
Explore analog and digital modulation; noise in communication systems; signal-to-noise ratio; coding; optimal receiver design; phase-locked loops; and performance analysis.

ECE X71P. Introduction to Computer Vision.
Examine image representation (by both human brain and digital); image filtering and edge detection; keypoint detection and matching; camera model and geometric calibration; stereo vision and essential/fundamental matrices; triangulation and epipolar geometry; depth estimation; video and optical flow; classical machine learning concepts; image classification; object detection and segmentation; deep learning for computer vision (basics).

ECE X71Q. Digital Image Processing.
Examine digital image acquisition, processing, and analysis; two dimensional Fourier analysis; 2D wavelets; image filtering; image denoising; image compression; machine learning for image processing and analysis; deep learning of images; picture quality prediction; image analysis; 3D stereoscopic ranging.

ECE X72L. Network Engineering Laboratory.
Explore local, metropolitan, and wide-area operations; telecommunication common carrier organizations and services; administrative and political considerations; premise distribution systems; name resolution, address assignment, and mail; datagra,s, packets, frames, and cells; addressing and network-level interconnection; internetwork architecture; TCP/IP protocol suite (v. 4 and 6); Ethernet and IEEE 802.3 standards; IEEE 802.11 standards and wireless access points; repeaters, hubs, bridges, routers; local area network emulation; public switched network access through POTS and ISDN; intradomain and interdomain routing; routing protocols, including RIP, OSPF, and BGP; multicast; media testing; and local- and wide-area diagnostic tools.

ECE X72N. Telecommunication Networks.
Examine the operation of modern communication networks. Discuss the concept of layered network architecture to gain practical insights on the principal functions and services required for achieving reliable end-to-end communications. Explore networking application design and programming; service interfaces and peer-to-peer protocols; the reference model for TCP/IP; IEEE LAN (Local Area Network) architectures; network-layer and transport-layer issues; link layer with focus on contention-based access; wireless networks that cover WiFi; and basics of cellular networks.

ECE X72S. Cryptography and Network Security.
Explore distributed information system security, cryptographic tools, authentication, message security, and system management.

ECE X74K. Biomedical Electronic Instrument Design.
Explore the application of electrical engineering principles in the design of electronic instrumentation at the circuit-board level for the measurement of pressure, temperature, flow, and impedance. Examine the study of light intensity, bioelectric potentials, and stimulation devices such as pacemakers and defibrillators. Focus on design considerations specific to electro-medical environments, safety and efficacy, and public policy issues.

ECE X74L. Applications of Biomedical Engineering.
Examine areas of biomedical engineering, such as optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; and noninvasive cardiovascular measurements.

ECE X74N. Neural Engineering.
Examine a variety of clinical conditions and their associated neurological basis, and then analyze the engineering solutions to cope with the neurological deficits, with an emphasis on electrical and computer engineering components. Study approaches to design motor neuroprosthetics and sensory neuroprosthetics that restore lost functions. Learn principles of deep brain stimulation, neuromodulation, and brain plasticity. Explore the concepts behind technological approaches for neurorehabilitation, in particular robotics and brain-computer interfaces.

ECE X79H. Undergraduate Honors Thesis.
Undertake research across two consecutive semesters under the supervision of an engineering faculty member. Investigate a research area, selected with a faculty member with approval by the director of the Honors Program. Deliver an oral presentation and write a thesis.

ECE X79K. Topics in Electrical Engineering.

Graduate Courses

ECE X80C. Introduction to Optimization.

ECE X80K. Introduction to System Theory.
Introduction to linear dynamical systems and differential equations, state space analysis and applications to feedback control, functional analytic methods, realization theory, stability theory, and elements of optimal control.

ECE X80L. Topics in Computer Systems in Engineering.

ECE X80L.11. Mining the Web.
Analyze data and information available from the World Wide Web. Explore the exploitation of the hyperlink structure of the Web for developing better search engines. Examine content analysis; information retrieval, clustering, and hierarchical categorization of Web documents; web usage mining; and collaborative filtering and personalizing the Web.

ECE X80L.12. Real-Time Operating Systems Laboratory.
Explore real-time operating systems; implementation of context switching, threads, multitasking, real-time scheduling, synchronization, communication, storage, file systems, memory management, process linking and loading, hardware interfacing, and networking; debugging and testing; operating system performance, including latency, jitter, deadlines, deadlocks, and starvation; real-time systems, including data acquisition, sensing, actuating, digital control, signal processing, and robotics.

ECE X80L.5. Engineering Programming Languages.
Explore higher-level languages for engineering design and problem solving; object-oriented programming in C++ and Unix systems programming.

ECE X80L.7. Introduction to Pattern Recognition and Computer Vision.
Explore pattern recognition, including Bayesian decision theory, maximum likelihood and estimation, nonparametric techniques, and linear discriminant functions. Examine computer vision, including geometric camera models and calibration, geometry of multiple views and stereopsis, structure from motion, and tracking.

ECE X80L.8. Computer Vision Systems.
Discuss current research results and explore new directions in computer vision systems, including linear discriminant functions, nonmetric methods, unsupervised learning and clustering, model-based vision, segmentation using probabilistic methods, and content-based image and video analysis. Apply the techniques to real-world vision systems.

ECE X80L.9. Artificial Neural Systems.
Examine feed-forward networks, distributed associative memory, recurrent networks, self-organization, parallel implementation, and applications.

ECE X80N. Topics in System Theory.

ECE X80N.1. Nonlinear Systems: Input-Output Properties.

ECE X80N.10. Robotics II.

ECE X80N.11. Optimization in Engineering Systems.
Formulation and solution of continuous optimization problems in engineering design and operations.

ECE X80N.2. Nonlinear Systems: Geometric Theory.

ECE X80N.3. Adaptive Control Systems.

ECE X80N.4. Learning Systems and Cybernetic Machines.

ECE X80N.5. Stochastic Control Theory.
Examine dynamic programming in finite and infinite horizon, models with imperfect state information, ergodic control problems, and adaptive and risk-sensitive control.

ECE X80N.7. Design of Computer-Controlled Systems.

ECE X80N.8. Algorithms for Parallel and Distributed Computation.

ECE X80N.9. Fundamentals of Robotics and Mechatronics.
Explore the theory of robotics and mechatronics, with emphasis on control, sensing, actuation, low- and high-level vision. Examine manipulator geometry, kinematics, dynamics, and planning of trajectories.

ECE X81C. Verification and Validation.

ECE X81J. Probability and Stochastic Processes I.
Examine probability spaces, random variables, expectation, conditional expectation, stochastic convergence, characteristic functions, and limit theorems. Explore Markov and Gaussian processes, stationary processes, spectral representation, ergodicity, renewal processes, martingales, and applications to estimation, prediction, and queueing theory.

ECE X81K. Topics in Decision, Information, and Communications Engineering.

ECE X81K.1. Detection Theory.

ECE X81K.11. Wireless Communications.
Introduction to fundamental aspects of wireless communication systems including channel modeling, diversity, multiple antenna transmission and reception, beamforming, adaptive modulation. Explore multiuser communication concepts including OFDMA and SC-FDMA, spread spectrum and CDMA, and broadcast and MAC channels. Examine system-level modeling including network information theory, stochastic geometry, and network interference models.

ECE X81K.13. Analysis and Design of Communication Networks.
Examine stochastic and deterministic traffic and queueing models. Explore techniques for call admission, routing, flow control, network optimization, estimation, and decision making in uncertain environments.

ECE X81K.14. Multidimensional Digital Signal Processing.
Explore multidimensional signals and systems, multidimensional discrete Fourier analysis, discrete cosine transform, two-dimensional filters, beamforming, seismic processing, tomography, multidimensional multirate systems, image halftoning, and video processing.

ECE X81K.15. Communication Networks: Technology, Architectures, and Protocols.
Explore network services and techniques, layered architectures, circuit and packet-switching networks, internetworking, switch architectures, control mechanisms, and economic issues.

ECE X81K.16. Digital Video.
Examine video sampling and transform; video (retinal and cortical) filters; motion detection and estimation; statistical models of videos; neuroscience of video perception; natural video statistics; modern video compression standards; video quality prediction; video denoising; active contour models; and video saliency.

ECE X81K.17. Wireless Communications Laboratory.
Explore the fundamentals of wireless communication from a digital signal processing perspective; linear modulation, demodulation, and orthogonal frequency division multiplexing; synchronization, channel estimation, and equalization; communication in fading channels; principles of multiple-input, multiple-output (MIMO) communication; and wireless standards.

ECE X81K.18. Convex Optimization.
The fundamentals of convex optimization with a focus on modeling, computation and scale: convex sets and functions, unconstrained optimization via first and second-order methods, duality, constrained optimization, SDPs, stochastic and sub-gradient descent methods, ADMMs, and applications.

ECE X81K.19. Wireless Network Modeling and Performance Evaluation.
Explore modeling of large wireless networks, random graphs, stochastic geometry, point processes, space and time averages, connectivity, stability, capacity, and network design optimization, with applications for cellular network, mobile ad hoc networks, device to device networks, and vehicular networks.

ECE X81K.2. Digital Communications.
Explore characterization of baseband and passband communication signals and channels, digital modulation, and pulse shaping; optimum receivers in additive white Gaussian noise including matched-filtering, ML, and MAP detection and their bit error probability for M-ary modulation; inter-symbol interference channels, FIR and IIR equalization, multicarrier modulation, OFDM and frequency domain equalization. Introduction to information theory, channel capacity, error control codes, and ML sequence detection (Viterbi decoding). Examine applications to stationary wireless and wireline channels.

ECE X81K.20. Machine Learning on Real World Networks.
Explore networks in natural and socio-technological systems. Examine network structure and dynamics, machine learning on real networks, clustering; network models, small worlds, scale free networks, preferential attachment, community structure, network-on-chip optimization and control, epidemics and rumors, human mobility, network embedding, deep learning on graphs, graph neural networks, and other networks.

ECE X81K.21. Computational Magnetic Resonance Imaging.
Introduction to Magnetic Resonance Imaging (MRI), particularly focusing on computational co-design of the signal acquisition and post-processing algorithms. Discuss principles of MRI, including basic system hardware, spin physics, signal formation, contrast mechanisms, pulse sequence design, image detection, and image reconstruction. Examine advanced image reconstruction including parallel imaging, compressed sensing, and machine learning; and exploration of concepts using real and synthetic data.

ECE X81K.3. Applied Machine Learning.
Examine approaches to extracting valid and useful insights from data using statistically oriented approaches, with emphasis on predictive models learned from large-scale data sets. Code machine learning algorithms in Python and use various data visualization techniques.

ECE X81K.4. Statistical Machine Learning.
Introduction to the theoretical underpinnings of machine learning and the derivations that transform those foundations into practical algorithms. Discuss empirical risk minimization and the probably approximately correct (PAC) learning framework; the bias-complexity tradeoff; the Vapnik-Chervonenkis dimension; Rademacher complexities; linear predictors; boosting; model selection and validation; convex learning problems; support vector machines and kernel methods; decision trees; clustering; dimensionality reduction; generative models; and variational Bayesian methods.

ECE X81K.5. Advanced Telecommunication Networks.
Explore methods and research issues in the performance evaluation and management of high-speed and mobile communication networks.

ECE X81K.6. Estimation Theory.

ECE X81K.7. Information Theory.
Explore source and channel coding theorems, Kolmogorov complexity, network information theory, and connections with large deviations.

ECE X81K.8. Digital Signal Processing.
Examine signals and systems; generalized functions; z-transforms; Fourier series and transforms; fast Fourier transform; sampling, quantization, and aliasing; digital filter design; discrete-time random processes; multirate processing; filter banks and subband decomposition; nonlinear digital filters.

ECE X81K.9. Advanced Signal Processing.
Explore signal modeling; optimum filtering; spectral estimation; fast algorithms; and applications in array signal processing, speech coding, and digital communication.

ECE X81L. Digital Time Series Analysis and Applications.
Examine digital implementation of higher-order spectra and other techniques useful in analyzing, interpreting, and modeling random time series data from linear and nonlinear physical systems.

ECE X81M. Probability and Stochastic Processes II.
Examine random walk and Brownian motion; renewal and regenerative processes; Markov processes; ergodic theory; continuous parameter martingales; stochastic differential equations; diffusions; stochastic control; and multidimensional stochastic models.

ECE X81S. Space-Time Communication.
Explore multiple-input multiple-output (MIMO) wireless communication, including discrete-time signal models, equalization, and channel estimation; channel models; channel capacity; average probability of error in fading channels; channel coding; transmit and receive diversity; space-time codes; spatial multiplexing; precoding and limited feedback; space-time adaptation; multiuser communication; multiuser information theory; practical multiuser algorithms; and applications in recent standards.

ECE X81V. Topics in Communications, Networks, and Systems.

ECE X82C. Topics in Software Engineering and Systems.

ECE X82C.1. Engineering Design of Software and Software Systems.
Explore the software development process; selection and application of software design methods; and evaluation of software designs.

ECE X82C.10. Unconventional Computation.
Explore a variety of perspectives on computation, focusing on provable mathematical properties of the various models, and on how to use the models to achieve desired computational behavior. Discuss mechanical and electronic analog computation; linear threshold units (neural networks); cellular automata, Turing machines, and uncomputability; reversible computing and thermodynamics of computation; and quantum computing.

ECE X82C.11. Requirements Engineering.

ECE X82C.12. Multicore Computing.
Examine theoretical and practical aspects of designing multicore software systems; programming constructs for concurrent computation, openMP, sequential consistency, linearizability, lock-based synchronization, lock-free synchronization, wait-free synchronization, consensus number, software transactional memory, testing and debugging parallel programs, race detection, concurrent data structures such as stacks, queues, linked lists, hash tables and skiplists, formal models, temporal logic, reachability analysis, and parallel graph algorithms.

ECE X82C.13. Mobile Computing.
Explore an overview of emerging research areas in mobile computing with a specific focus on the software engineering ramifications of mobile and pervasive computing technologies. Develop a solid foundation to support future discourse and research in the areas of mobile and pervasive computing, and skills to critically read research papers, assimilate information, find additional resources, and draw connections.

ECE X82C.14. Software Evolution Principles.
Review program analysis techniques for evolving software; incremental testing, debugging, and verification; static and dynamic dependency analysis; program transformations; and software visualization.

ECE X82C.15. Middleware Architecture and Design.
Introduction to the design of distributed computing middleware, with a focus on architectural principles. Explore an overview of required functions of emerging middleware and how middleware is designed to support these functions. Examine particular domains such as middleware for mobile computing, middleware for embedded systems, and middleware for sensor networks.

ECE X82C.16. Software Testing.
Examine basic concepts and techniques for testing software and finding bugs. Explore the testing process; unit, integration and system testing; manual and automatic techniques for generation of test inputs and validation of test outputs; and coverage criteria. Focus on functional testing.

ECE X82C.17. Algorithmic Foundations for Software Systems.
Examine complex data structures and algorithms, graph algorithms, performance analysis, correctness analysis, engineering effective techniques, and domain-specific methods, such as systematic or heuristic search.

ECE X82C.18. Computer Graphics.
Examine computer graphics, including in-depth treatments of techniques for realistic image synthesis, advanced geometric modeling methods, animation and dynamic simulation, scientific visualization, and high-performance graphics architectures.

ECE X82C.2. Creation and Maintenance of Distributed Software Systems.
Examine the creation of large distributed software applications, with emphasis on specification, failure models, correctness, and security.

ECE X82C.3. Verification and Validation of Software.
Evaluate software for correctness, efficiency, performance, and reliability.

ECE X82C.4. Software and Hardware Engineering Project Management.
Examine the requirements for a project management plan; role of the manager of the software development life cycle; economic and customer-driven factors.

ECE X82C.5. Large Software, Hardware, and Communications Systems Engineering.
Explore the techniques used to specify and design systems of software, hardware, and communications components. Create a requirements document and system specification.

ECE X82C.6. Software for Highly-Available Distributed Applications.

ECE X82C.7. Software Architectures.
Explore the definitions, motivations, and utility of software system architectures from a technical and business perspective; derivation, specification, and analysis of architectural views in support of different phases in the system engineering lifecycle; methods to judge

architectural quality; and communication of architectural views to a wide range of system stakeholders.

ECE X82C.8. Theory Blockchains and Smart Contracts.
Explore blockchains and smart contracts, including but not limited to distributed consensus; layer 1 protocol architecture; associated cryptosystems; decentralized peer to peer networks; properties of blockchains; design of blockchain protocols and associated cryptosystems; security and privacy; scalability; liveness of such networks; proof of work; stake and other consensus mechanisms; and incentive design for participation in decentralized systems. Examine decentralized finance and decentralized applications.

ECE X82C.9. Embedded Software Systems.
Examine dataflow models, uniprocessor and multiprocessor scheduling, hardware/software codesign, hierarchical finite state machines, synchronous languages, reactive systems, synchronous reactive languages, and heterogeneous systems.

ECE X82L. Topics in Theory of Digital Systems.

ECE X82L.1. Switching Theory.
Explore general theory and realization algorithms for combinational, sequential, and array logic.

ECE X82L.2. Graph Theory and Applications.
Examine elementary graph theory concepts; graph theory algorithms and applications in multicomputer architecture, switching and coding theory, data structures, computer networks, programming, algorithm analysis, diagnosis and fault tolerance.

ECE X82M. Topics in Integrated Circuits and Systems.

ECE X82M.1. VLSI Testing.
Examine hardware and software reliability analysis of digital systems; testing, design for testability, self-diagnosis, fault-tolerant logic design, error-detecting and error-correcting codes.

ECE X82M.10. Synthesis of Digital Systems.
Explore automatic generation of gate-level implementations from hardware description language (HDL) specifications; optimization of two-level, multilevel, and sequential circuits for area, speed, and testability.

ECE X82M.11. Verification of Digital Systems.
Examine automatic verification of digital systems; formal models and specifications, equivalence checking, design verification, temporal logic, binary decision diagrams (BDDs), logical foundations, automata theory, recent developments.

ECE X82M.12. Semiconductor Memory Design.
Examine semiconductor memory design in depth. Explore volatile memory circuit designs with static random access memory (SRAM), dynamic RAMs (DRAM), multi-ported RAMs, and content addressable memories (CAMs). Explore non-volatile semiconductor memory designs such as read-only-memories, resistive RAM, magnetic RAM, FLASH, and 3D memories. Discuss in-memory and near-memory computing circuit techniques for machine learning and artificial intelligence applications.

ECE X82M.13. Analysis and Design of Digital Integrated Circuits.
Examine device and circuit-level aspects of metal oxide semiconductors (MOS) digital integrated circuit design.

ECE X82M.14. Analog Integrated Circuit Design.
Explore the analysis and design of analog integrated circuits; transistor models and integrated circuit technologies; layout techniques; noise; mismatches; current mirrors; differential amplifiers; frequency response and compensation; feedback and stability; nonlinear circuits; voltage references; and operational amplifiers using state-of-the-art computer-aided design (CAD) tools for design, simulation, and layout.

ECE X82M.16. Application-Specific Processing.
Examine techniques for the design and analysis of application-specific processors, including special purpose systems, embedded processors, and systems-on-chip.

ECE X82M.17. High-Level Synthesis of Digital Systems.
Examine the synthesis from high-level languages (C) to RTL; allocation, scheduling and binding algorithms, and optimizations under area and performance objectives and constraints.

ECE X82M.19. Mixed-Signal System Design and Modeling.
Explore architecture development for mixed-signal integrated circuits. Model analog and digital filters, data converters, and digital data receivers.

ECE X82M.2. Dependable Computing.
Examine design techniques for reliable, fault-tolerant, fail-safe and fail-soft systems; fault diagnosis and fault avoidance methods at program and system levels; experimental and commercial fault-tolerant computer systems.

ECE X82M.20. System-on-Chip Design.
Examine the methodologies and tools for System-on-Chip (SoC) design, hardware/software co-design and co-verification; partitioning; real-time scheduling; hardware acceleration; high-level C-to-RTL synthesis; allocation, scheduling and binding algorithms for hardware synthesis; SoC integration, communication architectures and hardware/software interfacing; virtual prototyping and hardware/software co-simulation; FPGA prototyping of hardware/software systems.

ECE X82M.22. VLSI Physical Design Automation.
Examine algorithms and methodologies in circuit partitioning, floorplanning, global placement, detailed placement, global routing, detailed routing, clock tree routing, and power and ground routing. Explore new trends in physical design.

ECE X82M.23. Low-Power and Robustness Design.
Examine nanometer transistors and models; design-time and runtime techniques for dynamic and standby power minimization; power minimization at circuit and architecture levels; power minimization for logic, memory, and interconnect; sources of variability; statistical data collection and analysis of variance; statistical circuit simulation and timing analysis; manufacturability and resolution enhancement techniques.

ECE X82M.24. Analog-Digital Data Conversion Circuits.
Explore the analysis and design of analog-digital data conversion circuits including both architectural-level and transistor-level design considerations; design trade-offs among power, noise, linearity, and speed; sample-and-hold circuits and voltage comparators; noise analysis for mixed-signal circuits; flash, pipelined, successive approximation, and delta-sigma oversampling analog-to-digital-converters (ADCs); resistor-string, R-2R, current-steering, and delta-sigma oversampling digital-to-analog-converters (DACs); and the use of state-of-the-art computer-aided design (CAD) tools for analysis, design, and validation.

ECE X82M.25. Radio Frequency Integrated Circuit Design.
Examine noise and distortion in devices and circuits; amplifier design techniques for low noise, variable gain, high output power, and high dynamic range; analysis and design of integrated mixers and other frequency converters; voltage and current mode mixers; rectifiers; integrated oscillators for generating fixed and variable frequencies; relevant performance metrics and trade-offs; noise in linear and non-linear time varying circuits; circuit techniques for linearity enhancement; design optimization in bipolar and complementary metal-oxide-semiconductor (CMOS) technologies. Explore transceiver architectures.

ECE X82M.26. VLSI CAD and Optimization.
Explore interconnect and gate modeling; timing analysis; interconnect topology optimization; gate sizing; buffer insertion and sizing; wire sizing and planning; crosstalk analysis and mitigation; clock network synthesis; interconnect planning; modern placement techniques; congestion mitigation; low power optimization; design for manufacturability and reliability; design and computer-aided design (CAD) for emerging technologies.

ECE X82M.7. VLSI I.
Examine very-large scale integration (VLSI) circuit design. Explore complementary metal oxide semiconductor (CMOS) technology; static

and dynamic CMOS combinational and sequential circuits; design of datapath elements; performance, power consumption, and testing. Use computer-aided design (CAD) tools for layout, timing analysis, synthesis, physical design, and verification.

ECE X82M.8. VLSI II.

Examine microelectronic systems architecture; VLSI circuit testing methods; integration of heterogeneous computer-aided design tools; wafer scale integration; advanced high-speed circuit design and integration.

ECE X82M.9. Simulation Methods in CAD and VLSI.

Examine techniques and algorithms for simulating large-scale digital and analog circuits.

ECE X82N. Topics in Architecture, Computer Systems, and Embedded Systems.

ECE X82N.1. Computer Architecture.

Examine characteristics of instruction set architecture and microarchitecture; physical and virtual memory; caches and cache design; interrupts and exceptions; integer and floating-point arithmetic; I/O processing; buses; pipelining, out-of-order execution, branch prediction, and other performance enhancements; design trade-offs; and case studies of commercial microprocessors. Participate in an individual laboratory.

ECE X82N.10. Parallel Computer Architecture.

Study parallel computing, including models, algorithms, languages, compilers, interconnection networks, and architectures.

ECE X82N.11. Distributed Systems.

Examine tracking dependency, mutex algorithms, snapshot algorithms, leader election, spanning tree, distributed algorithms, Map-Reduce, slicer, termination detection, message order, synchronizers, self-stabilization, knowledge, consensus, Byzantine agreement, fault-tolerance.

ECE X82N.14. High-Speed Computer Arithmetic I.

Explore the design of computer arithmetic units: fast adders, fast multipliers, dividers, and floating-point arithmetic units.

ECE X82N.15. High-Speed Computer Arithmetic II.

Explore advanced computer arithmetic, including error correcting coding, residue number systems, CORDIC arithmetic, and VLSI implementation.

ECE X82N.16. Distributed Information System Security.

ECE X82N.17. Superscalar Microprocessor Architectures.

Examine superscalar processor architectures; instruction level parallelism; machine level parallelism; superscalar organization; instruction windows; reservation station; register data flow; register renaming; reorder buffers; memory disambiguation; branch prediction; value prediction; instruction reuse techniques; comparison with very long instruction word (VLIW), single instruction-multiple data (SIMD), and multiple instruction-multiple data (MIMD) approaches; memory systems for superscalar processors; design for performance and power efficiency; performance evaluation of superscalar processors; and case studies.

ECE X82N.18. Distributed Systems II.

ECE X82N.19. Microarchitecture.

Explore concepts in architecture and microarchitecture. Examine critical path, bread-and-butter design, partitioning, timing, and pipelining; data path, state machine, microsequencer, microinstruction, microcode, microprogramming, and CAD tools; pipelining, branch prediction, and out-of-order execution; trace cache, block-structured ISA, simultaneous multithreading, and clustering; single instruction-multiple data (SIMD), very long instruction word (VLIW), decoupled access/execute (DAE), high performance switch (HPS), and data flow. survey the impact of compiler technology, reduced instruction set computing (RISC), and predicated execution; multiprocessor issues, cache coherency, memory consistency, and graphics processing units (GPUs); IEEE Floating Point, and example state-of-the-art microarchitectures.

ECE X82N.20. Computer Architecture: Parallelism and Locality.

Examine hardware and software parallelism and locality mechanisms, and their impact on processor performance, bandwidth, and power requirements; architectures and microarchitectures of throughput-oriented processors that rely on parallelism, locality, and hierarchical control; parallel memory systems; and streaming and bulk execution and programming models. Explore programming and measuring performance on massively parallel processors.

ECE X82N.21. Computer Performance Evaluation and Benchmarking.

Examine performance analysis of microprocessors and computer architectures; impact of performance analysis on microprocessor design; techniques for analysis of architectural trade-offs; performance and power modeling; performance metrics; benchmarks, measurement tools, and techniques; simulation, challenges in full-system simulation; instruction profiling; trace generation; sampling; simulation points; analytical modeling; calibration of microprocessor performance models; workload characterization; benchmarks for emerging programming paradigms; synthetic benchmarks; statistical methods to compare alternatives; linear regression; and design of experiments.

ECE X82N.22. Computer Architecture: User System Interplay.

Explore fundamental principles in computer architecture focusing on the hardware and the compiler, as well as developing an understanding of their interplay with each other and with usage and programming models. Examine the development of several system families and follow common threads of identifying the intended users, system properties, and evaluation methodology. Review case studies including PCs and workstations with general-purpose processors, large parallel systems, graphics processors, and more experimental architectures such as stream processing and transactional memory.

ECE X82N.23. Embedded System Design and Modeling.

Examine the methods and techniques for formal specification, modeling, and system-level design of embedded systems; models of computation (MoCs), concurrency and time including finite state machines (FSMs), process networks and dataflow; system-level design languages (SLDLs) and methodologies; system-level synthesis algorithms for partitioning, scheduling and design space exploration; system refinement and implementation models; virtual platform prototyping, system simulation and transaction-level modeling (TLM); hardware and software synthesis; system-level design tools and case studies.

ECE X82N.24. Code Generation and Optimization.

Generate executable machine code understood by machines from program source code understood by programmers. Explore program optimization for performance, energy efficiency and reliability; code generation and optimization for different types of hardware; and runtime systems and just-in-time compilation.

ECE X82N.25. Runtime Systems.

Examine fundamentals of runtime systems; design, implementation, and optimization of emulation engines; interpreters; binary translators; dynamic binary optimization; high-level language virtual machines; co-designed virtual machines; system-level virtual machines; and processor virtualization.

ECE X82N.26. Machine Learning Hardware-Algorithm Codesign.

Explore co-design of machine learning (ML) algorithms and hardware; foundations of ML, compute-intensive ML architectures, high-performance matrix multiplication, spatial computing, roofline modeling, and scheduling and dataflows; ML-specific numerics, compression, quantization, and architectures for edge and mobile; codesign for scaling and system considerations; and circuit-level techniques for ultra-low-power ML, analog, and processing-in-memory techniques.

ECE X82N.3. Interconnection Networks.

Explore topologies, routing algorithms, permutations, resource allocations, performance evaluation, fault tolerance, VLSI design, parallel and distributed algorithms, languages for specifying protocols, and distributed operating systems.

ECE X82N.4. Advanced Embedded Microcontroller Systems.
Examine hardware and software design of advanced microcontroller systems; embedded applications, Linux drivers, handlers, and kernel modules, file systems, debugging; hardware acceleration, intelligent sensors and I/O subsystems, embedded field-programmable gate array (FPGAs), and networking-on-chip.

ECE X82V. Topics in Computer Engineering.

ECE X83L. Electromagnetic Field Theory.
Examine vector space, Green's function; equivalence theorem; vector potentials; plane, cylindrical, and spherical waves; and radiation and scattering.

ECE X83M. Microwave Field Theory.
Examine guided waves in cylindrical waveguides, microstrip lines, dielectric and optical waveguides; integrated circuits; and periodic structures.

ECE X83N. Theory of Electromagnetic Fields: Electrodynamics.
Explore intermediate electromagnetic field theory, with emphasis on the interaction of fields and material media, including anisotropic media.

ECE X83P. Topics in Optical Processing and Laser Communications.

ECE X83P.1. Fourier Optics.
Examine Fourier transforming properties of lenses, frequency analysis of optical imaging systems, and spatial filtering. Explore optical information processing and holography.

ECE X83P.3. Techniques of Laser Communications.
Examine optical propagation in crystalline media, harmonic generation, frequency conversion, and modulation systems.

ECE X83P.4. Fiber and Integrated Optics I.
Examine waveguiding in slabs, cylinders, and fibers; optical fiber communications principles; mode coupling; guided-wave optical sources, modulators, and detectors.

ECE X83P.5. Fiber and Integrated Optics II.
Examine principles and practices of guided-wave optical sensor technology. Explore nonlinear optical effects in fibers, including amplification and fiber lasers.

ECE X83P.6. Semiconductor Optoelectronic Devices.
Examine semiconductor materials and nanomaterials growth. Review light-matter interaction in bulk and nanostructures, including both band-to-band and intersubband transitions. Discuss band structure in real-space and k-space. Explore photonic devices and their design: light-emitting diodes (LEDs), photodetectors, modulators, solar cells, and semiconductor lasers (diode and quantum cascade).

ECE X83P.8. Optical Communications.
Explore the concepts behind research and development in optical communications and optical interconnects. Examine device physics and system applications. Discuss advanced technology solutions and innovative manufacturing processes to deliver optical passive and active micro- and nanodevices that enable the deployment of short-haul and metropolitan area all-optical networks for communications and for sensing networks.

ECE X83V. Topics in Electromagnetics.

ECE X84N. Topics in Acoustics.

ECE X84N.1. Acoustics I.
Plane waves in fluids; transient and steady-state reflection and transmission; lumped elements; refraction; strings, membranes, and rooms; horns; ray acoustics; absorption and dispersion.

ECE X84N.2. Acoustics II.
Spherical and cylindrical waves, radiation and scattering, multipole expansions, Green's functions, waveguides, sound beams, Fourier acoustics, Kirchhoff theory of diffraction, and arrays.

ECE X84N.3. Electromechanical Transducers.
Modeling, analysis, and design of transducers for reception and transmission of acoustic and vibration signals; dynamics of coupled electrical, mechanical, and acoustical systems; and the effects of transducer characteristics on fidelity and efficiency of transduction.

ECE X84N.4. Nonlinear Acoustics.
Waveform distortion and shock formation, harmonic generation and spectral interactions, effects of absorption and dispersion, parametric arrays, Rankine-Hugoniot relations, weak shock theory, numerical modeling, radiation pressure, and acoustic streaming.

ECE X84N.5. Underwater Acoustics.
Acoustic properties of the ocean; acoustic propagation, reflection, reverberation, scattering and target strength; ocean noise; introduction to array and signal processing; basics of sonar design.

ECE X84N.6. Architectural Acoustics.
Human perception of sound, principles of room acoustics, sound-absorptive materials, transmission between rooms, and acoustical design of enclosed spaces.

ECE X84N.7. Ultrasonics.
Acoustic wave propagation in fluids, elastic solids, and tissue; transducers, arrays, and beamforming; nondestructive evaluation; and acoustical imaging.

ECE X84N.8. Wave Phenomena.
Fourier acoustics and angular spectra; nearfield acoustical holography; Fraunhofer, Fresnel, and parabolic approximations; sound beams; Green's functions; Born approximation; propagation and scattering in moving, periodic, and random media.

ECE X84N.9. Acoustic Metamaterials.
Examine wave propagation in heterogeneous media displaying nonclassical effective properties. Introduction to effective medium theories including fundamental limits on effective properties, transmission and scattering matrices, waves in periodic media, localized resonance, and transformation acoustics.

ECE X85J. Topics in Biomedical Engineering.

ECE X85J.1. Neural Engineering.
Examine a variety of clinical conditions and their associated neurological basis, and then analyze the engineering solutions to cope with the neurological deficits, with an emphasis on electrical and computer engineering components. Study approaches to design motor neuroprosthetics and sensory neuroprosthetics that restore lost functions. Learn principles of deep brain stimulation, neuromodulation, and brain plasticity. Explore the concepts behind technological approaches for neurorehabilitation, in particular robotics and brain-computer interfaces.

ECE X85J.15. Biosignal Analysis.
Theory and classification of biological signals such as EEG, EKG, and EMG. Data acquisition and analysis procedures for biological signals, including computer applications.

ECE X85J.16. Laser-Tissue Interaction: Optical.
The optical behavior of random media such as tissue in interaction with laser irradiation. Approximate transport equation methods to predict the absorption and scattering parameters of laser light inside tissue. Port-wine stain treatment; cancer treatment by photochemotherapy; and cardiovascular applications.

ECE X85J.17. Biomedical Instrumentation II: Real-Time Computer-Based Systems.
Design, testing, patient safety, electrical noise, biomedical measurement transducers, therapeutics, instrumentation electronics, microcomputer interfaces, and embedded systems. Participate in an individual laboratory.

ECE X85J.18. Imaging Signals and Systems.
Physical principles and signal processing techniques used in thermographic, ultrasonic, and radiographic imaging, including image reconstruction from projections such as CT scanning, MRI, and millimeter wave determination of temperature profiles.

ECE X85J.23. Optical Spectroscopy.
Measurement and interpretation of spectra: steady-state and time-resolved absorption, fluorescence, phosphorescence, and Raman

spectroscopy in the ultraviolet, visible, and infrared portions of the spectrum.

ECE X85J.26. Therapeutic Heating.
Engineering aspects of electromagnetic fields that have therapeutic applications: diathermy (short wave, microwave, and ultrasound), electrosurgery (thermal damage processes), stimulation of excitable tissue, and electrical safety.

ECE X85J.28. Noninvasive Optical Tomography.
Basic principles of optical tomographic imaging of biological materials for diagnostic or therapeutic applications. Optical-based tomographic imaging techniques including photothermal, photoacoustic, and coherent methodologies.

ECE X85J.3. Bioelectric Phenomena.
Examines the physiological bases of bioelectricity and the techniques required to record bioelectric phenomena both intracellularly and extracellularly; the representation of bioelectric activity by equivalent dipoles and the volume conductor fields produced.

ECE X85J.31. Biomedical Instrumentation I.
Application of electrical engineering techniques to analysis and instrumentation in biological sciences: pressure, flow, temperature measurement; bioelectrical signals; pacemakers; ultrasonics; electrical safety; electrotherapeutics.

ECE X85J.32. Projects in Biomedical Engineering.
An in-depth examination of selected topics, such as optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; noninvasive cardiovascular measurements.

ECE X85J.33. Neurophysiology/Prosthesis Design.
The structure and function of the human brain. Discussion of selected neurological diseases in conjunction with normal neurophysiology. Study of neuroprosthesis treatments and design philosophy, functional neural stimulation, and functional muscular stimulation.

ECE X85J.35. Brain-Computer Interaction.
Examine the architecture of a brain-computer interface (BCI), the brain signals that can be recorded as input to a BCI, and the interaction paradigms where these signals can be decoded and exploited. Study the design principles of complex brain-controlled devices, with an emphasis on electroencephalogram (EEG) signals, the most common signal for BCI. Explore how to enhance EEG signal-to-noise ratio, and techniques to decode subjects' intents and cognitive states. Apply those techniques EEG signals acquired during closed-loop BCI experiments.

ECE X85J.9. Laser-Tissue Interaction: Thermal.
The thermal response of random media in interaction with laser irradiation. Calculation of the rate of heat production caused by direct absorption of the laser light, thermal damage, and ablation.

ECE X86C. Software Architecture.

ECE X90C. Statistical Methods in Engineering and Quality Assurance.
Examine the interpretation of data from designed experiments and production processes. Explore subjects including probability distributions, confidence intervals, analysis of variance, hypothesis testing, factorial designs, and quality control data.

ECE X90V. Topics in Manufacturing Systems Engineering.

ECE X91C. Technical Entrepreneurship.
Examine the technology-based company: entrepreneurship, intrapreneurship, strategic planning, finance, marketing, sales, operations, research and development, manufacturing, and management. Form hypothetical companies in a team and simulate their ventures over an extended period.

ECE X92C. Software Testing.

ECE X92K. Antenna Theory and Practice.
Explore modern antenna systems for receiving and transmitting, including driven and parasitic arrays, horns, parabolic and other antennas.

ECE X92L. Computational Electromagnetics.
Explore fundamental computational modeling and analysis techniques for applications in antennas, microwave circuits, biomedical engineering, and geophysics. Focus on boundary-value problem formulation, numerical methods, computer implementation, and error quantification. Examine differential and integral equation-based methods for solving Maxwell's equations in frequency and time domains.

ECE X92N. Principles of Radar.
Explore the fundamentals of radar, with an emphasis on electromagnetics and signal processing. Examine radar range equation, antennas, propagation and target scattering, matched filter, ambiguity function, waveform design, pulse compression, microwave imaging, synthetic aperture radar, and inverse synthetic aperture radar (ISAR).

ECE X93C. Topics in Plasma Dynamics.

ECE X93C.1. Introduction to Plasma Dynamics.
Examine plasma properties, including collective effects, Debye shielding, quasineutrality, the plasma frequency, and collisions. Explore single particle motions in electric and magnetic fields. Study particle drifts, adiabatic invariants, and cyclotron resonance.

ECE X94. Topics in Power System Engineering.

ECE X94.14. Electrical Transients in Power Systems.
Explore analysis and modeling of electrical transient phenomena in power systems, traveling wave, insulation coordination, and overvoltage protection.

ECE X94.15. Power System Operations and Control.

ECE X94.16. Restructured Electricity Markets: Locational Marginal Pricing.
Examine locational marginal pricing (LMP) model of electricity markets. Explore market dispatch formulated as an optimization problem, unit commitment issues, and pricing rules and incentives in markets; energy-price and transmission-price risk hedging and energy network models; and revenue adequacy of financial transmission rights, a mixed-integer programming approach to unit commitment, the representation of voltage constraints into market models, and the design of electricity markets to mitigate market power.

ECE X94.17. Restructured Electricity Markets: Market Power.
Explore the definition and analysis of market power, especially as an issue in the design and functioning of electricity markets. Focus on transmission constraints and offer-based markets that involve locational marginal pricing.

ECE X94.18. Electric Machinery and Drive Systems.
Explore electric drives and machines used in commercial and industrial applications. Examine magnetic circuits and magnetic materials; electromechanical energy conversion principles; rotating and linear machine concepts, including synchronous, induction, DC, and variable reluctance; and control strategies.

ECE X94.7. Power Electronic Devices and Systems.
Explore power electronic components and circuits; high-voltage, direct current (HVDC) converters; electronic drives for machines; AC/DC converters.

ECE X94.9. Power Quality.
Examine electrical transients, switching surges, lightning, and other phenomena that cause deviations in 60-hertz sinusoidal voltages and currents.

ECE X94J. Topics in Energy Systems.

ECE X94J.1. Power System Engineering I.
Examine physical features, operational characteristics, and analytical models for major electric power systems and components.

ECE X94J.10. Distributed Generation Technologies.
Examine distributed generation and microgrids elements; microsources; energy storage; power electronics interfaces; DC and AC architectures; economics, operation, stabilization, and control; reliability and availability aspects; interaction between microgrids and bulk power grids; and smart grids.

ECE X94J.11. Advanced Power Electronics.
Explore resonant converters, switched-capacitor converters, the dual active bridge converter, high-frequency magnetics, high-frequency inverters and rectifiers, power factor correction, and other areas of current interest. Undertake projects with intensive design, prototyping, and/or simulation components.

ECE X94J.12. Modeling and Simulation of Wind Power Plants.
Explore the analysis, modeling, and simulation of wind turbines and wind farms; fundamentals of wind turbines and technologies, reference-frame theory, dynamic models of induction and synchronous machines, fixed-speed direct-connect, wide-slip, doubly-fed, full-converter wind turbines, operation and control, and interconnection issues.

ECE X94J.2. Power System Engineering II.
Explore advanced techniques for solving large power networks; load flow, symmetrical components, and short circuit analysis.

ECE X94J.9. Wind Energy Systems.
Examine wind resource characteristics and assessments; wind turbine technologies (fixed and variable-speed turbines); wind power transmission; integration and interconnection issues; and reliability impacts.

ECE X94L. Power Systems Apparatus and Laboratory.
Examine the fundamentals of power systems emphasized through laboratory experiments. Explore complex power, three-phase circuits, per-unit system, transformers, synchronous machines, transmission line models, steady-state analysis, induction machines, capacitor banks, protective relaying, surge arrestors, and instrumentation.

ECE X96K. Topics in Solid-State Device Theory.
Explore the theory of electron, magnetic, and electro-optic devices.

ECE X96K.1. Metal Oxide Semiconductor Devices: Physics and Technology.

ECE X96K.10. Ionic Conductors.

ECE X96K.11. High-Temperature Superconductors.

ECE X96K.12. Catalytic Electrodes.

ECE X96K.13. Magnetic Materials.

ECE X96K.14. Optical Interconnects.

ECE X96K.15. Optoelectronics Integrated Circuits.

ECE X96K.16. Semiconductor Lasers.
Examine the principles of compound semiconductor lasers and LEDs; bulk and quantum-well laser structures; radiative and nonradiative recombination processes; optical, electrical, and thermal properties of lasers; dynamic rate equations and modulation characteristics; lasing spectra, chirp, modal noise and linewidth; and edge-emitting and surface-emitting lasers.

ECE X96K.17. Localized-Electron Phenomena.
Analysis of the variation in physical properties versus chemical composition of several groups of isostructural transition-metal compounds.

ECE X96K.19. Plasma Processing of Semiconductors I.
Explore plasma analysis using Boltzmann and fluid equations; plasma properties, including Debye length, quasineutrality, and sheaths; basic collisional properties, including Coulomb and polarization scattering; analysis of capacitive and wave-heated plasma processing reactors.

ECE X96K.2. Semiconductor Physics.
Introduction to the fundamental physics of charge carrier states in semiconductors, charge carrier interactions among themselves and with the environment, and charge transport in semiconductors and their heterostructures.

ECE X96K.20. Plasma Processing of Semiconductors II.
Explore plasma chemistry and equilibrium; analysis of molecular collisions; chemical kinetics and surface processes; plasma discharge particle and energy balance; analysis of inductive and DC plasma processing reactors; plasma etching, deposition, and implantation.

ECE X96K.21. Nanoscale Device Physics and Technologies.
Examine physical principles and operational characteristics of semiconductor devices. Explore the physics of metal-oxide-semiconductor field-effect transistors (MOSFET) and bipolar junction transistors (BJT). Discuss short-channel effects, ultra-thin oxide, and high-K gate dielectrics; semiconductor interface characterization; hot-electron effects; lightly-doped drain devices (LDD); subthreshold characteristics; complementary-symmetry metal-oxide- semiconductor (CMOS) latchup; gate-induced leakage current of MOSFETs; poly-depletion and quantum mechanical effects; silicon on insulator (SOI) devices; strained-Si; advanced 3-D devices and bandgap narrowing effect; Webster effect; Kirk effect; punchthrough and avalanche breakdown; base transit time for bipolar transistors; and scaling issues of both BJT and MOSFETs.

ECE X96K.22. Semiconductor Microlithography.

ECE X96K.23. Semiconductor Heterostructures.

ECE X96K.24. Microwave Devices.

ECE X96K.25. Organic and Polymer Semiconductor Devices.

ECE X96K.26. Microelectromechanical Systems.

ECE X96K.27. Charge Transport in Organic Semiconductors.

ECE X96K.28. Magnetic Materials and Devices.
Explore the fundamentals and applications of magnetic materials, in particular to nano-devices. Examine the origin of magnetism in oxides and metals, magnetic switching mechanisms, and how spin structures arise such as domain walls and topologically-protected spin states. Discuss applications to future computing nano-devices.

ECE X96K.29. Thin Film Transistors.
Explore device physics of thin-film and 2D transistors, charge transport phenomena, and materials aspects. Discuss organic polymer and amorphous inorganic semiconductors (oxides and silicon). Study organic polymer and amorphous inorganic semiconductors (oxides and silicon), and field effect transistors with 2D semiconductors such as transition metal dicalcogenides (TMDs). Review change of properties with layer thickness, device physics and transport, contacts, and performance characteristics and discuss unusual properties of thin film transistors (TFTs) such as light emission and ambipolar charge transport, lateral junctions, and ionic gating.

ECE X96K.30. Solar Energy Conversion Devices.
Study radiation from the Sun and the solar energy flux on Earth, and discuss the principles of semiconductors and semiconductor device physics relevant to diodes under various bias conditions. Examine the physics of pn junction under solar illumination and with various recombination mechanisms. Review the most important materials families of solar cells including single crystal silicon; polysilicon; amorphous silicon; solar cells based on CdTe and copper indium diselenide and related compounds; and III-V compound semiconductor heterojunction solar cells including tandem cells and space-grade solar cells. Discuss new materials technologies including organic and perovskite-based solar cells.

ECE X96K.4. Synthesis, Growth, and Analysis of Electronic Materials.

ECE X96K.5. Superconducting Electronic Devices.

ECE X96K.6. Magnetic Phenomena in Materials.

ECE X96K.7. Metal Oxide Semiconductor Integrated Circuit Process Integration.

ECE X96K.8. Ultra-Large-Scale Integration Techniques.
Examine integrated circuit processing; crystal growth and wafer preparation; epitaxial growth; oxidation, diffusion, and ion implantation; thin-film deposition techniques; and lithography and etching. Participate in an individual laboratory.

ECE X96K.9. Localized versus Itinerant Electrons in Solids.
Description of electrons, from free atoms to crystals; band theory contrasted with crystal-field theory; evolution of electronic properties on passing from magnetic insulators to normal metals, from ionic to

covalent solids, from single-valent compounds to mixed-valent systems; electron-lattice interactions and phase transitions; many examples.

ECE X96M. Topics in Quantum Electronics.

Examine quantum mechanical principles as applied to electron devices, lasers, and electro-optics; material properties and interaction of radiation and material.

ECE X96M.1. Introductory Quantum Electronics.

Examine basic quantum mechanics and applications to solid-state phenomena and lasers.

ECE X96M.2. Quantum Information Hardware.

Explore various hardware platforms used for quantum information processing from an applied physics perspective. Examine the physical requirements for a hardware platform to process quantum information. Review characteristics of current hardware platforms such as superconducting quantum circuits, atomic systems, solid-state spins and optical photons.

ECE X96N. Topics in Nanotechnology.

ECE X96N.1. Semiconductor Nanostructures.

Examine the theoretical framework for the understanding of electronic properties and electron transport in quantum confined devices; two-dimensional electron systems in semiconductor heterostructures; quantum wires; quantum dots; spintronic devices; and growth and fabrication techniques.

ECE X96N.2. Carbon and 2D Devices.

Introduction to the material properties and device physics of carbon nanotubes, graphene and related 2D materials; science and technology of carbon nanomaterials and their electronic, optical, and sensor properties; and a basic review of quantum mechanics and elementary theory of solids. Examine carbon synthesis, sensor devices, energy devices, interconnects, transistors, and circuit applications of carbon nanomaterials. Explore 2D materials beyond graphene including transitional metal dichalcogenides.

ECE X96V. Topics in Solid-State Electronics.

ECE X96V.5. Introduction to Solid-State Properties of Materials.

Introduction to the electronic, magnetic, and optical properties of materials. Solid-state properties of metals, semiconductors, and ceramics; fundamental concepts needed for the description of these properties, using an introductory-level description of the electronic structure of solids.

ECE X96V.6. Advanced Semiconductor Lasers.

Examine dynamic properties of semiconductor lasers; intensity, phase, and frequency noise; dynamic lasing spectra, chirp, and mode partition noise; injection locking and optical feedback; short pulse generation by mode-locking and gain switching; single-mode distributed feedback, distributed Bragg reflector (DBR), and coupled-cavity lasers; wavelength-tunable single-mode lasers; externally modulated lasers; coherent high-power laser arrays; quantum-dot lasers and amplifiers; vertical-cavity surface-emitting lasers; and integrated wavelength-division multiplexing (WDM) laser arrays and photonic integrated circuits.

ECE X96V.7. Optoelectronics for Optical Networking.

Examine advanced optical communication systems and optoelectronics technologies, including dense and coarse wavelength division multiplexing, soliton transmission, coherent detection, subcarrier multiplexing, nonregenerative erbium-doped fiber amplifier (EDFA) networks, and Raman amplification. Explore photonic switching system architectures and optical switching technologies, including both passive and active components.

ECE X97C. Research Problems.

Select and research a problem with approval of the department.

ECE X97G. Research Problems.

Problem selected by the student with approval of the department.

ECE X97K. Advanced Topics in Electrical Engineering.

ECE X97M. Graduate Research Internship.

Engage in research associated with enrollment in the Graduate Research Internship Program (GRIP).

ECE X97N. Conference Course.

ECE X97S. Graduate Seminar in Electrical Engineering.

ECE X98. Thesis.

ECE X98R. Master's Report.

Prepare a report to fulfill the requirement for the Master's degree under the report option.

ECE X98T. Supervised Teaching in Electrical Engineering.

Teach under close supervision for one semester. Attend group meetings or individual consultations, and submit reports as required.

ECE X99W. Dissertation.

Professional Courses

ECO - Economics

Economics: ECO

Lower-Division Courses

ECO X01. Introduction to Economics.

Introduction to the structure and functioning of the aggregate economy and specific markets, including the labor market, housing market, and financial markets. Basic concepts of market regulation and monetary and fiscal policy. Concepts used in the social and behavioral sciences for measuring and interpreting economic data.

ECO X01S. Professional Development and Career Planning.

Discuss issues surrounding career planning implementation and evaluation in order to establish a job search, including resumes, networking, and interviewing techniques. Focus on career management as a lifelong process.

ECO X04K. Introduction to Microeconomics.

Analysis of the economic behavior of individual consumers, firms, and workers. Demand, supply, and market equilibrium. Impact of taxes, externalities, and market power on equilibrium.

ECO X04L. Introduction to Macroeconomics.

Analysis of the economy as a whole. Measurement of output, the price level, and employment. Basic theories of the determination of Gross domestic product, investment and growth, and inflation. Introduction to fiscal policy and monetary policy.

ECO X18Q. Supervised Research.

ECO X19S. Topics in Economics.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Economics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ECO X29S. Topics in Economics.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Economics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ECO X19S. Topics in Economics.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Economics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in

residence. Transfer credit is awarded for work in an affiliated studies program.

ECO X20K. Microeconomic Theory.
Economic theory of the behavior of individuals, households, firms, and markets. Roles of relative prices and information, with a focus on constrained optimization.

ECO X20L. Macroeconomic Theory.
Theories of the determination of output, employment, and the price level. Basic models of growth. Design of monetary and fiscal policies, and the mechanisms by which they affect the economy.

ECO X20S. Mathematical Microeconomic Theory with Advanced Applications.
Examine mathematical treatment of microeconomic theory with application to real world subjects. Explore mathematical methods used by economists and apply them to analyze consumer behavior, choice under uncertainty, theory of the firm, game theory and general equilibrium.

ECO X21. Public Economics.
Study of appropriate allocations of economic activity between government (federal, state, and local) and the private sector. The workings of social security, welfare, education, pollution control, deregulation, taxation; and proposals for reform.

ECO X22. Money and Banking.
Theories of financial intermediation and the role played by money. Financial policy and monetary policy in theory and practice.

ECO X22N. Economics of Money: from the Past to Bitcoin.
Analyze assets that function as money through time, including the pricing of money in terms of interest rates and exchange rates, the economics of financial innovations, and the evolution of money markets.

ECO X23L. Political Economy.
Economic issues in the political arena. Use of microeconomic tools to study issues associated with collective decision-making, including the role of government in a market economy, and the formulation and implementation of government policies.

ECO X24. Introduction to Labor Economics.
Labor markets in modern economies. Role of institutions and policies in shaping labor market outcomes for individuals and businesses.

ECO X25K. Health Economics.
Explores medical care as a commodity, demand for health and medical services, economic behavior of medical care providers, and the functioning of medical insurance markets. Government regulation and provision of health care and health insurance.

ECO X25L. Economics of Health.
Explore the application of basic microeconomics to the study of health and issues arising in the provision of medical care. Examine the demand for and the supply of medical care. Discuss the roles of the private sector and government in the provision of medical insurance. Analyze the regulation of health care and health insurance.

ECO X26L. Economics of Education.
Applications of economic principles and empirical methods to education, including the concept of human capital, economic returns to education, the determinants and measurement of teacher impact, the roles of school inputs and factors outside of school, and the market for higher education. Methodology for evaluating education policy.

ECO X27. Comparative Economic Systems.
Economic systems in theory and practice. Role of government and regulation.

ECO X28. Industrial Organization.
Organization of industries and markets; competition, monopoly, and oligopoly. Introduction to antitrust policy, regulatory policy, and other alternatives.

ECO X29. Economic Statistics.
Interpretation of economic data. Introduction to statistical models, estimation, and inference in economics.

ECO X29S. Topics in Economics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Economics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ECO X30T. Topics in Economics.
Topics cover aspects of economic theory, applications, and policy.

ECO X30T.2. Introduction to Law and Economics.

ECO X33K. Development Economics.
Introduction to theories of economic development. Economic analysis of leading issues.

ECO X33L. Development and Population.
Microeconomics of economic development, population growth and the age structure of the population, and their impact on the environment.

ECO X34K. Urban Economics.
Economic analysis of urban areas, emphasizing current problems, such as spatial concentration of poverty, lack of access to jobs and financial services, and transportation systems. Examines the role of policy in addressing these problems.

ECO X34L. Regional Economics.
Spatial aspects of economics, including concepts, theories, and policy applications.

ECO X34M. Migration Economics and Policy.
Immigration policy of the United States compared to that of other countries. Determinants of migration. Characteristics of migrants. Effects of migration on the country of origin and the receiving country. Unauthorized immigration to the United States.

ECO X35K. Energy Economics.
Economic analysis of the markets for resources that supply energy, including coal, oil, natural gas, and shale gas, and the market for electricity. Principles of valuation and optimal dynamic allocation of energy resources. Financial contracts and risk management in energy markets. Regulation of energy markets.

ECO X35L. Energy and Environmental Economics.
Apply the tools of economics to examine the energy sector and current energy policy issues. Learn about the environmental and public health impacts of energy production, energy consumption, industrial activity, and the role of government regulation.

ECO X36M. Economics of Auctions.
Explore auctions as a mechanism for allocating resources. Analyze bidders' strategic interactions using game theory. Investigate market rules designed to attain specific policy objectives. Utilize empirical methods to analyze auction data.

ECO X39K. International Trade and Investment.
Theories explaining the location of production facilities and patterns in international trade. Implications of international trade for per capita income, growth, and inequality.

ECO X39L. International Finance.
Exchange rates and foreign exchange markets; reasons for financial globalization; open-economy macroeconomics; exchange rate regimes (fixed and floating exchange rates, currency boards, and currency areas such as the euro zone); central bank accumulation of foreign exchange reserves; and sovereign debt crises and currency crashes. Reasons for different exchange rate arrangements and other policies are explored.

ECO X41K. Introduction to Econometrics.
Parameter estimation and inference in regression models.

ECO X42L. Advanced Econometrics.
Explore advanced methods of causal inference and prediction.

ECO X42M. Applied Econometrics and Data Analysis.
Explore advanced regression analysis, maximum likelihood, discrete choice models, nonparametric methods, causality, and regression

discontinuity design. Evaluate the use of these techniques in applied research and apply them in a variety of data sets.

ECO X42N. Time Series Econometrics.
Explore models and econometric considerations related to time series data. Apply time series methods in the fields of economics and finance.

ECO X43K. Causal Inference.
Introduction to how economists infer causality from data.

ECO X48K. Advanced Topics in Econometrics.
Topics in econometric modeling and estimation.

ECO X50K. Advanced Topics in Economics.
Explore advanced topics in economic theory, and the application of theory to empirical models.

ECO X50K.6. Advanced Microeconomic Theory.
Advanced theory of individual behavior and organizations. Subjects may include decision-making under uncertainty, insurance, optimal contracts, and institutions.

ECO X50L. Advanced Macroeconomics.
Investigate advanced macroeconomic theory. Examine dynamic general equilibrium models, real business cycle theory, and macroeconomic models with a financial intermediary sector, financial crises, and monetary and fiscal policy.

ECO X51K. Current Issues in Business Economics.
Economic analysis of government regulation and policy and business responses.

ECO X51M. Managerial Economics.
Use of economic analysis and optimization as tools for improving managerial decision-making in business.

ECO X51N. Economic Principles of Managerial Decisions.
Use of economic concepts and models to make strategic business decisions (adverse selection, game theory, price discrimination, strategic commitment, barriers to entry, network effects). Economics of strategic responses to the legal environment (regulations, antitrust policies, intellectual property, fiduciary duty, liability).

ECO X52K. Business Strategy.
Economic analysis of business strategy, including introducing new products, vertically integrating, bundling goods, pricing, distribution, mergers, and product differentiation. Relevant aspects of antitrust law. Case studies of specific firms.

ECO X52R. Economics of Entrepreneurship.
Explore the application of economics to the practice of starting or expanding a business. Examine evaluation of the market; strategic decisions, including pricing, advertising, location, and deterring competitors; raising capital; and employee compensation.

ECO X53K. Antitrust Law and Economics.
Economic analysis of antitrust law intended to deter firms from engaging in anti-competitive conduct that harms consumers, including mergers that impede competition, price-fixing, and anti-competitive practices by a dominant firm in an industry. Focus on various industries and select antitrust cases.

ECO X53L. Economic Analysis and the Law.
Examine how economic principles influence, and are influenced by legal rules and procedures, evidentiary standards, and legislative approaches to social issues.

ECO X53M. Empirical Public Economics.
Use of data to evaluate public policy issues. Issues considered include the effect of having health insurance on health outcomes; the relationship between earning power and the type of college attended; charter schools and educational outcomes; the effect of an increase in the minimum wage on employment; and the welfare effects of bank bailouts.

ECO X54K. Introductory Game Theory.
Introduction to the formal study of interdependent decision making. Applications of game theory include pricing and advertising strategies, labor-management bargaining, and tariff negotiations.

ECO X54M. Experimental Economics.
Examine what economic theory has to say about economic choices and strategic interactions and what people actually do when faced with strategic decisions. Conduct experiments to either identify systematic deviations or confirm theoretical predictions. Explore how economic experiments are useful in reshaping economic thinking.

ECO X55. Development Problems and Policies in Latin America.
Analysis of the economies of Latin America. Issues may include the structure and functioning of cities, rural-urban migration, the sectoral composition of GDP and employment, and determinants of growth.

ECO X58R. Supervised Research.

ECO X59M. Environmental and Natural Resource Economics.
Optimal use of exhaustible and renewable resources, including fuels, minerals, fisheries, forests, and water; resource scarcity and economic growth; valuation of nonmarketed environmental amenities; the economics of pollution control instruments, including taxes, permits, direct regulation, and negotiation; environmental quality and international trade; the economics of global climate change; pollution control policy in practice.

ECO X59N. Methods of Environmental Policy Analysis.
Examine current environmental policy questions and debates and learn how data can be used to answer these questions.

ECO X61S. Artificial Intelligence and Public Policy.
Analyze and apply tools from machine learning and artificial intelligence to policy problems. Explore the benefits and concerns that can arise in doing so.

ECO X63C. Computational Economics.

ECO X67R. Monetary Economics.
Theories explaining the role of money in the economy.

ECO X68. Survey of the History of Economic Thought.

ECO X68M. Evolution of Economic Thought.
Discuss the evolution of economic thought over the last several centuries and apply the idea's of history's greatest economists to contemporary economic problems.

ECO X69F. Financial Economics.
Economic analysis of the operation of financial markets, including arbitrage theory, asset pricing, and corporate finance.

ECO X70E. Economics of Gender, Race, and Ethnicity.
Study large and persistent differences in economic outcomes across genders and between major racial and ethnic groups in the United States. Examine empirical evidence for, and gaps in, economic models explaining these differences.

ECO X70M. Behavioral Economics.
Explaining how heuristics result in biases in individual decisions and anomalies in the market place. Applications to choice under uncertainty, intertemporal choice, choice in a strategic environment, and behavioral finance.

ECO X70N. Financial Literacy.
Study the personal financial planning process. Apply economic principles along with analytical tools and approaches as they pertain to financial literacy.

ECO X71M. Social Economics: Outside the Market.
Explore concepts of social welfare, fairness, and social choice procedures. Discuss economic analysis of social interactions that take place outside of markets.

ECO X76N. Personnel Economics.
Use of microeconomic theory to analyze how firms make decisions involving human resources, including recruiting and hiring strategies, training and investment in worker skills, evaluating and motivating worker performance, and job design.

ECO X78H. Honors Tutorial Course I.
Supervised individual reading, research, and writing of a substantial paper on a special topic in the field of economics.

ECO X79C. Individual Conference Course.
Supervised individual study of selected problems in economics.
ECO X79E. Internship in Economics.
Conduct research while working in an appropriate government agency or private business.
ECO X79H. Honors Tutorial Course II.
Supervised individual reading, research, and writing of a substantial paper on a special topic in the field of economics.

Graduate Courses

ECO X19S. Topics in Economics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Economics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ECO X29S. Topics in Economics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Economics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ECO X80. Research Course.
ECO X80D. Internship in Economics.
Practical working involvement with an appropriate business, government or research agency, or similar institution.
ECO X80M. Regional Economics.
Survey of theoretical and empirical literature related to location theory, regional development, regional disparities, growth and function of cities, and political economy of spatial planning.
ECO X80N. Urban Economics.
Provides an economic analysis of pressing urban problems such as poverty, housing, transportation, environment, and finance.
ECO X80P. Internship in Economics.
Practical working involvement with an appropriate business, government or research agency, or similar institution.
ECO X81K. Seminar in Money and Banking.
Topics include monetary policy and problems, theory of central banking, and money and banking history.
ECO X83K. Seminar in General Economic History.
A historical study of economic development and economic policy.
ECO X84G. Topics in Seminar in International Economics.
ECO X84G.1. International Trade.
ECO X84G.2. International Finance.
ECO X84H. Topics in Seminar in Public Finance.
Analysis of public expenditure and taxation.
ECO X84H.1. Seminar in Public Economics.
Introduction to public finance subjects and research methods. Cover recent research ranging from tax incidence to social insurance programs.
ECO X84J. Topics in Seminar in Development Economics.
Analysis includes theories of economic development and planning.
ECO X84K. Topics in Industrial Organization.
ECO X84K.1. Introduction to Industrial Organization.
ECO X84K.2. Industrial Organization and Regulation.
ECO X84N. Topics in Resource Economics.
Definition, measurement, production, and conservation of renewable and exhaustible resources; models of economic growth and resources; world distribution and consumption; United States resource policy.
ECO X84N.1. Natural Resource Economics.
ECO X84N.2. Environmental Economics.
ECO X85C. Probability and Statistics.
ECO X85D. Mathematics for Economists.
ECO X85K. Topics in Labor Economics.
Analysis of the empirical and theoretical factors that influence labor markets.
ECO X85K.1. Introduction to Labor Economics.
ECO X85K.3. Advanced Labor Economics.
ECO X86C. Microeconomics I.
ECO X86D. Microeconomics II.
ECO X86E. Topics in Seminar in Advanced Microeconomics.
ECO X86E.1. Introduction to Game Theory.
ECO X86E.2. Applications of Game Theory.
ECO X86E.3. Advanced Microeconomic Analysis.
ECO X86E.4. Mathematical Economics.
ECO X86E.5. Experimental Methods in Economics.
ECO X86E.6. Health Economics.
ECO X87C. Macroeconomics I.
ECO X87D. Macroeconomics II.
ECO X87E. Topics in Seminar in Advanced Macroeconomics.
ECO X87E.1. Advanced Macroeconomic Analysis I.
ECO X87E.2. Advanced Macroeconomic Analysis II.
ECO X87E.3. Advanced Macroeconomic Labor I.
ECO X87E.4. Advanced Macroeconomic Labor II.
ECO X87K. Monetary Theory.
Theories, based on microeconomic foundations, covering such topics as the usefulness of monetary exchange, optimal central bank policy, the interaction of monetary and fiscal policy, and the role of financial intermediation in the macroeconomy.
ECO X87M. Writing Seminar in Economics.
ECO X87N. Survey of Fields in Economics.
Introduction to the questions, methods, and scope of research in different fields in economics.
ECO X88C. Econometrics I.
ECO X88D. Econometrics II.
ECO X88E. Topics in Seminar in Advanced Econometrics.
ECO X88E.1. Advanced Econometric Theory I.
ECO X88E.2. Advanced Econometric Theory II.
ECO X88E.3. Applied Microeconometrics.
ECO X88E.4. Time-Series Analysis.
ECO X88E.5. Applied Macroeconometrics.
ECO X90L. Seminar in the History of Economic Thought.
Survey and analysis of principal contributions and historical influences in the evolution of contemporary economic thought from the late eighteenth through the early twentieth century.
ECO X92L. Quantitative Methods in Economics.
Topics include optimization methods, probability theory, and statistical inference.
ECO X93. Seminar in Industrial Organization.
ECO X94C. Mathematics for Economists.
Mathematical tools widely used for economic analysis, including advanced calculus, optimization methods, linear algebra, and dynamic systems.
ECO X94D. Probability and Statistics.
Probability theory and statistical methods used in economics and econometrics.
ECO X94K. Microeconomics.
Rigorous introduction to the methods of microeconomic theory, including consumer and producer theory, decision under uncertainty, markets and competition, and general equilibrium.
ECO X94L. Macroeconomics.
Dynamic optimization concepts and methods used in modern macroeconomics. General equilibrium applications in the areas of

economic growth, business cycles, and the role of monetary and fiscal policy.

ECO X94M. Econometrics.
Identification and estimation of linear and nonlinear regression models; inference and hypothesis testing.

ECO X95K. Topics and Applications in Microeconomics.

ECO X95K.1. Game Theory.
Introduction to game theoretic concepts and analyses and their application to study strategic interactions between individuals, firms, and other economic agents.

ECO X95K.2. Labor Economics.
Explore major theoretical and empirical models for understanding behavior and outcomes in the labor market.

ECO X95K.3. Industrial Organization.
Explore the organization of industries and markets, including competition, monopoly, and oligopoly. Examine the effect that strategic interactions have on production, pricing, investment, advertising, and other decisions. Discuss antitrust policy, regulatory policy, and other alternatives.

ECO X95K.4. Markets for Electricity.
Examine the design and performance of electricity markets and the challenges confronting these markets.

ECO X95K.5. Economics of Auctions.
Explore theoretical models of auctions as a mechanism for allocating resources and empirical methods to analyze auction data. Analyze bidders' strategic interactions using game theory and investigation of market rules designed to attain specific policy objectives.

ECO X95L. Topics and Applications in Macroeconomics.

ECO X95L.1. International Economics.
Explore theoretical models in international trade with applications to the current international economic environment.

ECO X95M. Topics and Applications in Quantitative Methods.

ECO X95M.1. Real Analysis.
Explore a rigorous, proof-based approach to mathematics, including properties of Euclidean spaces, metric spaces, compactness, continuity, single- variable differentiation and integration, and sequences and series of real-valued functions.

ECO X95M.2. Data Mining and Statistical Learning.
Examine modeling and prediction techniques using the tools of statistical learning and machine learning.

ECO X95M.3. Time Series Econometrics.
Examine time series models with applications in macroeconomics and finance.

ECO X95M.4. Causal Inference.
Examine research strategies and econometric estimators for inferring causal effects in observational data.

ECO X96. Studies in Economic History.

ECO X97. Seminar in International Economic Problems.

ECO X97K. Specialized Topics in Microeconomics.

ECO X97L. Specialized Topics in Macroeconomics.

ECO X97M. Specialized Topics in Quantitative Methods.

ECO X98. Thesis.

ECO X98K. Specialized Topics in Microeconomics.

ECO X98L. Specialized Topics in Macroeconomics.

ECO X98M. Specialized Topics in Quantitative Methods.

ECO X98T. Supervised Teaching in Economics.
Teaching under the close supervision of the course instructor; weekly group meetings, individual consultations, and reports.

ECO X99W. Dissertation.

Professional Courses

ECO X19S. Topics in Economics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Economics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ECO X29S. Topics in Economics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Economics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EDC - Curriculum and Instruction

Curriculum and Instruction: EDC

Lower-Division Courses

EDC X01E. Orientation to Teaching in the Elementary School.
Discussion sessions and assignments in public schools; designed to help students make teaching career decisions.

EDC X01S. Orientation to Teaching in the Secondary School.
Discussion sessions and assignments in public schools; designed to help students make teaching career decisions.

EDC X12. Foundations of United States Schooling.
Discuss the institution of schooling, and processes of school reform, from historical, philosophical, and political perspectives. Introduction to the origins and development of public schooling in the United States in the context of processes of settler colonialism, racial capitalism, and contests over the meaning of democracy. Explore past and present influential philosophical visions of schooling and de-schooling, with focus on debates over the notion of the common school, schooling as socialization, and education for uplift and emancipation. Examine the politics and policy of education, with special attention to the consequences for students of color, Indigenous students, LGBTQIA students, immigrant students, and students with disabilities.

EDC X14. Children's Movement.
Explore support positive, effective physical education and implement well-planned and stimulating physical activity for children. Focus on integrating academic content with physically active classrooms. Examine principles of movement and motor development in children, curriculum, legislation and policy, physiological principles, learning principles, coordinated school health (CSH), and comprehensive school physical activity programming (CSPAP).

EDC X18C. Topics in First-Generation Scholars.
Explore and utilize a variety of resources and opportunities for graduate studies and academic professionalization. Define, develop, produce and model an independent research project.

EDC X18C.1. Graduate School Literacy.

EDC X18C.2. Teaching Academy.

EDC X19. Qualitative Inquiry and Education for Social Change.
Examines the socio-historical contexts of education for minoritized groups in the U.S. through empirical approach of critical qualitative inquiry in education. Explores qualitative and historical studies in which students, teachers, administrators, and parents seek to change or reform their educational experiences. Entails research in schools and non-school settings.

EDC X19S. Topics in Curriculum and Instruction.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Curriculum and Instruction. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

EDC X24. Foundations of Language and Literacy Education.
Examine the foundations of language and literacy through a lens of sociocultural knowledge and practice. Consider cognitive theories of learning, as well as sociocultural theories of the processes of language, reading, and composing, and how they relate to each other. Discuss the five pillars of reading (phonemic awareness, phonics, fluency, vocabulary, and comprehension) along with other component areas including oral language development, print awareness and alphabet knowledge, syllabication, and morphemic analysis. Prepare for addressing disabilities and difficulties, which are expected and part of the variation of how people learn to be literate.

EDC X29S. Topics in Curriculum and Instruction.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Curriculum and Instruction. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EDC X31S. School Organization and Classroom Management in Secondary Schools.
Administrative structure of secondary schools; concepts, principles, and strategies for establishing an orderly classroom environment, preventing inappropriate behavior, and promoting student involvement in academic work.

EDC X32S. Designs for Instruction.
One of the beginning courses in the professional development sequence for approved programs in secondary education.

EDC X33W. Introduction to Teaching.
Overview of the objectives, organization, and operation of schools; the teaching process; teaching as a professional career.

EDC X39C. Community Literacy.

EDC X39D. Reading Assessment and Development.

EDC X39E. Secondary School Literacy across the Disciplines.
Designed for students in a University secondary teacher preparation program.

EDC X39F. Adolescent Literacy.
Designed for students in a University secondary teacher preparation program. Social, political, cultural, emotional, and personal perspectives on adolescent literacy. Subjects may include adolescent literacy practices in and out of school; literacy in relation to identity, peer communities, meaning, communication, and social engagement; curricula that emphasize the social and civic purposes of literacy; and motivation, fulfillment, and democratic participation as educational outcomes.

EDC X39G. Literacy Seminar.

EDC X39J. Foundations of Social Studies.
Learn to facilitate the exploration of culture; time, continuity, and change; people, places, and environments; individual development and identity; individuals, groups, and institutions; power, authority, and governance; production, distribution, and consumption; science, technology, and society; global connections; and civic ideals and practices. Discuss how to enact engaging and purposeful social studies curricula for varied grade levels. Consider history, sociology, anthropology, economics, geography, and civics.

EDC X39K. Designing a Classroom Community with Equity and Justice.
Explore methods of designing a classroom community with equity and justice.

EDC X39L. Young Children As Learners.

EDC X39M. Communities and Families as Assets in Education.
Discuss the social and cultural contexts that contribute to the development of children and families within their school and community.

EDC X40C. Spanish Language Methods for the Bilingual Classroom Teacher I.
Designed primarily to help prospective bilingual education teachers expand their oral Spanish proficiency for instructional purposes in the bilingual education classroom.

EDC X40D. Spanish Language Methods for the Bilingual Classroom Teacher II.
Intensive practice in the various aspects and conventions governing literacy within the elementary bilingual education curriculum.

EDC X40E. Latino Children's Literature for Bilingual Teachers.
Covers the use of oral and written literature for children in bilingual programs while examining the history and development of Spanish-language children's literature from social, cultural, and political perspectives. Subjects may include foundational books, authors, and illustrators of Latina/o children's literature; criteria for evaluating culturally authentic children's literature; multimedia and online resources related to bilingual children's literature; and the literary response process.

EDC X40F. Foundations of Bilingual Education.
An overview of theory, practice, programs, and policy related to bilingual education as implemented in the United States. Designed to give students an opportunity to learn about and discuss issues related to bilingual education, and the education of linguistically and culturally diverse populations.

EDC X40R. Spanish Language Communication in Bilingual Classrooms.
Practice in Spanish for the planning, implementation, and evaluation of learning in bilingual classrooms and their communities.

EDC X41C. Early Childhood Education.
Introduces socio-cultural understandings of key early childhood education approaches. Critically examines these approaches in relation to their constructions of the young child as a learner, images of the early childhood educator, the social purposes of early childhood education institutions, and implications for culturally sustaining pedagogy.

EDC X41D. Early Childhood Program Development.
Focuses on strategies for developing and supporting inquiry-based curriculum in early childhood education classrooms. Introduces pedagogical documentation as a tool to support curriculum development that is critically reflective, culturally sustaining and promotes a culture of inquiry in early childhood environments.

EDC X41R. Critical Differentiation Approaches For Bilingual Learners.
Explore basic principles and applications of differentiated instruction, multi-tier-systems of support and inclusive collaboration practices with special education in the general classroom.

EDC X43. Informal Science Education.

EDC X44. Digital Literacy for Teaching and Learning.
Use of digital tools to increase technical, pedagogical, and administrative proficiencies in a series of hands-on laboratory projects involving word-processing, handling of databases and spreadsheets, multimedia presentations, digital image and video editing, web page creation, and tools to create digital storytelling, e-portfolios, and electronic gradebooks. Experiential foundation creates a repertoire of possibilities for content-specific, technology-supported teaching and learning associated with learner-centered, collaborative classrooms. Emphasis on the development of critical perspectives (including pedagogical, social, technical, cultural, ethical, economic, legal, and political) to help youth fully participate in digital learning.

EDC X45. Curriculum Issues in Physical Education.
Study of personal teaching and physical education programs. Accompanies student teaching.

EDC X50. Topics in Educational Studies.
Analysis of selected topics and problems in education.

EDC X50.3. Teaching Secondary Social Studies.
Explore instructional approaches to teaching in the disciplines of social studies through advanced field-based practice.

EDC X50E. Elementary Grade Teaching Practicum.
Supervised practicum in early childhood through grade four classroom teaching, conducted in cooperating schools, as part of the teacher preparation program. Consists of teaching, analysis, and evaluation.

EDC X51S. Topics in Secondary School Teaching Practicum.
Supervised practicum in secondary classroom teaching, conducted in cooperating schools, as part of the teacher preparation program. Consists of teaching, analysis, and evaluation.

EDC X51S.1. Secondary School Teaching Practicum: English.

EDC X51S.2. Secondary School Teaching Practicum: Social Studies.

EDC X51S.3. Secondary School Teaching Practicum: Math.

EDC X51S.4. Secondary School Teaching Practicum: Science.

EDC X51S.5. Secondary School Teaching Practicum: Visual Art.

EDC X51W. Topics in All Level Teaching Practicum.
Supervised practicum in elementary, middle school, and secondary classroom teaching. Conducted in cooperating schools as part of the teacher preparation program. Consists of teaching, analysis, and evaluation.

EDC X51W.1. All Level Teaching Practicum: Theatre.

EDC X51W.2. All Level Teaching Practicum: Visual Art.

EDC X51W.3. All Level Teaching Practicum: Dance.

EDC X51W.4. All Level Teaching Practicum: Music.

EDC X51W.5. All Level Teaching Practicum: Kinesiology.

EDC X52S. Topics in Secondary Student Teaching Methods.
Focus on secondary teaching, and addressing instructional design and assessment.

EDC X63. Social Entrepreneurship in Youth and Community Studies.
Explore social entrepreneurship and responsibility. Apply entrepreneurship skills and project management skills through individual or group assignments focusing on business development.

EDC X64. Internship.
Supervised fieldwork or clinical work in the student's area of study.

EDC X64C. Fieldwork in Youth and Community Studies.
Explore experiential learning in professional environments related to a chosen concentration area.

EDC X65. Classroom Interactions and Project Based Instruction.
Students are assigned to a mentor teacher classroom where they might continue as apprentice teachers the next semester. Students will be observing or teaching in the classroom at least 3 hours a week, in addition to the 6 contact hours per week. Students prepare, implement and analyze results of inquiry- and project-based lessons, focusing on student thinking and participation, and meeting the needs of students with reading and writing difficulties, those learning in a second language, and those with behavioral and psychological issues.

EDC X65C. Knowing and Learning in Math and Science.
Psychological foundations of learning; problem solving in mathematics and science education utilizing technology; principles of expertise and novice understanding of subject matter; implications of high-stakes testing; and foundations of formative and summative assessment.

EDC X65D. Classroom Interactions.
Principles of delivering effective instruction in various formats (lecture, lab activity, collaborative settings); examination of gender, class, race, and culture in mathematics and science education; overview of policy related to mathematics and science education.

EDC X65E. Project-Based Instruction.
Foundations of project-based, case-based, and problem-based learning environments; principles of project-based curriculum development in mathematics and science education; classroom management and organization of project-based learning classrooms.

EDC X70E. Topics in Elementary School Subjects.
Curriculum content and organization, teaching procedures, materials, and research in elementary school subjects.

EDC X70E.10. Early and Elementary Mathematics Methods.

EDC X70E.11. Inquiry and Project-Based Learning Methods.

EDC X70E.15. Special Adaptations for the Deaf.

EDC X70E.19. Reading/Language Arts.

EDC X70E.20. Teaching English as a Second Language.
The methods, teaching strategies, and materials for developing and assessing English language proficiency in culturally and linguistically diverse populations within the context of the elementary school curriculum.

EDC X70E.21. Teaching Elementary Physical Education.

EDC X70E.6. Early and Elementary Reading Methods.

EDC X70E.7. Early and Elementary Writing Methods.

EDC X70E.8. Early and Elementary Science Methods.

EDC X70E.9. Early and Elementary Social Studies Methods.

EDC X70S. Topics in Secondary School Subjects.
Curriculum content and organization, teaching procedures, materials, and research in one secondary school subject.

EDC X70S.1. Advanced Methods in English, Language Arts, and Reading.

EDC X70S.10. Drama.

EDC X70S.11. Speech.

EDC X70S.12. Teaching Secondary Physical Education.

EDC X70S.15. Teaching Secondary School Theatre.

EDC X70S.16. Teaching Secondary School Visual Art.

EDC X70S.17. Teaching Secondary School Dance.

EDC X70S.18. Teaching Secondary School Music.

EDC X70S.3. Advanced Methods in Social Studies.

EDC X70S.5. Advanced Methods in Foreign Language.

EDC X70S.7. Art.

EDC X70S.8. Music (Vocal).

EDC X70S.9. Music (Instrumental).

EDC X70W. Topics in All-Level School Subjects.
Curriculum content and organization; teaching procedures, materials, and research in one school subject at all grade levels.

EDC X70W.1. English as a Second Language.

EDC X70W.2. Art.

EDC X70W.3. Music.

EDC X70W.4. Theatre.

EDC X70W.5. Foreign Language Education.

EDC X71P. Social Entrepreneurship.
Introduction to social entrepreneurship and responsibility. Apply entrepreneurship skills and project management skills through individual or group assignments focusing on business development.

EDC X71R. Reading Difficulties.
Reading theory, assessment, materials, and instruction with emphasis on struggling readers; field experiences in reading tutoring.

EDC X71S. Topics in Praxis for Student Teaching.
Explore the development of pedagogical practices that adheres to the principals of democratic education.

EDC X71S.1. Secondary English.
EDC X71S.4. Secondary Social Studies.
EDC X73. African Americans in Sports.
Theoretical and practical complexities in issues surrounding African Americans in sports, including the relationship between athletics and higher education. Focuses on racial stereotyping, identity theory, and how practical knowledge of these theories can aid in understanding the current state of athletics.
EDC X77. Conference Course in Curriculum and Instruction.
Independent studies in instructional methodology and curriculum.

Graduate Courses

EDC X80F. Sociocultural Foundations.
Problems and issues in the study of education from a sociocultural perspective. Examines research in different fields, including history, sociology, and anthropology of education; innovative education reform in the field of multicultural education; and issues of racial, class, and gender inequality. Includes a critical assessment of the American public school system, with an emphasis on social justice.
EDC X80G. Anthropology of Education.
A study of social life in contemporary American schools from an anthropological perspective.
EDC X80H. Current Issues.
Consider and address contemporary challenges observed in the various areas within curriculum and instruction including the humanities, literacy, world languages and cultures, physical education, and education technology in the contexts of EC-12 and beyond. Engage problem-solving to design solutions to advance equitable outcomes.
EDC X80R. Educational Research and Design.
An introduction to the methodology of social science research, with a focus on the field of education. Examines the fundamental assumptions, principles, and procedures of research; the meaning of knowledge and the ways in which knowledge may be acquired and communicated to others; preparation and utilization of effective questions; principles of data collection and data analysis; drawing conclusions from data; and evaluation of current research.
EDC X80T. Writing: Process and Pedagogy.
Explore processes and pedagogies of writing. Examine purposes, functions, consequences, and implications of writing in culturally and linguistically diverse communities. Examine theories and pedagogical approaches for teaching writing in a digital age.
EDC X80W. Teaching Composition.
Topics in the methodologies for the teaching of writing in American elementary, intermediate, and secondary classrooms. Topics may include writing assessment, connections between school and other settings, reading-writing connections, writing development, writing to think and learn, writing for a range of purposes and in a range of genres, and classroom structures for the teaching of writing.
EDC X81F. Introduction to Teaching and Teacher Education.
Examines research on teaching, research in teacher education, and modes of inquiry.
EDC X81J. Curriculum Organization.
An overview of theories, principles, and issues in curriculum construction for modern education.
EDC X81M. Topics in Designs for Instruction.
Examination of the instructional design process at one of the following levels: elementary school, secondary school, higher education, all-level. Emphasis on promising practices and current efforts toward improvement.
EDC X81R. Introduction to Systems of Human Inquiry.
Designed to provide students with the knowledge and competence in social science research methods required for careers in teaching or human services. Explores competing definitions of research; the idea of a research paradigm; characteristics of various forms of inquiry, including quantitative and qualitative research; and research methods in relation to issues of ethics and rigor.
EDC X82E. Topics in Teaching Elementary School Subjects.
Examination of the discipline of the subject-field selected, coupled with intensive study of research findings, publications of learned societies, and advanced experimentation with the improvement of instruction.
EDC X82E.1. Reading.
EDC X82E.10. Bilingual Education.
EDC X82E.2. Language Arts.
EDC X82E.3. Science.
EDC X82E.4. Social Studies.
Explore the history and theory of early childhood and elementary social studies, including the numerous debates over what constitutes "social studies", how social studies fits within early schooling curricula, and what the ultimate goal of social studies ought to be. Use foundational texts as well as current research in the social studies to examine the field and to consider how these debates impact school curriculum and pedagogy.
EDC X82E.5. Mathematics.
EDC X82E.6. Foreign Language.
EDC X82E.7. The Humanities.
An examination of personal values and such areas in the humanities as philosophy, music, art, drama, dance, and literature to provide richer educational experiences.
EDC X82E.8. English as a Second Language.
EDC X82E.9. Early Childhood Education.
EDC X82R. Fundamentals of Statistics.
Designed for students majoring in the social sciences.
EDC X82S. Topics in Teaching Secondary School Subjects.
Examination of the discipline of the subject-field selected, coupled with intensive study of research findings, publications of learned societies, and advanced experimentation with the improvement of instruction.
EDC X82S.1. Reading.
EDC X82S.2. English.
EDC X82S.3. Science.
EDC X82S.4. Mathematics.
EDC X82S.5. Social Studies.
EDC X82S.6. Foreign Language.
EDC X82S.7. English as a Second Language.
EDC X82S.8. Instructional Technology.
EDC X82T. Problems of College Teaching.
Methods and procedures for teaching in specific fields selected by participants; major emphasis on successful classroom practices.
EDC X83C. Bibliography in Teaching and Curriculum.
Survey of the scholarly literature in teaching and curriculum, with emphasis on bibliographic sources and techniques.
EDC X83F. Curriculum Theory.
An introduction to the central issues in curriculum theory. Includes historical and contemporary approaches to the philosophy and analysis of curriculum, and curriculum theory and practice. Emphasis on the issues of power, knowledge, and exclusion.
EDC X83T. Instructional Theory.
Identification and analysis of the major types of contemporary instructional theory.
EDC X85G. Topics in Program Development and Research: Seminar.
Advanced investigations of selected topics and problems in curriculum theory, program design, and research design at one of the following levels: elementary school, secondary school, higher education, all-level.
EDC X85G.11. Action Technologies.
EDC X85G.17. Culture, Gender, and Race in Organizations.
EDC X85G.19. Managing Human Resource Development.
EDC X85G.2. Parents and Education.
An exploration of the relationship between families and schooling in the United States through racial, class-based, linguistic, cultural, and global perspectives, using multiple theoretical frameworks to both understand

and challenge current approaches towards parental involvement in school.

EDC X85G.21. Training and Development.

EDC X85G.24. Qualitative Research: Mixed-Method Investigation.

EDC X85G.25. Life History Research.

EDC X85G.27. Qualitative Research: Naturalistic Inquiry.

EDC X85G.28. Multimedia Authoring.

EDC X85G.29. Interactive Multimedia Design and Production.
Engaging in the design and production process through work with a client on an interactive, web-based application through new media technology tools. Emphasis on industry standard technology: graphics, video, audio, animation, and web development.

EDC X85G.30. Advanced Qualitative Research: Discourse Analysis.

EDC X85G.31. Inquiry in Play.
An examination of play as a meaningful aspect of curriculum and child development; philosophical, psychological, and educational perspectives on play; and the grounding of educational play research in broader fields of inquiry.

EDC X85G.32. Advanced Science and Mathematics Education.

EDC X85G.33. Computer-Supported Collaborative Learning.
Explores current research, theories, and strategies of computer-supported collaborative learning. Includes web-based activities focused on collaborative inquiry and writing, and approaches to project-based and foreign language learning.

EDC X85G.34. Language, Culture, and Identity.

EDC X85G.35. Constructivism and Instructional Design.
Examines the philosophical, rhetorical, practical, and evaluative bases for constructivist approaches to instructional design. Students visit one constructivist classroom at the kindergarten through grade twelve level, and one at the college level.

EDC X85G.36. Content and Instruction of Reform Algebra.

EDC X85G.37. Critical Issues in Bilingual and Bicultural Education.

EDC X85G.4. Second Language Acquisition.

EDC X85G.40. Current Issues in Teaching Social Studies.

EDC X85G.41. Curriculum Development in School Systems.

EDC X85G.42. Curriculum History in Science, Technology, Engineering, and Mathematics Education.
The historical development of science, technology, engineering, and mathematics curricula in the United States from the mid-nineteenth century to the present. Discusses politics, equity, the development of technology, and theories of learning; and examines current curricular trends.

EDC X85G.43. Curriculum in Science and Mathematics Education.

EDC X85G.44. Curriculum Theories for Prekindergarten and Kindergarten.

EDC X85G.45. Designs and Strategies for New Media.
Explores human-computer interaction (HCI), emphasizing designs and strategies for new media through various evaluations and hands-on activities. Examining the use of new media from the perspectives of information design, interaction design, and interface design; and using industry standard new media tools to illustrate understanding.

EDC X85G.47. Educational Communication Networks: Theory and Practice.

EDC X85G.48. Educational Communication: Diffusion of Innovation.

EDC X85G.49. Teaching and Learning with the Internet.

EDC X85G.5. The Second Language Learner.

EDC X85G.51. Feminist Participatory Action Research.
An overview of feminist social-action theory and research. Studies social action within the local community setting and with community projects.

EDC X85G.52. Foundations of Instructional Technology.

EDC X85G.53. Curriculum and High-Stakes Testing.
Explores the provisions of state and federal legislation regarding high-stakes testing, including the implications for culturally and linguistically diverse student populations, the motivations for use, and the impact upon curricula, teaching, and student academic performance.

EDC X85G.55. Historical Perspectives on Curriculum.

EDC X85G.56. Service Learning as an Instructional Strategy.

EDC X85G.57. Learning Technology Planning and Management.
Current theories, research, and strategies related to the planning and management of learning technology projects. Exploration of funding proposals, strategic planning, and the use of planning tools such as surveys, inventory forms, project management aids, and decision-support systems.

EDC X85G.58. Multicultural Education in Austin.
Explores local educational and community resources for teaching from a multicultural and global perspective.

EDC X85G.59. Knowing and Learning in Science, Technology, Engineering, and Mathematics Education.
Explores various theories related to science, technology, engineering, and mathematics epistemology. Includes memory and the structure of knowledge, problem solving and reasoning, and the foundations of learning.

EDC X85G.6. Linguistics and Language Teaching.
Application of the findings of linguistics to the teaching of languages.

EDC X85G.60. Language Acquisition in Multicultural Special Education.

EDC X85G.61. International Perspectives on Literacy Development.

EDC X85G.62. Education in Contemporary Black America.
Examines the historical and contemporary philosophies, practices, and pedagogies for Black education. Includes culturally responsive pedagogy, African-centered pedagogy and curriculum, multicultural curriculum and critical race theory.

EDC X85G.63. Identity, Agency, and Education.
Considers the cultural production of identity and identity politics and agency within a cultural, political, racial, gender, and activist framework in relation to education.

EDC X85G.64. Cultural Theory in Education.
Investigation of theories of popular culture, cultural difference, and cultural politics, and their applications in educational research and practice. Focuses on the relation between culture and power, with attention to issues of identity as well as social structure.

EDC X85G.65. Critical Pedagogy.
Introduction to critical pedagogy, focusing on theoretical foundations and methodologies of teaching and curriculum. Explores approaches to education oriented toward the development of critical consciousness, empowerment, and social action.

EDC X85G.67. Cultural Knowledge of Teachers and Teaching.
Examines how scholars have utilized cultural theory and cultural knowledge to situate and respond to: the identity, role and responsibility of "being" a teacher; the pedagogic functioning of teaching; and teacher preparation. Particular emphasis is placed on how these factors concern the education of historically marginalized student population.

EDC X85G.68. Women and Education: Research, Theory, and Practice.
Explores the roles and experiences associated with women and girls in the broad field of education. Subjects related to women across a diverse social terrain are targeted including: historical scholarship, research, theoretical frameworks and policy issues.

EDC X85G.69. Chicana Feminist Theorists.
Explores current historical and theoretical writings of Chicana women feminist theorists. Themes include patriarchy, domination/resistance politics, epistemology, contestation, social reproduction, identity and

difference and how these connect to schooling practices, policies, and politics.

EDC X85G.7. Language and Politics in Language Planning.

EDC X85G.70. Chicana Participatory Action Research.

Investigates the history and philosophy of participatory action research, including that done by and for Chicanas. A research project benefiting Chicanas and other young, Latina females in a public educational setting will be required.

EDC X85G.71. Exploration in the Education of the Mexican American Child.

Provides a historical and contemporary overview of Mexican American children's schooling experiences that consider tracking, bilingual education, school finance, higher education access, and standardized testing.

EDC X85G.72. Race and Ethnic Relations in Schools.

Investigates the role of race and ethnicity as key organizing principles of society. Themes include individual and institutional racism, reproduction theory, cultural and structural assimilation, critical race theory, epistemology, anti-racist and culturally relevant pedagogy.

EDC X85G.73. Seminar in Advanced Educational Policy.

Investigates policy from a critical policy analysis perspective. Considers the importance of context, discourses, players, and policy articulations that influence policy development primarily in education and areas such as immigration and the economy.

EDC X85G.74. History of American Reading Instruction.

Focuses on shifts in reading pedagogy in relation to changing societal conditions in the United States from colonial times through the 1980s. Engages with instructional materials and investigate practices through readings and course lectures. Considers historical research methods including oral history.

EDC X85G.75. Reading and Writing in the Elementary School.

Offers an overview of methods, materials, and assessments used in the reading and writing instruction at the elementary level. Focuses primarily on classroom and school level processes with additional consideration of the instruction for special needs learners.

EDC X85G.76. Literacy and Culture.

Examines the relationship between culture and literacy from a variety of theoretical perspectives including New Literacy Studies, identity and agency, sociocritical literacy and critical race theory with a particular emphasis on discourse and social change.

EDC X85G.77. Classroom Discourse and Teacher Research.

Designed as a collaborative, critical examination of teacher/action research, particularly in relation to the exploration of classroom discourse. Focuses on the rationale, issues, and implications of the teacher research movement within education and on the research strategies and techniques that can be used by teachers in conducting research in their own classroom settings.

EDC X85G.78. The Teaching of Literacy.

Develops a stance of inquiry into teaching from a social practices framework. Emphasis will be on formulating thoughtful and theoretical questions to enhance the quality of interactions with children in classrooms; making ideologies that operate within the school literacy communities explicit; and looking through informed and critical lenses at each aspect of literacy instruction.

EDC X85G.79. Sociolinguistics in Research and Teaching.

Focuses on the sociocultural investigation of language, particularly as it pertains to educational settings. Traces the historical emergence of the related fields of sociolinguistics and linguistic anthropology, exploring how each of these scholarly traditions approaches the study of language, identifying key points of overlap and tension between the two fields, and discussing recent examples of inter-disciplinary scholarship. Issues to be addressed include linguistic variation, language and identity, bilingualism and multilingualism, language ideologies, and classroom discourse.

EDC X85G.80. Orality, Literacy, and Technology.

Explores the relationships among speech, writing, and technology across human history, in contemporary cultures, in individual lives, and in processes of education. Situates discussions of "new literacies" in the context of the history of literacy.

EDC X85G.81. Research on Adolescent Literacy In and Out of School.

Considers ways in which the literacy practices of youth in out-of-school settings and the literacy work of schools might productively inform each other, and examines the purposes, processes, and outcomes of this literacy work.

EDC X85G.82. Major Theorists in Early Childhood.

Studies a historical range of theorists who have tried to explain childhood and early learning in the fields of anthropology, psychology, philosophy, education, and child development.

EDC X85G.83. Research on Teacher Education in Physical Education.

Discusses philosophical orientations such as progressivism, post-modernism, humanism, and social reconstruction. Of particular value to those in the doctoral program in physical education teacher education.

EDC X85G.84. Contemporary Problems in Science, Technology, Engineering, and Mathematics Education.

Identifies and explores contemporary problems in science and mathematics education through collaboration with a practitioner in the field.

EDC X85G.85. Current Issues in Physical Education.

Explores and critically analyzes current issues, coalitions, and legislation related to physical education and develops the understanding and skills necessary to impact the future directions.

EDC X85G.86. Critical Perspectives in Early Childhood Education.

Critically analyzes scholars of early childhood education research, practice, and curricula. Questions assumptions about early childhood education; beliefs, theories, and ideas about working with young children, their families, and the communities in which they live and work.

EDC X85G.87. Technology, Teacher Learning, and School Change.

Examines the complexity of the change process, especially in relation to the introduction of digital technologies in the PK-12 school context.

EDC X85G.88. Research on Early Childhood Education.

An introduction to research practices in the field of early childhood education. Classic studies and research reviews in various facets of early childhood education will be reviewed. Subjects include: child development, early childhood program models and evaluation, curriculum (including concept development and play), parent involvement, and teacher education in early education.

EDC X85G.89. Social Construction of Thinking in Childhood.

An intensive exploration of social constructivism, particularly Vygotskian theory and research. Classroom interactions, teaching and learning, parent and family contributions to education, cultural influences, and other contextually applicable aspects of education will be explored.

EDC X85G.90. Social Contexts of Early Childhood Education.

With a sociological lens, an examination of the constructs of the child and childhood through a range of social, political, educational, and economic contexts.

EDC X85G.91. Early Childhood Education Programs.

An examination of specific approaches to early childhood education including as the Montessori approach; programs such as Head Start; and critical analysis of how these various models of early childhood education define their role within the education of the young child as well as define the role of the child, teacher, and family. Philosophical, theoretical, historical, and empirical approaches to the field will be investigated.

EDC X85G.92. Theories of Curriculum for Pre-kindergarten and Kindergarten.
An exploration of the central issues and theoretical orientations of curriculum theory and practice in early childhood and elementary public school programs in the United States.

EDC X85G.93. Evaluation in Language Education.
Explores the policy and classroom implications of language assessment and evaluation practices, including review and critique of the assessment of English language proficiency for language minority students, standardized language assessment tools, and informal classroom-based methods for assessing language.

EDC X85G.94. Immigration Theory in Education.
An investigation of sociological, psychological, and anthropological perspectives of immigration theory and immigration post-1965 as they apply to educational research and immigrant youth in United States schools.

EDC X85G.95. Language Policy in Education.
Explores the implications of the perception of language as alternately a right, a resource, and a problem. Emphasis is on the development of linguistic support movements (bilingual, ESL, AAVE/Ebonics, etc.) as well as implicit and explicit language policies in the United States and in other countries.

EDC X85G.96. Biliteracy and New Literacy Studies.
Focuses on the theoretical foundations of biliteracy theories and new literacy studies.

EDC X85G.97. Biliteracy and Culture.
Includes theories and research topics relevant to teaching and learning literacy in two languages, Spanish and English. Discussion of the ways in which sociocultural, linguistic, and academic factors influence biliteracy development.

EDC X85G.98. Social, Cultural, and Political Contexts of Language Learning.
An analysis of oral and written language learning from interdisciplinary perspectives and within a variety of contexts, both within and outside of school settings. Particular attention is paid to issues of pedagogy, non-standard" dialects of English, second-language learning, and multiliteracies.

EDC X85G.99. Curriculum in Physical Education.
An examination of current research regarding physical education curriculum paradigms, reform initiatives, and physical activity interventions as related to curriculum.

EDC X85H. Topics in Cultural Transmissions in America.
Analysis of contemporary social, political, and economic trends in national and international life from the standpoint of educational implications.

EDC X85K. General Foundations of Education.
General survey of basic concepts, topics, and policy issues in the foundations of education.

EDC X85R. Introduction to Quantitative Research.
Designed to help students develop skills in a variety of approaches and methodologies used in research design that requires quantitative methods. Focuses on multivariate methods; and includes research questions, purposes, methodologies, instruments, measures, participant selection, data collection and data analysis methods, results, and conclusions.

EDC X86R. Introduction to Qualitative Research.
An introduction to the theoretical and methodological issues central to conducting qualitative research studies. Designed to help students develop practical research skills, and includes opportunities to evaluate current research, analyze data, observe, and interview.

EDC X87R. Topics in Advanced Quantitative Research.

EDC X87R.1. Advanced Quantitative Analysis.

EDC X87R.2. Statistical Inference.

EDC X87R.3. Survey Research Methods.

EDC X88R. Topics in Advanced Qualitative Research.

EDC X88R.1. Narrative and Oral Tradition.

EDC X88R.10. Phenomenology Research.
Apply phenomenological approaches to study curriculum design, technology adoption, educational leadership, teacher development, and learner experience. Apply understanding of philosophy, qualitative research methods, and post-modern and post-structural views of research.

EDC X88R.2. Discourse Analysis.

EDC X88R.3. Educational Ethnography.

EDC X88R.4. Postmodern Analytical Methods.

EDC X88R.5. Life History.

EDC X88R.6. Naturalistic Inquiry.

EDC X88R.7. Feminist Participatory Action Research.

EDC X88R.9. Case Study.
An in-depth investigation into the methodology of case study research, including approaches and theories, development of goals, and current issues and challenges.

EDC X89R. Topics in Advanced Mixed Methods Research.
Instruction in design-based research, a methodology aimed to improve educational practices through interventions involving iterative analysis, design, and development, and implementation of interventions based on collaboration among researchers and practitioners in real-world settings.

EDC X90T. Topics in Institute in Instruction.
Various topics designed to help students analyze and improve instruction at one of the following levels: elementary school, secondary school, higher education, all-level.

EDC X90T.1. Reading.

EDC X90T.10. Analysis of Teaching in Physical Education.
An examination of the history and current practices involved in high and low inference methods of analyzing teaching. Commonly used evaluation systems such as the Professional Development and Appraisal System (PDAS) and National Board Certification will be reviewed.

EDC X90T.11. Archaeology Education for Social Studies.

EDC X90T.12. Childhood and Adolescent Literature.

EDC X90T.13. Design for Technology Innovation.

EDC X90T.15. Elementary School Curriculum.

EDC X90T.16. English as a Second Language: Oral.

EDC X90T.17. English as a Second Language: Literacy.

EDC X90T.18. English as a Second Language: Reading.

EDC X90T.19. Equity in Science, Technology, Engineering, and Mathematics Education.

EDC X90T.20. Systemic Reform and Science and Mathematics Education.

EDC X90T.21. Instructional Systems Design.
Provides an overview of the theoretical frameworks, current trends, and common concerns associated with the design and development of instructional materials. Investigates the theoretical, practical, and critical perspectives on instructional design as applicable in a variety of educational contexts (K-12 education, higher education, and corporate training) and modes (face-to-face, online, and hybrid environments). Includes readings, discussions, real-world design, practical applications, and interactions with instructional design experts.

EDC X90T.22. Improving Social Studies Education.

EDC X90T.23. Instructional Telecommunications.

EDC X90T.24. Introduction to Curriculum Studies.
Designed to familiarize doctoral students with the theoretical, philosophical, sociocultural, and practical areas within the field of curriculum study.

EDC X90T.25. Literature for Young Adults.
Examine the genre of young adult literature, particularly literature written by non-traditional authors. Explore curricular and pedagogical approaches to issues related to reading young adult literature with linguistically and culturally diverse secondary students.

EDC X90T.26. Multicultural Curriculum and Teaching.

EDC X90T.27. The Planning and Management of Instructional Programs.

EDC X90T.28. Practice in Reading Difficulties.
A practicum in assessing and teaching elementary school students who struggle with reading. Class meetings take place at a local elementary school and include one-on-one tutoring with coaching and modeling by the instructor, small group support sessions, and seminars on issues related to reading difficulties.

EDC X90T.3. Science.

EDC X90T.30. Research on Teaching.

EDC X90T.31. Research on Teaching in Science, Technology, Engineering, and Mathematics Education.

EDC X90T.32. Seminar in Elementary School Curriculum.

EDC X90T.33. Studies in Curriculum and Instruction.

EDC X90T.36. Humanities and Literacy in Social Education.

EDC X90T.37. Systemic Reform in Science, Technology, Engineering, and Mathematics Education.
Covers the major themes of systemic reform in science, technology, engineering, and mathematics (STEM) education and explores, develops, and investigates models of reform initiatives.

EDC X90T.38. Advanced Topics in Science, Technology, Engineering, and Mathematics Education.
Focuses on a critical issue in science, technology, engineering, and mathematics (STEM) education aligned with STEM education faculty research interests, culminating in a product (paper, presentation, proposal) that can be submitted to professional or funding agencies.

EDC X90T.39. Instructional Systems Design.
An overview of the theoretical frameworks, current trends, and common concerns associated with the design and development of instructional materials. The theoretical, practical, and critical perspectives on instructional design as it is applied in a variety of educational contexts will be reviewed for the purpose of designing effective and engaging learning experiences.

EDC X90T.4. Social Studies.

EDC X90T.40. Advanced Instructional Systems Design.
Includes advanced topics, theoretical frameworks, and strategies for the design of instructional systems. Students work in teams to design and develop an instructional product for an authentic client such as a state agency, school system, university, corporation, or museum that meets specified criteria for quality.

EDC X90T.41. Measurement and Assessment of Physical Activity.
An introduction to theoretical bases for evaluating and investigating physical education teaching effectiveness. Emphasis is placed on current technologies and issues of assessment for physical education instruction, basic statistics concepts, and current educational evaluation trends. Designed primarily for physical education teachers.

EDC X90T.42. Research on Teaching in Physical Education.
An examination of past and current research on teaching, teachers, and curriculum in physical education. Empirical and conceptual scholarship related to the physical education teaching process, the preparation of teachers and their experiences, and the development of curriculum in physical education settings will be explored.

EDC X90T.43. Foundations of Learning Technology.
Introduces students to the field of learning technology by learning its history, as well as the learning theories, paradigms, thought leaders, trends, and issues that have shaped the field. Primarily web-based and involves both individual and collaborative work. Online class meetings will be held every two to three weeks to facilitate real-time discussions on the readings, as well as opportunities for interaction with visiting experts in the field.

EDC X90T.5. Mathematics.

EDC X90T.6. Foreign and Second Language Materials Development.

EDC X90T.7. Advanced Instructional Systems Design.
Advanced topics, theoretical frameworks, and strategies for the design of instructional systems. Students work in teams to design and develop an instructional product for an authentic client such as a state agency, school system, university, corporation, or museum that meets specified criteria.

EDC X90T.8. English as a Second Language.

EDC X90T.9. Bilingual Education.

EDC X91C. Topics in Curriculum and Pedagogy.

EDC X91C.1. Teaching and Learning in Urban Contexts.
Examine historical and contemporary issues in urban education. Explore curriculum and pedagogical issues related to teaching linguistically and culturally diverse populations.

EDC X91C.2. Teaching Secondary English and Reading.
Examine issues related to teaching secondary English in urban contexts. Explore curriculum materials and teaching methods for secondary English language arts. Explore methods for teaching secondary reading.

EDC X91C.4. Foundations of Teaching Diverse Learners.
Focus on theory and its connection to practice in pedagogy and professional responsibilities. Discuss state standards for teacher preparation are covered in this course. Participate in field-based experience.

EDC X91C.5. Holistic Approaches to Elementary Teaching.
Focus on teaching methods and classroom environment and community. Discuss state standards for teacher preparation.

EDC X91C.6. Practice-Based Reflective Teaching of Diverse Learners.
Focus on teaching as a reflective practice. Discuss state standards for teacher preparation.

EDC X91G. Topics in Gender and Race in Education.

EDC X91P. Topics in Educational Policy.

EDC X91T. Topics in Educational Theory.

EDC X91V. Topics in Educational Evaluation.

EDC X92L. Philosophical Foundations of Education.
A systematic overview of the field of philosophy of education.

EDC X95C. Topics in Cultural Studies in Education.

EDC X95C.1. Black Education: Contexts, Dilemmas, and Possibilities.
Examine the philosophies, knowledge, contexts, and pedagogies related to Black education," historically and in the present. Explore the complexities of Black education, including key tensions, themes, and questions surrounding education for Black people in the U.S.

EDC X95C.2. Critical Issues in United States Latinx Education.

EDC X95H. Topics in Social Studies Education.

EDC X95H.2. Early Childhood and Elementary Methods of Social Inquiry.
Focus on teaching of social studies, writing, and the use of children's literature. Discuss state standards for teacher preparation.

EDC X95K. Topics in Early Childhood Education.

EDC X95K.1. Global Comparative Early Childhood Education.

EDC X95K.2. Black and Latino Boyhoods in Schools and Society.
Engage in critical analyses of historical and contemporary theoretical, pedagogical, and educational research that influence the views, perceptions, and educational outcomes of Black and Latino boys in and beyond K-12 schools. Focus on culturally and gender-relevant and sustaining theoretical, pedagogical, and research methodological approaches that center the voices, insights, and perspectives of Black and Latino boys. Critically reimagine Black and Latino boyhoods in and

beyond K-12 schools and overhaul essentialist perspectives of Black and Latino boys that proliferate in theories, teaching methods, and educational research.

EDC X95K.3. Gender Difference, Children, and Schooling.

EDC X95L. Topics in Language and Literacy Studies.

EDC X95L.1. Exploring Literacy Teaching Practices Using Action Research.

In the tradition of action research methods, content is framed around theoretical work in pragmatism, activity theory, and the "practice turn in teaching and teacher education through a combination of seminar and practicum elements. The major project is an action research study in a classroom/school. Faculty observe in classrooms where action research projects are underway.

EDC X95L.2. Literacy and Social Change.

Explore theories of using literacy as a tool for increasing social justice in the world. Understand and articulate theoretical and experience-based definitions of social justice and translate that knowledge into curriculum and instructional approaches that can educate students about how to use literacy to improve their worlds.

EDC X95L.3. Research in English and Language Arts.

Explore research in English Language Arts with an emphasis on composition. Understand processes and methods of analyzing scholarly works and research studies in subject matter.

EDC X95L.4. Research in Reading.

Explore research in the field of literacy with a focus on reading. Examine commonly-employed methodologies and current research published in peer-reviewed literacy journals and construct a literature review in an area of interest.

EDC X95L.5. Critical Perspectives on Literacy Challenges.

Examine historical and current views, policies, and school contexts related to literacy challenges from a sociocultural and contextual perspective.

EDC X95L.6. Literacy Leadership for Change.

EDC X95L.7. Literacy Assessment, Development, and Instruction.

Focus on teaching of literacy and language. Discuss state standards for teacher preparation.

EDC X95M. Topics in Bilingual Bicultural Education.

EDC X95P. Topics in Physical Education and Teacher Education.

EDC X95T. Topics in Learning Technologies.

EDC X95T.1. Introduction to Instructional Design.

Explore an overview of the theoretical frameworks, current trends, and common concerns associated with the design and development of instructional materials. Investigate the theoretical, practical, and critical perspectives on instructional design as it is applied in a variety of educational contexts (i.e. K-12, higher education, and corporate training) and modes (i.e. face-to-face, hybrid, and online).

EDC X95T.2. Humanizing Pedagogy and Technology Integration.

Explore theoretical and applied practices of teaching and learning in a twenty-first-century classroom, as informed by research and best practices. Examine the framing, applied knowledge and design thinking needed to transform curriculum using technology integration and connected learning strategies. Consider authentic learning problems and devise teaching and classroom solutions that promote student learning, humanize pedagogy, and work towards the elimination of digital inequity in schools.

EDC X95T.3. Humanizing Pedagogy and Online Teaching for K-12 Education.

Examine models that help design teaching and learning within online spaces, in ways that help to balance cognitive, teaching, and social presence throughout the online course student experience. Explore theoretical models that drive high impact online learning designs, research that informs K-12 practice and models for technology integration and student engagement that promote digital equity. Apply these theoretical frameworks to design online courses that are intended for use in authentic K-12 online educational settings.

EDC X95T.4. Technology Designs for Digital Justice.

Learn theoretical approaches to digital justice that promote culturally and community connected, digital learning designs within and beyond the walls of the classroom. Explore a critical frame using a design justice lens and interrogate instructional technology designs while evaluating and designing digital learning spaces. Examine how connected and design justice approaches can meet students at typical boundaries of where they live and learn, extend learning environments to cultivate learners' interests, and provide secure and inclusive learning experiences that span the formal and informal.

EDC X95T.5. Technology Innovation for Digital Justice.

Develop as "Connected Educators" by participating within Communities of Practice (CoP's) related to educators' digital equity interests. Apply design justice and design thinking strategies to create equity-focused educational technology innovations that empower student learning.

EDC X96. Topics in Doctoral Seminar.

Research projects and creative investigations in a selected subject-field and developments in instructional practices and in research findings and methodologies. Offered at the following levels: elementary school, secondary school, higher education, all-level.

EDC X96.1. Foreign Language.

EDC X96.10. Writing for Publication.

Hone the craft of academic writing, including composing research articles, peer reviews of drafts, and developing productivity habits. Author an article for submission to a journal.

EDC X96.11. Completing a PhD while Entering Academic Jobs.

EDC X96.2. Social Studies Education.

EDC X96.3. Learning Technologies.

EDC X96.4. Cultural Studies in Education.

EDC X96.5. Early Childhood Education.

EDC X96.6. Bilingual/Bicultural Education.

EDC X96.7. Language and Literacy Studies.

EDC X96.8. Science, Technology, Engineering, and Mathematics Education.

EDC X96.9. Physical Education Teacher Education.

Discuss and debate timely research subjects in the disciplines of physical education, public health, culture, and educational reform.

EDC X96T. Directed Research in Curriculum and Instruction.

Investigation of assigned problems under the direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; production of acceptably written reports of a technical character.

EDC X97V. Independent Study.

May involve syntheses of literature, field investigations on selected subjects, or other individual research subjects.

EDC X98. Thesis.

EDC X98P. Graduate Internship.

Supervised practice in a professional position.

EDC X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

EDC X98T. Supervised Teaching in Curriculum and Instruction.

Supervised college teaching experience.

EDC X99W. Dissertation.

Professional Courses

EDP - Educational Psychology

Educational Psychology: EDP

Lower-Division Courses

EDP X04. Strategic Learning for the Twenty-First Century.
Explores a wide range of subjects in educational psychology that impact student learning, including theories of cognition and motivation, and applies them to academic work. Covers strategies to improve student academic performance.

EDP X08. Statistical Reasoning and Literacy.
Introduction to statistical applications and their interpretation in daily life. Covers principles of gathering and analyzing data, and interpreting analysis results in order to critically evaluate findings reported in the media and social science research. Explores basic statistical analyses, and skills needed for informed research consumerism.

EDP X16. Intergroup Dialogue.
Group discussion of the definitions and implications of social identities. Topics may include gender, race, ethnicity, religion, sexual orientation, physical ability, and age.

EDP X18T. Selected Topics in Educational Psychology.
Issues, research, and topics of contemporary interest in various areas of educational psychology and the behavioral sciences that may vary from semester to semester.

EDP X18T.5. Introduction to Career Planning.
Introduction to social science models of career development and the social-historical dimensions of how work is structured. Apply learned concepts to career planning via activities and assessments.

EDP X18T.8. Introduction to School Psychology.
Introduction to the profession of school psychology. Explore the role and function of a school psychologist, current issues and trends for psychologists working in schools, clinical and scientific competencies of school psychologists, and the application of skills relevant to school psychology practice.

EDP X19S. Topics in Educational Psychology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Educational Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

EDP X20. Cognition, Human Learning, and Motivation.
Explore current theories concerning learning and memory, retrieval, critical thinking, transfer, assessment, peer learning, and motivation; applying cognitive and socio-motivational psychological theories to educational and instructional practices

EDP X29S. Topics in Educational Psychology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Educational Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EDP X40D. Deaf Cognition and Learning.
Explore current developmental and cognitive aspects of thinking and learning through the lens of deaf and hard of hearing people. Apply theories to understand research, learning design, community, and professional contexts.

EDP X50E. Introduction to Life Span Development.
Explores theories of personality, as well as research and literature on mental health and character development, applying principles and theories to the educative enterprise. Covers application of personality theory to the guidance of children and youth. Study of physical, social, and cognitive development in humans.

EDP X50G. Adolescent Development.
Addresses contemporary adolescent development in relation to major transitions, contextual influences, and psychosocial tasks. Covers adolescent identity development, with focus on the education of adolescents.

EDP X50L. Human Sexuality.
Taught from a psychological perspective with attention to the physiological, emotional, and relationship dimensions of sexuality. Presents factual information and promotes scholarly examination of social and personal factors in developing healthy relationships and sexual expression.

EDP X52D. Introduction to Individual Counseling and Psychotherapy.
Nature of the counseling process, dynamics of behavior change, client-counselor roles and relationships; an experiencing of the group process as a basis for studying dynamics of individual and group behavior.

EDP X52G. Multicultural Approach to Counseling and Psychotherapy.
An introduction to cultural diversity, cultural issues, cultural groups, and multiculturalism in counseling.

EDP X52K. Mindfulness, Compassion, and the Self.
Subjects include mindfulness, self-compassion, well-being, and self-concept.

EDP X52N. Addiction Counseling and Theories.
Studies in biological mechanisms of categories of commonly abused substances and behaviors, as well as prevention and treatment approaches to addiction. Includes discussion of other forms of addiction, including food, sex, and internet, and addiction in diverse populations.

EDP X54E. Psychology of Women.
Study of women's experiences, issues, and behavior in the context of psychological theory and research. Integrates several sub-disciplines of psychology, including physiological, personality, developmental, social, abnormal, and applied psychology. Explores a variety of topics relevant to psychology of women, including theories of women's personality, gender socialization, sex differences, victimization, oppression, and motherhood.

EDP X54G. Psychology of the African American Experience.
Examination of the psychology of people of African descent using an African-centered liberatory model.

EDP X54J. Psychology of Race and Racism.
Review of the history and evolution of the construct of race as a psychological and social phenomenon. Multidisciplinary but primarily social-psychological approach: in addition to readings from psychology, ideas in the areas of anthropology, sociology, and biology will be discussed. Emphasis on theoretical and conceptual approaches toward understanding the psychology of racial thinking.

EDP X58D. Emotional and Behavioral Disorders.
Covers theory and research on several mental disorders with a critical perspective on how social structures and assumptions influence the way they are conceptualized and treated.

EDP X71. Introduction to Statistics.
Examine descriptive and inferential statistics; measures of central tendency and variability; standardized scores; confidence intervals; correlation and regression; probability and statistical inference; analysis of variance; and nonparametric statistics.

EDP X76T. Topics in Educational Psychology.
Issues, research, and topics of contemporary interest in various areas of educational psychology and the behavioral sciences.

EDP X76T.12. Sport and Performance Psychology.
Examine the intersection of psychology and sport/performance. Discuss reinforcement and behavior modification, team management, mental health and athletics, and diversity and athletics.

EDP X76T.14. Teaching Sexual Health.
Examine effective teaching strategies related to sexual development, sexual health, and other subjects included in comprehensive sexuality education for children, adolescents, and adults. Designed for those interested in education, social work, nursing, criminal justice, public health, and other professional areas that intersect with providing information.

EDP X76T.3. Disability and Culture in Education.
Examination of the culture of disability in the educational context. Explores language and terminology around disability; history of ableism (discrimination/prejudice), the role of accommodations and access in defining disability and inclusion, perceptions of disability over time, identity development for individuals with a disability, diversity and difference of language within disability groups.

EDP X76T.9. Pediatric Psychology and Health Disparities.
Examine the biological, psychological, and social foundations of pediatric conditions, as well as lifespan health conditions related to development in childhood. Explore pediatric health disparities, the intersection of psychology and public health, research methods used in the field of pediatric psychology, and assessment and intervention with children and families.

EDP X78D. Practicum in Deaf Accessibility.
Study and practice theory and processes related to deaf and hard of hearing people in educational and community settings.

EDP X79L. Research in Educational Psychology.
Supervised research experience in educational psychology.

Graduate Courses

EDP X80C. Topics in Quantitative Methods.
Theory, models, methods, and applications of quantitative methods used in applied research.

EDP X80C.12. Survey of Multivariate Methods.
Examine fundamentals of vector and matrix algebra; multivariate analysis of variance; principal components analysis and exploratory factor analysis; discriminant analysis; logistic regression; multivariate mixed modeling; cluster analysis; multidimensional scaling; and missing data.

EDP X80C.14. Structural Equation Modeling.
Provides the basic theoretical background necessary for the application of structural equation modeling to research problems including model specification, identification, path analysis, estimation, testing fit, respecification, confirmatory factor analysis, and issues concerning the interpretation of structural equation models.

EDP X80C.16. Hierarchical Linear Modeling.
Introduction to the basic concepts and applications of hierarchical linear (i.e. multilevel) models. Learn strategies for analyzing various nested data structures, such as students within schools, and measurement occasions within subjects. Determine when and how to use hierarchical linear models, with an emphasis placed both on the statistical concepts of the modeling framework and the application of hierarchical linear modeling to data sets via software.

EDP X80C.18. Applied Bayesian Analysis.
Examine practical introduction to Bayesian statistical inference with an emphasis on applications in behavioral and measurement research. Explore conceptual differences between Bayesian and classical statistical inference and the differences between these approaches in the context of various statistical procedures. Use Bayesian software for analysis.

EDP X80C.2. Fundamental Statistics.
Introductory course designed for students in the fields of education and the social, behavioral, and health sciences who expect to take a second course in statistics. Subjects include descriptive and inferential statistics; sampling distributions; hypothesis testing; correlation; linear prediction; tests of mean differences; tests of frequencies and proportions; and one-way analysis of variance.

EDP X80C.22. Analysis of Categorical Data.
Introduces basic concepts, common statistical models, and analysis methods for categorical data. Provides theory and examples of applications using categorical techniques. Subjects include inference methods for contingency tables, generalized linear models for binary and count data, logistic regression models, multicategory logit models, loglinear models for contingency tables, and models for matched pairs.

EDP X80C.23. Missing Data Analysis.
Analyze data with missing values. Examine missing data theory, estimating statistical models with missing data, and other practical issues related to missing data, including the use of statistical software for handling missing data.

EDP X80C.26. Data Exploration and Visualization in R.
Explore R, an open-source statistical programming platform for data analysis and visualization. Examine the foundational facilities and skills in R programming and how to use the tools to accomplish real-world, reproducible data analysis and visualization.

EDP X80C.28. Statistical Modeling and Simulation in R.
Building on the foundational skills in R, examine how to design and program Monte Carlo simulation studies, which are a tool for evaluating the performance of statistical estimation and inference procedures. Explore translating mathematical equations to code and implementing statistical algorithms, building R packages, parallelizing, and integrating high-performance functions into R.

EDP X80C.30. Applied Research Design in Program Evaluation.
Discuss in depth the quantitative, qualitative, and mixed methods analyses used to conduct program evaluations. Practice communicating complex evaluative ideas, designs, and results to program leaders and participants. Develop a large scale evaluation proposal that focuses on the research design methods discussed.

EDP X80C.4. Correlation and Regression Methods.
Examines tests of association; multiple regression, including multiple predictors of a single interval-scaled outcome; and related subjects such as regression models for mediation and moderation.

EDP X80C.6. Statistical Analysis for Experimental Data.
Subjects include hypothesis tests and data analysis procedures for a variety of experimental designs, including one-way analysis of variance; factorial analysis of variance; analysis of covariance; and repeated measures designs. Instruction in the use of statistical software is provided.

EDP X80D. Topics in Psychometrics.
Theory, models, methods, and applications in psychometrics and program evaluation.

EDP X80D.10. Test and Scale Construction.
Design of effective instruments and cognitive tests; facet theory for scale construction; measurement of opinions and beliefs; tryout of experimental forms and item analysis; use of factor analysis and multidimensional scaling; norms and scaled scores; reliability and validity assessment; and test equating methods.

EDP X80D.11. Computer Adaptive Testing.
In-depth examination of computer adaptive testing (CAT) methodologies based on Item Response Theory (IRT) models. Subjects include optimal test design principles; estimation of person parameters; item banking techniques; components of fully-adaptive and multi-stage testing algorithms; and issues concerning reliability, validity, item exposure, and score reporting.

EDP X80D.14. Applied Psychometrics.
In-depth examination of applied psychometric techniques. Subjects include equating scores; setting standards; detecting differential item functioning and selection, placement, and classification.

EDP X80D.16. Advanced Psychometrics Seminar.
Discussion of emerging technical subjects in the areas of psychometrics, measurement, and educational statistics. Addresses advanced techniques for analyzing item response data, and studying

characteristics of tests/assessment instruments, using available computer software.

EDP X80D.18. Advanced Psychometrics Research.

EDP X80D.2. Measurement and Evaluation.

A basic background in measurement and evaluation is necessary to be appropriately critical of tests and instruments that are used in educational and psychological measurement situations. Subjects include general principles and basic concepts; types of reliability and validity; and the use of psychometric principles in various testing areas, such as intelligence testing; special aptitudes and abilities; educational achievement; and non-cognitive characteristics.

EDP X80D.4. Psychometric Theory and Methods.

Addresess major approaches to analyzing responses to test items for making inferences about characteristics of examinees and items. Subjects include mental test theory and methods (e.g., the classical true-score model, item response theory models, and test construction methods); an introduction to factor analysis; and psychological scaling theory and procedures.

EDP X80D.6. Program Evaluation Models and Techniques.

Examine the theoretical origins of Program Evaluation, as well as major sub-fields such as Responsive and Decision-Oriented evaluation. Conduct program decompositions in order to deeply understand the constraints, transactions and outcomes of a program, and create proposed evaluation of a program. Explore qualitative research methods that are useful for program evaluation and common quantitative methods and instrumentation, including survey design. Relate programmatic examples from other fields such as Nursing, Journalism, Pharmacy, and Educational Leadership.

EDP X80D.8. Item Response Theory.

Subjects include background and theory (including classical test theory, objectivity in mental measurement, dichotomous and polytomous models, conventional item analysis versus the item response theory approach, item parameter and ability estimation, and information functions), and applications (including relative efficiency of tests, flexilevel and two-stage tests, computerized adaptive tests and mastery tests, test equating, differential item functioning, and attitude and personality measurement).

EDP X80Q. Practicum in Psychometrics.

EDP X81C. Topics in Research Methodology.

Theories and models for educational and psychological research.

EDP X81C.10. Issues in Multicultural Research.

Designed to provide knowledge and tools to critique and evaluate theoretical, conceptual, and methodological issues related to the role and importance of culture, ethnicity, and race in multicultural research. Draws from social, developmental, counseling, and clinical psychology research, and emphasizes the challenges in conducting rigorous, culturally sound research.

EDP X81C.12. Meta-analysis.

Effect size calculation for different designs; quantitative methods and models for synthesizing and testing moderators of effect size; and related subject matter.

EDP X81C.14. Causal Inference.

Survey of quantitative methods for studying causal effect of interventions, with emphasis on data analysis and interpretation. Subjects include potential outcomes models, graphical models, randomized experiments, propensity scores, matching and weighting, instrumental variables, interrupted time series, regression discontinuities, and mediation models.

EDP X81C.16. Survey Research Design.

Overview of the survey research process; addresses various topics in survey research within the context of the development of a survey study. Covers sequence of a survey study, from conceptualization to measurement, administration, data management and analysis, and writing the research report. Issues in quasi-experimental design, sampling, questionnaire construction, administration, and the use of computers in survey research are covered within this framework. The relative advantages, disadvantages, and appropriateness of the different modes of survey administration (i.e., face-to-face interviews, telephone interviews, mail, internet surveys, and other self-administered questionnaires) for different research questions are also examined.

EDP X81C.2. Research Design and Methods for Psychology and Education.

Introduction to essential concepts and methods used in quantitative empirical research in psychology and education. Examine ideas from the philosophy of science, threats to validity, causal inference, and experimental and quasi-experimental techniques, with a focus on the logic and methods of designing and evaluating research.

EDP X81C.4. Research Methodology for Practitioners.

Designed to facilitate understanding of research methods and statistical analysis. Overviews development of needs assessment, program evaluation, and program modifications. Facilitates skills in critically evaluating research to select evidence-based approaches for practice settings.

EDP X81C.6. Literature and Research Synthesis.

Focuses on the creation of a literature review or systematic research synthesis. Subjects to be covered include: problem formation; how research is communicated and how the scientific communication system affects knowledge; methods for locating research; problems in retrieving data from secondary sources; judging the quality of research; estimating the impact of policies and practices and gauging the strength of relations; and assessing variance in impacts and relationships across studies.

EDP X81C.8. Qualitative Research Methods.

Examines research methods that are descriptive, field-based, interpretive, and discovery-focused. Subjects include the varieties of qualitative research; identifying questions and phenomena for research; planning and conducting qualitative research; coding and other analytic procedures; developing an interpretation; and trustworthiness issues in qualitative inquiry.

EDP X81D. Advanced Statistical Modeling.

Advanced course intended for doctoral students specializing in quantitative methods. Subject matter includes extensions of basic two- and three-level multilevel models and of structural equation models; simulation study design; and related subjects.

EDP X81E. Advanced Item Response Theory.

Advanced course intended for doctoral students specializing in quantitative methods. Subjects include extensions of Item Response Theory (IRT) models, including multidimensional IRT and Testlet Response Theory, explanatory item response modeling, IRT rater models, cognitive diagnostic IRT models, response time models, and related subjects.

EDP X81S. Practicum in Program Evaluation.

EDP X82C. Topics in Social Psychology and Behavioral Sciences in Education.

Examination of issues, theories, and research in selected areas of social psychology and other behavioral sciences that have implications for education. Social psychology is the study of how individuals are influenced by others. Behavioral sciences examines the interaction of cognitive processes and social environment, including social relationships.

EDP X82C.2. Social Psychology.

Explore basic theories and methods of social psychology including attitudes and social cognition, interpersonal relations and group processes, and personality processes and individual differences.

EDP X82C.6. Psychology of Race, Prejudice, and Stereotypes.

Studies the history and evolution of race, prejudice, and stereotyping from a social psychological perspective. Focuses on understanding the psychology of racial attitudes, prejudice, and stereotyping. Includes related ideas from the areas of anthropology, sociology, and biology.

EDP X82C.8. The Social Psychology of Siblings.
Survey multiple theories and research literature evaluating the influence of siblings, including the absence of siblings on social, psychological, and health outcomes across the lifespan. Utilize an empirical research study about sibling effects during childhood, adolescence, adulthood, and old age.

EDP X82D. Topics in Learning and Motivation.
History and systems of psychology applied to education; modern theories and current research in learning and human motivation, especially in relation to new educational media and to the educative process.

EDP X82D.16. Research on Discourse Practices.
Considers the current research and thinking about how individuals use language in human interaction, how writing and reading processes are multidimensional and socially situated, and how new forms of discourse arise in social interactions.

EDP X82D.2. History and Systems of Psychology.
Overview of the major theoretical frameworks in psychology and its antecedents as a scientific field. Includes discussion of influential ideas, the people behind them, and their historical contexts. Special focus is on particular psychology paradigm characteristics of certain periods in history. Additional emphasis is placed on the research methodologies that accompany each paradigm, and on building communication skills and co-constructing understanding through class discussions, oral presentations, and analytical writing.

EDP X82D.20. Current Issues in Motivation.
Discuss advanced issues and debates in motivation research: motivational interventions, methodological innovations, the roles of culture and context, and current theoretical debates in the field.

EDP X82D.4. Psychology of Learning.
Examination of the current literature on how people learn, the factors that influence the acquisition of knowledge, and on the philosophical frameworks that have characterized views of the learning process.

EDP X82D.6. Motivation and Emotion.
Explore human motivation and emotion from a psychological perspective. Examine classical and contemporary theories to understand the nature, predictors, functions, and consequences of motivation and emotion. Review basic theories of motivation and emotion in application to educational issues.

EDP X82E. Topics in Biological Basis of Behavior and Learning.
An investigation of how the biological processes influence behavior, as well as how biological, social, and psychological factors influence health, illness, and learning.

EDP X82E.10. Child and Adolescent Psychopharmacology, Health, and Learning.

EDP X82E.11. Pediatric Psychology and Health Disparities.
Focus on current research and practice in pediatric psychology, including the biological, psychological, and social foundations of pediatric conditions, as well as lifespan health conditions related to development in childhood. Explore general principles of pediatric psychology, pediatric health disparities, and disease-specific issues (e.g. cancer, asthma, diabetes, obesity), including developmental processes of risk and resilience and prevention and intervention for these conditions.

EDP X82E.2. Biological Basis of Behavior.
Provides an overview of brain structure and function and the brain bases of behavior and disorders of behavior. Focus is on the structure of the nervous system, with a primary emphasis on the functional organization of the brain, and the mechanisms underlying neural communication, followed by a review of various functional systems of the brain and clinical disorders known to be associated with dysfunction of these systems.

EDP X82F. Topics in Human Development.
Theories of development and the educative process.

EDP X82F.10. Mindfulness, Compassion, and the Self.
Research and theory related to the concept of the "self" from both Eastern and Western philosophical perspectives, and on the evidence for mental and physical health benefits of mindfulness, compassion for others, and self-compassion.

EDP X82F.12. Dysfunction in Human Behavior/Social Organizations.
Designed to provide an overview of the development of human dysfunction using both psychological and cultural perspectives. Includes a review of personality development as well as the societal dynamics associated with dysfunctional behavior.

EDP X82F.3. Life Span Development.
Examine human development from birth to death. Explore theories and empirical research across domains including social, emotional, identity, and cognitive. Discuss the roles of gender, socio-economic status, culture, race, ethnicity, and sexual orientation in human development and aging across multiple settings.

EDP X82F.6. Culture, Child Development, and Education.
Advanced graduate seminar that examines current theory and research from the psychology, anthropology, and sociology fields on the roles of culture, ethnicity, and race in the development and education of children around the world. In-depth discussion subjects include parenting and socialization; cognitive, social, and emotional development; the effects of socioeconomic status; culture change and acculturation; and racism and critical race theory.

EDP X82G. Topics in Cultural Diversity and Individual Differences.
Theory and research on cultural diversity and individual differences as factors in psychology and education.

EDP X82G.10. Disability and Culture in Education.
Examine the culture of disability in the educational context. Explore language and terminology around disability, the history of ableism (discrimination/prejudice), the role of accommodations and access in defining disability and inclusion, perceptions of disability over time, identity development for individuals with a disability, diversity and difference of language within disability groups.

EDP X82G.12. School Mental Health for Emerging Bilingual Students.
Explore the school mental health process for emerging bilingual students. Discuss the referral, assessment, and intervention pathway in the school-based setting. Examine cultural and linguistic considerations for student engagement, family participation/training, and school collaboration (e.g., working with teachers, administrators, school counselors, social workers, and outside agencies).

EDP X82G.2. Latino/a Psychology.
United States Latino/a experiences, issues, and behavior in the context of psychological theory and research; including, but not limited to, Mexican Americans, Puerto Ricans, Dominicans, Cubans, Central, and South Americans. Integrates sub-disciplines of psychology and explores a variety of subjects relevant to the psychology of Latinos/as, including: race; ethnicity; culture; immigration; acculturation; identity; language; sexuality and sexual orientation; racial and gender socialization; racism, colonization, and colorism; oppression; and health disparities.

EDP X82G.4. Psychology of Women and Gender.
Study of women's experiences, issues, and behavior in the context of psychological theory and research. Integrates many sub-disciplines of psychology and explores a variety of subjects relevant to the psychology of women, including sexuality, gender socialization, sex differences, victimization, oppression, and motherhood.

EDP X82Q. Research Practicum in Human Development, Culture, and Learning Sciences.

EDP X83C. Topics in Assessment and Diagnosis.
Advanced study of theory, issues, and application of methods of measurement and diagnostic systems. Topics include techniques to

estimate individual and group differences as these inform learning and behavior in educational and community settings.

EDP X83C.12. Assessment in Counseling.

Introduction to the fundamentals of objective assessment, with emphasis on cultural and ethical considerations. Review of assessment techniques includes diagnostic interviewing, intelligence testing, achievement testing, objective personality testing, interpretation of assessment data, writing integrated reports, providing feedback, and making appropriate referrals. First course of a two-part sequence in psychological assessment; the second course in the sequence is Educational Psychology 383C (Topic 14).

EDP X83C.2. Overview of Psychoeducational Assessment.

Reviews the principles and concepts underlying assessment and appraisal of aptitudes, achievement, personality, behavioral and emotional regulation. Reviews standardized testing procedures, as well as checklists, clinical interviewing and projective measures. Develops literacy skills for reviewing test reports and implementing recommendations from assessment reports.

EDP X83C.30. Developmental Psychopathology.

Explore the nature, structure, etiology and developmental course of psychopathology through the lifespan. Examine key issues including approaches to the classification of disorders, incidence and prevalence rates, developmental course of disorders, and risk and protective factors.

EDP X83C.4. Individual Testing.

Focuses on the selection, administration, scoring, and interpretation (oral and written) of commonly administered individual tests of intelligence for children and adolescents.

EDP X83C.6. Academic Assessment and Intervention.

Explore the application of theory and research along with psychometric knowledge to the assessment of academic skills, with the intent of using this and other (e.g., cognitive) data to recommend evidence-based interventions for children and youth in academic settings. Address the use of data to monitor response to academic services and interventions.

EDP X83C.7. Evidence-Based Interventions in Schools.

Examine knowledge, skills, and dispositions necessary to assist children experiencing academic difficulties. Discuss vocabulary, concepts, principles, and practices related to the delivery of high-quality academic instruction to all learners in schools. Evaluate interventions and match academic interventions to instructional needs.

EDP X83C.8. Social and Emotional Assessment with Children and Adolescents.

Focus on developing knowledge and skills in evidence-based social/emotional assessment, including conducting and interpreting evidence-based assessments of children's social, emotional, and behavioral functioning, and the diagnosis of mental health disorders in youth.

EDP X83D. Practicum: Level One.

EDP X83E. Practicum: Level Two.

EDP X83F. Practicum: Level Three.

EDP X84C. Topics in Prevention and Intervention.

Advanced study of theories, processes, and techniques of evidence-based prevention and intervention to enhance learning and behavior in educational and community settings.

EDP X84C.11. Family and Couples Interventions.

Review major family systems theories and practices.

EDP X84C.14. Addiction Counseling.

Studies biological mechanisms of categories of commonly abused substances and treatment approaches to addiction. Includes discussion of other forms of addiction, including food, sex, and internet, and addiction in diverse populations.

EDP X84C.18. Multicultural Counseling.

Introduction to cultural diversity and multiculturalism in counseling. Designed to help students understand important cultural issues and various cultural groups.

EDP X84C.2. Theories in Counseling.

Theories and research for developing counseling interventions in a pluralistic world.

EDP X84C.21. Fundamentals of Cognitive and Behavioral Interventions for Youth.

Explore an introduction to Behavior Therapy (BT) and Cognitive Behavioral Therapy (CBT) for children and adolescents. Examine the history and theoretical underpinnings (learning theory, social learning theory, cognitive theory), core transdiagnostic principles of behavior change, and a survey of CBT techniques commonly used in practice for common child and adolescent mental health concerns.

EDP X84C.24. Cognitive-Behavioral Therapy with Adults.

EDP X84C.30. Psychodynamic Psychotherapy.

EDP X84C.32. Integrated Behavioral Health.

Focus on integrated behavioral health care for underserved children and their families; develops knowledge and skills in integrated health care service delivery, cultural competence in health services, and family-centered health services.

EDP X84C.34. Prevention Science.

Examines risk and protective influences on development and evidence based interventions that promote well-being across academic, social-emotional, and health domains.

EDP X84C.38. Motivational Interviewing.

Explore the theoretical and empirical base for motivational interviewing, including training on the skills and spirit of motivational interviewing. Designed for students whose career goals include healthcare, therapy, or counseling.

EDP X84C.4. School Counseling.

Covers subjects related to the design, implementation, and evaluation of socio-emotional interventions in educational settings. Included is a review of American School Counseling Association Standards, standards of the Texas Education Agency for school counselors, and legislative rules related to school counseling.

EDP X84C.6. Career Development.

Introduction to the basic principles, models, and methods of career development used in educational settings.

EDP X84C.8. Helping and Counseling Skills.

Designed to provide a foundation for the professional practice of counseling and the skills necessary for professional training in counseling and related fields. Studies basic interpersonal helping skills, clinical interviewing, and intervention strategies.

EDP X84C.9. Approaches to Intervention.

Subjects include ecological prevention methods, psychoeducational prevention activities, and relapse prevention; clinical interventions include crisis intervention and early interventions. Proactive prevention efforts are emphasized.

EDP X84D. Group Counseling and Interventions.

Explore theory and research in group practice; group dynamics and membership; principles of group planning; and development of leadership skills through structured in-class experiences.

EDP X84Q. Practicum in Counseling.

EDP X84S. Practicum in Spanish for the Helping Professions.

EDP X84V. Advanced Practicum.

Advanced study and practice of theories, processes, and techniques of evidence based prevention and intervention to enhance learning and behavior in educational and community settings.

EDP X85C. Topics in Professional Issues, Leadership, and Development.

EDP X85C.12. Seminar in Academic and Student Affairs in Higher Education.

Explore topical issues in higher education and strategies for promoting mental health and well-being in post-secondary students.

EDP X85C.14. School Consultation Theory and Practice.

Explore theoretical, empirical, and applicable knowledge of indirect service models as practiced by school psychologists; specifically,

behavioral consultation, collaboration, and supervision. Examine the information and skills necessary to be able to thoughtfully enter a system and provide consultation services to organizations that serve children and adolescents.

EDP X85C.3. Advanced Supervision and Consultation: Practicum.

Examine research, theory, and practice of professional supervision and consultation. Explore supervisory and consultation issues and theory and the growing empirical literature on evidence-based practices in supervision and consultation; practice clinical supervision with students.

EDP X85C.5. Professional Orientation and Ethics in Counseling.

Explore an introduction to the ethical codes of the American Psychological Association and the American Counseling Association, as well as the Texas Administrative Codes for licensed psychologists and licensed professional counselors. Review ethical codes and issues in school counseling.

EDP X85C.6. Advanced Ethics and Professional Issues in Counseling.

Examines the professional roles and practices for counselors, including records management, an overview of business/family law and professional practice, and the study of current board rules.

EDP X85C.8. Law, Ethics, and History of School Psychology.

Provides information about the roles of school psychologists/psychologists and the legal and ethical issues that affect their roles.

EDP X86Q. Practicum in Post-Secondary Teaching.

Shadow instructor teaching at the college level, and discuss the various components and decisions made in organizing and teaching, towards a goal of developing a portfolio demonstrating teaching competency.

EDP X87T. Topics in Educational Psychology.

Explore issues, research, and topics of contemporary interest in various areas of educational psychology and the behavioral sciences.

EDP X90N. Topics in Applied Data Analytics.

Theory, models, methods, and applications of data analytics.

EDP X90N.1. Fundamentals of Probability and Statistics.

Examine the basics of probability theory and statistical methods. Explore data and statistics, probability fundamentals, statistical inference, and an introduction to parametric and non-parametric methods.

EDP X90N.11. Machine Learning for Applied Research.

Explore machine learning techniques for applied research in educational and social sciences and practice the techniques using empirical data in R. Discuss supervised learning methods such as regression, classification, and ensembles. Discuss unsupervised learning models for dimensionality reduction, and clustering.

EDP X90N.13. Applications in Data Mining.

Apply data mining techniques and tools to discover patterns and insights in large datasets. Use applications in classification techniques, regression techniques, clustering algorithms, association rule mining, and anomaly detection.

EDP X90N.15. Social Network Analysis in Applied Research.

Examine methods for analyzing social networks, understanding relationships and structures within data collected from social interactions. Explore key social network analysis (SNA) concepts, representation and construction, structure and topology, measures in SNA, visualization with SNA, SNA research applications, and how to communicate results effectively.

EDP X90N.17. Longitudinal Data Analytics.

Examine methods for analyzing data collected over time, including linear mixed-effects models, generalized linear models, autoregressive models, and survival analysis. Explore longitudinal data and data structures, data preprocessing, advanced subjects, model checking and selection, applications, and ethical considerations.

EDP X90N.19. Fundamentals of Text Analytics.

Practice techniques for working with and analyzing textual data to extract meaningful information. Explore text representation, exploratory analysis for text, sentiment analysis, text classification, topic modeling , named entity recognition, text analytics for information retrieval, and natural language processing (NLP).

EDP X90N.3. Data Analytics: Fundamentals and Ethics.

Discuss data analytic techniques and ethical considerations in data analytics. Explore data analytics, data collection and preparation, exploratory data analysis techniques, predictive analytics, communicating results, and ethical considerations in data analytics.

EDP X90N.5. Data Wrangling and Preprocessing in R.

Practice techniques for cleaning and preparing data for analysis in R. Explore R and Tidyverse, data import/export, data cleaning, data transformation, merging and joining datasets, data preprocessing, working with text and string variables, automating data processing, and visualization through the data wrangling process.

EDP X90N.7. Data Visualization in R.

Create informative and effective visual representations of data using R, emphasizing effective communication of data insights. Examine principles of data visualization, the use of libraries, customization and aesthetics of plots, interactive data visualizations, visualization of multivariate, categorical, and grouped data, exploratory data analysis with visualization, and effective data storytelling.

EDP X90N.9. Regression Methods.

Explore various regression methods used in applied data analytics, including linear regression, logistic regression, advanced regression techniques, generalized linear models, interactions, model evaluation and validation, and communicating results.

EDP X93E. School Psychology Specialist Internship.

EDP X93N. Internship in School Psychology.

EDP X94. Topics in Colloquium in Educational Psychology.

Presentation and discussion of issues related to graduate study in educational psychology, including research proposals and developments in the field, by advanced graduate students, members of the faculty, and visiting lecturers.

EDP X94E. Internship in Counseling.

EDP X94L. Internship in Counseling.

EDP X94N. Internship in Counseling Psychology.

EDP X94R. Research.

Individual research planned, carried out, and reported under the supervision of a Graduate Studies Committee member.

EDP X95R. Qualifying Process Research.

Investigation of assigned problems under the direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; and production of an acceptably written research report. Required of doctoral students with a major in educational psychology.

EDP X98. Thesis.

EDP X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

EDP X98T. College Teaching Methodology.

Supervised college teaching experience.

EDP X99W. Dissertation.

Professional Courses

EDU - Education

Education: EDU

Lower-Division Courses

EDU X01C. Connecting Research Experience.

Perform supervised research in the field of education.

EDU X18C. Topics in Student Success.

Discuss various contemporary issues with an emphasis on multidisciplinary perspectives and critical discourse.

EDU X19. Topics in International Learning Seminars.
Discuss various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.

EDU X19S. Topics in Education.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Education. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

EDU X20C. Connecting Research Experience.
Perform supervised research in the field of education.

EDU X21. Play in Early Childhood Development.
Examine the theoretical and empirical bases for observing children in play; cognitive, social, and communicative stages related to developmental theory; children's adjustment related to social and emotional theories; and motivational value of play.

EDU X25. Second Language Acquisition.
Examine children or adults' acquisition of English as a second language. Discuss simultaneous acquisition of two languages, adding a second language, language processing, order of acquisition, and the role of the first language.

EDU X27. Sociocultural Influences on Learning.
Discuss human learning in multisocial, multilingual, and multicultural contexts; realities of society and their impact on learning; and social concerns such as prejudice, stereotyping, cross-cultural attitudes, bilingual issues, and parent and community involvement.

EDU X27G. Education, Culture and Diversity.
Explore a comparative analysis of human learning in multisocial, multilingual, and multicultural contexts in the United States and Latin America. Discuss social concerns such as prejudice, stereotyping, cross-cultural attitudes, bilingual issues, and parent and community involvement. Examine transnationalism and immigration in the United States from Central America and Mexico.

EDU X28. Applied Human Learning.
Explore development, cognition, language, and sociocultural influences in learning contexts, child assessment, identification of learning styles, and tests and measurements. Utilize fieldwork to provide a theoretical basis for professional assessment, referral, and placement.

EDU X29. Acquisition of Language and Literacies.
Discuss initial language and literacy acquisition theory; second language acquisition theory; relations among first and additional languages in literacy and language acquisition; home, school, and learners' perspectives; and current issues in literacy and multilingual classrooms.

EDU X29G. Acquisition of Language and Literacies in the United States and Latin America.
Explore the theory and practice of language acquisition in cross-cultural contexts in Latin America and the United States. Discuss the instruction of English as a second language, social justice for bilingual learners and speakers of minority languages, and connections to multilingual communities. Examine language and immigration issues in the United States and Latin America.

EDU X29R. Language and Literacies Acquisition in Bilingual Classrooms.
Discuss and examine foundations and linguistic features of second language development.

EDU X29S. Topics in Education.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Education. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EDU X30. Language in Education.
Explore theoretical and practical perspectives on the nature of language in education, with a focus on implications for English language learners in classroom settings; linguistic structures and functions; discourse, phonology, morphology, syntax, and semantics across languages and throughout development; and language varieties.

EDU X31. Restorative Practices.
Focus on community engagement and social justice issues related to schooling access and equity.

EDU X33. Children's Literature.
Introduction to ways of bringing literature to children, facilitated by extensive discussion. Discuss literature written for children from early childhood through age twelve. Explore genres, authors, themes, and forms.

EDU X77. Conference Course in Curriculum and Instruction.
Independent studies in instructional methodology and curriculum.

EDU X79. Topics in International Learning Seminars.
Discuss various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.

Graduate Courses

Professional Courses

EEB - Ecology, Evolution and Behavior

Ecology, Evolution, and Behavior: EEB

Lower-Division Courses

Upper-Division Courses

Graduate Courses

EEB X80C. Advanced Conservation Biology.
Examine the application of principles and concepts of ecology to the preservation of wild plant and animal species and to the preservation, management, and restoration of natural and semi-natural ecosystems. Focus on biological aspects of issues such as endangered species protection, invasive species, preserve design, and forest management, via a set of case studies.

EEB X80E. Advanced Microbial Ecology.
Examine microbial population, community, and ecosystem ecology.

EEB X80F. Biology of Birds.
Discuss the anatomy, physiology, classification, and ecology of birds.

EEB X80G. Methods in Ecological Genomics.
Explore state-of-the-art methodologies for: genomics-based demographic and population structure analysis; detection of genomic signatures of natural selection; analyzing gene expression in the ecology, evolution, and behavior context; quantification of complex communities using metabarcoding.

EEB X80L. Advanced Systematics.
Explore biodiversity, phylogeny, species concepts, historical biogeography, phylogeography, molecular clocks, phylogenomics, comparative methods, fossils, morphometrics, taxonomy, ontogeny, homology, computational methods, and phylogenetic statistics.

EEB X80P. Population Genetics.
Introduction to population genetics. Develop a quantitative understanding of evolutionary change caused by selection, drift, mutation, and migration. Focus on phenotypic and molecular evolution.

EEB X80R. Advanced Readings in the Biological Sciences.

EEB X80T. Topics in Current Biology Concepts.
Designed for beginning graduate students seeking a review of modern biological concepts.

EEB X81E. Ecology Seminar.
Listen to and discuss presentations ranging from research progress reports to practice conference talks and well-versed presentations of long term research programs.

EEB X82. Advanced Study and Research.

EEB X82K. Topics in Computational and Statistical Biology.

EEB X82K.4. Numerical Ecology in R.

Explore basic concepts and methods of laboratory and field analysis in various fields of biology; systematics and ecology of natural populations.

EEB X82K.5. Meta Analysis.

Explore a quantitative approach for synthesizing results from diverse research studies that address a similar hypothesis.

EEB X82K.6. Programming for Biology.

Explore programming skills that are relevant to research in the biological sciences, including but not limited to programming in Python, R, Perl, C++.

EEB X82K.7. Ecological Theory and Modeling.

Explore concepts and methods of modeling ecological systems including populations, communities and ecosystems. Focus on the methodology and utility of ecological theory and modeling. Examine the basic techniques and classic insights derived from differential equation, statistical, and individual based models. Learn how to interpret and evaluate models in the literature.

EEB X82K.8. Introduction to Biology for Data Science.

Explore biological concepts and methods (including its assumptions and limitations), particularly in the areas of systems biology, medical and evolutionary genomics, and neuroscience. Focus on approaches that produce a lot of data but are analysis-challenged.

EEB X82K.9. Mathematical Modeling for Biology.

Translate between qualitative hypotheses regarding biological processes and their more exact expression in the form of mathematical models. Analyze these models to determine predicted biological behavior under those hypotheses.

EEB X84K. Topics in Ecology, Evolution, and Behavior.

Explore basic concepts and methods of laboratory and field analysis in various fields of biology; systematics and ecology of natural populations.

EEB X84K.1. Chemical Ecology.

Explore the breadth of chemical ecology, from its historical focus on pheromonal communication, plant-insect interactions, and coevolution to new frontiers, including novel methods in metabolomics and the community and ecosystem effects of chemically mediated species interactions.

EEB X84K.2. Quantitative and Population Genetics.

Discuss critical reading of primary quantitative literature on the drivers of genetic variation and its mapping to trait variation, focusing on humans. Analyze central ideas in mathematical modeling and statistical analysis of human genetic variation and explore areas from evolutionary genetics and medical genetics including mutation and recombination, genetic drift, natural selection, analyses of gene-expression variation, population structure, genotype-phenotype stratification, and study designs for mapping genotype to phenotype.

EEB X84K.3. Diversity, Equity, and Inclusion in STEM: The Science Behind Bias.

Discuss the historical context of bias and exclusion in science from the primary literature to understand the science of bias, why it is present, how it continues to persist across the Science, Technology, Engineering, and Mathematics (STEM) fields, and identify actionable items to address and overcome these issues.

EEB X84K.4. Recent Advances in Ecosystem Ecology.

Explore recent advances in ecosystem ecology through lectures and discussions.

EEB X84K.5. Recent Advances in Ecological and Evolutionary Genetics.

Discuss and analyze current and classic literature related to ecological and evolutionary genetics.

EEB X84K.6. Phylogenetic Perspectives in Ecology, Evolution, and Behavior.

Explore the theory, methods, and applications of phylogenetics in ecology, evolution, and behavior. Examine the development of phylogenetics; the various phylogenetic optimality criteria and their advantages and disadvantages (include non-parametric, semi-parametric, and parametric methods); models of evolution for molecular and morphological data; algorithms and heuristics for searching solution space. Discuss Bayesian Markov chain Monte Carlo approaches; phylogenetic simulation; statistical assessment of phylogenetic results; molecular clocks; and major applications of phylogenetics.

EEB X84K.7. Ancient and Environmental DNA.

Explore the prospects and challenges of ancient/environmental DNA research, and considers the applications in evolutionary biology, paleontology, and anthropology.

EEB X84K.8. Seminars in Brain Behavior and Evolution.

Explore how to give a seminar and/or writing a grant proposal. Prepare for job talks, paper presentations, or writing grants.

EEB X84K.9. Integrative Omics in the Evolution of Development and Behavior.

Discuss the conceptual foundations and historical roots of research programs in evo-devo and evolutionary neuroscience including recent discoveries and limitations in these fields. Explore how -omics approaches and comparative methods enable novel insights into the diversification, convergence, and constraint of complex traits.

EEB X84L. Issues in Population Biology.

Analyze at an advanced level currently active areas of research in population biology.

EEB X89D. Subjects and Skills for Graduate Students in Ecology, Evolution and Behavior.

Designed for first-year graduate students in ecology, evolution, and behavior. Introduction to the writing, presentation and appraisal skills needed to excel in all fields of biological research. Focus on training in many of the skills required of research scientists.

EEB X90C. Fundamentals of Evolution.

Introduction to major principles and questions in evolutionary biology. Explore population genetics, genetic diversity, adaptation, origin of species, phylogenetics, molecular evolution, and macroevolution. Focus on identifying open questions, analysis, and interpretation of data, and gaining familiarity with the primary scientific literature.

EEB X90D. Fundamentals of Integrative Animal Behavior.

Introduction to major principles and questions in animal behavior with emphasis on why animals behave the way they do. Examine both the proximate and ultimate issues of animal behavior, how it is acquired and regulated, and how it evolved. Focus on integration of proximate and ultimate analyses in the various domains in which animals behave.

EEB X90E. Fundamentals of Ecology.

Explore the fundamentals of ecology, ranging from organism physiology to population, species, community, and ecosystem-level processes across landscapes and biomes.

EEB X98. Thesis.

EEB X98R. Master's Report.

Prepare a report to fulfill the requirement for the master's degree under the report option.

EEB X99W. Dissertation.

Professional Courses

EEE - Earth Energy Engineering

Earth Energy Engineering: EEE

Lower-Division Courses

Upper-Division Courses

Graduate Courses

Professional Courses

EER - Energy and Earth Resources

Energy and Earth Resources: EER

Lower-Division Courses

Upper-Division Courses

Graduate Courses

EER X94. Topics in Directed Readings in Energy and Earth Resources.
Energy, water, and environmental issues related to the exploration, production, and consumption of energy in society.

EER X96. Topics in Energy and Earth Resources: Seminar.
Graduate seminar covering a wide range of issues in energy and earth resources.

EER X96.1. Energy and Earth Resource Economics.
Theoretical and applied topics in natural resource economics, including project analysis, production theory, industrial organization, markets and regulation, and environmental economics.

EER X96.2. Business, Finance, and Management.

EER X96.3. Policy and Law.

EER X96.4. Resource Economics and Econometrics.

EER X96.5. Geology of Earth Resources.
Study of geologic, economic, societal, and environmental issues related to the production and consumption of energy, metal, industrial mineral, and water resources. Emphasizes the descriptive geology and origin of earth resources within the context of their overall geologic settings.

EER X98. Thesis.

Professional Courses

ELP - Educational Leadership and Policy

Educational Leadership and Policy: ELP

Lower-Division Courses

ELP X05. Public Policy and Black Communities.
Examine how public policy has both advanced and hindered opportunities for Black people and communities from the Constitutional era to the present, addressing such areas as education, health, housing, and policing.

ELP X11S. Topics in Educational Leadership and Policy.
Explore a wide array of introductory issues in educational leadership and policy.

ELP X17. First-Year Connection Seminar: University Leadership Network.
Explore undergraduate education through lectures, discussion, and experiential learning focusing on various contemporary issues, with an emphasis on multidisciplinary perspectives and critical discourse.

ELP X19S. Topics in Educational Leadership and Policy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Educational Leadership and Policy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ELP X20F. Power and Money in U.S. Education Policy.
Examine how power dynamics and financial forces shape education opportunity, who controls what gets taught, how resources are allocated, the political influences behind educational decisions, and the impact of the decisions upon different groups of students.

ELP X21F. Black Education Policy.
Examine key educational policy moments that have impacted Black communities--including anti-literacy laws, segregation, contemporary funding, and curriculum debates. Explore how Black communities have responded through institution-building, legal advocacy, and alternative educational practices.

ELP X27M. First-Year Seminar: University Leadership Network Mentors.
Explore undergraduate education, as it pertains to student educators, through lectures, peer leadership best practices, discussion, and experiential learning.

ELP X27S. Academic Success Seminar.
Explore academic success strategies and complete a project related to each student's probationary status at the University.

ELP X29S. Topics in Educational Leadership and Policy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Educational Leadership and Policy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ELP X30K. Topics in Educational Leadership and Policy.
Explore a wide array of introductory issues in educational leadership and policy.

ELP X51L. Leadership for New Student Transition.
Explore peer leadership within the University community, with a focus on supporting the transition to college through the first-year experience.

ELP X51N. Sorority and Fraternity Leadership Issues.
Explore leadership within university sororities and fraternities. Discuss leadership skills in areas such as community building, risk management, social justice, and community service.

ELP X53N. Internship.
Supervised practice in a professional position.

ELP X54C. How Colleges Work.
Examine the ways in which colleges function, informed by history, bureaucracy, organization, administration, governance, and law and policy.

ELP X54D. Equity and Diversity Issues in Education.
Examine foundational and current issues related to research-based knowledge on equity and diversity issues in PK-12 and higher education.

ELP X54E. College Students and Their Environments.
Examine issues challenging the ability of colleges to support students, including campus history and legacy. Explore how students' environments affect the way they engage with colleges.

ELP X54F. Foundations of Educational Policy.
Introduction to the history of the American educational system. Consider historical, economic, social, and political trends when examining contemporary educational policy. Explore policies related to race, ethnicity, class, and gender, and the recurring nature of controversial issues related to language, segregation, funding, and accountability.

ELP X54K. Special Topics in Higher Education.

ELP X54L. Introduction to Educational Leadership Studies.
Examine the study and practice of educational leadership. Through a variety of experiences, explore large leadership questions in schools, higher education institutions, and other organizations.

ELP X54P. Introduction to Educational Policy.
Introduction to basic research, theory, and practice about educational policy and its influence on student outcomes. Discuss the ways in which educational inequalities from early-childhood through postsecondary education contribute to broad social and economic inequality.

ELP X54R. Introduction to Research in Higher Education.
Explore an overview of research methods and approaches, including basic terminologies and ways to deploy research in service to student affairs work.

ELP X54S. Social Awareness and Critical Consciousness in Student Affairs.
Engage in understanding personal cultural and social backgrounds and how positionality influences the way one thinks about students, colleges, and student affairs.

ELP X54T. Introduction to Student Affairs in Higher Education.
Explore an overview of student affairs functions, challenges, and goals both within and external to traditional student affairs units.

Graduate Courses

ELP X81C. Education Research I.
Explores educational research paradigms and epistemologies; introduction to basic educational research design decisions such as when to use qualitative, quantitative, or mixed-methods, the differences in these approaches and strengths each approach brings to the research endeavor.

ELP X81D. Education Research II.
A continuation of Education Research I, with an emphasis on the basics of statistical techniques and qualitative approaches; skills related to data collection and analysis; and conceptual and practical understanding of the research process and how to ensure quality while engaged in research.

ELP X83N. Graduate Internship.
Supervised practice in a professional position.

ELP X83P. Individual Projects.

ELP X84D. Administration of the Individual School.
Organization, direction, management, and leadership for the program of a single school.

ELP X84E. Public School Leadership.
A fused, multidisciplinary foundational core course covering major task areas,administrative theory and processes,and supporting knowledge from other disciplines.

ELP X84F. Foundations of Educational Policy.
Introduction to the history of the American educational system. Considers historical, economic, social, and political precedents when examining contemporary educational policy. Emphasis on policies related to race, ethnicity, class, and gender, and the recurring nature of controversial issues related to language, segregation, funding, and accountability.

ELP X84G. General, Elementary, and Secondary Programs.
To introduce principal responsibilities for general education programs regarding state/local budget, policies and practices for elementary and secondary schools. Executive leadership practices for general education with an emphasis on instruction, data triangulation, organizational design, fiscal management, strategic planning and site-based decision making for elementary and secondary schools.

ELP X84H. Policy Implementation.
Examine the challenges and implementation of systemic school reform in the context of American cities.

ELP X84J. Policy Analysis in Education.
Analyze policy in education, including traditional and critical approaches. Review methods and principles of policy analysis, the role of policy development, context, history, and micropolitical influences.

ELP X84L. Legal Issues in Schools.
Legal bases for organizing and administering public and private school systems; statutes and court decisions affecting educational functions; administrative legal issues pertaining to various functions of school.

ELP X84N. School Business Management.
Examines the organization of elementary and secondary schools and the expertise needed to manage their resources. Applied learning opportunities in the areas of school finance and accounting, property management, state reporting and other statutory requirements, policy interpretation, budget preparation and administration, cash management, personnel management, purchasing, risk management, and strategic planning.

ELP X84P. Principalship.
Group and individual studies of research literature; execution of investigative projects and reports of research.

ELP X84Q. Leading for Equity and Justice in K-12 Schools.
Explores development of leadership capacity to lead high-achieving, equitable, and socially just schools for all students in integrated ways, especially for students who have been traditionally underserved. Focus on research-based leadership practices for addressing inequities and ways to develop schools that give all students equitable opportunity for high academic achievement.

ELP X84R. School, Family and Community Engagement.
Introduction to concepts of school-family-community engagement with a focus on equity, social justice, and democratic participation. Explores the capacity to lead community engaged schools through equitably and authentically partnering with traditionally underserved families, communities, and community-based organizations.

ELP X84S. School Leadership: Micropolitics and Change.
The micropolitics of leadership, from control to empowerment, as they affect what principals can and should do about change within the school. Designed to assist prospective principals in analyzing and interpreting the dynamic process of initiation, implementation, and institutionalization of change in and around schools.

ELP X84T. School Improvement: Instructional Leadership and Development.
Designed to provide prospective school leaders with the conceptual, technical, and human-interaction skills necessary for school improvement. Focus on knowledge, principles, problems, and issues related to instructional leadership. Examines instructional supervision theory, goals, functions, supervisory models, and strategies that enhance teaching and learning.

ELP X84V. Poverty and Education Policy.
The social context of education, the development and expansion of concentrated poverty in central-city schools, and the relationship between poverty and educational performance as it affects schoolchildren and parents in closely related fields such as welfare, housing, employment and training, health care, food assistance, and day care.

ELP X84W. Systems for Observing and Analyzing Instruction.
Explores skills in systematic observation, organized ways of examining teacher/student behavior in the classroom. Incorporates Texas Teacher Assessment Seminar training.

ELP X85C. Contemporary Issues In Higher Education Management.
An examination of responsibilities, functions, challenges, and current issues that affect managers in institutions of higher education.

ELP X85E. The College Student.
Study of the student population in contemporary colleges and universities, with emphasis on student development theory and the impact of campus environments on student development.

ELP X85R. Organization and Administration of Higher Education.
Introduction to the study of higher education organizations. Analysis of all elements of higher education institutions, with particular attention to structure and governance.

ELP X85T. Student Affairs in Higher Education.
Examination of the rationale for student affairs professions and the various administrative units involved in carrying out their mission.

ELP X90C. Proseminar: Introduction to P20 Research and Careers.
Foundation for cohort interaction among incoming doctoral students. Establishes a learning community among students and faculty to explore issues related to P20 education with opportunities for team conferring, planning, academic research, relevant practical experiences and site

visits, professional presenting, writing and analysis, and other curricular and career enhancement opportunities

ELP X90D. Pro-Seminar and Systems of Higher Education.
Build the foundation for cohort interaction and provides opportunities to explore issues related to careers and research in higher education. An introduction to the systems of higher education in the United States.

ELP X90E. Economics and Finance.
Survey of the theoretical and empirical literature related to the economic context of and finance policy within K-12 or higher education institutions. Separate K-12 and higher education sections are taught. Covers a wide range of concepts, processes, and policies, such as patterns of financing educational institutions; federal, state, and local governmental roles; revenue sources; costs; benefits; equity; efficiency; budgeting; and finance policy implementation.

ELP X90F. School Finance and Ethics.
A study of public school finance, including budgeting and accounting, encompassing historical and current trends and legal issues. An in-depth examination of state school finance for educational leaders addressing legal and ethical issues and strategic planning that impact the operation of public schools will be addressed. The principal issues that are examined are why education is worthy of funding, who contributes to that funding, and in what proportions, and how the funding is raised in adequate amounts and equitably distributed. Current trends in Texas school finance and what the future holds for education finance will also be examined.

ELP X90G. Economics of Education.
Examine theoretical and empirical literature related to the economic context of schooling in both K-12 or higher education institutions. Discuss a wide range of concepts, processes, and policies related to funding educational institutions; federal, state, and local governmental roles; revenue sources; equity; efficiency; and finance-related policies.

ELP X90P. Educational Politics and Policy.
Survey of theoretical and empirical literature related to educational politics and policy concerning K-12 or higher education institutions, including political systems theory, intergovernmental relations, power and conflict, community relations and intergroup theory, and policies dealing with equity, quality, efficiency, and choice.

ELP X90R. Organizational Design and Behavior.
Theories of organization from structuralist, behaviorist, and critical traditions that are useful for diagnosing problems endemic to schools and colleges, and for developing skills necessary for administering complex educational systems. Study of concepts related to bureaucracy, organizational design, decision making, power and control, leadership, motivation, and organizational communication.

ELP X90S. Social and Cultural Contexts of Education.
Examines the relationship of contemporary educational institutions, both public school and higher education, to their social setting.

ELP X90V. Ethics and Values in Educational Leadership.
Examination, from the point of view of various ethical systems, of issues of equity, distributive justice, codes of ethics in educational professions, treatment of students, and other issues that face administrators of educational systems. Designed to sensitize prospective educational leaders to the ethical content of educational decisions.

ELP X91D. Systems of Human Inquiry.
Introduction to fundamental assumptions and procedures for conducting social science research, including the logic of science; the links between epistemology, theory, and methods; sampling; measurement; surveys; experiments; qualitative methods; and ethics.

ELP X91E. Epistemologies of Educational Research.
Introduction to the range of different epistemological perspectives that are used in the conduct of social science research, including the scientific method/positivism, postpositivism, interpretivism, postmodernism, critical theory, race-based and culture-based perspectives, and feminisms.

ELP X91P. Quantitative Research Design and Analysis.
Introduction to the knowledge base in measurement theory and quantitative research designs, including research designs appropriate to different research contexts; and analyzing, interpreting, and representing statistical data to scholarly and practitioner audiences.

ELP X91Q. Qualitative Research Design and Analysis.
Introduction to the utilization of theoretical frames; research questions or focus, and literature reviews; ethical issues; research design; research methods; data analysis; representations of data; interpretation of data; trustworthiness; implications; and strengths and limitations in the conduct of qualitative research.

ELP X92E. Program Evaluation Methods.
Covers designing and implementing educational program evaluations; collect, analyze, and interpret qualitative and quantitative evaluation data; create and use communications and reports to engage key stakeholders; The primary emphasis is on the theory, issues, topics, and applications of program evaluation in educational environments.

ELP X92P. Advanced Quantitative Design and Analysis.
Integrated coverage of advanced quantitative methods for education research. A conceptual approach with an emphasis on reading and writing research results sections. Subjects include missing data techniques and statistical procedures, such as linear regression, multiple regression, ANCOVA, logistic regression, and exploratory factor analysis, among other topics.

ELP X92Q. Advanced Qualitative Research Design and Analysis.
Examines in-depth exemplary qualitative studies and considers critical issues that have been raised in qualitative research.

ELP X92S. Survey Research Methods in Educational Research.
Focus on the knowledge, design, planning, implementation, and interpretations of survey research methods. Covers information on purposes of survey research, theoretical and/or empirical basis for survey research, and development of different types of questionnaire items. Methods of selecting a sample and instrument validity and reliability are included, along with statistical procedures to review and interpret survey results.

ELP X93D. Law and Disabilities.
Issues of law and policy associated with serving people with disabilities; with emphasis on federal legislation.

ELP X93N. Graduate Internship.
Supervised practice in a professional position.

ELP X93P. Individual Projects.

ELP X93R. Research Apprenticeship.
Group and individual projects in research design, research methodologies, and research execution.

ELP X93S. Superintendent Practicum.
Group and individual studies of research literature; execution of investigative projects and reports of research.

ELP X93T. Directed Research in Educational Leadership and Policy.
Investigation of assigned problems under direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; production of acceptably written reports of a technical character.

ELP X94C. School District Administrative Functions I.
Focus on school district governance and the in depth the relationship of the superintendent and board of trustees and their respective roles according to the Texas Education Code. Investigates school facility planning and plant management, including the financing of facilities and the most up to date designs that enhances learning. Explores the function of human resources with a focus on recruitment, selection, and professional development of school district staff as well as important legal implications affecting district personnel.

ELP X94D. School District Administrative Functions II.
Focus on three areas of the superintendents' job: first, external and internal communications; second, hands-on practice in the area school finance, including state and local funding strategies and budgeting; third, the use of technology in today's school setting. Includes the study of school district safety and security practices, student transportation planning and requirements, and school district child nutrition operations.

ELP X94E. Capstone: Policy Research Problems.
Advanced seminar designed to help students develop research plans specifically for either a research proposal or a long-range research agenda.

ELP X94F. Special Education Leadership and Policy.
Advanced study of special education policies and practices focused on school leadership and school improvement for inclusive and high-quality schools.

ELP X94G. Participatory Action Research.
Explore participatory action research (PAR), a scholar-activist research approach that brings together community members, practitioners, and scholars, to co-create knowledge and social change in tandem.

ELP X94J. School Board Superintendent Relationships.
Examine the critical partnership between superintendents and school boards. Explore legal frameworks, governance models, communication strategies, and conflict resolution approaches. Analyze how effective superintendent-school board relationships contribute to district stability, policy development, and ultimately, all students' access to high-quality educational opportunities.

ELP X94K. Topics in K-12 in Educational Leadership and Policy.

ELP X94K.1. Advanced Policy Seminar in Latinx Education Issues.
Policy issues experienced by Latinos in the United States. Issues include testing, English as a Second Language programs, and bilingual education.

ELP X94K.10. Advanced Seminar: Networks in Education.
Explore social networks, theoretically and empirically, and their relationship to P-20 educational systems.

ELP X94K.2. Market-Based Reforms in Education.
Introduction to research on school choice, charter schools, and voucher policies, including the history of school choice policies, political contexts, and theories about choice from multiple disciplines. Also explores research on school choice, such as how parents make choices and how schools respond to them; the impact school vouchers and charter schools can have on diversity and segregation; and the nature of teacher labor markets in choice settings.

ELP X94K.3. Place, Opportunity, and Education.
Explores the relationship between social context or "place"; opportunity structures (i.e. physical and social structures that mediate access to opportunities (i.e. services, institutions, labor markets, etc.)), and outcomes in education.

ELP X94K.4. Schools and Gentrification.
Examines research on school gentrification, neighborhood gentrification, and school closures.

ELP X94K.5. Law, Leadership, and Discipline Policy.
Analysis of policies and practices in elementary, middle, and high school that impact the success of youth, with an emphasis on children of color and children with behavioral health challenges in educational and disciplinary placements. Examines aspects of the juvenile and adult criminal justice systems that intersect with the educational system and the disproportionate impact of these policies on children of color and those with special education needs, and considers means to promote better outcomes.

ELP X94K.6. Language Policy in Education.
Advanced seminar in language policy across elementary, secondary, and higher education levels. Explores language ideologies as a right, resource or problem.

ELP X94K.7. Immigration Theory in Education.
Advanced, interdisciplnary investigations of selected topics and problems in program and research design regarding the integration and education of immigrant youth in U.S. educational systems.

ELP X94K.8. Urban Schools and Communities: Policies and Practices.
Advanced study of urban schools in America. Explore policies and practices that affect the performance of students, teachers, and leaders in urban contexts. Develop potential solutions to the challenges those schools currently face.

ELP X94K.9. Advanced Seminar: Race and Ethnic Relations.
Examine numerous historical factors and institutional processes as they relate to the historically poor achievement and attainment levels of minoritized youth in public schools. Explore the role of educational pedagogy, school-level policies and practices, as well as the role of ideology in mediating these outcomes.

ELP X94L. School Law.
Legal bases for organizing and administering public and private school systems; statutes and court decisions affecting educational functions; administrative legal issues pertaining to various functions of school districts.

ELP X94N. School District Instructional Leadership.
Connects educational leadership theories with teachers, teaching and student learning, understanding moral and ethical leadership, and building cultural competencies and practices across the school district. Explores common core standards, instructional frameworks, and content-specific instructional practices; differentiated instruction; and assessments of student learning.

ELP X94P. Personnel Administration: Managing Instructional Resources.
Functions of school personnel offices. Subjects include development of personnel administration; job descriptions; planning for personnel needs; recruitment, selection, and evaluation of personnel; and management of the personnel office.

ELP X94S. Superintendent Seminar.
Involves completion of a final portfolio that demonstrates knowledge, skills, and dispositions required of district level leaders. Students will draft a Professional Development Plan (PDP), considering their own progress in leadership development as determined by completing an Administrative Leadership Inventory and their unique practicum experiences. Students will address perceived program/personal professional gaps and address means to close them, and participate in further development experiences. Students will develop a working mentor relationship with a superintendent or district-level staff person to advance knowledge, skills, and practice emphasizing those areas of perceived need.

ELP X94T. Administrative Theory.
Covers leadership theory and models from multidisciplinary perspectives. Outlines the tasks associated with the role of the superintendent, along with processes, and relationships expected of the role.

ELP X95C. Capstone: Advanced Issues in Higher Education.
Develop research questions within an established area of study, prepare a problem statement and rationale for a proposed area of study, critically review the literature on a proposed area, and develop a proposed methodology for answering the research questions.

ELP X95D. Data Informed Leadership.
Examine school restructuring, renewal research, and systemic change processes since 1975. Study and evaluate school restructuring and renewal processes, and their underlying research bases, in conjunction with the influence patterns of teachers, principals, superintendents, school boards, parents, and state and national policy makers on the development and use of such concepts and processes.

ELP X95E. Research on College Students.
A study of both theoretical and practical issues related to research with, of, and on college students. Focus on applied research methods and strategies appropriate for most student affairs/services professionals

ELP X95H. History of Higher Education.
The development of higher education since the Middle Ages, with emphasis on the development of higher education in the United States.

ELP X95K. Topics in Higher Education in Educational Leadership and Policy.
Administrative organization, functions, and practices within colleges and universities; roles of the administrator and principles of effective administrative practice; intensive study in selected areas of college operation.

ELP X95K.1. Comparative Higher Education.
Examination of the higher education systems and institutions of selected countries.

ELP X95K.10. Problems of College Teaching and Learning.
Hands-on, project-based. Explores problems of college teaching and learning through a past, present, and future lens. Survey of the full ecosystem of the college campus as opposed to just the traditional classroom. Covers investigating and designing interventions for pedagogical and learning problems within various units on college or university campuses.

ELP X95K.11. Critical Consciousness in Higher Education.
Introduction to foundational historical and theoretical issues for the critical study of higher education diversity work. Examines the ways institutions of higher education and student affairs areas enact change around issues of difference, identity, oppression, and social justice. Integrates questions of identity with those of social justice, and explores understanding self and others.

ELP X95K.12. Higher Education Budgeting and Finance.
An overview of higher education finance, including the economics of higher education, the principles and practices of financing higher education, the costs of higher education, and higher education budgeting concepts as they apply to institutions and to states.

ELP X95K.13. Administrative Leadership in Higher Education.

ELP X95K.14. Institutional Research and Planning.
Study of the ways planning and governance are informed by data collection, analysis, and information-use strategies in order to improve institutions of higher education. Institutional research and planning functions in colleges and universities.

ELP X95K.15. The American Professorate.

ELP X95K.16. Policy Issues in Higher Education.

ELP X95K.17. Assessment in Higher Education.
Focus on the administrative and educational requirements for assessing student learning outcomes in higher education. Covers methodologies, basic approaches, politics, ethics and other concerns related to college student assessment. Analyzes the variety of learning outcomes for a diverse set of programs and services (i.e., counseling, health, judicial affairs, first-year student programs, career services) as well as understand the administrative components of an effective assessment program within a higher education setting.

ELP X95K.18. Ethical Leadership and Governance.
Examine levels of governance in higher education, issues of equity, codes of ethics in educational professions, treatment of students, and other issues that face administrators of educational systems from the point of view of various ethical systems. Prepare leaders for the ethical dimensions of educational decisions and governance, study foundational theories of ethics, and the strategies required for effective higher education leaders. Refine personal leadership values and qualities, and application of leadership theories to contemporary contexts.

ELP X95K.19. Leadership for Social Justice, Equity and Inclusion.
Build critical consciousness, capacity to lead for equity and excellence, social justice, and anti-racism within integrated settings. Explore foundational and current issues related to research-based knowledge on equity, social justice, and inclusion in higher education. Investigate the concept of equity from different theoretical perspectives and obtain an understanding of inequality from a structural, organizational, and individual level.

ELP X95K.2. Leadership in Higher Education.
Examination of foundational theories, leadership strategies in higher education, personal leadership values and qualities, and application of leadership theories to contemporary contexts.

ELP X95K.20. Research Design Theories and Literature Review.
An introduction to the design of educational research with a focus on literature reviews and research theories. Explore how to identify research sources; organize, summarize, and synthesize information in writing; and prepare and utilize effective research questions. Study theoretical perspectives of research design, principles of data collection, analysis and drawing conclusions from data.

ELP X95K.21. LGBTQ+ Histories, Identities, and Contexts in Higher Education.
Explore historical, institutional, and systemic relationships between lesbian, gay, bisexual, transgender, and queer(+) people and higher education. Examine scholarship and practice in both educational policy and student affairs.

ELP X95K.22. Educational Crises and Emergency Response.
Examine multiple perspectives on campus crises, including institutional and individual impact to administrator and community response and disaster relief. Explore social nuances of crisis, including campus racial incidents, student loss, mental health, and the impact of politics in and on education.

ELP X95K.23. College Student Governance and Involvement.
From organizations as involvement to governing in campus-level and elected leadership capacities, explore historical origins and current events and literature to build deeper context for higher education and student affairs scholars and practitioners.

ELP X95K.24. Synthesizing Research Literature.
Explore the nuances associated with writing an academic literature review, including understanding purpose and argument, and responding to topical questions with relevant scholarship and literature.

ELP X95K.25. Sociology of Education.
Explore the subfield of the sociology of education. Assess the current state of the field, emphasizing connections to formative theoretical perspectives and seminal empirical results. Examine the ways in which schools reproduce, reinforce, and challenge the prevailing social, economic, and political relationships in society. Discuss why people go to school (both K-12 and higher education), who has access, and the effects of educational institutions on individuals, communities, and society.

ELP X95K.3. Community Colleges.
History of the values, purpose, and mission of community colleges, with an overview of major functions such as transfer, workforce development, adult basic education, and continuing education. Explores various models of community college governance, funding sources, and alternative funding models.

ELP X95K.4. Gender in Higher Education.
Examination of gender within higher education contexts.

ELP X95K.5. Equity and Diversity in Higher Education.
Examines the legal, educational and public policy issues related to college access, educational equity, and racial/ethnic diversity in American higher education.

ELP X95K.6. Legislative Issues in Higher Education.
Focus on legislative and policy issues in Texas higher education, with an attendant focus on the national policy context. Provides an overview of the state-level policy making process and addresses various policy issues related to higher education access, equity, finance, governance, diversity, and more.

ELP X95K.7. Gender and Adult Development.
Utilizes historical, stage, sociocultural, narrative, and psychosocial approaches to examine adult development, primarily within a higher education context. Theories discussed include sexual identity, gender identity, racial/ethnic identity, cognitive development, psychological development, and moral development; plus the general development of women and men.

ELP X95K.8. Technology and Innovation in Higher Education.
Examines big ideas pertaining to technology and innovation in higher education with a particular focus on developing the ability to design strategic interventions aimed at educational improvement on American college and university campuses. Explores theories of innovation, the adoption of innovation, and process of designing and creating innovate solutions to contemporary problems in higher and post-secondary education.

ELP X95K.9. Multicultural Modes of Mentoring.
Examines literature of developmental relationships and concepts such as sponsorship, coaching, and role modeling with an emphasis on mentoring in higher educational settings. Participants will engage in self-reflective exercises pertaining to their own developmental relationships. Explores prominent mentoring programs on both on campus and in the larger Austin community.

ELP X95L. Higher Education Law.
Examine the most pressing legal issues that confront colleges and universities today and understand how administrators and lawyers can respond to advance the mission of higher education institutions, including priorities around equity and inclusion.

ELP X95S. Systems of Higher Education.
Introduction to the systems of American higher education. Overview of literature on historical and contemporary issues facing the system of American higher education.

ELP X96. Topics in P20 Education.

ELP X97. Educational Policy and Planning Seminar.
Provide professional development and advising tailored to PhD students in educational policy and planning. Build community, creating spaces for more interaction with faculty in the program area and with other students; socializes students into the culture of academia; and provides critical information to students regarding job opportunities, funding graduate education, and creating a professional identity.

ELP X99K. Treatise.

ELP X99L. Treatise.

ELP X99M. Treatise in Practice I.

ELP X99N. Treatise in Practice II.

ELP X99W. Dissertation.

Professional Courses

EMA - Energy Management

Energy Management: EMA

Lower-Division Courses

Upper-Division Courses

Graduate Courses

EMA X80. Seminar in Energy Management.
Meet with leading energy experts from industry and academia to discuss recent developments in technology, policy, law, and business.

EMA X82. Topics in Economics.

EMA X82.1. Environmental Economics.
Explore economic theory and public policy as they apply to environmental problems. Includes the role of market failure in explaining the existence of pollution, alternative strategies for pollution control and environmental management, and global environmental issues.

EMA X82.2. Managerial Economics.
Explore energy fundamentals through a detailed examination of the history, structure and functioning of the modern energy industry. Includes models of supply, demand, and transportation; market structure; game theoretic strategies and risk management; environmental issues; and policy and regulation.

EMA X82.9. Advanced Economics.

EMA X84. Topics in Finance.

EMA X84.1. Energy Markets and Risk Management.
Study how firms manage their financial risk exposures and how they use derivative securities.

EMA X84.2. Valuation.
Explore financial modeling, derivatives in corporate finance, business valuation, and value-based management.

EMA X84.3. Investments.
Analyze the investment decision-making process, including asset allocation, security analysis, risk and expected return measurement, asset-pricing models, and international investment.

EMA X84.4. Advanced Corporate Finance.
Investigate advanced corporate financial management in the global marketplace, including valuation concepts, optimal capital structure, risk management, corporate control and restructuring, and mergers and acquisitions.

EMA X84.5. Private Equity Mergers and Acquisitions.
Examine the application of advanced corporate finance concepts in the private equity markets and mergers and acquisitions.

EMA X84.6. Energy and Environmental Markets.
Explore the business and public policy issues that these changes have raised in energy markets, and in the environmental markets to which they are closely tied using tools from economics and finance. Includes the development the political economy of deregulation, the environmental impacts and policies related to energy production and use, market power and antitrust in energy and environmental markets, and the transportation and storage of energy commodities.

EMA X84.7. Environmental, Social, and Governance Investments.
Explore a conceptual and theoretical foundation for corporate ESG (Environmental, Social and Governance) policies and actions and investors' preferences regarding such policies and actions including how such policies and actions affect firm performance and investor reactions.

EMA X84.8. Corporate Finance.
Explore principles of finance, with application to all aspects of the energy firm; particular attention to cost of capital, investment decisions, management of assets, and procurement of funds.

EMA X84.9. Advanced Finance.

EMA X86. Topics in Accounting.

EMA X86.1. Financial Accounting.
Explore transaction analysis, financial statement preparation, and analysis of financial statements.

EMA X86.2. Cost Accounting.
Analyze manufacturing costs, and explore the development of cost estimates and preparation of relevant information for management decision making.

EMA X86.3. Tax Accounting.
Introduction to the role of taxes in contemporary society and their impact on individuals and business entities, with an emphasis on federal income taxation.

EMA X86.4. Environmental Accounting.
Explore the pursuit of the goal of sustainability. Investigate how corporate and government leaders must manage companies and economies in terms of balancing and optimizing the triple bottom line of social, environmental, and economic impacts.

EMA X86.5. Oil and Gas Accounting.
Introduction to oil and gas accounting for upstream operations related to exploration and development of oil and gas. Includes accounting principles and procedures for exploration, acquisition, drilling, development and production costs in different phases when searching for producing oil and gas.

EMA X86.6. Energy Accounting.
Introduction to accounting for the energy industry. Includes accounting principles and procedures for exploration, acquisition, construction, development and production costs in different phases for a producer of electricity or oil and gas.

EMA X86.7. Intermediate Accounting.

EMA X86.9. Advanced Accounting.

EMA X88. Topics in Management.

EMA X88.1. Negotiations.
Explore the theories, processes, and practical techniques of negotiation to successfully negotiate and resolve disputes in a variety of situations including interpersonal, group, and international settings. Examine influence and conflict resolution strategies; identify interests, issues, and positions of the parties involved; analyze co-negotiators, their negotiation styles, and the negotiation situations; and manage the dynamics associated with most negotiations.

EMA X88.2. Entrepreneurship.
Identify innovations and market opportunities. Explore how to write a business plan, obtain funding, and launch a new company.

EMA X88.3. Creating and Managing Human Capital.
Investigate issues related to making human resource decisions in a more effective manner. Explore a strategic perspective, with particular emphasis on the links between human resource decisions and a firm's competitive position.

EMA X88.4. Strategy.
Analyze business situations from the point of view of the practicing general manager. Address key tasks involved in general management, including strategic decisions that ensure the long-term health of the entire firm or a major division.

EMA X88.9. Advanced Strategy.

EMA X90. Topics in Quantitative Analysis.

EMA X90.1. Decision Analysis.
Study decision-making under risk and with multiple criteria. Focus on strategic decisions and operational decisions using decision trees, simulation and other quantitative tools.

EMA X90.2. Supply Chain.
Investigate the operations or production functions, and the skills required for analyzing and solving related problems.

EMA X90.3. Project Management.
Explore project management through a proven framework for leading and directing projects and teams to deliver project results within constraints such as schedule, budget, and available resources.

EMA X90.4. Getting Product to Market and Trading.
Provide students a basic understanding of the various aspects of the energy supply chain covering the crude oil, natural gas and electric power supply chains with a focus on how energy products are transported from where they are produced to their ultimate markets.

EMA X90.5. Optimization.
Frame, formulate, and apply quantitative optimization and descriptive models to management decisions, using spreadsheets and other software.

EMA X90.6. Information Technology.
Explore the in-depth treatment of business data processing concerns such as database management, telecommunications, and the development of commercial systems.

EMA X90.7. Analytics.
Investigate methods used to model and analyze data. Explore regression models and time-series models and their application in the area of energy.

EMA X90.8. Operations and Supply Chain.
Investigate the operations or production functions, and the skills required for analyzing and solving related problems. Explore the use of developed predictive dynamic models in operations planning and operations decision making.

EMA X90.9. Advanced Analytics.

EMA X92. Topics in Marketing.

EMA X92.1. Energy Consumer Behavior.
Examine the acquisition and consumption of goods, services, time, and ideas by individuals and groups in the energy industry, including normative and descriptive theories.

EMA X92.2. Consumer Analysis.
Introduction to the data and tools used to analyze the business environment and enable marketing decision making. Use real-world data and problems to evaluate strategic market opportunities and assess the impact of marketing decisions in the marketplace.

EMA X94. Topics in Law.

EMA X94.1. Law and Agreements.
Explore contracts and transfers by oil and gas lessees such as assignments, farmouts, operating agreements, purchase and sale agreements, and master service agreements. Consider the oil and gas development on federal, state, and American Indian lands as well as environmental regulation of the petroleum industry.

EMA X94.2. Real Estate Law and Contracts.
Explore the legal framework of commercial real estate finance and development, including basic real estate law concepts, legal aspects of financing techniques and instruments, subdivision land-use controls, and the environmental regulation of real estate development.

EMA X94.3. Domestic Petroleum Transactions.
Explore the practical aspects of the U.S. oil and gas legal regime, focusing on the relationship between energy companies and regulatory authorities. Investigate bankruptcy, energy finance, and land use control, as well as purchase of domestic oil and gas assets by foreigners.

EMA X94.4. International Petroleum Transactions.
Explore international petroleum transactions in the context of a single industry. Includes the various participants and transactions that take place at each stage of the industry, from acquisition of development rights through exploration and production to transportation and marketing.

EMA X94.5. Environmental Law.
Introduction to environmental thinking in the context of scarce publicly and privately owned natural resources. Explore the public trust doctrine, relevance of the Tenth Amendment to environmental protection, the National Endowment Policy Act, the Endangered Species Act, and the Fish and Wildlife Coordination Act.

EMA X94.6. Law and Policy.
An introduction to the legal and regulatory regimes governing the energy industry, as well as the important economic and political concerns that underlie the regulation of the production and sale of energy.

EMA X94.9. Advanced Law.

EMA X96. Topics in Engineering and Science.

EMA X96.1. Oil and Gas Capstone.
Reinforce the interdisciplinary nature of developing petroleum assets. Includes the key stages of project development, such as: acquisition, exploration, development, production, abandonment, and exit.

EMA X96.10. Technology and Policy.
Investigate the broad context of energy production and consumption in the U.S. and the world. Discuss past energy trends and fundamentals of energy and power, including fossil fuels and renewable energy sources and technologies. Explore different energy resources, environmental impacts, and societal uses of energy, and evaluate future energy technology options.

EMA X96.11. Financial Strategies for Energy Firms.
Perform an integrated analysis of the interaction between the investment and operating policies of a corporation and its financial strategies, with special emphasis on firms in the energy industry.

EMA X96.2. Electricity Capstone.
Reinforce the interdisciplinary nature of developing electricity generation assets. Explore the key stages of project development, including site selection, life-cycle analysis, due diligence, permitting, contracting, and financing.

EMA X96.3. Energy Technology and Policy.
Explore the understanding of the broad context of energy production and consumption in the U.S. and the world. Discuss past energy trends and fundamentals of energy and power, including fossil fuels and renewable energy sources and technologies. Explore different energy resources, environmental impacts, and societal uses of energy. Evaluate future energy technology options.

EMA X96.4. Electricity Systems.
Explore the locational marginal pricing (or nodal) model of organized or centralized day-ahead and real-time electricity markets. Investigate the solution of power flow, formulate optimal dispatch as an optimization problem, consider offer-based economic dispatch, transmission and unit commitment issues. Discuss pricing rules and incentives in markets, particularly in the context of transmission limits. Examine energy and transmission price risk hedging, network models, and capacity adequacy.

EMA X96.5. Petroleum Systems.
Introduction to the petroleum system, including source rocks and reservoirs, maturation and migration of hydrocarbons, traps and seals, rock properties, basin, play and prospect risking and assessment and tools for subsurface analysis (wells and seismic) for nontechnical personnel. Examine prospecting strategies and leasing.

EMA X96.6. Petroleum Engineering.
Introduction to drilling, reservoir engineering, surface facilities and processing, pipelines, and project abandonment for nontechnical personnel.

EMA X96.7. Energy Networks.
Introduction to analysis, design and management of complex integrated systems typically in midstream oil and gas processes and electric grids.

EMA X96.8. Advanced Electricity Systems.

EMA X96.9. Advanced Petroleum Systems.

EMA X97. Advanced Energy Management.
Focus on the economics, strategy, business valuation, technology, science, policy and finance specific to the energy industry.

Professional Courses

ENM - Engineering Management

Engineering Management: ENM

Lower-Division Courses

Upper-Division Courses

Graduate Courses

ENM X80E. Topics in Management of People, Processes, Projects, and Organizations.
Explore engineering management processes and how these processes are used by administrators and managers.

ENM X80E.1. Managing People and Organizations.
Introduction to frameworks from the social sciences that are useful for understanding what effective leaders do when working with others.

ENM X80E.2. Engineering Project Management.
Explore methods for organizing, coordinating, and controlling resources to minimize risk and conflict, and to maintain budgets and schedules. Discuss the evaluation of competing alternatives, organization of a project, scheduling of tasks and resources, and the role of management.

ENM X81E. Topics in Business Foundations.
Survey important topics and foundational ideas in business, as applied within an engineering environment.

ENM X81E.1. Marketing and Negotiation.
Explore major marketing concepts and variables, their interrelationships, and their implications for policy making, problem solving, and strategy formulation. Examine the development of sophisticated strategies and tactics to pursue mutually beneficial solutions.

ENM X81E.2. Legal Issues and Technology Management.
Examine legal considerations in the practice of engineering management. Explore management disciplines to create maximum value from technology.

ENM X81E.3. Finance and Accounting for Engineering Managers.
Introduction to fundamental concepts in finance and accounting with application. Explore how to evaluate investment and financing opportunities in a corporation.

ENM X82E. Topics in Decision Making.
Explore methods to make high-quality decisions in an engineering environment.

ENM X82E.1. Analytics for Engineering Managers.
Explore theory and tools that allow the engineering manager to draw correct inferences from data and include those inferences in the decision-making process. Examine descriptive, predictive, and prescriptive analytics and statistics.

ENM X82E.2. Strategic Decision and Risk Analysis.
Explore tools and methods for making high-quality decisions in the face of uncertainty, applied within an engineering context. Learn how to frame and analyze major decisions and how to overcome the biases that can degrade these decisions.

ENM X82E.3. Engineering Operations Management.
Examine methods to improve the efficiency of an organization's operations. Explore management of production systems, inventory management, logistics, and supply-chain management.

ENM X85C. Projects in Engineering Management I.
First course in a two-semester sequence that concludes with Engineering Management 385D. Independent project carried out under the supervision of an engineering management faculty member.

ENM X85D. Projects in Engineering Management II.
Continuation of Engineering Management 385C or 397P. Independent project carried out under the supervision of an engineering management faculty member.

ENM X85K. Special Topics in Engineering Management.
Explore special topics in engineering management.

ENM X86. Marketing in an Engineering Environment.
Explore major marketing concepts and variables, their interrelationships, and their implications for policy making, problem solving, and strategy formulation.

ENM X87. Art and Science of Negotiations.
Examine the development of sophisticated strategies and tactics to pursue mutually beneficial solutions.

ENM X88. Legal Issues for Engineering Managers.
Examine legal considerations in the practice of engineering management.

ENM X89. Management of Technology.
Explore management disciplines to create maximum value from technology.

ENM X90. Systems Engineering.
Utilize systems-thinking principles to organize how to design, integrate, and manage complex systems over their life cycles.

ENM X91. Lean Systems and Processes.

ENM X97K. Engineering Management Seminar.
Current topics in engineering management.

ENM X97P. Projects in Engineering Management.
Independent project carried out under the supervision of an engineering management faculty member.

Professional Courses

ENS - Ensemble

Ensemble: ENS

Lower-Division Courses

ENS X01L. Longhorn Singers.

ENS X01S. University Chorus: Sopranos and Altos.
Open to any University student who can qualify by audition.

ENS X01T. University Chorus: Tenors and Basses.
Open to any University student who can qualify by audition.

ENS X01U. University Chorus.

ENS X02S. Symphony Orchestra.

ENS X02U. University Orchestra.

ENS X03C. Symphony Band.

ENS X03P. Butler Opera Center Ensemble.
Instruction and performance in operatic acting, vocal coaching, and stage direction.

ENS X03S. Wind Symphony.

ENS X03W. Wind Ensemble.

ENS X05. Sight-Reading.
Designed to develop and improve sight-reading skills in piano performance.

ENS X05C. Jazz Combos.

ENS X05E. Jazz Ensemble.

ENS X05M. Alternate Improvisation Music Ensemble.

ENS X06C. Conjunto Ensemble.

ENS X06E. Early Music Ensemble.

ENS X06F. African American Vocal Ensemble.

ENS X06J. Javanese Gamelan Ensemble.

ENS X06K. Hispanic Caribbean Ensemble.

ENS X06L. Mariachi Laboratory Ensemble.
Prepare for mariachi ensemble. Open to any University student who can qualify by audition.

ENS X06M. Mariachi Ensemble.

ENS X06N. North Indian Music Ensemble.

ENS X06T. Middle Eastern Ensemble.

ENS X06U. Accompanying: Instrumental.
Designed for pianists to improve ensemble playing and to give training in the technique of instrumental accompanying.

ENS X06V. Beginning Accompanying: Vocal.
An introductory course for pianists designed to teach the basic skills involved in vocal accompanying. Students who want to continue study in vocal accompanying after completing Ensemble 106V should register for Ensemble 106W.

ENS X06W. Advanced Accompanying: Vocal.
An advanced skills for pianists designed to continue to train students in vocal accompanying through more difficult repertoire.

ENS X07E. Topics in Undergraduate Instrumental or Vocal Ensemble.
Open to any University student who can qualify by audition.

ENS X07J. Jazz Orchestra.
Advanced jazz ensemble.

ENS X07K. Large Instrumental Ensemble.
Offered under various topics according to instrumentation, including Symphony Band, Symphony Orchestra, and Wind Ensemble.

ENS X07L. Longhorn Band.
In the spring semester, this organization divides into multiple performing ensembles.

ENS X07N. New Music Ensemble.

ENS X07S. Small Instrumental Ensemble.
Offered under various topics according to instrumentation.

ENS X08C. Texas Concert Band.
One of several Longhorn Band ensembles offered in spring semesters.

ENS X08D. Tower Concert Band.
One of several Longhorn Band ensembles offered in spring semesters.

ENS X08E. Longhorn Concert Band.
One of several Longhorn Band ensembles offered in spring semesters.

ENS X08F. Orange Concert Band.
One of several Longhorn Band ensembles offered in spring semesters.

ENS X08J. Longhorn Band Jazz Ensemble.
One of several Longhorn Band ensembles offered in spring semesters.

ENS X08K. Longhorn Band Percussion Ensemble.
One of several Longhorn Band ensembles offered in spring semesters.

ENS X08M. Longhorn Band Color Guard Ensemble.
One of several Longhorn Band ensembles offered in spring semesters.

ENS X08P. Longhorn Pep Band.

ENS X08S. University Saxophone Ensemble.
Open to any University student who can qualify by audition.

ENS X09D. Percussion Ensemble.

ENS X09F. Harp Ensemble.

ENS X09G. Guitar Ensemble.

ENS X09K. Chamber Singers.

ENS X09L. Concert Chorale.

ENS X09N. Saxophone Choir.

ENS X09Q. Non-Jazz Organ Improvisation.

ENS X09R. Popular Choral Ensemble: Recording Arts.
Performing and recording pop vocal ensemble.

ENS X09T. Trombone Choir.

ENS X09U. University of Texas Steel Pan Ensemble.

Upper-Division Courses

Graduate Courses

ENS X80E. Topics in Graduate Instrumental or Vocal Ensemble.

ENS X80S. University Chorus: Sopranos and Altos.

ENS X80T. University Chorus: Tenors and Basses.

ENS X80U. University Chorus.

ENS X81C. Concert Chorale.

ENS X81S. Chamber Singers.

ENS X82S. Symphony Orchestra.

ENS X82U. University Orchestra.

ENS X83C. Symphony Band.

ENS X83S. Wind Symphony.

ENS X83W. Wind Ensemble.

ENS X84C. Longhorn Concert Band.

ENS X84G. Color Guard Ensemble.

ENS X84J. Longhorn Band Jazz Ensemble.

ENS X84L. Longhorn Band.
In the spring semester, this organization divides into multiple performing ensembles.

ENS X84P. Longhorn Band Percussion Ensemble.

ENS X84R. Orange Concert Band.

ENS X84T. Texas Concert Band.
One of several Longhorn Band ensembles offered in spring semesters.

ENS X84W. Tower Concert Band.

ENS X85C. Jazz Combos.

ENS X85E. Jazz Ensemble.

ENS X85J. Jazz Orchestra.

ENS X85M. Alternate Improvisation Music Ensemble.

ENS X85R. Recording Arts Ensemble.
Performing and recording pop vocal ensemble.

ENS X86C. Conjunto Ensemble.

ENS X86E. Early Music Ensemble.

ENS X86J. Java Gamelan Ensemble.

ENS X86K. Hispanic Caribbean Ensemble.

ENS X86L. Mariachi Laboratory Ensemble.
Prepare for mariachi ensemble.

ENS X86M. Mariachi Ensemble.
ENS X86N. North Indian Music Ensemble.
ENS X86T. Middle Eastern Ensemble.
ENS X86V. African American Vocal Ensemble.
ENS X87N. New Music Ensemble.
ENS X88P. Butler Opera Productions.
ENS X88S. Opera Studio.
ENS X89G. Guitar Ensemble.
ENS X89H. Harp Ensemble.
ENS X89N. Saxophone Choir.
ENS X89P. Percussion Ensemble.
ENS X89T. Trombone Choir.
ENS X96C. Conjunto Ensemble.
ENS X96E. Early Music Ensemble.
ENS X96J. Java Gamelan Ensemble.
ENS X96K. Hispanic Caribbean Ensemble.
ENS X96L. Mariachi Laboratory Ensemble.
Prepare for mariachi ensemble.
ENS X96M. Mariachi Ensemble.
ENS X96N. North Indian Music Ensemble.
ENS X96T. Middle Eastern Ensemble.
ENS X96V. African American Vocal Ensemble.

Professional Courses

ESL - English as a Second Language

English as a Second Language: ESL

Lower-Division Courses

ESL X01G. English Language Grammar.
Focus on improving understanding and use of English grammar in speaking and writing, as well as an introduction to American idioms.
ESL X01R. English Language Reading.
Focus on improving reading skills with an emphasis on understanding and discussing a variety of texts, using effective reading strategies, developing vocabulary, and increasing reading speed.
ESL X01S. English Language Speaking.
Focus on improving listening and speaking through activities such as note-taking, conversation practice, and participating in discussions. Emphasis on speaking in a variety of contexts; developing appropriate pronunciation, pitch, rhythm, and stress; increasing fluency; and expanding spoken vocabulary.
ESL X01W. English Language Writing.
Focus on improving writing skills by increasing writing fluency and accuracy at the sentence, paragraph, and essay levels. Emphasis on structure, organization, and development of ideas.
ESL X02S. Academic Listening and Speaking.
Focuses on the English language skills necessary for understanding lectures, taking notes, participating in and leading discussions, and giving effective presentations.
ESL X02W. Academic Reading and Writing.
Focuses on the English language skills necessary for reading and discussing academic texts, using new vocabulary, composing short papers, and writing research projects.
ESL X19S. Topics in English as a Second Language.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Office of Executive Vice President and Provost. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ESL X29S. Topics in English as a Second Language.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Office of Executive Vice President and Provost. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

ESL X88S. Oral Communication.
Practicum in speaking skills. Focuses on pronunciation, fluency, grammatical accuracy, vocabulary development, formal presentations, and graduate-level discussions.
ESL X88T. Basic Speaking Skills.
Preparation for the International Teaching Assistant Oral English Proficiency Assessment. Practice focuses on the five tasks required in the assessment: summary, vocabulary list, reading, concept and graph explanations, and personal introduction.
ESL X88W. Academic Writing.
Practicum in writing skills. Focuses on basic syntax and sentence structure, paragraph and essay writing, and basic research writing.
ESL X89S. Advanced Oral Communication.
Focuses on accuracy and development of the speaking skills needed in academic contexts.
ESL X89T. Communication and Teaching Culture.
Focuses on pronunciation, presenting and summarizing information, and relevant topics in intercultural communication.
ESL X89W. Advanced Academic Writing.
Focuses on the writing skills needed for qualifying exams, research, and conference papers.

Professional Courses

EUS - European Studies

European Studies: EUS

Lower-Division Courses

EUS X02. Introductory Interdisciplinary Topics in European Studies.
Analysis of various aspects of European culture, science, and technology.
EUS X05. Introduction to European Studies.
The myths, ideas, and sociopolitical realities that underpin the intellectual and cultural construction of Europe.
EUS X06. Introductory Topics in European Anthropology, Geography, History, and Sociology.
EUS X06.1. Race and Gender Stereotypes in Germany.
Examination of pseudoscientific popular theories of "race" and gender that developed in Germany and elsewhere in Europe in the nineteenth century, and how these affected the lives of millions and shaped current thinking about "racial" and gender differences.
EUS X06.2. Introduction to the History and Culture of Spain.
The history of Spain from its beginnings in the stone age through the great social and economic upheavals of the twentieth century.
EUS X06.3. The Roots of Religious Toleration.
Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle.
EUS X06.4. Jewish Civilization: 1492 to the Present.
Subjects may include trends toward secularization, the emancipation of European Jewry, the emergence of American Jewry, the Holocaust, the establishment of the State of Israel, and the Arab-Israeli conflict.

EUS X06.6. Luther's World.

EUS X07. Introductory Topics in European Culture, Literature, Art, Music, and Media.

EUS X07.1. The Vampire in Slavic Cultures.

Examines the vampire in the cultures of Russia and Eastern Europe, including manifestations in literature, religion, art, film, and common practices from its origins to present.

EUS X07.11. Sweden: Innovating for the World.

Using case studies, trace Sweden's long history with innovation, starting with classic innovations produced with direct governmental support in the eighteenth century and continuing into present day with innovations like Spotify and Swish leading the way.

EUS X07.2. Introduction To Czech History and Culture: Puppets, Pubs, And Polyglots.

Survey of Czech history and culture from the middle ages to the present day. Subjects include the culture of daily life, literature, history, philosophy, and the arts.

EUS X07.3. Introduction to the Study of Northern Europe.

Introduces significant moments in and monuments from the cultural histories of the German-speaking, Scandinavian, and Dutch nations from their beginnings to the present. Designed to discuss representative problems in research and analysis in cultural studies and the humanities.

EUS X07.4. Movies Go To War.

A comparison of films from various nations about major twentieth century wars to the historical facts of the conflicts as practicums in critical comparative analysis of histories as representations.

EUS X07.5. Grimms' Fairy Tales.

Reading and discussion of tales from the Grimms' collection, as well as some of the relevant secondary literature.

EUS X07.6. Cuisine and Culture of Central and Eastern Europe.

An in-depth survey of the culinary traditions, history, and practices of Central and Eastern Europe.

EUS X07.7. Children's Literature of Northern Europe.

Explore nineteenth- to twenty-first-century children's literature from Norway, Sweden, Denmark, Germany, Switzerland, Austria, Finland, Belgium and the Netherlands. Focus on the prominent place of children's literature in the popular culture of central and northern Europe, as well as the serious issues and themes which north Americans might otherwise consider "adult" that are often found in this genre-death, war, poverty, social justice, and family conflict-alongside whimsy, warmth and wonder.

EUS X07.9. War in Comics and Photography: Southeast Europe.

Examine different ways to show and tell stories of armed conflict and state-sponsored violence, drawing on a variety of modern media forms - such as comics, cinema, novels, and photography - as well as contemporary digital platforms including social media. Focus on the 1990s conflicts in the former Yugoslavia (Bosnia, Croatia, and Serbia).

EUS X07D. Dissent in Twentieth-Century Ukraine.

Survey Ukrainian authors from the 1920s to the present, examining writings from "Executed Renaissance," underground literature, and postmodernism. Focus specifically on works that challenge the paradigm of socialist realism by discussing forbidden subjects (famine, religion, Gulag) or accentuating themes that are not considered "major" (personal life).

EUS X07M. An Introduction to Western Music.

Introduction to musical styles in the Euro-American art music tradition between the Middle Ages and the present day. Designed to foster critical listening and thinking about music, and deepen understanding of the vital role that music has played and continues to play in society and in individual lives.

EUS X08. Introductory Topics in European Economics, Government, Business, and Policy.

EUS X08.1. Germany and Globalization.

EUS X13. Preparation for Study Abroad in Europe.

EUS X18Q. Supervised Research.

EUS X19S. Topics in European Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for European Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EUS X29S. Topics in European Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for European Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

EUS X19S. Topics in European Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for European Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EUS X29S. Topics in European Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for European Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EUS X37C. Art in the Lives of Ordinary Romans.

Art and architecture from the archaeological sites of Pompeii, Herculaneum, and Ostia as indices of Roman culture, 100 BC to AD 250.

EUS X37D. Northern Renaissance Art, 1350-1500.

Northern European art from the International Style to van Eyck and Hieronymus Bosch.

EUS X37E. Romanesque Art and Architecture.

Form and function of religious art in twelfth-century Europe.

EUS X37F. Early Italian Renaissance Art to 1470.

Traces the beginnings of the "rebirth" (renaissance) of the visual arts, from the end of the Middle Ages to the heyday of the Medici. Works of art are analyzed both in formal terms and in relation to contemporary society, religion, philosophy, economics, statecraft, gender, and other significant issues.

EUS X37G. Gothic Cathedral: Amiens.

An examination of the cathedral at Amiens, its meaning, structure, political and financial contexts, and sculptural programs, as well as its influence on other buildings in France and Germany.

EUS X37I. The Age of Rembrandt and Rubens: Northern Baroque Art.

Northern European art in the seventeenth century, stressing the Netherlands and Flanders.

EUS X37J. Northern Renaissance Art, 1500-1600.

Art and cultural development in the sixteenth century; artists include Duerer, Gruenewald, Holbein, and Brueghel.

EUS X37L. Art at Court: The Gothic Period.
Changing manifestations of Gothic art and architecture at selected court centers, 1140 to 1400.

EUS X37M. Twentieth-Century European Art to 1940.
Major movements in the development of modern European painting and sculpture.

EUS X37N. Art in the Age of Dante and Giotto.
Examine the art of the later Middle Ages in Italy (1200-1400), including work by Giotto, Duccio, Nicola and Giovanni Pisano, and Arnolfo de Cambio.

EUS X40M. Continuity and Change in Modern France.
Focuses on various social, political, and cultural crises in France from the revolution of 1789 to the present time.

EUS X46. Topics in European Anthropology, Geography, History, and Sociology.

EUS X46.1. History of Britain from 1783 through World War I.
Surveys the political, social, economic, and intellectual history of Great Britain from the years preceding the outbreak of the French Revolution to the conclusion of World War I.

EUS X46.11. The Spanish Inquisition.

EUS X46.12. World War II in Eastern Europe.
Examines the war in Eastern Europe with a particular emphasis on occupation, collaboration, and resistance; the Holocaust; and the connection between ethnic cleansing, population transfer, and the establishment of communism in postwar Eastern Europe.

EUS X46.15. Early Western Colonialism.
An examination of the phenomenon of colonialism, with an emphasis on the European expansion across the globe that began at the end of the western Middle Ages and continued throughout the early modern period.

EUS X46.16. Eastern Europe in the Twentieth Century.
Examines the major political, social, and cultural events that shaped Eastern European society in the twentieth century.

EUS X46.18. Southeast Europe in the Twentieth Century.
Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century.

EUS X46.19. Regions and Cultures of Europe.
Spatial patterns in Europe, with emphasis on cultural, historical, and political geography.

EUS X46.2. Great Discoveries in Archaeology.
The stories, myths, and people behind some of the great archaeological discoveries.

EUS X46.21. Spinoza and Modernity.
Introduction to the core of Spinoza's writings and the diverse reactions they have elicited. Examines Spinoza's refusal of mind-body dualism, as well as a transcendent god or ideal as a way of understanding Spinoza's concepts and ideas.

EUS X46.22. German Nationalisms.
History of diverse views and movements regarding German national identity within their respective contexts, 1800-present.

EUS X46.23. Holocaust Aftereffects.
Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States.

EUS X46.24. Europe since 1919.
Survey course emphasizing the impact of the two world wars on European social, political, and cultural life in the twentieth century.

EUS X46.25. The French Revolution and Napoleon.
Analysis of the social, political, and economic origins and outcomes of the French Revolution and Napoleon's empire.

EUS X46.26. History of Britain from the Restoration to 1783.
Surveys the political, social, economic, and intellectual history of England and Great Britain from the restoration of the Stuart monarchy in 1660 to the conclusion of the War for American Independence in 1783.

EUS X46.27. Italian Renaissance, 1350-1550.
Survey of political, socioeconomic, religious, and intellectual trends during the Italian Renaissance.

EUS X46.28. The Church and the Jews.
Examination of the complex relationship between the Western Church and Jews over two millenia.

EUS X46.29. Anti-Semitism in History and Literature.

EUS X46.3. Witches, Workers, and Wives.
Explores the role of families and concepts of gender as expressed in key economic, social, political, and cultural patterns in early modern Europe.

EUS X46.32. The Sacred and the Secular in Modern European Thought.
Introduces key themes and methodologies of intellectual history and social theory by exploring the dueling approaches to secularization and sacralization in modern European thought.

EUS X46.33. European Immigration to Texas in the Nineteenth Century.

EUS X46.34. German Scholars: US Exile.
Examine the migration of established European intellectuals into the US, due to the Second World War. Explore how they worked against their persecutors for their own cultural heritage and to influence US intellectual life. Investigate the ethical dilemmas faced in transplanting their lives and projects into new contexts.

EUS X46.35. Restitution and Restorative Justice after the Holocaust.
Examine attempts to find a measure of justice after the Holocaust. Explore themes of human rights and international law.

EUS X46.36. Stuart England, 1603-1689.
Topical lecture course focusing on the most significant political, religious, social, economic, and cultural developments in seventeenth-century England.

EUS X46.37. Tudor England, 1485-1603.
Exploration of the most important political, religious, social, economic, and intellectual changes that occurred in England between the accession of Henry VII and the death of Elizabeth I.

EUS X46.38. The Crusades.
An exploration of the religious encounters between eastern and western Christians, Christian heretics, Jews, Muslims, and polytheists; political, military, and cultural changes of the high middle ages; and the ways that crusading ideas and symbols have been reused in contemporary politics and popular culture.

EUS X46.39. The World of the Victorians.
Introduction to the main contours of social and cultural British history, both in Britain and in its burgeoning empire.

EUS X46.4. Law and Society in Early Modern Europe.
Research seminar on how historians have explored the significance of law, criminal and civil, in the lives of early modern Europeans. Topics include infanticide, fornication, drunkenness, theft, debt, slander, and family disputes.

EUS X46.40. Twelfth-Century Renaissance: 1050-1200.
An examination of social, cultural, and intellectual developments in eleventh- and twelfth-century Europe.

EUS X46.41. Europe Via Ethnography.
Develop a geographical and historical orientation to Europe and examine the cultural complexity of Europe via ethnography.

EUS X46.42. Memories of War.
Consider the ways the wars of the twentieth and twenty-first century are being remembered in Germany and the United States - from poems, novels and films to monuments and the controversial debates about military conflicts that the two countries have been involved in. Utilize theories of social memory, and concepts of individual and social mourning, to analyze how war affects individual lives, how societies mourn, and how remembering war impacts national identity and politics.

EUS X46.43. Environmental History of Eastern Europe.
Explore and relate commodification of nature, the climate crisis, and preserving biodiversity from the past and present. Investigate how human societies have changed their environments and how the environment has influenced the courses of societies through case studies from the ecological impact of the Teutonic Crusades to nuclear waste management in Chernobyl.

EUS X46.44. Technology and Society in Modern Eastern Europe and Russia.
Learn how technologies and social changes shape each other. Use case studies from Eastern Europe and Russia from the Industrial Revolution to the Era of AI. Explore the industrialization of production and consumption, the professionalization of engineering, the emergence of multidivisional industrial enterprises, the relationship between humans and machines, the uses of "cheap nature", and technological utopianism.

EUS X46.45. Cold War Eastern Europe.
Discover the primary historical developments of the post-war period in Eastern Europe from the imposition of communism in 1945 until its collapse in 1989. Explore political, economic, and cultural transformations of the Cold War.

EUS X46.46. Russia and Ukraine in World History.
Focus on multicultural history, shared imperial and national spaces, and geopolitics of entangled Russian-Ukrainian relations.

EUS X46.47. Economic Development in Post-Communist States.
Relate broad issues of economic development across the post-communist space since the collapse of the Soviet Union. Question and explore concepts, assumptions, and tools we use to assess development.

EUS X46.49. Nature and Politics in Post-Communist States.
Explore the key issues related to the political economy of human-nature interactions in post-communist countries, including politics of point-source natural resources, diffuse resources, and the commons.

EUS X46.51. Relations Between East Germany and the United States.
Explore and (re)asses the diplomatic, strategic-military relations and socio-cultural entanglements between the United States and the German Democratic Republic, thus complicating our understanding of the West-East divide and Cold War culture.

EUS X46.52. Transatlantic Memory Cultures.
Explore and compare German and American memory cultures, analyzing the Holocaust, slavery, and colonialism. Analyze the diversity and complexity of (inter)national, local, and indigenous memory cultures while also discussing how Germany and the United States might "learn from each other.

EUS X46.53. France in the Dark Years.
Explore the Nazi occupation of France and Vichy's collaboration. Consider the devastating fall of the French Republic, the organization of Vichy France, Vichy's complicity in the Holocaust, the ethical complexities of collaboration and resistance, and the ramifications of World War II for the French empire.

EUS X46.54. History of Britain, 1500-1700.
Explore how the archipelago of islands that make up the nations of England, Scotland, Wales, and Ireland underwent a series of dramatic transformations in the sixteenth and seventeenth centuries. Focus on politics, religious upheaval, and the beginnings of "British empire," a phrase first coined in this period.

EUS X46.55. War and Genocide: The Holocaust.
Examine the Holocaust as part of Nazi Germany's quest to build a new racial order.

EUS X46.56. Spinoza's Philosophical System.
Examine the significance of Benedict de Spinoza's philosophical system.

EUS X46.57. Trash and Treasure in Europe, 1400 - 1800.
Examine Europe in the period that witnessed the "birth" of a consumer society, the transition to fossil fuel as an energy source during the Little Ice Age, the Protestant reformation that trashed formerly treasured relics, the rise of imperial networks of global trade, and much more. Trace the circulation, use, and consumption of things from the renaissance to the consumer revolution using material culture, environmental history, and economic history.

EUS X46.7. Globalization.
A sociological analysis of the interrelated economic, political, and cultural aspects of globalization. Examines the consequences of globalization for nations around the world and for groups within these nations.

EUS X46.8. Heretics and Freedom Fighters, 1350-1650.
Explores the theologies, politics, and personal identities that emerged and passed away in this era.

EUS X46.9. Northern Lands and Cultures.
Develops geographical understanding of the Circumpolar region of the North, an ancient human habitat, home to distinct millennia-old civilizations.

EUS X46C. Vienna: Memory and the City.
Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria.

EUS X46D. Women and the Holocaust.
Introduction to both the history of Jewish and German women during World War II and the Holocaust, and to women's narratives and self-representations of this period. Historical sources, memoirs, films, and interviews will be used as source material.

EUS X46F. Protest, Revolt, and Revolution in West Germany.
Explores pivotal political and cultural movements in post-1945 West Germany, including the student movement, terrorism, feminism, the Green movement, and the anti-nuclear movement. Students engage with a wide array of primary and secondary sources ranging from literature and films to essays, newspaper articles, and speeches in order to examine the roots and results of protest, revolt, and revolution during this period of German history.

EUS X46M. Marx and Marxist Theory.
Introduction to the writings of Karl Marx as well as to those of his intellectual successors in Europe and around the globe in the nineteenth and twentieth centuries.

EUS X47. Topics in European Culture, Literature, Art, Music, and Media.

EUS X47.17. The Scandinavian Contribution to World Literature.
Close readings of the most influential Scandinavian texts, including works by Nobel Prize-winning authors such as Knut Hamsun and Selma Lagerlof, as well as the playwrights August Strindberg and Henrik Ibsen while addressing important themes caused by the revolutionary transition to modernity in Scandinavia around 1900, including emancipation of women and sexuality.

EUS X47.18. Medieval Women Mystics.
The life and writings of Saint Birgitta of Sweden, fourteenth-century visionary, religious reformer, and pilgrim, examined and compared with her predecessor Hildegard of Bingen (Germany), her successor Margery Kempe (England), as well as Margery's mentor, Julian of Norwich. Social and historical contexts for all four of these women mystics will be explored in depth.

EUS X47.19. Tolerance in Dutch Culture.
The historical roots of Dutch "tolerance" and how it plays a role in current Dutch culture and attitudes towards religious, gender, and sexual differences, as well as drug use, prostitution, and euthanasia. Exploration of the stereotypes and the actuality of these Dutch attitudes and policies from an international comparative perspective.

EUS X47.23. Dante.

EUS X47.24. Feminism and Film: Women Filmmakers in Northern and Central Europe.

An introduction to the work of women filmmakers from Scandinavia, Germany, as well as to the viewing and interpretation of films in general.

EUS X47.3. Introduction to Germanic Religion and Myth.

Survey of the sources and main features of Germanic religion and of the transition from paganism to Christianity in northern Europe and the Germanic territories of western Europe. Subjects include cosmogonic myths; the origin of man and of society; the concept of the soul; gods and goddesses and their mythology; and the organization of worship.

EUS X47.33. Art and the City in Renaissance Italy.

Art, architecture, and emerging civic identity in Florence, Siena, Venice, and other Italian Renaissance city-states.

EUS X47.34. Berlin.

EUS X47.40. Northern European Comics.

A study of graphic novels from Scandinavia, Germany, and Holland to understand the art form of comics and the influence of the cultures in which they were produced. Readings, all in English, cover various genres and time periods.

EUS X47.42. Viking Language: Runes and Sagas.

EUS X47.44. Women and Resistance in Contemporary Eastern Europe.

EUS X47.47. Punks and Divas in Southeast Europe.

Examine popular music and its role in political struggle and collective identity formation in the Balkans. Analyze music genres in this region in the context of the historical changes it underwent in the twentieth and twenty-first centuries, including the fall of Communism and -- in the case of former Yugoslavia -- the formation of seven new nation-states through a series of bloody and brutal wars.

EUS X47.50. Vamps, Stars, and The Diva.

Examine French and Italian films through the lens of stardom.

EUS X47.51. Italian Television Advertising.

Analysis of Italian television commercials in order to identify changes that have taken place at the level of language, with some attention to socio-cultural dynamics.

EUS X47.52. Italian Masterpieces.

Study of representative texts in visual arts, film, literature, and opera, from the Renaissance to the present, in their historical context.

EUS X47.53. Cultural Translation.

Examine theoretical readings and concrete examples of how translation politics, translation-induced reconstruction of literary systems, censorship, manipulation, and market dynamics affect the production, distribution, and reception of translated products in the realm of arts and entertainment, news media and politics, and various academic disciplines in the Middle East, United States, and beyond.

EUS X47.54. Americans in Paris.

Examine major social and political trends, events, and debates that have informed the works of artists living and working both at the margins of Parisian society as well as in its most celebrated salons. Interpret texts as artifacts that reflect the historical, social, and cultural circumstances of the environment that inspired their creation and reflect upon their role in the cultural symbiosis between America and France.

EUS X47.55. Queer Eastern Europe.

Explore LGBTQI stories and political struggles in Eastern Europe with a focus on the region's queer culture: literature, cinema, and the arts.

EUS X47.56. Radical Chic: Revolutions from Europe.

Explore innovative European ideas that reshaped United States history and society: Freud and settlement houses, models for education (from Switzerland to Dewey at the University of Chicago), and the labor movement (Marx to Eugene V. Debs and Mother Jones)

EUS X47.57. Living a Catastrophe: Chernobyl.

Examine different ways of narrating the Chernobyl disaster and general disasters through history, environmental history, sociology, art, film, fiction, and science.

EUS X47.58. Germanic and Scandinavian Modernisms, 1870-1925.

Explore the cultural renaissance between 1880 and 1925 in Northern and Central Europe, covering the period often called the Modern Breakthrough in Scandinavia, but also known as la belle epoque in France and "the gilded age" in the United States.

EUS X47.59. Germanic Novels: History, Culture, and Interpretation.

Explore several representative novels by German, Scandinavian, or Dutch writers, along with representative texts and essays on the novel as a genre and interpretative strategies. Examine these works in their literary and cultural contexts via lectures and discussions.

EUS X47.61. Literature, Culture, and Ecology in Northern and Central Europe.

Explore a variety of texts, films, and artifacts from Northern and Central Europe for the insights they provide about the interrelationships between nature and culture and strategies for developing a sustainable relationship to the world around us.

EUS X47.63. Silent Film in Germany and Scandinavia.

Explore silent film and filmmaking in Germany and Scandinavia.

EUS X47.64. Italian Resistance Mediated.

Explore Italian modes of resistance and their representations in a variety of media.

EUS X47.7. The European Novel.

Selected masterpieces of continental fiction in English translation; representative novelists of the nineteenth and twentieth centuries.

EUS X47C. Social Dramas of Henrik Ibsen.

A detailed introduction to Ibsen's social dramas (1877-1899), emphasizing their unity as a prolonged commentary on the society of his era and the variety of its human problems. Special emphasis on subjects such as: the family and the home; the public world of reputation, work, and citizenship; the predicaments of men and women in a male-dominated society; and the motives of our interventions into the lives of others.

EUS X47D. Films of Ingmar Bergman.

An introduction to the films of Ingmar Bergman.

EUS X47E. Hans Christian Andersen.

Introduction to such Hans Christian Andersen tales as "The Little Mermaid," "The Ugly Duckling," and "The Emperor's New Clothes. Examination of their author and the romantic period in which they were written, as well as their historical, philosophical, and literary context.

EUS X47F. Isak Dinesen/Karen Blixen.

An introduction to the twentieth-century Danish author Karen Blixen, focusing on her major themes such as gender and destiny, and examining her role as a literary figure.

EUS X47G. Squaring the Vienna Circle.

Traces the origin of the Vienna Circle of Logical Empiricism in nineteenth-century Europe, and introduces central texts and problems of intellectual history and historical epistemology at the roots of today's analytic philosophy.

EUS X47J. Scandinavian Cinema Since 1980.

EUS X47K. Arendt and de Beauvoir.

EUS X47M. Exhibitions and Public Spectacle.

Investigate exhibits, world's fairs, museum, monuments, theme parks, and historical reconstructions from Europe and the US, with attention to images of how their sponsoring nations or other entities want to be seen. Examine evidence for both the good and bad sides of national pride and identity. Explore examples of how large-scale culture projects and the public interact. Consider the lasting marks left on the cities and countries sponsoring them.

EUS X47N. Nordic Noir.

Uncover the dark side of the Nordic countries, from gritty streets to icy fjords, and explore the history, culture, literature, and movies these societies produce.

EUS X47O. Contemporary Scandinavian Stories.
An analysis of contemporary Scandinavian literature and films, how they reflect Scandinavian reality, and how Scandinavian identity is created through sports, food, and politics.

EUS X47Q. Vikings and Their Literature.

EUS X47R. Nobel Prizes: Literature and Politics.
An introduction to Nobel Prize winning authors from northern Europe in the context of literary prizes and the politics of literary reputation. Analyze and compare literary works, set novels into historical context, investigate what popular and scholarly reviews do, and research in both popular and scholarly sources.

EUS X48. Topics in European Economics, Government, Business, and Policy.

EUS X48.1. Governments and Politics of Eastern Europe.

EUS X48.10. Nazi Culture and Politics.
Explore fundamental questions about the unique role of culture in modern democracies and dictatorships by taking an overview of culture and politics in the Third Reich. Examine questions about the relationship between political propaganda and modern entertainment, mass media and authoritarianism, political aesthetics and ideology, and the dynamics of oppression, resistance, and consent.

EUS X48.12. Populism in Central and Eastern Europe.
Survey the political nature, profile, and patterns of populism in selected post-communist democracies of Central and Eastern Europe. Examine populism in terms of impact on agenda setting, political process, and governance of the region in focus at specific national and European Union-wide levels.

EUS X48.13. Security and Policy in Eastern Europe and Russia.
Examine key contemporary security issues and policy dilemmas through the perspective of post-communist Eastern European countries in the context of European Union (EU) enlargement waves, and in the framework of their membership in supranational organizations. Consider the transformation of regional states' national security strategies, threat perception, and priorities transitioning from former Warsaw pact to full-fledged EU and NATO membership in shaping their respective national security priorities.

EUS X48.15. Switzerland and Globalization.
Investigate how the small European country of Switzerland positions itself in a globalized world and how it competes and thrives in it. Explore the questions of how globalization impacts a small, affluent country and how its economy copes with globalization. Consider Swiss history, and its development of direct democracy, to understand Swiss exceptionalism, its response to contemporary issues, and its influence abroad.

EUS X48.16. Political Ideologies and Manifestos.
Survey major political ideologies like socialism, capitalism, and fascism; as well as the more recent so-called "Fourth Political Theory of Russian ideologue Aleksandr Dugin, (variable) popular ideologies, and internet manifestos. Explore each ideology through original texts and utopian/dystopian representations in popular culture (e.g., literature, film, music, graphic art, architecture, design).

EUS X48.18. Globalization and the Coronavirus Pandemic.
Examine the modern globalization process that also incorporates a description of the current Coronavirus pandemic as a phenomenon that is inextricably linked with modern globalization.

EUS X48.19. Intelligence and Espionage in the Eastern Bloc.
Examine the specific national approaches to foreign and domestic intelligence and espionage of former Communist bloc countries from early twentieth century to the collapse of communism in Eastern Europe.

EUS X48.2. International Trade.
Study of the principles, policies, and problems of the international exchange of goods and investments.

EUS X48.20. Elena Ferrante: Politics and Passion.

EUS X48.21. Monarchies and Mini-States.
Examine the remarkable variety among the political systems of the 28 remaining monarchies and the survival and thriving of mini-states around the world.

EUS X48.22. Eastern Europe on American TV.
Focus on ways Eastern Europe is depicted on American television screen. Use anthropological framework to study multiple types of television shows, including reality tv, network dramas, and miniseries. Analyze ethnic, racial, national, and gender representation and what these constructions tell us about the ways that Eastern Europe is imagined.

EUS X48.3. European Environmental Politics.
The history of environmental politics in both the member states of the European Union and the EU itself, including conceptual treatment of general environmental politics and policies, history of European environmentalism, and institutional responses at important 'traditional' and new EU member states. Also examines EU environmental policies themselves, such as the EU Emissions Trading System, chemicals policy, and GMO policy.

EUS X48.4. Comprehensive Notions of European Security.
Examines the conceptual and practical aspects of European comprehensive security via the institutions charged with implementing it: the European Union (EU), the North Atlantic Treaty Organization (NATO), and the Organization for Security and Cooperation in Europe (OSCE).

EUS X48.5. The European Union and Regional Integration.
Designed to provide a detailed introduction to the European Union, one of America's major economic and political partners and one of the major actors in contemporary international relations.

EUS X48.6. Hegel and the Formation of Modern European Identity.
An in-depth study of how Hegel identifies the social conditions necessary for personal self-realization but also for freedom by means of political community.

EUS X48.7. Germany and Immigration.

EUS X48.8. Sports and Politics in Germany.
Explore how fascism, communism, liberal democracy, and the current nationalistic backlash against immigration have all used the popularity of sports to achieve their strategic goals, from the 1936 Nazi Olympics to Germany's 2014 World Cup victory and beyond.

EUS X48.9. Politics of Memory: Germany and the United States.
Examine the role that narratives of the past play in politics and policies in both Germany and the United States, by engaging with key theoretical and empirical debates. Focus on the role of memory in German and US immigration politics.

EUS X50. Governments and Politics of Western Europe.
Comparative study of peoples, institutions, parties, interest groups, and bureaucracy in the countries of Western Europe, concentrating on the major political systems of Britain, France, Germany, and Italy.

EUS X56. Germany and Europe since 1945.

EUS X58Q. Supervised Research.

EUS X62. Independent Research in European Studies.
Tutorially directed research on a modern European topic.

EUS X63. Interdisciplinary Topics in European Studies.
An analysis of various aspects of European culture, science, and technology.

EUS X75. Capstone Research in European Studies.
Supervised research on a modern European topic chosen in consultation with the student's adviser and culminating in a full-length thesis.

Graduate Courses

EUS X19S. Topics in European Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study

Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for European Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EUS X29S. Topics in European Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for European Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EUS X81. Advanced Topics in European Studies.

Examination of recent developments in Europe, with emphasis on the role of the European Union in political, cultural, economic, and security matters.

Professional Courses

EUS X19S. Topics in European Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for European Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EUS X29S. Topics in European Studies.

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EVE - Environmental Engineering

Environmental Engineering: EVE

Lower-Division Courses

EVE X02. Foundations of Environmental Engineering.

Foundational principles in environmental engineering, sources of contaminants, physics and chemistry of water, air, soil, concepts and tools for assessing sustainability.

EVE X03. First-Year Seminar.

Introduction to the field of environmental engineering. Explore future opportunities for careers and research in environmental engineering.

EVE X07K. Topics in Environmental Engineering.

EVE X10. Sustainable Systems Engineering.

Integration and optimization of engineering systems for water treatment, water reuse, and energy production processes given technical, economic, and environmental constraints.

EVE X12. Environmental Engineering and Science.

Quantitative evaluations of environmental processes including mass and energy balances, mass and heat transfer, chemical kinetics, water quality modeling, water treatment, indoor and outdoor air quality, and risk analyses.

EVE X19S. Topics in Environmental Engineering.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Civil, Architectural and Environmental Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

EVE X29S. Topics in Environmental Engineering.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Civil, Architectural and Environmental Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EVE X50. Environmental Chemistry for a Sustainable World.

Application of chemical concepts to understand the fate of contaminants in natural and engineered systems. Focus on the use of analytical and graphical tools for solving chemical equilibrium and kinetic problems.

EVE X60. Design for Air Quality Improvement.

Analysis, synthesis, and integrated design of air pollution control systems for improvements in outdoor and indoor air quality. Design for reduction of high impact pollutants of local, regional and global significance with consideration of human inhalation exposure and climate impacts.

EVE X69N. Novel Air Quality Measurement Techniques.

Explore technological advancements in measurements of indoor and outdoor air quality. Discuss operation principles of novel real-time trace-gas sensors and mass spectrometers. Examine air quality measurements at different spatiotemporal scales, utilizing analytical instrumentation, data acquisition, and data processing. Explore research questions in air quality through hands-on laboratory and field measurements.

EVE X69Q. Air Quality, Aerosols, and Health.

Explore physicochemical processes governing indoor and outdoor air quality, human exposure to gas-phase and particle-phase pollutants, and factors affecting human health. Examine the connection between air quality, regulatory perspectives, engineering solutions and acute and chronic environmental issues impacting human exposure. Discuss research questions through efficient data retrieval and run simple dispersion models.

EVE X70. Design for Environmental Community Improvement.

Application of engineering to a project that addresses a local, national or international community or design challenge. Problem statement, project objectives, stakeholder input, technical problem solving, environmental, social and economic assessment is performed collaboratively within a multidisciplinary team to develop a final design for a comprehensive service-learning project.

EVE X77K. Topics in Environmental Engineering.

Various specified topics or conference course.

EVE X77K.7. Independent Study.

Conduct independent research with a tenure track faculty member in the Fariborz Maseeh Department of Civil, Architectural, and Environmental Engineering. Prepare a project proposal and a final report, each of which is evaluated by the faculty supervisor.

EVE X77R. Internship.

Graduate Courses

Professional Courses

EVS - Environmental Science

Environmental Science: EVS

Lower-Division Courses

EVS X01. Introduction to Environmental Science.

Introduction to the field of environmental science, with a focus on the contributions from the three disciplinary areas of the biology, geography, and geological sciences. Examine historical and current perspectives as well as problems in environmental science including climate and climate change, the science of sustainability, ecosystem stability and change,

pollution, water resources, and environmental ethics. Discuss what it means to be an environmental professional.

EVS X11. Field Seminar in Sustainability.
Introduction to field observation and analysis of environmental processes and sustainability issues. Discuss ecology, hydrogeology, climate science, energy, and sustainability.

EVS X19S. Topics in Environmental Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Earth and Planetary Sciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

EVS X21. Research Methods.
Overview of the methods involved in research projects designed to help prepare students in independent research projects or internships.

EVS X29S. Topics in Environmental Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Earth and Planetary Sciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

EVS X31. Research Methods for the Environmental Sciences.
Subjects include experimental design, statistical analysis and modeling, and ethics. Students develop and conduct an independent research project during the laboratory portion of the course.

EVS X41. Environmental Science Professionalism I.
Examines the fundamental, nontechnical aspects of environmental science and sustainability practices through the use of case studies and projects that use interdisciplinary approaches. Subjects may include the importance of interdisciplinary collaboration in addressing and assessing environmental science processes, the development of professional opportunities across disciplines, understanding professional responsibilities, applying ethical principles, the balance of multidisciplinary demands in professional practice, and the need for lifelong learning.

EVS X51. Environmental Science Professionalism II.
Examines the fundamental, nontechnical aspects of environmental science and sustainability practices. Focuses on the use of interdisciplinary communication for addressing and assessing environmental science processes, the challenges posed by communicating across disciplines, the development of professional communication and public speaking skills, effective presentation of research, the ethics and practices of peer research review, and effective communication of the effects of environmental science in a global society.

EVS X71. Topics in Research Experience.
Supervised study of selected topics in environmental science by individual arrangement with the instructor.

EVS X72C. Senior Research Proposal in Environmental Science.
Work towards an understanding of the broader literature on a topic, identify hypothesis of interest, design an experiment to test the hypothesis, develop a budget, and write a research proposal.

EVS X72D. Senior Research in Environmental Science.
Continuation of Environmental Science 172C, 272C, 373C, or 472C. Perform proposed experiment, collect and analyze data, present results, and write a final report.

Graduate Courses

Professional Courses

F A - Fine Arts

Fine Arts: F A

Lower-Division Courses

F A X01F. Steer Your Future in the Arts.
Use design thinking principles to explore personal values, interests, and professional paths.

F A X03. Introduction to Teaching Fine Arts.
Explores concepts in teaching art, dance, music, or theatre in Texas public schools.

F A X05. Fine Arts Success Seminar.
Designed for first-year College of Fine Arts undergraduates. Explore college success and personal and professional growth in a creative context.

F A X05C. Success Seminar.
Build community and get an in-depth student support experience via academic support, community building, professional development, and general student advocacy related subjects.

F A X06. Career Development in the Arts.
Examine career exploration, professional documents (resumes and cover letters), networking, job and internship search, and career attainment. Create a career plan and perform specific assignments exploring career possibilities that are congruent with personal values, interests, personality, and skills.

F A X06D. Career and Life Development in the Arts.
Create a career plan and perform specific assignments that explore career possibilities that are congruent with personal values, interests, personality, and skills.

F A X07. Creative Leaders Seminar I.
Designed for first-year College of Fine Arts undergraduates. Introduction to college success and personal and professional growth in a creative context.

F A X08. Arts Integrations for Multidisciplinary Connections.
Through readings, videos, in-class activities, discussion, field trips, micro-teaching, and written reflection, designed to develop a practical understanding of the techniques and skills associated with integrating the arts into various contexts. Provides experience in each art content area (dance, music, theatre arts, and visual arts) to develop an introductory understanding of each of these disciplines.

F A X09. Creative Leaders Seminar II.
Designed for first-year College of Fine Arts undergraduates. Explore college success and personal and professional growth in a creative context.

F A X10. Topics in the Fine Arts.
Interdisciplinary studies within the fine arts or including the fine arts and other areas.

F A X13C. Engaging with the Arts from the Audience.
An introduction to gaining more from engaging with live artistic performance through learning new tools and techniques, meeting artists and attending performances from Texas Performing Arts.

F A X15. Creative Entrepreneurship.
Explore the integration of entrepreneurship in industry and the creative process of starting new ventures.

F A X19. Topics in International Learning Seminars.
Discussion of various issues related to the academic, cultural, and personal aspects of completing work in international locations.

F A X19S. Topics in Fine Arts.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Fine Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

F A X75. Independent Studies: Art, Drama, or Music.
Independent study or research within the fine arts or between the fine arts and other disciplines.

Upper-Division Courses

F A X20. Exploring the Fine Arts.
An interdisciplinary introduction to the fine arts: their basic concepts, meaning, aesthetics, and role in society.

F A X25. Career Development in the Arts.
Examine career planning, professional documents (resumes and cover letters), networking, job and internship search, and career attainment.

F A X29. Topics in International Learning Seminars.
Discussion of various issues related to the academic, cultural, and personal aspects of completing work in international locations.

F A X29S. Topics in Fine Arts.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Fine Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

F A X40. Fine Arts Internship.
Designed to establish the academic foundations of an internship in the fine arts. Integrate knowledge derived from academic studies with the experience gained in an internship setting.

F A X45. Leadership and Urban Engagement.
Explore leadership skills and goals in the urban context. Read and discuss leadership challenges that arise when stakeholders come together to plan, make decisions, and take action in organizational and community settings.

F A X46. Inside the Arts of New York City.
Explore art practice and scholarship as defined and shaped by the city itself. Visit major art institutions - both historic and those considered more experimental. Learn from guest speakers, including practicing artists and art scholars.

F A X50. Special Topics in the Fine Arts.
Special interdisciplinary studies within the fine arts or including the fine arts and other areas.

F A X50.1. Managing Performing Arts Organizations.
Focuses on the business aspect of performing arts and, in particular, nonprofit, mission-based arts organizations with an emphasis on organizational structure; budget development and management; strategic planning; trustee development; trustee/staff relations; fundraising; marketing and publicity; audience development, development of outreach programming; box-office management; operations and human resources; and collective bargaining agreements/labor relations, and contract negotiation.

F A X55. Women in Entrepreneurship.
Explore the unique perspective of the female entrepreneur's journey in contemporary society with a parallel examination of gender dynamics and diversity in the entrepreneurial sphere. Examine the process of creating and launching a new venture with female mentors and speakers.

F A X60. Advanced Topics in the Fine Arts.
Advanced interdisciplinary studies within the fine arts or including the fine arts and other areas.

F A X62. Foundations of Arts Management.
Overview of issues in the management of contemporary arts organizations in both internal functions and relations with external constituencies. Explores organizational creation, leadership, mission development, funding, audience development, evaluation, community relations, and the policy environment.

F A X63. Arts Entrepreneurship and New Venture Creation.
Introduction to arts entrepreneurship with particular attention to the creation of new ventures. Focus on the process of generating and refining ideas for creating new enterprises, and key components and formulation of a business plan.

F A X64. Developing and Reaching Audiences.
Focus on central issues faced by arts and organizations with respect to audience development and engagement. Explores different models and techniques adopted by organizations with respect to audience and community engagement, and fundamentals of marketing for arts organizations.

F A X65. Fundraising in the Arts.
Survey of strategies involved in generating contributed income for arts organizations from private individuals, foundations, corporations, businesses and government agencies, and focus on how the process is related to marketing tickets to the same patrons.

F A X66. Managing Arts Organizations.
Focuses on the business aspect of managing arts with emphasis on non-profit, mission-based, performing, and visual arts organizations. Explores organizational structure and development, budget development and management, strategic planning, trustee development, trustee/staff relations, fundraising, marketing and publicity, audience development, development of community engagement programming, ticketing and admission management, operations, human resources, collective bargaining/labor relations, and contract negotiation.

F A X67. Philanthropy and Arts Organizations.
Examines sources, characteristics, and consequences of cultural philanthropy in the United States. Explores practical implications of how private philanthropy works for those engaged in seeking and awarding support. Focus on select exercises and cases to translate broad themes to practical issues related to formulating and implementing strategies for seeking resources and supporting arts and culture.

F A X68. Cultural Policy and Participation.
Examines governmental and private policies, and structures that impact cultural production and participation. Considers rationales for and against public support for culture, how policies have both promoted and impeded cultural producers and consumers, advocacy efforts by organizations in the cultural sector, and relations between governmental policy and private initiative.

F A X70. Longhorn Startup Seminar.
Focus on skill development and mentoring in start-up formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Includes discussion of intellectual property, social issues in design, as well as ethical and safety considerations. Emphasis on written and oral presentation of start-up activities.

F A X71. Special Topics in Arts Management and Administration.
Focused and in-depth study of selected topics in the management and administration of artistic ventures in the commercial, not-for-profit, and/or public sectors.

F A X71.1. Subjects in Arts Management.
Focused and in-depth study of selected subjects in the management of artistic ventures in the commercial, not-for-profit, and/or public sectors.

F A X71.2. Subjects in Arts Administration.
Focused and in-depth study of selected subjects in the administration of artistic ventures in the commercial, not-for-profit, and/or public sectors.

F A X71C. Offensive and Controversial Art.
Examine cases of offensive and controversial art to understand and categorize the motives behind and causes of offense.

F A X75. Independent Studies: Art, Drama, or Music.
Independent study or research within the fine arts or between the fine arts and other disciplines.

Graduate Courses

F A X75. Independent Studies: Art, Drama, or Music.
Independent study or research within the fine arts or between the fine arts and other disciplines.

F A X81. Topics in The Arts.
Topics within the fine arts, or including the fine arts and other areas.

F A X82. Independent Studies: Art, Drama, or Music.
Study or research in art, drama, or music, or among these areas, or between these areas and other disciplines.

F A X83. Foundations of Arts Management.
Overview of issues in the management of contemporary arts organizations in both internal functions and relations with external constituencies. Explores organizational creation, leadership, mission development, funding, audience development, evaluation, community relations, and the policy environment.

F A X84. Graduate Fine Arts Internship.
Designed to establish the academic foundations of an internship course in the fine arts. Integration of knowledge derived from academic studies will combine with the experiences gained in an internship setting. Requires completion of a minimum of fifty hours of satisfactory on-site work per credit hour earned.

F A X85. Fundraising in the Arts.
Survey of strategies involved in generating contributed income for arts organizations from private individuals, foundations, corporations, businesses and government agencies, and focus on how the process is related to marketing tickets to the same patrons.

F A X86. Managing Arts Organizations.
Focuses on the business aspect of managing arts with emphasis on non-profit, mission-based, performing, and visual arts organizations. Explores organizational structure and development, budget development and management, strategic planning, trustee development, trustee/staff relations, fundraising, marketing and publicity, audience development, development of community engagement programming, ticketing and admission management, operations, human resources, collective bargaining/labor relations, and contract negotiation.

F A X87. Philanthropy and Arts Organizations.
Examines sources, characteristics, and consequences of cultural philanthropy in the United States. Explores practical implications of how private philanthropy works for those engaged in seeking and awarding support. Focus on select exercises and cases to translate broad themes to practical issues related to formulating and implementing strategies for seeking resources and supporting arts and culture.

F A X88. Cultural Policy and Participation.
Examines governmental and private policies, and structures that impact cultural production and participation. Considers rationales for and against public support for culture, how policies have both promoted and impeded cultural producers and consumers, advocacy efforts by organizations in the cultural sector, and relations between governmental policy and private initiative.

Professional Courses

F A X75. Independent Studies: Art, Drama, or Music.
Independent study or research within the fine arts or between the fine arts and other disciplines.

F C - French Civilization

French Civilization: F C

Lower-Division Courses

F C X19S. Topics in French Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated study program.

F C X29S. Topics in French Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

F C X19S. Topics in French Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated study program.

F C X20. The French Heritage.
Introduction to French civilization: architecture, painting, music, and social and political history. Given in English; requires no knowledge of French.

F C X29S. Topics in French Civilization.
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F C X36. Vamps, Stars, and The Diva.
Examine French and Italian films through the lens of stardom.

F C X39. The Development of the French Film.
Films in French, with subtitles in English; lectures in English.

F C X40D. France in the Dark Years.
Explore the Nazi occupation of France and Vichy's collaboration. Consider the devastating fall of the French Republic, the organization of Vichy France, Vichy's complicity in the Holocaust, the ethical complexities of collaboration and resistance, and the ramifications of World War II for the French empire.

F C X40M. Continuity and Change in Modern France.
Focuses on various social, political, and cultural crises in France from the revolution of 1789 to the present time.

F C X41. Topics in French Studies.

F C X41F. Arab Francophonie.
Explore French-language cultural production by authors of Arab origin in France and across France's former colonial and mandate territories. Examine the fraught relationship many of these authors have with French language, literature, and culture, in dialogue with postcolonial theory.

F C X41P. Americans in Paris.
Examine major social and political trends, events, and debates that have informed the works of artists living and working both at the margins of Parisian society as well as in its most celebrated salons. Interpret texts as artifacts that reflect the historical, social, and cultural circumstances of the environment that inspired their creation and reflect upon their role in the cultural symbiosis between America and France.

F C X42. French Through Coding.

F C X44. Black Slavery in the Atlantic.
Examine the history of slavery in the Atlantic from 1450 to 1865.

Graduate Courses

F C X19S. Topics in French Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated study program.

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Professional Courses

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FIN - Finance

Finance: FIN

Lower-Division Courses

FIN X19S. Topics in Finance.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Finance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

FIN X20F. Foundations of Finance.
Principles of effective financial management, including planning, organization, and control; financial intermediaries; securities markets; evaluating alternative assets, debt, and capital structures.

FIN X21K. Intermediate Microeconomics for Business.
Explore microeconomic analysis of consumer theory, producer theory, decision-making under uncertainty, and market equilibrium. Examine game theory, monopoly and oligopoly behavior, and the principal-agent problem. Consider the application of these ideas to decisions made by business leaders in real-world settings.

FIN X22F. Foundations of Personal Finance.
Explore an overview from the individual and family perspectives of financial planning tools, cash management, consumer credit, and basic tax preparation, insurance selection, investment and retirement planning. Includes application of knowledge to hypothetical situations and case studies.

FIN X29S. Topics in Finance.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Finance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

FIN X32F. Topics in Foundations of Finance.

FIN X34M. Current Issues in Global Sustainability.
Through discussions and guest speakers, explore the most recent issues in the everchanging landscape of sustainability.

FIN X37P. Investment Banking Practicum.
Examine investment banking with emphasis on mergers and acquisitions. Work in cross-level, team-based roles that simulate industry structures to develop and present a comprehensive investment banking pitch book for a live client. Discuss company, market, and industry analysis; strategic assessment; valuation and leveraged buyout modeling; and M&A strategy development. Explore collaboration with alumni practitioners and cross-disciplinary partners to integrate industry-specific research into client recommendations.

FIN X37T. Special Topics in Finance.

FIN X37T.1. Valuing Natural Resources.
Apply economic analysis to sedimentary basin analysis to create exploration and development scenarios. Investigate first principles of sedimentation, stratigraphy, and basin formation as the drivers of economic accumulations of petroleum in many different types of environments of deposition and basins globally including conventional and unconventional petroleum resources. Examine mining, minerals, and other exhaustible resources.

FIN X37T.12. Global Business Sustainability.
Explore the role of sustainability in the corporate sector. Examine how businesses partner with others for sustainability goals, how to value sustainable business practices, and how to report on corporate sustainability.

FIN X37T.2. Energy Finance.
Apply economic and financial analysis to energy projects and firms. Examine discounted cashflow, multiples valuation, NAV analysis, decision and risk analysis, real options, energy economics and risk management.

FIN X37T.4. Electricity Systems and Markets.
Analyze energy and power systems in regulated and competitive environments and implications on business decisions for firms in these industries. Examine mechanisms of energy markets; comparative market systems; determination of prices under different market structures; gas, oil, coal, and electricity market architecture; electricity market design; dispatch and new build decisions; smart grid and renewable energy in electricity markets; risk and risk management in energy including demand and price volatility and use of financial derivatives; and the impact of financial market trends and current and proposed policies on the energy industry.

FIN X40S. Topics in Finance.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Finance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.

FIN X57. Business Finance.
Principles of finance, with application to all aspects of the business firm; particular attention to cost of capital, investment decisions, management of assets, and procurement of funds.

FIN X57H. Business Finance: Honors.
An investigation of the principles of finance, with application to all aspects of the business firm; particular attention to cost of capital, investment decisions, management of assets, and procurement of funds.

FIN X64P. Global Sustainability Practicum.
Apply concepts and tools learned in other courses to practical projects solving sustainability challenges for companies or nonprofits.

FIN X65P. Energy Finance Practicum.
Students apply skills in the energy industry and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise.

FIN X66P. Finance Practicum.
Students apply skills in their major area and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise.

FIN X67. Investment Management.
Investment theory, alternatives, and decision making under differing uncertainties and constraints; formulation of objectives and strategies; development of conceptual managerial perspectives and philosophies for investment environments.

FIN X70. Integrative Finance.
Integrates financial decision making in functional areas of finance; utilizes various concepts to promulgate strategies, policies, and procedures in managing funds to achieve objectives.

FIN X70H. Integrative Finance: Honors.
Integrates financial decision making in functional areas of finance; utilizes various concepts to promulgate strategies, policies, and procedures in managing funds to achieve objectives.

FIN X71M. Money and Capital Markets.
Development of modern financial markets, with emphasis on the factors that determine interest rates; institutional characteristics and pricing mechanisms of various interest-sensitive securities.

FIN X71T. Topics in Finance.

FIN X72T. Topics in Finance.

FIN X72T.1. Sustainable Finance Investing.
Assess the actions of investors and corporations with regard to environmental, social, and governance policies, including the potential motivations and resulting consequences.

FIN X72T.10. Economic Principles of Managerial Decisions.
Use of economic concepts and models to make strategic business decisions (adverse selection, game theory, price discrimination, strategic commitment, barriers to entry, network effects). Economics of strategic responses to the legal environment (regulations, antitrust policies, intellectual property, fiduciary duty, liability).

FIN X72T.11. Financial Planning for Wealth Management.
Introduction to basic concepts of personal wealth management and financial planning, including insurance and risk management, investment management, tax planning, estate planning, and retirement planning. Designed for upper-level finance and accounting majors interested in a career in financial services or students pursuing master in professional accounting with interest in this area of the accounting profession.

FIN X72T.14. Quantitative Investment Management.
Examine the economic, statistical, and computing frameworks behind quantitative approaches to evaluating and implementing investment strategies, as well as the empirical evidence on their performance in multiple asset classes. Apply the quantitative big-data approach by developing, pitching, and backtesting an original trading strategy.

FIN X72T.15. Financial Technology.
Explore an overview of the most recent technological advances that are changing the financial services industry and how these technological breakthroughs offer new ways for people to save, invest, borrow, and transact. Analyze how new technologies create value in the financial industry, from reducing unit cost, increasing transparency, increasing competition, creating network effects, leveraging economies of scales, and lowering asymmetric information. Examine the competitive landscape and the market opportunities and threats for incumbents and new entrants.

FIN X72T.16. Optimization Method in Finance.
Explore quantitative methods and techniques in optimization and simulation, and their use in financial decision making. Discuss theory and application in portfolio selection, options and other derivative pricing, index tracking, risk measures, volatility estimating. Examine linear, quadratic, nonlinear, and integer programming; dynamic programming; robust optimization; Monte Carlo methods and variance reduction techniques. Emphasis will be placed on problem solving with advanced computational programming languages.

FIN X72T.2. Valuation of Energy Investment.
Explore the evaluation and financing of energy investments with a focus on upstream oil and gas projects. Develop financial modeling skills from detailed discounted cash flow models to advanced option pricing models using various computational approaches.

FIN X72T.3. Sustainable Finance.
Focuses on using a financial economics perspective to understand how sustainability issues are considered by corporate managers, investors, and other participants in financial markets. Examine how environmental, social, governance, strategy and other issues affect manager and investor decisions from financial perspectives, particularly the risk and return aspects, including how to measure sustainability risk exposures. Discuss how these issues are considered from a nonfinancial perspective such as sustainable and responsible investing, ethical investing and impact investing.

FIN X73. Research Topics in Finance.

FIN X73.1. Advanced Studies in International Finance.
Students work in small research groups to write academic papers on topics in international finance and business. Designed to develop critical thinking skills, writing skills, sophisticated use of technology, and experience working across different cultures.

FIN X74C. Valuation.
An in-depth study of theory and practice of corporate financial management in establishing major financial and investment policies; techniques for analysis, evaluation, and control.

FIN X74S. Entrepreneurial Finance.
Development, implementation, and control of financial plans, strategies, and policies by owner-managers of small and medium-sized firms; analysis of alternatives and decision making.

FIN X76. International Finance.
Explore the international financial environment, with emphasis on the factors affecting exchange rates and how exchange rate changes affect the firm.

FIN X77. Advanced Topics in Investment Analysis.
Second course in investments, with emphasis on quantitative applications and the underlying theory in the analysis and management of securities and portfolios.

FIN X77.1. Portfolio Analysis and Management.
Explore quantitative applications and the underlying theory in the analysis and management of securities and portfolios. Designed for students with career goals in investment.

FIN X77.2. Financial Risk Management.

FIN X77.3. Security Analysis.

FIN X77.4. Financial Analysis.
Application of fundamental analysis and valuation techniques.

FIN X77.5. Energy Financial Risk Management.

FIN X77.6. Fixed Income Analysis.
Explore the role of fixed income securities, and methods of economic and financial analysis relevant to their markets.

FIN X77.7. Security Market Policy.
Analyze current developments in financial market innovation and regulation to understand their effects on capital creation, investor welfare, market efficiency, and financial stability. Explore new financial products, securities fraud and misconduct, shadow banking, technological disruptions, market failures, systemic risk, and policy trade-offs in securities markets regulation.

FIN X79C. Independent Research in Finance.

Graduate Courses

FIN X81F. Financial Technology for Executives.
Analyze the effect technology has on the delivery of financial services and products in the areas of lending, clearing and trading.

FIN X84F. Advanced Corporate Finance and Investment Theory.
Explore valuation theory, corporate finance theory, asset management, applied valuation and capital markets, and empirical finance. Examine theory, practice, and institutional applications.

FIN X85F. Analytic Finance and Machine Learning.
Utilize traditional financial datasets (e.g., financial statements, ratio analysis, credit and fixed income information, stock returns) from a variety of data sources and platforms, including WRDS/Compustat/CRSP, Bloomberg, and Compustat. Explore more advanced techniques designed to yield insights from alternative and unstructured datasets (e.g., text and sentiment analysis of earnings conference calls; SEC filings like 10K's, 10Q's, and 8-Ks; message and discussion boards; marketing/customer feedback; and other big data sources).

FIN X86. Valuation I.
Study of subjects such as financial modeling, derivatives in corporate finance, business valuation, and value-based management.

FIN X86C. Valuation for Executives.
Explore debt and equity valuation, financial markets, firms' cost of capital, and capital structure decisions in greater detail.

FIN X90. Topics in Seminar: Money and Capital Markets.

FIN X90.1. Financial Markets and Institutions.
How financial markets are organized and function. Includes debt equity and foreign exchange markets, primary and secondary market operations, and investment banking.

FIN X90.2. Special Topics in Capital Markets and Financial Institutions.
Study of issues and topics in the capital markets and financial institutions that are not covered in other courses.

FIN X91S. Independent Study.

FIN X94. Topics in Seminar: Financial Management and Theory.

FIN X94.1. Advanced Corporate Finance.
Advanced corporate financial management in the global marketplace: valuation concepts, optimal capital structure, risk management, corporate control and restructuring, and mergers and acquisitions.

FIN X94.10. New Venture Finance.
Explore the process to building a new venture from idea to liquidation event from the perspectives of both the founders as well as sophisticated venture investors. Develop a common financial framework to parse financial instruments through which we can demonstrate the salient points of a new venture's value proposition to its stakeholders. Use this framework to scale the model to express managerial controls, confidence, and ultimately the core values such that the founding team could reasonably expect to raise sophisticated capital.

FIN X94.11. Private Equity.
An examination of the application of advanced corporate finance concepts in the private equity markets.

FIN X94.12. Energy Development and Corporate Strategies.
Introduction to the legal, engineering, business, and financial aspects of energy development and operations.

FIN X94.13. Valuation of Energy Investments.
Covers the theory and practice of the evaluation and financing of energy investments with a focus on application to upstream oil and gas projects. Develop financial modeling skills, from detailed discounted cash flow models to advanced option pricing models utilizing a variety of computational approaches.

FIN X94.14. Venture Capital Fellows Program.

FIN X94.15. Energy Finance Practicum.

FIN X94.16. Corporate Finance and Financial Markets.

FIN X94.17. Advanced Valuation and Financial Modeling.
Construction and use of financial models for valuation and decision-making.

FIN X94.18. Corporate Finance Fellows I.

FIN X94.19. Economic Principles of Managerial Decisions.
Study of how economic principles are used to think strategically about business decisions.

FIN X94.2. Financial Strategies.
An integrated analysis of the interaction between the investment and operating policies of a corporation and its financial strategies.

FIN X94.20. Corporate Finance Fellows II.

FIN X94.21. Advanced Valuation Techniques for Consulting.
Examine financial reporting, the application of various valuation techniques (to measure the fair value of intangible assets), contingent consideration, valuation of synergy, the impact of geography on value, and the effect of environmental, social, and governance (ESG) policies on company valuations.

FIN X94.22. Introduction to Financial Analytics.

FIN X94.23. Financial Modeling and Testing.

FIN X94.24. Valuation II.
Discuss financial modeling, derivatives in corporate finance, business valuation, and value-based management.

FIN X94.26. Mergers and Acquisitions.

FIN X94.27. Investment Banking Practicum.
Participate in the investment banking practicum. Develop a team-based pitch book and mergers and acquisitions idea through project and speaker series. Discuss discounted cash flow, comparable, and leveraged buyouts and mergers and acquisitions analyses.

FIN X94.3. Global Finance.

FIN X94.4. Financial Management of Small Business.

FIN X94.5. Financial Technology.
Analyzes the effect technology has on the delivery of financial services and products in the areas of lending, clearing and trading.

FIN X94.6. Special Topics in Corporate Finance.

FIN X94.7. Raising Capital.
An analysis of the decision to raise capital, including sources of debt and equity, financial distress, restructuring, and financing acquisitions.

FIN X94.8. Financial Strategies for Energy Firms.
An integrated analysis of the interaction between the investment and operating policies of a corporation and its financial strategies, with special emphasis on firms in the energy industry.

FIN X94.9. Advanced Valuation and Financial Modeling for Energy Firms.
Construction and use of financial models for valuation and decision-making, with applications to the energy industry.

FIN X94P. Private Equity for Executives.
Examine the application of advanced corporate finance concepts in the private equity markets.

FIN X95. Topics in Finance Doctoral Seminar.

FIN X95.1. Fundamentals of Financial Theory.
An overview of finance theory and empirical evidence.

FIN X95.10. Empirical Methods in Corporate Finance.
In-depth study of existing empirical work in corporate finance, including econometric and statistical methods.

FIN X95.11. Economics of Information.
Learn about static and dynamic problems with moral hazard and adverse selection using tools from game theory and contract theory.

FIN X95.2. Uncertainty in Economics and Finance.
The notions of risk, risk aversion, prudence, arbitrage, and equilibria in economies that include financial markets. The impact of adverse selection and moral hazard problems on the existence and properties of market equilibria.

FIN X95.3. Asset Pricing Theory.
Detailed introduction to asset pricing theory, focusing on absence of arbitrage, consumption-portfolio choice, and simple equilibrium models.

FIN X95.4. Empirical Methods in Asset Pricing.
In-depth study of existing empirical work in asset pricing, including econometric and statistical methods.

FIN X95.5. Corporate Finance.
Analysis of the theory of corporate finance and empirical evidence regarding corporate finance.
FIN X95.6. Current Research Topics in Finance.
FIN X95.7. Summer Research Topics.
Provides an opportunity for students to develop and conduct original research projects.
FIN X95.8. Special Topics in Finance Theory.
FIN X95.9. Applied Finance Research.
Provides an opportunity for students to develop and conduct original research.
FIN X97. Topics in Seminar: Investment Theory and Management.
FIN X97.1. Investment Theory and Practice.
Analysis of the investment decision-making process, asset allocation, security analysis, risk and expected return measurement, asset-pricing models, and international investment.
FIN X97.10. Environmental, Social, and Governance Investing.
A critical assessment of the actions of investors and corporations with regard to environmental, social, and governance policies, including the potential motivations and resulting consequences.
FIN X97.11. Quantitative Trading Strategies.
Examine statistical analyses that can be used in a variety of application areas, including energy trading, and provide a cutting edge perspective on technical trading and valuation.
FIN X97.12. Investment Management.
Explore investment principles, encompassing portfolio management, asset valuation, and performance evaluation. Learn critical financial skills to make investment-related decisions. Analyze equity, fixed-income securities, and derivatives within the global financial landscape using a combination of theory and practice.
FIN X97.13. Investments and Energy Finance.
Focus on energy-related derivatives and different derivative products and how to apply them. Explore energy markets and learn how to measure and manage the financial risks created by volatile energy prices. Examine and evaluate energy finance.
FIN X97.14. Sustainable Finance.
Focus on financial economics perspective to understand sustainability issues considered by managers, investors and participants in financial markets. Learn environmental, social, governance, strategy and other issues that affect manager and investor decisions from financial perspectives, particularly risk return aspects and measure sustainability risk exposures. Discuss how these issues are considered from a nonfinancial perspective such as sustainable and responsible investing, ethical investing and impact investing.
FIN X97.15. Artificial Intelligence-Powered Fund Management.
Learn to use Artificial Intelligence tools to analyze and visualize data, financial statements, portfolios, and trading strategies.
FIN X97.16. Titans of Investing.
Examine wisdom versus technical competence in leadership and decision making using readings from the most influential theorists and practitioners of 20th and 21st century investing, case studies and portfolio sector exercises in an institutional context, based on detailed assessment of global investment risks.
FIN X97.17. Behavior, Game Theory, and Team Management.
Explore how business leaders and managers can optimize the quality of decision-making and the cohesiveness of their organization. Analyze the problems through the lens of game theory, behavioral economics, and behavioral finance and find solutions to address them.
FIN X97.2. Portfolio Management and Security Analysis.
Modern practices in managing investment portfolios, portfolio optimization methods, asset management for individual and institutional investors, and valuation of equity securities.
FIN X97.4. Financial Risk Management.
Studies how firms manage their financial risk exposures and how they use derivative securities.
FIN X97.5. Fixed Income Analysis.
Comprehensive analysis of debt securities and the techniques used to value these instruments.
FIN X97.6. Special Topics in Investments.
Issues and topics in the investment area that are not covered in other courses.
FIN X97.7. Derivative Securities.
Analysis and pricing of derivative securities, including forwards, futures, and options.
FIN X97.8. Energy Derivatives.
Analysis and pricing of derivative securities, including forwards, futures, and options, with emphasis on derivatives related to the energy industry.
FIN X97.9. Alternative Investments.
Overview of alternative investments, including hedge funds, private equity, and real estate.
FIN X97P. Investments Practicum.
Project-based study with a focus on the application of finance principles to practical investment problems.
FIN X98. Thesis.
FIN X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
FIN X99W. Dissertation.

Professional Courses

FR - French

French: FR

Lower-Division Courses

FR X01. French for Graduate Students in Other Departments.
Intensive reading course for graduate students, emphasizing basic grammar and vocabulary with translation practice.
FR X01C. Beginning French.
An intensive beginning course with an emphasis on basic skills: listening, speaking, reading, and writing.
FR X04. Accelerated First-Year French.
Designed for students of high motivation. A six-hour course comparable to French 506 and 507.
FR X06. Introductory French I.
Emphasis on basic skills: listening, speaking, reading, and writing at the novice level of proficiency. Designed for students with no prior coursework in French.
FR X07. Introductory French II.
Emphasis on basic skills: listening, speaking, reading, and writing at the novice to intermediate levels of proficiency. Designed novice level proficiency and prior French coursework.
FR X08K. Alternate First-Year French II.
An accelerated review of material covered in French 506, followed by study of new material covered in French 507.
FR X11C. Intermediate French.
An intensive intermediate course with emphasis on basic skills: listening, speaking, reading, and writing. Does not meet the prerequisite requirements for French 320E or 324L.
FR X12. Accelerated Second-Year French: Four Skills.
Designed for students of high motivation. A six-hour course comparable to French 312K and 312L combined.
FR X12K. Intermediate French I.
Emphasis on basic skills: listening, speaking, reading, and writing at the Intermediate level of proficiency. Designed for students with Novice level proficiency and a prior beginning French course.

FR X12L. Second-Year French II: Four Skills.
Listening, speaking, reading, and writing at the advanced, second-year level.

FR X17C. Enhancing French Skills.
Listening, speaking, reading, and writing course designed to provide additional preparation for upper-division French courses.

FR X18L. Practice in Spoken French.
Designed to be taken concurrently with French 317C.

FR X19S. Topics in French.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

FR X29S. Topics in French.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

FR X80R. Reference Works and Research Methodologies.

Upper-Division Courses

FR X19S. Topics in French.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

FR X20E. Advanced French I.
Designed to develop the listening, speaking, reading, and writing skills needed for the analysis of literary and cultural readings in the French-speaking world.

FR X20M. Advanced Practice in Spoken French I.

FR X20N. Advanced Practice in Spoken French II.

FR X22E. Advanced French II.
Continuation of French 320E. Designed to develop the listening, speaking, reading, and writing skills needed to analyze literary and cultural readings in the French-speaking world.

FR X24L. Practical Phonetics.
A thorough review of French phonetics, with emphasis on improving production and understanding of spoken French.

FR X25C. Crisis and Conflict.
Focus on reading and interpreting texts dealing with historical and social conflicts as manifested in moments of crisis in French or francophone history.

FR X25D. Self and Society.
Focus on reading and interpreting texts involving confrontations between the narrative "I" and representations of various social groups.

FR X25E. Representing Difference.
Focus on reading and interpreting texts involving representation of difference (gender, religious, cultural, political, economic, social).

FR X27C. French through Cuisine.
A refinement of reading, writing, speaking, and listening skills in French through the context of gastronomy.

FR X28C. French through Film.
A refinement of reading, writing, speaking, and listening skills in French through the context of French and francophone cinema.

FR X29C. French through Music.
A refinement of reading, writing, speaking, and listening skills in French through the context of French and francophone music.

FR X29S. Topics in French.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

FR X30D. French across Disciplines.
Students read and discuss French language materials related to the subject matter of another designated course.

FR X30J. The Joy of French.
Engage with special features of the French language that make it fascinating and fun. Build upon this foundation of enjoyment to enhance French speaking, reading, writing, and cultural proficiencies, and utilize new techniques for analyzing French in film, music, and literary texts.

FR X30K. Topics in French Language and Cultures.
Topics with a focus on language or culture.

FR X30K.2. French Cuisine.
Study of the language of French gastronomy through readings, literature, and film. Explores French society, history, customs, and attitudes in the gourmet culture of French cuisine with particular emphasis on Lyon and its regional specialties.

FR X40C. The Arts in France.
A survey of the major artistic styles, modes, and currents in painting, architecture, sculpture, the decorative arts, and costume, from the medieval through the contemporary periods.

FR X40P. The Making and Identity of France.
The general political history of France, from the nation's inception to its current existence as part of the European Community.

FR X40T. France and the Francophone World Today.
An introduction to life in France and francophone regions through the study of contemporary society and culture.

FR X42C. French for Business.
Development of the ability to function in French in business-related situations, both orally and in writing.

FR X48. French Drama Workshop.
Intensive analysis of one or several plays or short literary texts, with emphasis on diction, delivery of lines, acting and staging; public performance of one play.

FR X49P. French Internship.
Provides the opportunity to apply language skills by using French in a professional setting such as a business or agency.

FR X50F. Francophone Literature and Culture.
Explore the francophone world through novels, poetry, theater, and film.

FR X51C. Topics in French Studies.

FR X51N. Narrating the Multilingual Self.
Explore the stories of multilingual francophones, including those of language learners, through mediums such as language memoir excerpts, poems, songs, interviews, podcasts, and films that narrate the experiences of multilinguals from many different French-speaking regions (e.g. Europe, North America, Africa, and Asia).

FR X57C. French New Wave in Context.

FR X58C. French Cinema and Memory.
Analyze French films through the lens of memory. Examine themes including the relationship between the cinematic medium and memory, the portrayals of personal memory versus historical memory, and the influence of film on our conception of memory.

FR X58D. Images of Women in French Cinema.
Examine the unique ways in which film portrays women and, more generally, questions of gender and gender identity.

FR X58Q. Supervised Research.

FR X63L. French Through the Media.

Focus on how the French language is used today to discuss current and cultural topics in the French media.

FR X64L. Introduction to French Linguistics.

Introduction to the syntactic, phonological, morphological, lexical, historical, and applied aspects of French linguistics.

FR X65K. Conference Course.

Supervised individual study of selected problems in French language and literature.

FR X71L. Advanced Written and Oral Composition.

Designed to guide students toward smooth and effective written and oral expression; weekly compositions on assigned subjects; periodic oral presentations.

FR X72. Comparative Stylistics.

Comparison of contemporary French and English syntax and style; study and practice in the technical difficulties of English-to-French and French-to-English translation.

FR X79H. Honors Tutorial Course.

Supervised individual research on a literary, linguistic, or cultural topic, and writing and defense of a thesis under the direction of a committee of two faculty members.

FR X80R. Reference Works and Research Methodologies.

Graduate Courses

FR X19S. Topics in French.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

FR X29S. Topics in French.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

FR X80C. French for Graduate Students in Other Departments.

Intensive reading course, emphasizing basic grammar and vocabulary with translation practice.

FR X80L. History of the French Language.

An analysis of the evolution of the French language since its origin.

FR X80P. Introduction to Studies in Literature and Culture.

Proseminar in methods of study and research in French studies.

FR X80R. Reference Works and Research Methodologies.

FR X80W. Doctoral Writing Workshop.

Acquire the crucial skills for writing a cogent prospectus, dissertation, or article, and complete the prospectus, dissertation chapter, or article.

FR X81. Old French Language.

FR X81J. Topics in French Studies.

Designed for students in other departments; taught in English with optional reading in French.

FR X81M. Critical Approaches to Literature.

Introduction to various modern approaches to literary criticism, stressing both theory and practical application.

FR X81N. Topics in Language and Style.

FR X81N.1. Rhetoric, Composition, and Stylistics.

FR X81N.2. Translation.

FR X81N.3. Metaphor Across Cultures, Genres, and Time.

Explore how and why metaphors vary both across and within cultures, across different genres, and through time.

FR X81P. Old Provencal.

An introduction to Old Provencal through analysis of literary texts.

FR X82L. Topics in the Civilization of the French Speaking World.

Studies in various aspects of the cultures of France, Quebec, Francophone Africa, the French Caribbean, and other areas.

FR X83K. Structure of French: Phonology and Morphology.

FR X83M. Structure of French: Syntax and Semantics.

FR X83N. Introduction to French Linguistics.

An introductory survey of the main fields of French linguistics: phonology, syntax, sociolinguistics, historical linguistics, and applied linguistics.

FR X85L. Conference Course in French Language and Literature.

For students needing specialized courses not normally or not often included in the regular course offerings.

FR X85T. Graduate Teaching Practicum.

Engage in mentorship and pedagogical training by working one-on-one with a faculty member to develop and design an undergraduate, upper-division level course in an area of specialization.

FR X90K. Topics in French Literature Through the Renaissance.

Intensive study of particular writers or literary movements.

FR X90L. Topics in French Literature of the Seventeenth and Eighteenth Centuries.

Intensive study of particular writers or literary movements.

FR X90M. Topics in French Literature from the Nineteenth Century to the Present.

Intensive study of particular writers or literary movements.

FR X90N. Topics in Francophone Literature.

Studies in the literatures of Quebec, Francophone Africa, the French Caribbean, and other areas.

FR X90N.1. Reading the Maghreb.

Examine Maghrebi literature and film of both French and Arabic expression, along with works of psychoanalytic and postcolonial theory.

FR X91K. Topics in Criticism and Literary Genres.

Intensive study of critical theory or of the evolution of a genre. Topics: Le Voyage: themes, genres, structure; French short fiction since 1650; the theatre of the absurd; and others.

FR X91K.10. French-German Philosophy and Theory.

Explore core philosophical texts from the nineteenth and twentieth century that ground post-World War II French post-structuralism.

FR X92K. Topics in French Linguistics.

Examination of specific issues in theoretical, applied, descriptive, or historical linguistics.

FR X95L. Comprehensive Examination Preparation.

Supervised preparation for the comprehensive examination for the doctoral degree.

FR X96K. Topics in Comparative Romance Linguistics.

General survey of the development of spoken Latin in Italy, Spain, Portugal, and France; main traits of phonology, morphology, and syntax in each modern derivative language.

FR X96K.1. Introduction to Romance Linguistics.

FR X97T. Practicum in Teaching College French.

Designed to train first-year teaching assistants to observe, describe, and evaluate foreign language instruction and testing. Practical aspects of teaching to be studied include organization of class time; treatment of vocabulary and grammar; speaking and pronunciation; listening and reading comprehension; evaluating and creating tests; testing language content and language skills.

FR X98. Thesis.

FR X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

FR X98T. Supervised Teaching in French.
Teaching under the close supervision of the course instructor for two semesters; weekly group meetings with the instructor, individual consultations, and reports throughout the teaching period.

FR X99W. Dissertation.

Professional Courses

FR X19S. Topics in French.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

FR X29S. Topics in French.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

FR X80R. Reference Works and Research Methodologies.

G B - Great Books

Great Books: G B

Lower-Division Courses

G B X10H. Honors Lab: Ancient Worlds I.
Discuss readings and material covered in Great Books 313C.

G B X11H. Honors Lab: Ancient Worlds II.
Discuss readings and material covered in Great Books 313D.

G B X13C. Ancient Worlds I: Human and Divine.
Explore religious, literary, philosophic, and civic questions in the great texts, communal practices, and cosmological teachings from the Ancient Near East and Mediterranean. Investigate problems of the sacred and the profane, nobility and shame, holiness and justice. Study sources of wisdom in texts and authors such as Gilgamesh, Bible, Homer, Anaximander, and the tragedians.

G B X13D. Ancient Worlds II: Philosophy and the City.
Explore religious, literary, philosophic, and civic questions in the great dramatic, historical, and philosophic texts of the Ancient Mediterranean world. Investigate issues such as the unity and multiplicity of the virtues, the problem of knowledge, and the character of nature. Study sources of wisdom in such authors as Aristophanes, Thucydides, Plato, and Aristotle.

G B X15. Topics in Great Books.
Study one or more great works in the Great Books tradition.

G B X19S. Topics in Great Books.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the School of Civic Leadership. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

G B X25. Topics in Ancient and Medieval Great Books.
Study one or more ancient or medieval great works in the Great Books tradition.

G B X26. Topics in Renaissance and Modern Great Books.
Study one or more Renaissance or modern great works in the Great Books tradition.

G B X27. American Letters: Colonial Times to 1877.
Explore religious, literary, philosophic, scientific, and civic questions as they emerge in the arts and letters of America in the period up to and including Reconstruction. Focus on issues such as the nature of virtue and freedom, the character of the self and its relation to God and nature, and the relation between the individual and authority. Study sources of wisdom in such figures as the Puritans, James Fennimore Cooper, Herman Melville, Emily Dickinson, and Frederick Douglass.

G B X28. American Letters: 1877 through the 20th Century.
Explore religious, literary, philosophic, scientific, and civic questions as they emerge in the arts and letters of America in the period from 1872 to 2000. Examine questions such as the nature of reality and our knowledge of it, the relationship between tradition and science, loyalties to place, family, and country, and the possibilities and problems of progress. Study sources of wisdom in such figures as Mark Twain, Henry James, the Gershwins, William Faulkner, and important literary, political, and cultural writings from the period.

G B X29S. Topics in Great Books.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the School of Civic Leadership. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

G B X30H. Honors Lab: Classical and Medieval Worlds.
Discuss readings and material in Great Books 334C.

G B X31H. Honors Lab: Renaissance, Reformation, and the Age of Reason.
Discuss readings and material in Great Books 334D.

G B X34. Foundations in Classical Education.

G B X34C. Classical and Medieval Worlds.
Explore religious, literary, philosophic, and civic questions as they emerge in the great texts of the classical and medieval periods. Investigate issues such as the relation between philosophy and the political community, the sources of human excellence and civic consensus, and the relation between the human and the divine. Study sources of wisdom in such authors as Virgil, Augustine, Chaucer, Thomas Aquinas, and Dante.

G B X34D. Renaissance, Reformation, and the Age of Reason.
Explore religious, literary, philosophic, and civic questions in the great texts and art of the early modern period. Investigate issues such as the nature of the political community, the relation between the human and the divine, and the problem of human knowledge. Study sources of wisdom in such authors and texts as Petrarch, Calvin, Galileo, Shakespeare, and Francis Bacon.

G B X35. Great Books in Leadership.
Explore religious, poetic, and philosophic reflections on leadership as they emerge in the great books of the ancient and modern worlds. Focus on such themes as great ambition, servanthood, aspirations and obedience to divinity, grandeur, and the obligations of justice. Study sources of wisdom in such texts and authors as Xenophon, the books of Samuel, Cicero, Washington, and Churchill.

G B X37. Great Books in Law and Justice.
Explore religious, poetic, and philosophic reflections on questions of law and justice. Investigate questions concerning obligations to the community and the divine, the ordinances of the best regime, the status of nature, the character of the lawgiver, the development of common law, and the variation in law. Study such texts and authors as Exodus, Sophocles, Thomas Aquinas, Montesquieu, and Blackstone.

G B X38. Classics of Mathematics and Scientific Thought: Antiquity.
Introduction to history of mathematics and science through study of core texts from Greek and Roman antiquity. Approach science and

mathematics as liberal arts; examine fundamental questions raised by scientific inquiry. Consider questions regarding the nature of scientific knowledge, mathematical truth, physical reality, and causality.

G B X39. Classics of Mathematics and Scientific Thought: Modernity.

Examine core philosophical and scientific texts in the history of modern science and mathematics. Consider questions related to natural laws, empirical investigation, mathematical analysis, and technology and the human experience. Study sources of wisdom in such authors as Galileo, Descartes, Newton, Darwin, and Einstein.

G B X40H. Honors Lab: Modern Soul.

Discuss readings and material in Great Books 345C.

G B X41H. Honors Lab: Romanticism, Revolution, and Reaction.

Discuss readings and material in Great Books 345D.

G B X45C. The Modern Soul.

Explore religious, literary, philosophic, and civic questions in the literature, art, and philosophy of the modern period. Focus on issues such as the nature of freedom, the character of the self, the relation between the individual and politico-religious authority, and the ascendency of science. Study sources of wisdom in authors and artists such as Bach, Newton, Hume, Austen, Goethe, and Tolstoy.

G B X45D. Romanticism, Revolution, and Reaction.

Explore religious, literary, philosophic, and civic questions in the great texts of the later modern period. Focus on questions concerning the relationship between freedom and community, history and reason, the self and society, and rational inquiry and revelation. Study sources of wisdom in authors such as Rousseau, Flaubert, Marx, Dostoevsky, Darwin, Nietzsche, and Heisenberg.

G B X46. Advanced Topics in Great Books.

Discuss one or more great works in the great books tradition at an advanced level.

G B X46.1. Advanced Great Books.

Discuss great books at an advanced level.

G B X47. Fertility, Birth, Fragility, Dying.

Explore religious, poetic, scientific, and philosophic reflections on the phenomena of fertility, birth, injury, disability, aging, and dying. Consider authors and texts from the ancient world through modern times.

G B X48. Technology and the Human Experience.

Explore religious, literary, scientific, and philosophic reflections on the phenomena of technology, such as: the conquest of nature, industrial and digital revolutions, Artificial Intelligence, transhumanism, cryotherapy, and others. Consider authors and texts from the ancient world through modern times.

G B X56. Advanced Topics in Ancient and Medieval Great Books.

Discuss one or more ancient or medieval great works in the great books tradition at an advanced level.

G B X56.1. Advanced Ancient and Medieval Great Books.

Discuss ancient and medieval great books at an advanced level.

G B X66. Advanced Topics in Renaissance and Modern Great Books.

Discuss one or more Renaissance or modern great works in the great books tradition at an advanced level.

G B X66.1. Advanced Renaissance and Modern Great Books.

Discuss Renaissance and modern great books at an advanced level.

G B X67. Topics in Advanced Readings in Great Books.

Discuss advanced topics examining a single major topic or theme in great books or works of a significant author.

G B X71. Capstone in Great Books.

Participate in capstone of the great books degree. Develop and defend a persuasive argument on a significant question.

G B X72. Topics in Independent Research in Great Books.

Participate in supervised research.

G B X77I. Internship in Great Books.

Participate in a professional internship. Reflect on internship to improve ability to both articulate preferences and skills, and to match them with appropriate career-related choices.

G B X78H. Great Books Honors Thesis I.

Participate in thesis writing in the great books degree. Develop and defend a persuasive argument on a significant question.

G B X78I. Internship in Great Books.

Participate in a professional internship. Reflect on internship to improve ability to both articulate preferences and skills, and to match them with appropriate career-related choices.

G B X79H. Great Books Honors Thesis II.

Participate in thesis writing in the great books degree. Develop and defend a persuasive argument on a significant question.

Graduate Courses

Professional Courses

G E - General Engineering

General Engineering: G E

Lower-Division Courses

G E X02E. Supplemental Instruction for Electrical and Computer Engineering 302.

Development of problem-solving skills in the material covered in Electrical and Computer Engineering 302.

G E X04J. Supplemental Instruction for Mathematics 427J.

Development of problem-solving skills in the material covered in Mathematics 427J.

G E X05G. Supplemental Instruction for Mathematics 305G.

Development of problem-solving skills in the material covered in Mathematics 305G.

G E X06D. Supplemental Instruction for Chemistry 301.

Development of problem-solving skills in the material covered in Chemistry 301.

G E X06E. Supplemental Instruction for Chemistry 302.

Development of problem-solving skills in the material covered in Chemistry 302.

G E X07C. Supplemental Instruction for Mathematics 408C.

Development of problem-solving skills in the material covered in Mathematics 408C.

G E X07D. Supplemental Instruction for Mathematics 408D.

Development of problem-solving skills in the material covered in Mathematics 408D.

G E X07E. Supplemental Instruction for Mathematics 340L.

Development of problem-solving skills in the material covered in Mathematics 340L.

G E X07K. Supplemental Instruction for Mathematics 427K.

Development of problem-solving skills in the material covered in Mathematics 427K.

G E X07L. Supplemental Instruction for Mathematics 427L.

Development of problem-solving skills in the material covered in Mathematics 427L.

G E X07R. Supplemental Instruction for Mathematics 408K.

G E X07S. Supplemental Instruction for Mathematics 408L.

G E X07T. Supplemental Instruction for Mathematics 408M.

G E X08K. Supplemental Instruction for Physics 303K.

Development of problem-solving skills in the material covered in Physics 303K.

G E X08L. Supplemental Instruction for Physics 303L.

Development of problem-solving skills in the material covered in Physics 303L.

G E X09. Topics in Supplemental Instruction for Engineering Courses.

Development of problem-solving skills in the material covered in selected engineering courses.

G E X09C. Supplemental Instruction for Engineering Mechanics 306.
Development of problem-solving skills in the material covered in Engineering Mechanics 306.
G E X09D. Supplemental Instruction for Engineering Mechanics 319.
Development of problem-solving skills in the material covered in Engineering Mechanics 319.
G E X12. Supplemental Instruction for Electrical Engineering 312.
Development of problem-solving skills in the material covered in Electrical Engineering 312.
G E X19. Topics in Engineering.
Topics to supplement lower-division engineering curriculum.
G E X19S. Topics in General Engineering.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

G E X22. Topics in Professional Development.
Small-group seminar involving reading, discussion, and oral reports.
G E X29S. Topics in General Engineering.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

Professional Courses

GEO - Geological Sciences

Geological Sciences: GEO

Lower-Division Courses

GEO X01. Physical Geology.
Nature, properties, and distribution of crustal materials; surficial processes; internal processes; origin of continents, oceans, and ocean basins; mineral and fuel resources.
GEO X02C. Climate: Past, Present, and Future.
Explore the science of climate change. Examine the history of Earth's climate and the factors driving its changes. Discuss the Earth's climate history and the processes driving climate change; physical concepts governing heat and mass transfers in the atmosphere; the role of oceans in climate systems; temporal scales of climate change, from tectonic to millennial; anthropogenic global warming and human impacts on climate; health and ecosystem impacts of climate change; and methods for observing, modeling, and predicting climate change.
GEO X02D. Age of Dinosaurs.
Introduction to the study of life and why it matters. Explore the general principles of natural history, focusing on the natural history of dinosaurs. Discuss the basics of geology, anatomy, paleontology, and evolutionary theory, followed by the application of this knowledge, in tracing the evolutionary history of Dinosauria.
GEO X02E. Earth, Wind, and Fire.
Designed for non-geological sciences majors. Geologic phenomena that affect everyday life, including global warming, earthquakes, volcanism, desertification, river and coastline flooding and erosion, groundwater, mineral resources, and plate tectonics.
GEO X02G. Earth Science and Sustainability.
Explore grand challenges in earth science that affect sustainability and society, including climate change, energy production, water availability, and natural hazards. Examine authentic data, simple models, and maps used in geoscience gathering, analysis, and real-world applications.
GEO X02J. Crisis of Our Planet.
Designed for nonscience majors. Explores the interactions between humans and the Earth system by investigating the different time and spatial scales of the natural hazards that the planet presents, and exploring the societal and economic implications of civilizations co-existing with an evolving planet. Discussion of both long-term and punctuated catastrophic hazards, focusing on those from volcanoes, hurricanes, and earthquakes, using a combination of systems level exploration of the driving mechanisms as well as case histories. Discussion of issues related to risk, mitigation, and resilience for humans facing the vast array of natural hazards.
GEO X02K. Selected Topics in Geological Sciences.
The impact of geological processes on human activity; geologic topics of popular interest.
GEO X02M. The Age of Mammals.
Introduction to paleontology and natural history for nonscience majors. Explore basic geological processes, fossilization, and the fossil record. Examine the evolution and diversification of mammals, interactions between physical and biological processes, and the impact of climate change and human activities on mammalian communities. Focus on the mammalian skeleton, common Texas mammals, and geobiological processes that shaped mammalian evolution and diversification.
GEO X02N. Geology of National Parks.
Explore the geology of the US National Park System through a detailed examination of its rocks, landscapes, climate, hydrology, natural resources, and environmental impacts. Examine particular national parks which exhibit specific Earth processes. Includes threats posed to the park system: environmental tourism, encroaching development, water and air quality, air pollution, and natural hazards.
GEO X02P. Sustaining a Planet.
Explores the interactions between humans and the Earth system by investigating the different time and spatial scales of the natural hazards that the planet presents, and exploring the societal and economic implications of civilizations co-existing with an evolving planet. Discussion of both long-term and punctuated catastrophic hazards, focusing on those from volcanoes, hurricanes, and earthquakes, using a combination of systems level exploration of the driving mechanisms as well as case histories. Discussion of issues related to risk, mitigation, and resilience for humans facing the vast array of natural hazards.
GEO X02Q. Gems and Gem Minerals.
Utilize gemstones, gold, and fine minerals as inspiration to learn optics, geologic processes that control occurrence, and crystallography. Discuss economic factors and societal impacts associated with gem and mineral deposits, along with gemstone identification using the physical and optical properties of the minerals and faceting gemstones using lapidary equipment.
GEO X02T. Climate and the Energy Transition.
Explore how humankind's use of carbon-based fuels drives climate change and powers our civilization. Examine how to transition to a carbon-neutral energy future, have sustainable economic growth, and feed 9.8 billion people in 2050.
GEO X03. Introduction to Geology.
Mineral and rock composition of the earth; measurement of geologic time; origin and evolution of life; earth's interior; plate tectonics; depositional environments and processes; ancient climates; humans, earth resources, and the environment.
GEO X03C. Introduction to the Solar System.
Examines the origin and evolution of our solar system; how processes such as volcanism and impacts have shaped planet surfaces, as well as the workings of planetary interiors; the unique properties of Earth that allowed life to arise and evolve; the prospects for seeking life on other planets in our own solar system and beyond; and the history of planetary

exploration and the methods scientists use to explore fundamental questions regarding our place in the universe.

GEO X03E. Earth in 2100.

In a self-paced format, investigate Earth's physical climate system, how humans have contributed to climate change, what the Earth may look like in 2100, and how society can stop climate change.

GEO X05. Life through Time.

Examine the fundamentals of how life evolved, and the history of the development of Earth throughout geological time.

GEO X05E. Energy and the Environment.

A survey of all forms of current and potential sources of energy, and how these might impact the earth's environment.

GEO X06P. Geology and Sustainability.

Examines sustainability and environmental science from an interdisciplinary perspective.

GEO X10C. Topics in Conference Course.

Supervised study of selected topics in geological sciences, by individual arrangement with the instructor.

GEO X10T. Undergraduate Topics in Geological Sciences.

Selected undergraduate topics in geological sciences.

GEO X11. Emerging Scholars in Geological Sciences.

Introduction to research areas in the geological sciences, with emphasis on the skills needed for success in graduate school and the professional workplace.

GEO X11D. Geodata.

Examine a broad array of subjects related to data analysis and interpretation in the geosciences. Designed for lower division undergraduates to build a foundation in quantitative skills (spatial analysis, regressions, simple coding concepts) that have direct application to geoscience problems.

GEO X12N. JSG Geosciences Mentors Program - First-year.

Introduction to the various geosciences disciplines and corresponding degree programs and research areas. Emphasis on the skills needed for success in graduate school and the professional workplace, such as interactive sessions with the Jackson School of Geosciences Career Center to address internships, career planning, and job search skills.

GEO X14G. Geophysics Colloquium.

Introduction to geophysics to examine applications and discover career opportunities.

GEO X15L. Earth From Lab to Planet.

Explore the constitutive laws (e.g. elasticity, friction, viscosity) that explain the dynamical changes observed on the surface and interior of our planet, from tectonic to generational timescales. Examine different earth behaviors using hands-on experiments, in the lab and on the computer, to illuminate particular geodynamical processes. Build skills in data analysis and simulation through python-based coding. Discuss abstractions from these experiments to understand how those processes can be scaled up to understand Earth dynamics, from sedimentation to regional groundwater transport to global mantle convection.

GEO X16E. Solid Earth Processes.

Study the physical and chemical processes governing Earth and planetary evolution from the deep interior to lithosphere and surface. Explore the societal relevance of geological processes such as natural hazards and resources. Address why solid Earth dynamics is critical to sustain life and civilization at the surface.

GEO X16K. Earth Materials.

Introduction to minerals, mineral study techniques, igneous and metamorphic rocks and ore deposits, and formation processes.

GEO X16M. Sedimentary Rocks.

Description and interpretation of sedimentary rocks in hand specimen and thin section; characteristics of sedimentary rocks deposited in different environments.

GEO X16P. Sedimentary Rocks.

Examines the fundamentals of sedimentary rocks, including siliciclastic grain parameters and mineralogy, sediment transport and sedimentary structures; and carbonate mineralogy and geochemistry, grain and matrix constituents, modern facies, and classification. Reviews the principal siliciclastic and carbonate depositional systems, their process of formation and facies architecture and the role of process and architecture in petrophysical patterns, distribution of permeability and porosity, flow units, reservoir heterogeneities, and hydrocarbon recovery.

GEO X16S. Earth and Planetary Processes Through Time.

Explore modern physical, chemical, and biological processes through the prism of Texas's changing rivers and coastlines. Examine geologic times since the last Ice Age, deep geological time by looking at the Permian age, and the interpretation of planetary systems with an emphasis on underlying tenets of the history of life, geologic time, and surface processes.

GEO X16W. Climate, Water, and the Environment.

Introduction to climate system science through quantitative exploration of the processes that control Earth's water and carbon cycles. Discuss how the geosphere, atmosphere, ocean, cryosphere, and biosphere interact to govern the movement of water and the evolution of climate and weather conditions throughout Earth's history and in the present day. Explore current issues in climate change, water resources, and environmental sustainability.

GEO X19S. Topics in Geological Sciences.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad office. Credit is recorded as assigned by the study abroad adviser in the Department of Earth and Planetary Sciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

GEO X20F. Classic Geology in Scotland.

Introduction to the founding concepts of geology. Students use advanced field technologies while studying the geology of Scotland on all scales of size.

GEO X20H. Honors Introductory Geology.

An accelerated introductory course on the composition, structure, and history of the earth.

GEO X20K. Introduction to Field and Stratigraphic Methods.

Field observation of geological processes and study of the mineralogy, petrology, stratigraphy, paleontology, and structural geology of central Texas.

GEO X20L. Introductory Field Geology.

Designed for non-geological sciences majors. Study of geologic features and processes in the field; emphasizes regional geology of central Texas and techniques of geologic mapping.

GEO X20S. Introduction to Atmospheric Sciences.

Introduction to atmospheric science, including atmospheric radiation, circulation systems, thermodynamics, and cloud and precipitation processes. Discuss tornadoes, hurricanes, weather systems, and contemporary climate change to provide an opportunity to relate basic principles to real-world phenomena.

GEO X22E. Scientific Research Design.

Examine principles of experimental design including formulation of target questions and method choice in a unique, interdisciplinary, community context. Focus on honing principles of experimental design (including formulation of target questions and method choice), scientific writing, as well as introducing tool kits for data analysis, statistical approaches, and data visualization.

GEO X22J. Transitions in the History of Life.

Introduction to major perturbations in the history of life; specifically, mass extinctions and carbon-cycle perturbations (hyperthermal, anoxic, and acidification events). Discuss kill mechanisms (impacts, large

igneous provinces, glaciations) and the subsequent environmental perturbations and ecological ramifications. Examine biotic crises in the past, with an eye to future ecosystem collapse, as well as the environmental and paleobiological responses to these events.

GEO X22K. Paleobiology.
Systematics, biostratigraphy, paleoecology, and evolution of fossil organisms.

GEO X22M. Basin GeoMechanics.
Develop the technical foundation and physical insight to explore how stress and pressure drive geologic and human-induced processes. Examine applications including C02 sequestration, geothermal energy, hydraulic-fracturing, faulting, geopressure development, hydrocarbon entrapment, subsidence and compaction, slope stability, and borehole stability.

GEO X22S. Development and Evolution of the Vertebrate Skeleton.
Introduction to the organization and development of the vertebrate skeleton; survey of vertebrate history.

GEO X22T. JSG Geosciences Mentors Program - Transfer.
Introduction to the various geosciences disciplines and corresponding degree programs and research areas. Emphasis on the skills needed for success in graduate school and the professional workplace, such as interactive sessions with the Jackson School of Geosciences Career Center to address internships, career planning, and job search skills.

GEO X22V. Morphology of the Vertebrate Skeleton.
Explore the vertebrate skeleton. Access hundreds of specimens for hands-on learning of the vertebrate skeleton. Focus on identification of skeletal elements and their proper placement in major vertebrate groups.

GEO X25C. Continuum Mechanics.
Explore the foundation for the modeling of fluids and solids in geological and geophysical phenomena, such as mantle convection, glaciology, rock mechanics, and climate dynamics. Examine tensor analysis, the kinematics of motion, forces, and stresses. Discuss basic balance (conservation) laws for mass, momentum, and energy, and constitutive laws for fluids and solids. Develop governing equations to geodynamics, glaciology, seismology, and geophysical fluid dynamics.

GEO X25G. Computational Applications in the Geosciences.
An introduction to programming in MATLAB and applications to simulation of physical processes and data analysis in the geosciences.

GEO X25J. Programming in FORTRAN and MATLAB.
FORTRAN for students without knowledge of a computer programming language: survey of all variable types, loops, arrays, subroutines, and functions; overview of UNIX and MATLAB.

GEO X25K. Computational Methods.
Examine numerical methods for data analysis. Discuss digital data representation, convolution, the discrete Fourier transform, design of commonly used filters, and least-squares estimation.

GEO X25M. Numerical Modeling in the Geosciences.
Covers numerical solution of dynamical problems arising in the solid earth geosiences. Entails development of individual codes in Matlab and application of codes to understanding heat transfer, wave propagation, elastic, and viscous deformations. Requires familiarity with Matlab.

GEO X25P. Modeling Flow and Transport in Porous Media.
Introduction to the modeling of flow and transport in porous media with focus on basic dynamic phenomena that occur during single-phase flow and solute transport in heterogeneous porous media. Discussion of the numerical solution of both the elliptic equations governing the flow of groundwater and the hyperbolic equations governing solute transport. Includes a programming project which requires writing a functional numerical simulator.

GEO X26D. Earth in Deep Time.
Examine the causes and consequences of significant changes in Earth's surface environment and tectonic processes over the past 4.5 billion years. Discuss the initial Earth accretion, the Faint Young Sun problem, the rise of oxygen in Earth's atmosphere and general requirements for planetary habitability and how interactions between Earth's interior, the surface, and biosphere have shaped planetary evolution.

GEO X26P. Igneous and Metamorphic Petrology.
Examine the fundamental ways in which igneous and metamorphic rocks record processes occurring within our dynamic Earth, and how compositions and textures of minerals relate to the conditions from which they form. Learn how to identify igneous and metamorphic minerals in hand specimen and thin section, and how their textures record the pressures and temperatures of the Earth's interior.

GEO X27G. Geographic Information System and Global Positioning System Applications in Earth Sciences.
Develop Geographic Information Systems (GIS) skills using Esri's ArcGIS Pro software, working on real-world challenges relevant to geoscience, environmental science, and energy resources. Focus on GIS fundamentals, spatial reference systems, map projections, cartographic principles, remote sensing data (Landsat, LiDAR) and both vector and raster data analysis. Explore geospatial data resources and apply techniques in vector and raster-based analysis to generate maps and spatial models.

GEO X28. Structural Geology.
Study how and why rocks deform. Develop a practical toolset to quantify the mechanisms, magnitude, and timing of tectonic deformation by studying the rock record. Explore the physics underpinning how features such as faults, fractures, folds, and crystallographic fabrics initiate and evolve due to variation in tectonic forces, rock material properties, and pressure-temperature conditions.

GEO X28W. Vadose Zone Hydrology.
Introduction to hydrologic processes occurring in the vadose zone (unsaturated zone), the subsurface region between the ground surface and groundwater. Focus on the physical processes that govern the movement of water in variably saturated porous media, and the exchange of mass and energy at Earth's surface. Explore theoretical and applied aspects, measurement techniques and computational tools, and environmental challenges of the vadose zone.

GEO X29S. Topics in Geological Sciences.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Earth and Planetary Sciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GEO X29W. Hydrogeology Cooperative (Geological Sciences).
Covers the work period of geological sciences students in the Cooperative Education program, which provides supervised work experience by arrangement with the employer and the supervising instructor. Required submission of a final report to the supervising instructor at the conclusion of the program.

GEO X30K. Energy Exploration.
Covers the fundamental elements of the petroleum system, including the origin of source rocks and reservoirs, rock properties, migration of hydrocarbons, and correlation methods for rock formations. During the final weeks of the course, students form exploration teams and work up real subsurface data from the Gulf of Mexico in order to participate in a simulated lease sale.

GEO X31K. Petrology and Plate Tectonics.
Sedimentation, metamorphism, igneous activity, and deformation patterns at rift zones, subduction zones, and transform margins.

GEO X35. Geology and Mineral Resources of Texas.
Geologic history of the region; local rocks, fossils, and mineral resources; influence of physiography, surface and subsurface water supplies, and energy and mineral resource production on the state economy.

GEO X35J. Jackson Scholars Seminar.
Discuss professional development skills, scholarship, research, and outreach.

GEO X36C. CO2 Storage in Geological Formations.
Explore how capturing and storing carbon dioxide (CO2) underground is an important means of mitigating climate change. Examine the geological and environmental aspects of CO2 injection, sequestration, and monitoring that control the success of real CO2 storage projects.

GEO X37T. Global Tectonics.
Examine tectonic processes within the dynamic Earth, with a focus on plate boundary processes. Discuss fundamentals of plate tectonics; plate motion, driving forces, and mantle convection; evolution of plate margins including convergent, transform, rifting, and mid-ocean ridge spreading centers, triple junctions and collisional orogenesis; plate reconstructions; earthquakes and focal mechanisms; structure and geochemistry of the Earth's interior. Explore challenging questions of onset of plate tectonics, subduction initiation, and tectonics on other planets.

GEO X38J. Marine Geology.
Impart an understanding of the fundamental way in which marine geologic processes affect the overall Earth System via a survey of the field of marine geology. Explore the structure and evolution of ocean basins, oceanic islands, and island arcs; the chemistry of the oceans; the sediments in the marine environments; the products and processes of the land-air-sea interface; and the history of the oceans over geologic time.

GEO X38T. Marine Tectonics.
Tectonic processes within the dynamic Earth, with a focus on oceanic structures. Subjects may include fundamentals of plate tectonics; plate motion, driving forces, and mantle convection; evolution of triple junction and plate margins; plate reconstructions; earthquakes and focal mechanisms; structure and geochemistry of the Earth's interior; mantle structure and tomography; rheology and deformation mechanisms in mantle and crust; heat flow, gravity, the geoid, and paleomagnetism; hotspots and mantle plumes; seafloor spreading and oceanic spreading ridges; oceanic transform faults and fracture zones; and subduction zones, volcanic island arcs, and marginal seas.

GEO X38W. Paleoclimate.
Introduction to paleoclimatology, the study of Earth's past climate. Examine a broad spectrum of geological archives of climate change including those from the oceans, the land, and the cryosphere.

GEO X39T. Continental Tectonics.
Tectonic processes, with a focus on continental lithospheric structures. Subjects may include convergent margins, subduction zones, magmatic arcs, and foreland structures; collisional orogenesis, arc-continent collisions, continent-continent collision, and mountain building; formation of supercontinents; uplift and exhumation; orogenic collapse and extensional tectonics; continental rifting and passive margins; transform margins; and the effect of tectonics on climate and oceanic circulation.

GEO X40T. Geoclimatology.
Examination of the climate records encoded in sedimentary archives through geologic time.

GEO X41. Mineral Resources, Society, and the Environment.
Nature and origin of mineral resources; their discovery, extraction, and uses; and their relationship to global history, economics, and the environment.

GEO X41F. Microstructures and Rock Rheology.
Focuses on processes of deformation operative in the crust and upper mantle, with an emphasis on distinguishing these processes using microstructural analysis and describing them using basic constitutive relationships from rock mechanics.

GEO X41G. Geomicrobiology.
Geologic and hydrologic controls on subsurface microbial growth, metabolism, and community structure; the geochemical consequences of microbial processes in subsurface settings; and the influence of geology on microbial ecology.

GEO X43Q. Fundamentals and Applications of Inductively Coupled Plasma Mass Spectrometry.
Explores inductively coupled plasma mass spectrometry (ICP-MS) for trace, minor and major element measurement, and applications in analytical fields. Discussion of fundamentals of technique, applications, and capabilities of ICP-MS through hands-on lab experience.

GEO X44K. Marine Mining and Minerals.
Overview of seafloor mineral deposits, their exploration, and mining.

GEO X44U. Quantitative Seismic Interpretation.
Seismic inversion, a tool for reservoir characterization, post- and pre-stack modeling, rock physics and fluid replacement modeling, wavelet estimation and post-stack inversion, AVO and pre-stack inversion, multiattribute regression and neural network, and net pay estimation. Extensive hands-on training with three-dimensional seismic and well-log data.

GEO X45E. Professional Ethics in Geosciences.
Explore supervised study devoted to the subject of professional ethics, personal integrity, scientific communication ethics and societal implications related to the geosciences. Discuss subject matter and ethical conundrums that will vary to maintain societal and scientific relevance.

GEO X46C. Introduction to Physical and Chemical Hydrogeology.
Basic concepts of fluid flow, surface and subsurface hydrology, aqueous geochemistry, and fluid-rock interaction. Additional subjects include isotope hydrogeology, evolution of seawater, and mineral-solution equilibrium.

GEO X47D. Global Warming.
Discussion of the fundamental sciences of global warming, including an active investigation of contemporary climate change issues.

GEO X47G. Climate System Modeling.
Study the basic theory of weather/climate system modeling using state-of-the-art regional climate models in a variety of applications. Discuss paleoclimate, contemporary, and/or future climate prediction due to changes in greenhouse gas concentrations.

GEO X47K. Gems and Gem Minerals.
Crystallography, occurrence, and identification of gem minerals and materials; artificial gems; simple cutting and polishing; history of gems and gemology.

GEO X47P. Climate System Physics.
Discussion of first-order principles and processes that govern the thermodynamical structure and energy distribution of the atmosphere, ocean, land, and cryosphere and their interaction with the dynamic aspect of the climate system.

GEO X48K. Marine Geology and Geophysics Field Course.
Hands-on, team-based instruction in the collection and processing of marine geological and geophysical data along the Gulf of Mexico coast.

GEO X48P. Field Methods in Planetary Geology.
Field studies combined with remote sensing to support studies of remote imagery from planetary missions.

GEO X49C. Introduction to the Cryosphere.
Explore how the cryosphere (ice sheets, glaciers, snow, and ice) interacts within the Earth system. Discuss ice physics, the geologic record of glaciation and glacial landscapes, and the relationship between glaciers and climate in the past, present, and future.

GEO X50D. Ice Dynamics.
Physics of ice motion, basal processes, glacial hydrology, and unstable flow.

GEO X50L. Topics in Lithosphere and Deep Earth.

GEO X50L.1. Tectonic Geodynamics.
Discuss the processes that determine the evolution of the solid Earth system, combining views from the fields of tectonics, structural geology, and geodynamics. Understand the why of earthquakes, plate motions,

subduction, orogeny, and lithospheric deformation including topography. Integrate geophysical and geological constraints from key regional settings to global scales to explore the links between theory and observations.

GEO X50L.2. Geophysics Seminar I.

GEO X50L.3. Geophysics Seminar II.

GEO X50S. Topics in Subsurface, Surface, and Life.

GEO X50T. Tectonic Geodynamics.

Discuss the processes that determine the evolution of the solid Earth system, combining views from the fields of tectonics, structural geology, and geodynamics. Understand the why of earthquakes, plate motions, subduction, orogeny, and lithospheric deformation including topography. Integrate geophysical and geological constraints from key regional settings to global scales to explore the links between theory and observations.

GEO X50W. Topics in Water, Climate, and Environment.

GEO X50W.1. Dynamics of Polar Systems.

Examine the fundamental physics that govern dynamics of ice sheets, oceans, and sea ice from a theoretical viewpoint that is supported with as many observations as possible.

GEO X50W.4. Statistical Data Analysis.

Examine the statistical, scientific, and computational approaches used to test hypotheses concerning the physics governing observed changes in the Earth System. Explore concepts in linear algebra and statistics such as regression, least-squares inversion, singular spectral analysis, Bayesian inference, Markov Chain Monte Carlo sampling, and test statistics to survey the existence of a discernable influence of humanity on the observational record of climate.

GEO X52P. Python for Geoscience Research.

Explore the Python 3 programming language and its application to scientific research. Examine basic Python and common scientific Python libraries such as numpy, pandas, matplotlib, datetime.

GEO X54. Physics of Earth.

Examines the kinematics and dynamics of the solid Earth as well as its evolution through time. Observations from multiple geophysical techniques are reviewed and applied towards understanding the planet.

GEO X55G. Geodynamics of the Lithosphere and Mantle.

Explores continuum dynamics problems that can serve to form a physical understanding of the tectonic and convective processes that shape our planet. Geared toward all undergraduate majors and graduate students from the Earth sciences and related fields in the natural sciences including physics, computer science, and engineering.

GEO X55S. Introduction to Remote Sensing for Geoscientists.

Examine the fundamentals of acquiring, processing, and interpreting remote sensing data. Explore the development of skills in the use and analysis of remote sensing data. Survey the physics of electromagnetic radiation and its interaction with geologic materials; common techniques for remote sensing; science goals and instruments onboard ongoing and planned remote sensing missions; and techniques for analysis of remote sensing data.

GEO X56S. Ins and Outs of Subduction Zones.

Discuss subduction zones, including the thermal and seismic structure of subduction zones, volatile and geochemical cycling, petrology of the subducting slab, seismicity, mantle wedge dynamics, volcanism, and the start of plate tectonics.

GEO X58K. Volcanology.

Discuss eruptive processes and products of volcanoes, using methods and concepts from mineralogy, petrology, fluid dynamics, depositional processes, geomorphology, stratigraphy, structural geology, field mapping, remote sensing, geochemical monitoring, and seismology. Examine the prediction and reduction of volcanic hazards; challenges faced by geologists in communicating with the public, decision-makers, and the media; and other impacts that volcanoes have on society, including the Earth's climate.

GEO X60. Field Geology.

Learn to identify sedimentary structures, measure and describe stratigraphy, interpret physical and environmental conditions in rock deposits, and develop foundational skills in geologic mapping and cross-section construction. Perform fieldwork including the use of UAV, LiDAR, and remote sensing data to enhance mapping and interpretation. Explore the geologic history and tectonic evolution of the Rocky Mountains and collect field and structural data to develop geologic maps, cross sections, and other geological products, interpreting the formation of folds, faults, rock fabrics, and associated features. Gain an understanding of crustal tectonics and the landform evolution of the region.

GEO X60G. Construction and Interpretations of 3-D Stratigraphy.

From Earth surface to subsurface, examines three-dimensional volumes of basin-filling stratigraphy to explore how depositional landscapes are preserved in the sedimentary record and how sedimentary deposits can be analyzed to produce quantitative reconstructions of past environmental states. Data includes both laboratory and industry-grade volumes of stratigraphy. Intended for Earth scientists requiring a quantitative understanding of how the structure of depositional landscapes is translated into subsurface stratigraphy.

GEO X61. Geophysics Field Camp.

Field studies for geophysics majors, including seismic, magnetic, electrical, gravity, and other techniques; related data processing and interpretation.

GEO X63S. Sedimentary Basin Analysis.

Quantitative and applied analysis of basin subsidence and sediment accumulation. Consider theoretical basin evolution due to flexural, thermal, dynamic, and fault-related subsidence. Analyze selected basin systems.

GEO X64P. Physical Oceanography.

Basic concepts for understanding and describing the large-scale circulation of the ocean. Covers measurement methods, properties of seawater, description of the global ocean's mean state and variability, introductory dynamics including balanced motions, wind-driven and abyssal circulation, wave motions, air-sea interactions, sea level science, and the ocean's role in climate.

GEO X65K. Seismic Exploration.

Seismic theory, including body and surface waves, attenuation, rays, reflection and transmission coefficients, principles of synthetic seismogram calculations, seismic imaging principles, reflection data processing methods, rock physics overview, seismic attributes overview, and seismic exploration field methods.

GEO X65N. Seismic Data Processing.

Reduction of seismic data from field records to final geologic images, using real data sets and open-source data analysis software.

GEO X65P. Potential Field Applications in Geophysics.

Introduction to the theory, measurement, and application of gravity and magnetic and electric fields to exploration and global-scale problems.

GEO X65Q. Geomorphology Process and Form.

Explores how Earth surface processes combine to shape landscapes through erosion and deposition. Includes discussion of open channel flow, sediment transport, fluvial and hillslope processes, and tectonic controls on landscape evolution.

GEO X66M. Mathematical Methods in Geophysics.

A survey of mathematics for geoscientists that includes infinite series, complex variables, linear algebra, integral transforms, ordinary and partial differential equations, tensor analysis, and probability and statistics.

GEO X66P. Planetary Geology and Geophysics.

Introduction to planetary geology, with an emphasis on geophysical observations of terrestrial planets in our solar system. Discuss missions, instruments, techniques, and incorporation of mission data in projects.

GEO X67M. Morphodynamics and Quantitative Stratigraphy.
Explores development of numerical tools to quantitatively understand sediment transport and stratigraphic development in sedimentary basins. Focus on applications of principles in fluid mechanics, sediment transport, and depositional mechanics to one-dimensional and quasi-two dimensional numerical modeling of sediment morphodynamics in depositional settings such as river deltas, carbonate platforms, and submarine fans. Requires development of geometrical and morphodynamic models as research tools to understand gathered data.

GEO X68K. Geophysics for Geological Sciences Majors.
A survey of seismic, magnetic, gravitational, and other geophysical tools and their application to exploration and global-scale problems.

GEO X69E. Evolution of Reef Ecosystems.
Introduction to the paleobiology, sedimentology, and oceanography of reef ecosystems throughout the geological record as well as the environmental and evolutionary factors that controlled the expansion and collapse of the carbonate ecosystems. Explore ocean chemistry, how organisms biomineralize a skeleton, symbiosis, ecology, mass extinctions, as well as current and future threats to reef health.

GEO X70E. Ecohydrology and Biometeorology.
Study the terrestrial biosphere and the ways ecosystems influence the water cycle. Investigate water, carbon, and energy fluxes within the Earth system from a hands-on experimental approach and through exposure to land-surface and climate models. Includes hydrology, Earth science, environmental engineering, ecology, biology, and climatology.

GEO X70K. Sedimentology.
Processes of sediment formation, transportation, and deposition; textures, structures, and facies of sedimentary rocks.

GEO X70Q. Morphodynamics and Quantitative Stratigraphy.
Explore numerical tools useful for quantitatively assessing sediment transport and stratigraphic development in sedimentary basins. Apply principles in fluid mechanics, sediment transport, and depositional mechanics to one-dimensional and quasi-two-dimensional numerical modeling of sediment morphodynamics in various depositional settings such as river deltas, carbonate platforms, and submarine fans. Develop geometrical and morphodynamic models as research tools to understand data collected from laboratory experiments and in the field.

GEO X71C. Topics in Conference Course.
Supervised study of selected topics in geological sciences, by individual arrangement with the department and instructor.

GEO X71H. Honors Research Methods I.
Preparation for independent research projects through exposure to current research programs, facilities, personnel, and projects in the Jackson School of Geosciences. Includes selecting research topics, mentors, and supervisors; preparing research proposals; conducting research activities; and presenting research results.

GEO X71S. Geological Sciences Research Methods.
Supervised research project completed in collaboration with faculty supervisor and related research group members either as a one-semester research activity in preparation for a senior thesis project.

GEO X71T. Topics in Geological Sciences: Undergraduate Seminar.

GEO X72H. Honors Research Methods II.
Preparation for independent research projects through exposure to current research programs, facilities, personnel, and projects in the Jackson School of Geosciences. Includes selecting research topics, mentors, and supervisors; preparing research proposals; conducting research activities; and presenting research results.

GEO X72S. Geochemical Problem Solving with Atoms and Ions.
Discussion of mass spectrometers, which are analytical balances that operate at molecular and atomic levels, used for gathering compositional data (both isotopic and elemental). Explores conversion of sample molecules into charged particles (ions), and measurement according to mass-to-charge ratio to assess chemical identity and abundance. Introduction to inorganic mass spectrometry methods and applications to the Earth sciences, surveying key modalities: TIMS, ICP-MS, LA-ICP-MS, MC-ICP-MS, and IRMS. Examines techniques in generating and critically evaluating high-quality data, and research.

GEO X73H. Honors Research Methods III.
Preparation for independent research projects through exposure to current research programs, facilities, personnel, and projects in the Jackson School of Geosciences. Includes selecting research topics, mentors, and supervisors; preparing research proposals; conducting research activities; and presenting research results.

GEO X76C. Isotope Geology.
Overview of the principles of stable and radiogenic isotope geochemistry. Subjects include mass spectrometry, geochronology and thermochronology, cosmogenic nuclides, radiogenic geochemistry, isotopic fractionation, traditional and non-traditional stable isotope geochemistry and its applications to the hydrologic cycle, low-temperature geochemistry, magmatic and metamorphic processes, thermometry, fluid-rock interactions, tectonics, crust-mantle evolution, and extraterrestrial materials.

GEO X76E. Environmental Isotope Geochemistry.
The application of the isotope and trace element geochemistry of natural waters and sediments to studies of the hydrologic cycle. Stable, radiogenic, and cosmogenic isotopes are used as tracers of the evolution of groundwater, surface water, and ocean water.

GEO X76K. Groundwater Hydrology.
Introduction to subsurface hydrology, emphasizing geological controls on groundwater flow; quantitative methods of analyzing aquifer systems; regional hydrology; water quality and pollution.

GEO X76L. Field Methods in Groundwater Hydrology.
Train in and experience hydrology field methods as well as data handling and analysis. Learn methods including drilling and well installation, well logging, hydraulic testing, stream gauging, near-surface geophysics, water sampling and analysis, soil sampling and analysis, hydrologic monitoring and mapping of water tables and flow paths, hydrometeorological measurements, and general mapping and surveying. Train on sampling and safe operation of instrumentation.

GEO X76M. Aqueous Geochemistry.
Explore aqueous geochemistry. Examine basic thermodynamics, kinetics, mineral solubility, acid-base chemistry, the carbonate system, surface chemistry, silicate mineral weathering, redox chemistry, and aqueous complexes. Learn the computer program PHREEQC.

GEO X76S. Physical Hydrology.
Modern conceptual and methodological approaches to hydrological science: qualitative assessment of hydrological processes, quantitative representation, approaches to measurement, and treatment of uncertainty. Major components of the hydrological cycle: precipitation, snow and snowmelt, infiltration, soil moisture, evapotranspiration, and runoff and their link to the coupled-earth system.

GEO X76T. High-Temperature Geochemistry.
Study of the composition, origin, and chemical and physical evolution of the earth and its interior. Examines the links between the fields of geochemistry and tectonics, igneous petrology, geophysics, and other areas of inquiry.

GEO X76W. Hydrogeophysics.
Application of geophysical methods in hydrogeology. Modules include method theory and hydrogeological applications; using instruments in the field; and analysis of data, interpretation, and hydrogeological insights. Class discussions; field exercises and written field exercise summaries; individual and group reports. Previous coursework and/or experience in hydrogeology and geophysics is recommended.

GEO X77K. Applied Karst Hydrogeology.
The study of karst landforms, processes, flow systems, and water resources. Geologic controls, natural resources, aquifer recharge and discharge, system evolution, geochemistry/water quality, tracing

methodologies, geophysical methods, and modeling are covered with an emphasis on collecting and interpreting field data.

GEO X77P. Physical Climatology.

Explore climate science through the lens of physical principles and Earth system science. Examine the key components of the Earth system--the atmosphere, hydrosphere, lithosphere, cryosphere, and biosphere--their interactions, and their responses to both natural and human-induced forcing. Discuss radiation, energy balance, and atmospheric/oceanic general circulation; the hydrological cycle, with a focus on surface hydrology and land-atmosphere interactions; climate feedbacks, sensitivity, and variability across temporal scales (past, present, and future). Focus on human impacts on the climate system, including urbanization, irrigation, industrialization, air pollution, and tropical deforestation.

GEO X78D. Introduction to Machine Learning and Geosciences.

Explore an overview of commonly used machine learning algorithms for Geosciences applications.

GEO X79G. Special Studies in Geophysics Research, Fieldwork, or Internship.

Special research projects, field studies, or geophysical/industrial internship. Assigned reading with written and oral report.

GEO X79H. Honors Thesis in Geological Sciences.

Supervised research project resulting in an honors thesis with an oral defense.

GEO X79J. Internship in Hydrogeology.

Special hydrogeological studies under the joint supervision of industry professionals and faculty members. Students present a written report.

GEO X79K. Special Topics in Advanced Geological Sciences.

Special emphasis on recent developments in geosciences.

GEO X79M. Mammalogy.

Surveys the biology and evolutionary history of mammals. Introduction to the diversity of living mammals through the study of mammalian ecology, behavior, morphology, and taxonomy. Laboratory work focuses on the characters diagnosing the major mammalian clades and identifying the common recent mammals of Texas using skins and recent osteological specimens. Fossils and the fossil record of mammals.

GEO X79N. Geosciences Internship.

Work experience in geological sciences under the joint supervision of industry professionals (the employer) and a supervising faculty member. Requires submission of a final report to the supervising faculty member at the end of the semester. Internship position must be on file with JSG Career Services.

GEO X79S. Geological Sciences Senior Thesis.

Second course in a two-course sequence focused on supervised student research and preparation of a final report on research activities.

Graduate Courses

GEO X80C. Advanced Structural Geology.

Origin of earth structures, solution of advanced structural problems, newest techniques, field techniques, and field problems.

GEO X80F. Seismology II.

Basic seismology theory and its application to the study of the interior of the Earth (crust, mantle, and core), earthquakes, and plate tectonics.

GEO X80G. Construction and Interpretation of 3-D Stratigraphy.

Uses three-dimensional volumes of basin-filling stratigraphy to explore how depositional landscapes are preserved in the sedimentary record and how sedimentary deposits can be analyzed to produce quantitative reconstructions of past environmental states.

GEO X80J. Mathematical Methods in Geophysics.

A survey of mathematics for geoscientists that includes infinite series, complex variables, linear algebra, integral transforms, ordinary and partial differential equations, tenor analysis, and probability and statistics.

GEO X80N. Sequence Stratigraphy.

Organization and interpretation of stratigraphic successions in time-bounded units of genetically related strata. Sequence stratigraphy, as a predictive branch of stratigraphic analysis, provides insight into the origin of the entire spectrum of siliciclastic, carbonate, and evaporite sediments from shallow to deep settings. Laboratory component involves the interpretation of sequences using outcrop measured sections, core data, wireline log sections, field trips, and 2D and 3D seismic data from modern and ancient settings.

GEO X80P. Advanced Reservoir Characterization: Carbonates.

Advanced instruction in the integration of geologic and engineering methods for building 3-D reservoir models of carbonate reservoirs.

GEO X80R. Dynamics of Sedimentary Systems I.

Explores the fundamental concepts of transport systems at the Earth's surface, focusing on principles and quantitative aspects of fluid flow, sediment transport, and bedforms, as well as atmospheric and oceanic circulation, complex systems, and the integration of small-scale processes in developing quantitative stratigraphic models.

GEO X80S. Dynamics of Sedimentary Systems II.

Explores the fundamental concepts of transport systems at the Earth's surface, focusing on principles and quantitative aspects of fluid flow, sediment transport, and bedforms, as well as atmospheric and oceanic circulation, complex systems, and the integration of small-scale processes in developing quantitative stratigraphic models.

GEO X80T. Geoclimatology.

Examines climate records encoded in sedimentary archives through geologic time.

GEO X81C. Structural Petrology.

Deformation processes from atomic to macroscopic level, resultant textures and fabrics, and conditions required to produce such deformation.

GEO X81E. Brittle Structure.

Quantitative analysis of folding, faulting, and fracturing at all scales in the upper crust, with emphasis on cross-section construction, subsurface mapping, and fracture analysis.

GEO X81F. Microstructures and Rock Rheology.

Focuses on processes of deformation operative in the crust and upper mantle, with an emphasis on distinguishing these processes using microstructural analysis and describing them using basic constitutive relationships from rock mechanics.

GEO X81G. Geomicrobiology.

Geologic and hydrologic controls on subsurface microbial growth, metabolism, and community structure; the geochemical consequences of microbial processes in subsurface settings; and the influence of geology on microbial ecology.

GEO X81J. Marine Geology.

Survey of the field of marine geology by exploring the structure and evolution of the ocean basins, oceanic islands, and island arcs, the chemistry of the oceans, the sediments in the marine environments, the products and processes of the land-air-sea interface, and the history of the oceans over geologic time.

GEO X81P. Plate Margins.

Study of the tectonics of the earth. Topics include history of early concepts, ocean spreading ridges and ophiolites, rifting, core complexes, passive margins, subduction zones, trenches, volcanic arcs, collisional orogenesis, and transform margins.

GEO X81R. Regional Studies in Mineral Resources Geology.

Geologic evolution of a region, with emphasis on factors that control the origin of selected mineral resources. Study area varies according to the interests of participants and other factors.

GEO X81S. Tectonic Problems.

Explore the origin of regional structural features, complex and controversial structures, and the tectonic control of ore deposits.

GEO X81T. Marine Tectonics.
Tectonic processes within the dynamic Earth, with a focus on oceanic structures. Subjects may include fundamentals of plate tectonics; plate motion, driving forces, and mantle convection; evolution of triple junction and plate margins; plate reconstructions; earthquakes and focal mechanisms; structure and geochemistry of the Earth's interior; mantle structure and tomography; rheology and deformation mechanisms in mantle and crust; heat flow, gravity, the geoid, and paleomagnetism; hotspots and mantle plumes; seafloor spreading and oceanic spreading ridges; oceanic transform faults and fracture zones; and subduction zones, volcanic island arcs, and marginal seas.

GEO X82C. Groundwater Field Methods.
Basic field methods used in evaluation of groundwater conditions, with emphasis on field interpretation and on hands-on experience with geophysical, geochemical, stream-gauging, and pump test methods.

GEO X82D. Crustal Geofluids.
Designed to provide a technical foundation for exploring how fluids drive fundamental geologic processes in sedimentary basins. Includes characterizing pressure and stress in sedimentary basins, exploring the origin of overpressure through theory and characterization, and examining how pressure and stress couple. Problems include how sedimentation generates overpressure, how hydrocarbons are trapped in the subsurface, how mud volcanoes form, how submarine landslides are generated, and the origin of methane hydrates.

GEO X82E. Scientific Research Design.
Explore the principles of experimental design including formulation of target questions and method choice in an interdisciplinary, community context.

GEO X82F. Fractured Rock Hydrology and Mechanics.
Introduction to the physics of flow in fractured rocks and soils, fracture mechanics, fracture skins, analysis of solute transport, and methods of characterizing and modeling fractured systems. Class field trips are an integral part of the class.

GEO X82G. Fluid Physics for Geologists.
Flow and transport phenomena within an earth science context. Includes extensive use of Maple, MATLAB, and COMSOL Multiphysics.

GEO X82M. Programming in FORTRAN and MATLAB.
FORTRAN for students without knowledge of a computer programming language: survey of all variable types, loops, arrays, subroutines, and functions; overview of UNIX and MATLAB.

GEO X82P. Physical Oceanography.
Basic concepts for understanding and describing the large-scale circulation of the ocean. Covers measurement methods, properties of seawater, description of the global ocean's mean state and variability, introductory dynamics including balanced motions, wind-driven and abyssal circulation, wave motions, air-sea interactions, sea level science, and the ocean's role in climate.

GEO X82S. Physical Hydrology.
Comprehensive treatment of modern conceptual and methodological approaches to hydrological science. Combines qualitative understanding of hydrological processes with quantitative representation, approaches to measurement, and treatment of uncertainty. Major components of the hydrological cycle.

GEO X82T. Continental Tectonics.
Tectonic processes, with a focus on continental lithospheric structures. Subjects may include convergent margins, subduction zones, magmatic arcs, and foreland structures; collisional orogenesis, arc-continent collisions, continent-continent collision, and mountain building; formation of supercontinents; uplift and exhumation; orogenic collapse and extensional tectonics; continental rifting and passive margins; transform margins; and the effect of tectonics on climate and oceanic circulation.

GEO X82W. Hydrogeophysics.
Application of geophysical methods in hydrogeology. Modules include method theory and hydrogeological applications; using instruments in the field; and analysis of data, interpretation, and hydrogeological insights. Class discussions; field exercises and written field exercise summaries; individual and group reports.

GEO X83. Clastic Depositional Systems.
Explore the processes and products of siliciclastic environments, including rivers, deltas, coastal systems, and deep-marine systems, with an emphasis on facies analysis, stratigraphic architecture, and sedimentary petrology. Develop the skills necessary to analyze sedimentary systems at multiple scales--from depositional environments to basin-wide correlations--emphasizing the integration of sedimentological, stratigraphical, and petrological data. Discuss the tectonic, climatic, and eustatic controls on facies transitions and provenance characterization.

GEO X83C. Topics in Geology and Hydrology.
Study of the interaction of fluids with the rock matrix, with emphasis on the role of hydrology in geologic processes and the role of geology in affecting hydrologic processes.

GEO X83D. Numerical Methods I: Computational Methods in Geological Sciences.
A survey of geophysical data analysis methods, with a focus on time series, including sampling and aliasing, convolution and correlation, statistics, linear digital filters, properties and applications of the discrete Fourier transform, and least squares. Instruction in MATLAB and Fortran and solution of data analysis problems using these two languages.

GEO X83E. Digital Methods in Hydrogeology.
Applications of mathematical software to earth science problems, with emphasis on hydrogeologic problems. Includes a brief introduction to numerical methods.

GEO X83F. Holocene-Pleistocene Sedimentology and Stratigraphic-Structural Evolution of the Caicos Platform.
Investigation of the broad range of depositional environments of the Caicos Platform through mapping exercises using state of the art digital imagery and lidar datasets, lab exercises, core workshops and a week-long field trip. Study of the evolution of the Caicos Platform carbonate system from modern sediments to complex stratigraphic records including grain types, sedimentary structures, and facies successions from the tidal flats, salinas, high-energy shoreline, and grainy back reef environments.

GEO X83G. Geochemistry of Sedimentary Rocks.
The hydrologic cycle, the early diagenesis, carbonate sediments, chemical sediments, and burial processes.

GEO X83K. Paleoecology.
Relationships of fossil animals and plants to their environments and to the sedimentary deposits in which they occur.

GEO X83L. Petrography of Sandstones.
Interpretation of microscale features of sandstones to decipher the paleogeographic, tectonic, and postdepositional controls on sandstone composition and texture. Examines the effects of chemical and mechanical processes in the subsurface on sandstone properties, including porosity.

GEO X83M. Petrology of Carbonates and Evaporites.
Description and interpretation of carbonate and evaporite rock deposition and paragenesis. Essentials of petrology; petrography, including identification of grain types, cement types, recrystallization, and dolomitization; and porosity evolution. Global geochemical signals in carbonate sediments, and geochemical processes of early and late diagenesis.

GEO X83N. Depositional Systems: Carbonates and Evaporites.
Analysis of carbonate and evaporite depositional systems from sedimentary structures, faunal and ichnofaunal associations, grain types, vertical and lateral facies successions within time-significant packages, and sediment body geometries.

GEO X83P. Potential Field Applications in Geophysics.
Introduction to the theory, measurement, and application of gravity and magnetic and electric fields to exploration and global-scale problems.

GEO X83R. Reservoir Geology and Advanced Recovery.
Analysis of geologic controls on composition and architecture of oil and gas reservoirs, with emphasis on reservoir heterogeneity resulting from depositional and diagenetic processes. Geological and petrophysical determinants of fluid flows and behavior.

GEO X83S. Sedimentary Basin Analysis.
Quantitative and applied study of basin subsidence and sediment accumulation. The first half of the course considers theoretical basin evolution due to flexural, thermal, dynamic, and fault-related subsidence. The second half of the course involves analysis of selected basin systems and includes student research projects and presentations on assigned topics.

GEO X83T. Tectonic and Climatic Interactions in Foreland Basins.
Integration of recent advances in foreland basins and adjacent orogenic belts, with emphasis on sedimentation, quantitative basin models, regional and global climate change, and the geometry and kinematics of fold-thrust belts.

GEO X83U. Dynamic Field Stratigraphy.
Field-based evaluation of the dynamics of the stratigraphic record, with implications for sedimentary, tectonic, and climatic processes.

GEO X84C. Seismology I.
Research seismic methods of exploration for petroleum and minerals and subsurface storage of fluids.

GEO X84D. Physics of Earth.
Geophysics of the whole Earth: seismic methods of inferring Earth structure, chemical makeup of Earth, tides and rotational variations, geomagnetism, heat flow, earthquakes, and seismicity.

GEO X84E. Seismic Migration and Inversion.
Use of the acoustic or elastic wave equation to construct subsurface images in seismic processing. Different methods of solution and data domains employed in routine applications. Investigates integral, implicit, and explicit finite differences and Fourier methods for the imaging and inversion of seismic reflection data.

GEO X84F. Finite Element Methods in Geophysics.
Numerical methods for solution of partial differential equations arising in continuum geophysics and geodynamics. Focuses on finite element methods and their application to heat conduction, viscous flow, wave propagation, and transport problems in geophysics.

GEO X84G. Subsurface Mapping and Petroleum Workstations.
Introduction to basin analysis, subsurface mapping, and petroleum exploration using a workstation. Subjects may include common tectonic settings of petroleum basins, seismic stratigraphy, structural styles, and petroleum systems. Workstation techniques include well log editing, lithology interpretation, correlation of tectonic events, integration of seismic and subsurface well data, interpretation of two- and three-dimensional seismic reflection data and structure, and isopach and seismic attribute mapping.

GEO X84H. Multidimensional Data Analysis in Geosciences.
Extracting multidimensional patterns from data, data reconstruction and registration, signal and noise separation. Elements of geostatistics, linear estimation, image analysis, and multidimensional sparsity-promoting transforms with applications to large-scale geoscientific data.

GEO X84M. Inverse Theory.
Vector spaces; model parameter estimation methods from inaccurate, insufficient, and inadequate measurements; linear, quasi-linear, and highly non-linear problems; local and global optimization methods. Emphasis on practical problem solving.

GEO X84N. Rock Physics.
Focuses on how rocks, pore fluids, and physical conditions of temperature, stress, diagenesis, and geological processes impact wave propagation, with an emphasis on how laboratory and theoretical results can be applied to field data. Presentation of case studies that outline strategies for seismic interpretation, site characterization, and recovery monitoring. Upscaling seismic and rock properties from the laboratory scale to borehole and reservoir scales. Multidisciplinary approaches to combination of geostatistical and stochastic methods, seismic-to-rock property transforms, and geologic information for reservoir characterization.

GEO X84R. Geophysical Time Series Analysis.
Surveys the following topics in time series analysis with geophysical applications: Fourier transforms, linear digital filters and their design, frequency domain analysis methods (power and coherence spectrum estimation), least squares and related methods with time series applications. MATLAB is used extensively.

GEO X84S. Seismic Data Processing.
Reduction of seismic data from field records to final geologic images, using real data sets and open-source data analysis software.

GEO X84T. Seismic Lithology.
How seismic waves propagating through earth materials respond to relevant rock, reservoir, and fluid properties in the subsurface, and how seismic data recorded on the surface are used to describe, discriminate, and estimate these rock, reservoir, and fluid properties in the subsurface.

GEO X84U. Quantitative Seismic Interpretation.
Seismic inversion, a tool for reservoir characterization, post- and pre-stack modeling, rock physics and fluid replacement modeling, wavelet estimation and post-stack inversion, AVO and pre-stack inversion, multiattribute regression and neural network, and net pay estimation. Extensive hands-on training with three-dimensional seismic and well-log data.

GEO X84W. Seismic Imaging.
Seismic reflection imaging for visualizing the interior of Earth's upper crust. Study of fundamental imaging concepts from a unified geometrical point of view. Hands-on practical experience with imaging seismic data in an open-source software environment.

GEO X85G. Geophysics Colloquium.
Exploration of a variety of problems in modern geophysics.

GEO X85Q. Geomorphology Process and Form.
Explores how Earth surface processes combine to shape landscapes through erosion and deposition. Emphasis on open channel flow, sediment transport, fluvial and hillslope processes, and tectonic controls on landscape evolution.

GEO X85S. Introduction to Remote Sensing for Geoscientists.
Examine the fundamentals of acquiring, processing, and interpreting remote sensing data. Explore the development of skills in the use and analysis of remote sensing data. Survey the physics of electromagnetic radiation and its interaction with geologic materials; common techniques for remote sensing; science goals and instruments onboard ongoing and planned remote sensing missions; and techniques for analysis of remote sensing data.

GEO X85T. Global Tectonics.
Examine tectonic processes within the dynamic Earth, with a focus on plate boundary processes. Discuss fundamentals of plate tectonics; plate motion, driving forces, and mantle convection; evolution of plate margins including convergent, transform, rifting, and mid-ocean ridge spreading centers, triple junctions and collisional orogenesis; plate reconstructions; earthquakes and focal mechanisms; structure and geochemistry of the Earth's interior. Explore challenging questions of onset of plate tectonics, subduction initiation, and tectonics on other planets.

GEO X86. Metamorphic Petrology.
Metamorphism as a record of processes in the Earth's deep crust; phase equilibria among minerals and fluids at elevated temperatures and pressures; tectonometamorphic regimes; petrographic interpretation of

metamorphic mineral assemblages and textures; and secular evolution of metamorphic patterns during Earth's history.

GEO X86D. Earth in Deep Time.

Examine the causes and consequences of significant changes in Earth's surface environment and tectonic processes over the past 4.5 billion years. Discuss the initial Earth accretion, the Faint Young Sun problem, the rise of oxygen in Earth's atmosphere and general requirements for planetary habitability and how interactions between Earth's interior, the surface, and biosphere have shaped planetary evolution.

GEO X86E. Economic Geology.

Origin of economic mineral concentrations within the context of their overall geologic settings; geologic aspects of economic evaluation, mining, and mineral processing; and mineral exploration.

GEO X86G. Geographic Information System and Global Positioning System Applications in Earth Sciences.

Examine the theory and application of Geographic Information System (GIS) and Global Positioning System (GPS) technologies in earth science. Implement data collection, mapping, and analysis through labs and practical exercises. Discuss map projections, cartographic principles, remote sensing, spatial analysis, and geospatial data resources in the context of earth science applications.

GEO X86K. Igneous Petrology.

Origin, differentiation, and crystallization of igneous rocks.

GEO X86R. Geology of Earth Resources.

Study of geologic, economic, societal, and environmental issues related to the production and consumption of energy, metal, industrial mineral, and water resources. Emphasizes the descriptive geology and origin of earth resources within the context of their overall geologic settings.

GEO X86S. Ins and Outs of Subduction Zones.

Explore an overview of subduction zones, including sites of lithospheric scale recycling, critical to understanding the chemical evolution of the Earth's crust and mantle, volcanism, earthquakes, and orogenesis. Includes the thermal and seismic structure of subduction zones, volatile and geochemical cycling, seismicity, mantle wedge dynamics, and volcanism.

GEO X86T. Topics in Volcanology.

Explores the physical and chemical processes involved in the eruption, transport, and deposition of volcanic material through the use and study of field measurements, fluid dynamics, petrology, and geophysical observations.

GEO X87C. Aqueous Geochemistry.

Introduction to the chemistry of water in the subsurface. Topics include basic thermodynamics and kinetics of rock-water interaction, acid-base theory, redox, and coordination chemistry.

GEO X87D. Climate Dynamics.

Studies features of the climate system and the basics of climate system dynamics. Subjects may include climate variability, radiation and heat budgets, atmospheric and ocean circulation systems, and the physics of climate change.

GEO X87E. Environmental Organic Geochemistry.

Environmental and organic chemistry of organic contaminants in groundwater and soils.

GEO X87G. Climate System Modeling.

Studies the basic theory of weather/climate system modeling using state-of-the-art regional climate models in a variety of applications. Includes instruction on how to run models on the TACC supercomputers for scientific applications. Subjects may include paleoclimate, contemporary, and/or future climate prediction based on changes in greenhouse gas concentrations.

GEO X87H. Physical Climatology.

Investigates the nature of Earth's climate and examines the physical processes that maintain the climate system. Topics include the energy balance, the hydrological cycle, general atmosphere circulation, and how they all interact and vary at various spatial and temporal scales. Discusses human-induced modifications to the climate system, such as urbanization, anthropogenic global warming, desertification, and tropical deforestation. Focuses on descriptive, analytical, programming, and modeling skills.

GEO X87P. Climate System Physics.

Discussion of first-order principles and processes that govern the thermodynamical structure and energy distribution of the atmosphere, ocean, land, and cryosphere and their interaction with the dynamic aspect of the climate system.

GEO X88C. Basin GeoMechanics.

Develop the technical foundation and physical insight to explore how stress and pressure drive geologic and human-induced processes. Examine applications including C02 sequestration, geothermal energy, hydraulic-fracturing, faulting, geopressure development, hydrocarbon entrapment, subsidence and compaction, slope stability, and borehole stability.

GEO X88G. Global Biogeochemical Cycles.

Examination of the major reservoirs, fluxes, and processes controlling the distribution of biologically active chemical constituents of the earth. The importance of these biogeochemical cycles in the geologic past and the effects of human perturbation of these cycles.

GEO X88H. Environmental Isotope Geochemistry.

The application of the isotope and trace element geochemistry of natural waters and sediments to studies of the hydrologic cycle. Stable, radiogenic, and cosmogenic isotopes are used as tracers of the evolution of groundwater, surface water, and ocean water.

GEO X88L. Isotope Geology.

Overview of the principles of stable and radiogenic isotope geochemistry. Covers mass spectrometry, geochronology and thermochronology, cosmogenic nuclides, radiogenic geochemistry, isotopic fractionation, traditional and non-traditional stable isotope geochemistry and its applications to the hydrologic cycle, low-temperature geochemistry, magmatic and metamorphic processes, thermometry, fluid-rock interactions, tectonics, crust-mantle evolution, and extraterrestrial materials.

GEO X88P. Paleontological Laboratory Techniques.

Overview and application of laboratory techniques used for in-depth investigation of the systematics of vertebrates.

GEO X88R. Radiogenic Isotopes and Tectonic Processes.

Application of radiogenic isotopes to tectonic problems. Particular attention is given to methods and tools in thermochronology and geochronology for understanding thermal histories, uplift rates, slip rates, timing relationships, landform development, and provenance.

GEO X88T. High-Temperature Geochemistry.

An introduction to the application of isotope and trace element geochemistry in the modern geological sciences, with emphasis on problems related to the origin and evolution of the Earth's interior.

GEO X89E. Evolution of Reef Ecosystems.

Introduction to the paleobiology, sedimentology, and oceanography of reef ecosystems throughout the geological record as well as the environmental and evolutionary factors that controlled the expansion and collapse of the carbonate ecosystems (and others). Explore ocean chemistry, how organisms biomineralize a skeleton, symbiosis, ecology, mass extinctions, and both current and future threats to reef health.

GEO X89J. Transitions in the History of Life.

Exploration of the transitions in the history of life, including mass extinctions, climactic perturbations, and environmental changes and their impact on the Earth's biota.

GEO X89K. Paleontologic Nomenclature and Techniques.

Rules of nomenclature: preparation, illustration, and description of Paleozoic invertebrate fossils.

GEO X89M. Vertebrate Paleontology: Mammals.

Comparative osteology and phylogenetic history of the living and extinct mammals.

GEO X89P. Digital Methods in Morphology.
The use of digital multimedia for analysis of paleontological problems, with emphasis on three-dimensional high-resolution CT data.

GEO X89R. Morphology of the Vertebrate Skeleton.
Identification of skeletal elements from the major vertebrate taxa, and aspects of skeletal functional morphology, with emphasis on extant taxa. Topics include the skeletal systems of fishes, amphibians, reptiles, birds, and mammals.

GEO X89S. Systematics and Paleontology.
Seminar course focusing on current issues in digital/instructional technologies. Provides students with an opportunity to explore, discuss, and demonstrate issues designing, acquiring, manipulating, authoring, and publishing digital content. Students work toward completing a specific project.

GEO X89V. Vertebrate Paleontology.
Comparative osteology and phylogenetic history of the living and extinct fishes, amphibians, and reptiles.

GEO X90D. Seismology III.
Advanced treatment of elastic wave propagation in heterogeneous anisotropic media, vectors and tensors, Christoffel equation, group and phase velocities, invariant embedding (reflectivity), finite difference, finite elements, and spectral elements.

GEO X90E. Ecohydrology and Biometeorology.
Study the terrestrial biosphere and the ways ecosystems influence the water cycle. Investigate water, carbon, and energy fluxes within the Earth system from a hands-on experimental approach and through exposure to land-surface and climate models. Includes hydrology, Earth science, environmental engineering, ecology, biology, and climatology.

GEO X90M. Thermodynamics of Geologic Processes.
Applications of physical chemistry to natural systems; interactions of minerals, solutions, and the atmosphere.

GEO X90Q. Morphodynamics and Quantitative Stratigraphy.
Explore numerical tools useful for quantitatively assessing sediment transport and stratigraphic development in sedimentary basins. Apply principles in fluid mechanics, sediment transport, and depositional mechanics to one-dimensional and quasi-two-dimensional numerical modeling of sediment morphodynamics in various depositional settings such as river deltas, carbonate platforms, and submarine fans. Develop geometrical and morphodynamic models as research tools to understand data collected from laboratory experiments and in the field.

GEO X90R. Analytical Methods: Electron-Microbeam Techniques.
An introduction to electron-microbeam instruments and their applications in the earth sciences. Lectures on relevant theory and concepts are supplemented by hands-on experience.

GEO X90T. Tectonic Problems.
Explore cutting-edge and debated concepts and processes governing plate tectonics, the unifying concept of solid Earth Sciences, in both the marine and continental realms. Investigate and test the validity of processes-oriented concepts in subduction, rift, and collision tectonics settings. Study regional and global tectonic problems through an interdisciplinary structural, petrological, geochemical, sedimentological, and geophysical approach.

GEO X91. Topics in Geological Sciences: Seminar.

GEO X91C. Physical Hydrogeology.
Geological controls on groundwater resources; evaluation of aquifers, geothermal systems, and contamination problems; natural hazards caused by human use of groundwater.

GEO X91D. Regional Tectonics.
Development of tectonic theory culminating in the new global tectonics, and application of theory to selected orogenic areas.

GEO X91K. Applied Karst Hydrogeology.
The study of karst landforms, processes, flow systems, and water resources. Geologic controls, natural resources, aquifer recharge and discharge, system evolution, geochemistry/water quality, tracing methodologies, geophysical methods, and modeling are covered with an emphasis on collecting and interpreting field data.

GEO X91Q. Topics in Quaternary Geology.
Interdisciplinary analysis of Quaternary chronology, environments, climatic changes, and erosional-depositional processes.

GEO X91S. Current Topics in Paleobiology.
Seminar reviewing recent publications on evolutionary and ecologic theories applied to the fossil record.

GEO X91W. Aquifer Testing.
Techniques of aquifer evaluation, including pumping tests, laboratory techniques, field mapping, and numerical analysis.

GEO X92F. Fundamentals and Applications of ICP-MS.
Explores inductively coupled plasma mass spectrometry (ICP-MS) for trace, minor and major element measurement, and applications in analytical fields. Covers fundamentals of technique, applications, and capabilities of ICP-MS through hands-on lab experience.

GEO X92M. Modern Geological Sciences.
General discussion of the entire spectrum of geological sciences.

GEO X92P. Python for Geoscience Research.
Explore Python 3 programming language for application to scientific research. Examine basic Python and common scientific Python libraries such as numpy, pandas, matplotlib, datetime.

GEO X92S. Geochemical Problem Solving with Ions Atoms.
Overview of mass spectrometers, which are analytical balances that operate at molecular and atomic levels, used for gathering compositional data (both isotopic and elemental). Explores conversion of sample molecules into charged particles (ions), and measurement according to mass-to-charge ratio to assess chemical identity and abundance. Introduction to inorganic mass spectrometry methods and applications to the Earth sciences, surveying key modalities: TIMS, ICP-MS, LA-ICP-MS, MC-ICP-MS, and IRMS. Examines techniques in generating and critically evaluating high-quality data, and research.

GEO X93. Technical Lecture Series.
Attendance required of all graduate students in geological sciences.

GEO X93D. 3D Analysis of Volumetric Data.
Explore the theory and practice of acquiring and utilizing volume image data, predominantly from X-ray computed tomography (CT). Examine CT data instrumentation and acquisition, as well as 3D data processing, visualization, and quantification using a range of methods, including machine learning approaches.

GEO X94. Topics in Research in Geological Sciences.

GEO X94P. Modeling Flow and Transport in Porous Media.
Introduction to the modeling of flow and transport in porous media with focus on basic dynamic phenomena that occur during single-phase flow and solute transport in heterogeneous porous media. Discuss the numerical solution of both the elliptic equations governing the flow of groundwater and the hyperbolic equations governing solute transport. Includes a programming project which requires writing a functional numerical simulator.

GEO X95D. Ice Dynamics.
Physics of ice motion, basal processes, glacial hydrology, and unstable flow.

GEO X95S. Seismic Structural Analysis.
Addresses interpretation of 2D and 3D seismic reflection data for unraveling the geometry and kinematic evolution of crustal structures, principally in sedimentary rocks. Foundational subjects include understanding how structures manifest themselves in seismic data, and approaches to effective interpretation and kinematic analysis. Covers structural systems including extensional, fold and thrust belts, salt tectonics, and inversion. Applied subjects include computer workstation interpretation and analysis approaches, determination of geologic and basin history, fault system analysis, fault permeability structure, and geomechanical evaluations such as in situ stress determination and application to induced seismicity risking.

GEO X96C. CO2 Storage in Geological Formations.
Explore how capturing and storing carbon dioxide (CO2) underground is an important means of mitigating climate change. Examine the geological and environmental aspects of CO2 injection, sequestration, and monitoring that control the success of real CO2 storage projects.

GEO X96D. Topics in Machine Learning Data Analytics.

GEO X96D.1. Introduction to Machine Learning and Geosciences.
Explore an overview of commonly used machine learning algorithms for Geosciences applications.

GEO X96D.2. Applications of Data Analysis, Visualization, and Machine Learning.
Examine computational approaches to take advantage of complex data. Explore addressing real-world geoscience challenges using the Python programming language and Jupyter computational notebooks. Discuss techniques in data analysis, modeling, and machine learning for subsurface characterization applicable to resource assessment and geomorphology and stratigraphy applicable to hazard assessment.

GEO X96D.3. Data Analytics and Geostatistics.
Explore data analytics and geostatistics for geosciences applications.

GEO X96D.4. Subsurface Machine Learning.
Explore problem formulation, feature engineering, and inferential and predictive machine learning algorithms for geosciences applications.

GEO X96D.5. Machine Learning Research.
Examine machine learning and its application to the geosciences. Study and discuss current literature and complete a capstone project applying machine learning to a research area of choice.

GEO X97F. Marine Geology and Geophysics Field Course.
Hands-on, team-based instruction in the collection and processing of marine geological and geophysical data along the Gulf of Mexico coast.

GEO X97L. Transitions in the History of Life.
Introduction to major perturbations in the history of life; specifically, mass extinctions and carbon-cycle perturbations (e.g. ocean anoxic events, hyperthermals, and acidification events). Examine kill mechanisms (e.g. glaciations, impacts, large igneous provinces) and the subsequent environmental perturbations and ecological ramifications. Explore biotic crises in the past, with an eye to future ecosystem collapse, as well as the environmental and paleobiological responses to these events.

GEO X97M. Morphodynamics and Quantitative Stratigraphy.
Covers development of numerical tools to quantitatively understand sediment transport and stratigraphic development in sedimentary basins. Focus on applications of the principles in fluid mechanics, sediment transport, and depositional mechanics to one-dimensional and quasi-two dimensional numerical modeling of sediment morphodynamics in various depositional settings such as river deltas, carbonate platforms, and submarine fans. Requires development of geometrical and morphodynamic models as research tools to understand gathered data.

GEO X97P. Field Methods in Planetary Geology.
Field studies combined with remote sensing to support studies of remote imagery from planetary missions.

GEO X97Q. Preparing Future Faculty.
Examine the academic and research career track, including a number of different career paths. Participate in a workshop covering all application materials for these kinds of jobs.

GEO X98. Thesis.

GEO X98C. Continuum Mechanics.
Explore the foundation for the modeling of fluids and solids in geological and geophysical phenomena, such as mantle convection, glaciology, rock mechanics, and climate dynamics. Examine tensor analysis, the kinematics of motion, forces, and stresses. Discuss basic balance (conservation) laws for mass, momentum, and energy, and constitutive laws for fluids and solids. Develop governing equations to geodynamics, glaciology, seismology, and geophysical fluid dynamics.

GEO X98G. Geodynamics of the Lithosphere and Mantle.
Explores continuum dynamics problems that can serve to form a physical understanding of the tectonic and convective processes that shape our planet. Geared toward graduate students from the Earth sciences and related fields in the natural sciences including physics, computer science, and engineering.

GEO X98L. Topics in Lithosphere and Deep Earth.

GEO X98L.1. Tectonic Geodynamics.
Examine dynamic processes that govern plate tectonics and lithospheric deformation, combining tectonics, structural geology, and geodynamics from the ground up.

GEO X98M. Numerical Modeling in the Geosciences.
Covers numerical solution of dynamical problems arising in the solid earth geosiences. Entails development of individual codes in Matlab and application of codes to understanding heat transfer, wave propagation, elastic, and viscous deformations. Requires familiarity with Matlab.

GEO X98P. Planetary Geology and Geophysics.
Introduction to planetary geology, with an emphasis on geophysical observations of terrestrial planets in our solar system. Discuss missions, instruments, techniques, and incorporation of mission data in projects.

GEO X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

GEO X98S. Topics in Subsurface, Surface, and Life.

GEO X98T. Supervised Teaching in Geological Sciences.
Open to graduate students engaged in laboratory instruction under close supervision of the course instructors.

GEO X98W. Topics in Water, Climate, and Environment.

GEO X98W.1. Vadose Zone Hydrology.
Introduction to hydrologic processes occurring in the vadose zone (unsaturated zone), the subsurface region between the ground surface and groundwater. Focus on the physical processes that govern the movement of water in variably saturated porous media, and the exchange of mass and energy at Earth's surface. Explore theoretical and applied aspects, measurement techniques and computational tools, and environmental challenges of the vadose zone.

GEO X98W.2. Paleoclimate.
Introduction to paleoclimatology, the study of Earth's past climate. Examine a broad spectrum of geological archives of climate change including those from the oceans, the land, and the cryosphere.

GEO X98W.3. Dynamics of Polar Systems.
Examine the fundamental physics that govern dynamics of ice sheets, oceans, and sea ice from a theoretical viewpoint that is supported with as many observations as possible.

GEO X98W.4. Statistical Data Analysis.
Examine the statistical, scientific, and computational approaches used to test hypotheses concerning the physics governing observed changes in the Earth System. Explore concepts in linear algebra and statistics such as regression, least-squares inversion, singular spectral analysis, Bayesian inference, Markov Chain Monte Carlo sampling, and test statistics to survey the existence of a discernable influence of humanity on the observational record of climate.

GEO X99W. Dissertation.

Professional Courses

GER - German

German: GER

Lower-Division Courses

GER X04. Accelerated First-Year German.

GER X06. First-Year German I.
Basic training in grammatical patterns and usage of modern German.

GER X07. First-Year German II.
Advanced training in grammatical patterns and usage of modern German.

GER X12. Accelerated Second-Year German: Readings in Modern German.
Grammar review, composition, readings and recitation, discussion of literary works, and German culture.

GER X12K. Second-Year German I: Readings in Humanities and Social Sciences.

GER X12L. Second-Year German II: Readings in Humanities and Social Sciences.

GER X12V. Second-Year German I: Business German.
German 312V covers the same material as 312K, but with readings, discussions, and exercises that focus on the business world. Emphasis on practical, career-oriented competence.

GER X12W. Second-Year German II: Business German.
German 312W covers the same material as 312L, but with readings, discussions, and exercises that focus on the business world. Emphasis on practical, career-oriented competence.

GER X19S. Topics in German.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GER X29S. Topics in German.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded to work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GER X79. Conference Course in Germanic Language or Literature.
Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Germanic languages or literature.

GER X85. Conference Course in Germanic Languages or Literature.

Upper-Division Courses

GER X06. First-Year German I.
Basic training in grammatical patterns and usage of modern German.

GER X07. First-Year German II.
Advanced training in grammatical patterns and usage of modern German.

GER X19S. Topics in German.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GER X22D. Conversation and Composition: Individuals and Society.
Explore everyday lives and language use in German-speaking societies through readings and media texts discussing popular culture, university life, and work. Focus on developing practical German skills: comprehension (reading and listening), speaking (conversations and informational presentations), and writing.

GER X22E. Conversation and Composition: Contemporary Controversies.
Explore contemporary and often controversial issues confronting German-speaking populations (such as migration) through readings and diverse media texts. Produce oral and written work for specific audiences and purposes (recommendations, comparisons, evaluations), with a review of advanced grammar resources.

GER X28. Advanced German Grammar.
Description of German sounds, grammatical structures, pronunciation, word formation.

GER X29S. Topics in German.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded to work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GER X30C. Advanced Conversation and Composition: Culture.
German cultural material from print and visual media provides the basis for advanced conversation and composition, with considerable practice in the writing of short essays in German.

GER X30D. German across Disciplines.
Students read and discuss German language materials related to the subject matter of another designated course.

GER X31L. Advanced Conversation and Composition: Literature.
German literary material from print and visual media provides the basis for advanced conversation and composition, with considerable practice in the writing of short essays in German.

GER X42K. Middle Ages-Early Modern Era Cultural History.
Explore German-language cultures between the Middle Ages and Early Modern Europe (ca. 1200 to 1750), from medieval kings through religious reforms, globalizing wars, and the rising middle class. Examine how texts reflect changing social, political, and religious values, tying stories and essays to important moments in emerging German-language cultures.

GER X43C. Contemporary German Civilization.
Cultural, social, and literary history of Germany between 1900 and reunification. Taught in German.

GER X43K. Enlightenment to 1900 Cultural History.
Explore cultural movements through literature, essays, and philosophy from German-speaking Europe between absolutism and its imperial eras (circa 1750-1900). Focus on how texts reflect common themes and concerns of the emerging nation-states.

GER X44K. Twentieth Century Cultural History.
Explore German-speaking Europe's century of global wars, modernization, and political transformations from World War I through World War II and the resonances of the Cold War. Focus on how cultural movements and landmark texts in literature, visual arts, film, and digital media reflect transformations in cultural history and social values.

GER X47L. Language and Society in the German-speaking Countries.
Uses language and linguistics to study the culture and society of the German-speaking countries. Taught in German.

GER X48D. German Play: Student Production.
Discussion, staging, and production of a German play.

GER X49T. Introduction to Teaching German.
Supervised individual instruction designed to offer students an introduction to principles of foreign language education and the opportunity to teach German in local elementary schools.

GER X63K. Topics in German Culture.
Study of selected aspects of Germanic civilization, such as science and philosophy, fine arts, film, history, social institutions. Conducted in German.

GER X63K.1. Classics of German Cinema.
An introduction to German cinema through its most innovative, influential, and important films and filmmakers.

GER X63K.2. Heimat: No Place Like Home.
Examine the cultural and political history of German-speaking countries, using the concept of Heimat as a common thread, by means of a variety of media. Investi-gate the roles Heimat played in the medical discovery of nostalgia" in the German Romantic period, the rise of German natio-n-alism, the post-war Ger-manies, and in the German environmentalist movement.

GER X63K.3. Popular Music and West Germany.
Explore West German culture and society through the lens of popular music from the 1950s to the present. Examine an array of sources, from literature, film, television, and music journalism to identify the national and transnational intersections and impacts of popular music on understanding Germany.

GER X63K.4. Perspectives in German Film and Literature.
Explore German literature and cinema throughout the 20th and 21st century.

GER X69. Topics in Germanic Languages.
Introduction to the phonology, morphology, syntax, dialectology, or lexicography of individual Germanic languages.

GER X69.1. The Structure of the German Language.

GER X69.4. The German Language: Historical Perspectives.

GER X69.7. Translation I.

GER X69.8. Translation II.

GER X73. Topics in Germanic Literature.

GER X73.3. Biography and Autobiography.

GER X73.4. German Science Fiction.

GER X73.5. German Travel Literature.

GER X73.6. Writing: A Media History.
Focus on how the act and process of writing literature involves the writer's thoughts and writing skills and techniques, as well as the media, tools, and technologies through which they write. Read the draft traces of how an author brought a work into being to reconstruct the writing and thought process, reveal the evolution of poetic concepts, and evaluate the role of writing strategies and techniques. Explore the literary manuscript and writing process through the history of writing technologies, media and their ecosystems, as product of the evolution of literary writing as a Kulturtechnik (culture technique / technology).

GER X73.7. Plagiarism and Forgery in German Literature 18th to 21st Century.
Look at the history of the discourse around originality, plagiarism, copyright, and remix culture in German literature from the 18th to the 21st century.

GER X79. Conference Course in Germanic Language or Literature.
Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Germanic languages or literature.

GER X79H. Honors Tutorial Course.
Supervised individual research on a literary or linguistic problem, culminating in an honors paper of some length.

GER X85. Conference Course in Germanic Languages or Literature.

Graduate Courses

GER X06. First-Year German I.
Basic training in grammatical patterns and usage of modern German.

GER X07. First-Year German II.
Advanced training in grammatical patterns and usage of modern German.

GER X19S. Topics in German.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GER X29S. Topics in German.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded to work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GER X79. Conference Course in Germanic Language or Literature.
Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Germanic languages or literature.

GER X80C. German for Graduate Students in Other Departments.
Intensive reading course, emphasizing basic grammar and vocabulary with translation practice.

GER X81. Topics in Germanic Linguistics and Philology.

GER X81.14. Introduction to the Sociolinguistics of German.

GER X81.15. Introduction to Germanic Linguistics.
Survey the problems, methods, and major projects of Germanic linguistics using both synchronic and diachronic perspectives.

GER X81.2. Introduction to Synchronic Linguistics: German.

GER X81.3. Introduction to Diachronic Linguistics: Germanic.

GER X82M. Topics in Cultural History.
Study of various political, intellectual, artistic, and social movements in the cultures of Germanic countries.

GER X82M.2. German Democratic Republic Culture.
Explore the cultural mechanisms and values associated with the arts (literature, architecture, film), ideologies, and practices of public life in the German Democratic Republic.

GER X82M.3. Canons and Classicisms.
Explore how and why national canons use ideologies of classicism, starting with Weimar Classicism.

GER X82M.4. Transatlantic Memory Cultures.
Explore and compare European and United States Memory Cultures since the nineteenth century.

GER X82N. Topics in Intellectual History.
An interdisciplinary investigation of the significance of ideological structures of thought in historical contexts.

GER X82N.1. French-German Philosophy and Theory.
Explore core philosophical texts from the nineteenth and twentieth century that ground post-World War II French post-structuralism.

GER X82N.2. Culture, Technology, and Techniques.
Explore the cultures of technology and how tech influences the production and reproduction of cultures.

GER X82N.3. German Origins of Modern Humanities Research.
Explore the history of and approaches to research projects and priorities in contemporary cultural and literary studies, including research design.

GER X82N.4. Memory and Trauma.
Examine and apply current theories in memory and trauma studies used in cultural studies.

GER X82N.5. German and European Models of Power and Governmentality.
Examine twentieth-century models of power, governmentality, and law from Germany and Europe.

GER X82N.6. Digital Mapping of Cultural Networks.
Examine how humanities has mapped cultural, literary, and inter/intratextual networks from the eighteenth century through current digital art and literature.

GER X85. Conference Course in Germanic Languages or Literature.

GER X86. Topics in Periods in Germanic Literature.

Thorough survey of the principal periods of Germanic literature.

GER X86.1. German Literature and Culture: Middle Ages through Humanism (800-1450).

GER X86.10. Dutch Literature and Culture.

GER X86.12. Scandinavian Literature and Culture.

GER X86.2. German Literature and Culture: Renaissance/ Reformation through Baroque (1450-1730).

GER X86.3. German Literature and Culture: Enlightenment through Realism (1730-1890).

GER X86.4. German Literature and Culture: Naturalism since 1890.

GER X86.5. Old Norse Literature and Culture.

GER X89K. Topics in Methods in the Study of Literature and Linguistics.

An introduction to the critical and technical procedures used in Germanic studies, especially bibliographical aids.

GER X89K.1. Fundamentals of Scholarship.

GER X89K.6. German Rhetoric and Stylistics.

GER X89K.7. Thinking Digital: Literature, Language, and Culture.

Explore a range of digital tools, methods, and approaches to research in the humanities.

GER X92. Topics in Seminar in Germanic Literature and Culture.

Study of problems, topics, writers, genres, and movements in Germanic literature and culture.

GER X92.2. Fascist Aesthetics.

Explore the aesthetic theories and practices used by fascist regimes to represent their ideologies in the public sphere.

GER X92.3. Travel and Literature.

Study masterworks of travel literature as genres and in historical and intertextual contexts.

GER X92.4. Space, Travel, and Discovery in Early Modern Narratives.

Study narratives about travel and discovery in Early Modern Europe, especially as implicating science and new experiences of space.

GER X92.5. Cultures of Nationalism.

Explore how literature can reflect, transmit, and naturalize nationalist ideologies and identities.

GER X93K. Topics in Seminar in Germanic Linguistics and Philology.

Study of linguistic topics in Germanic languages, such as grammar, morphology, phonology, dialectology, syntax, lexicology, sociolinguistics.

GER X93K.1. German Syntax.

GER X93K.10. Older Germanic Languages and Cultures: Old Norse.

GER X93K.11. Older Germanic Languages and Cultures: Gothic.

GER X93K.12. Older Germanic Languages and Cultures: Old High German.

GER X93K.13. Older Germanic Languages and Cultures: Middle High German.

GER X93K.14. Older Germanic Languages and Cultures: Old Saxon.

GER X93K.15. Frame Semantics.

Explore theories and applications frame semantics within linguistics.

GER X93K.16. Landmarks of Linguistic Thought.

Explore the development of linguistic thought through readings of historically important essays.

GER X93K.3. The Acquisition of German.

Special problems in the acquisition of German or another Germanic language as a first or second language.

GER X93K.4. Synchronic Linguistics: German Morphology.

GER X93K.6. Sociolinguistics: Language Contact and Death.

GER X93K.7. Sociolinguistics: Texas German Dialect.

GER X93K.8. Sociolinguistics: German Dialectology.

GER X93K.9. Synchronic Linguistics: Phonetics and Phonology.

GER X94C. Topics in Comparative, Cultural, or Theoretical Studies.

Topics with a substantial Germanic component or application that fall outside of national-language literary and linguistic studies. May include comparative national approaches to genre, culture, or society; interdisciplinary studies; and surveys or focused studies on approaches to theory or methodology that apply to Germanic studies.

GER X94C.1. Multimodality in Nineteenth-Century Print Culture.

Examine theories and examples of image and text relations in nineteenth-century print culture as multimodal book culture.

GER X94C.2. Intersectionality: Identity and Politics.

Examine current theories of identity and identity politics from the US and Europe, deriving from theories of economic and class-based origins of identity.

GER X94C.3. Cold War Cultures.

Examine Cold War political and threat narratives and cultures as represented in film, literature, and non-fiction.

GER X94C.4. Introduction to German Film.

Introduction to German films and approaches to them from film studies.

GER X94C.5. European Migration Cultures.

Study the issues around migration and cultural contact in Europe, through lenses from the social sciences, history, and cultural studies.

GER X94C.6. Power and Identities: Marginalization.

Examine theories of power and decolonization illuminating how individuals are marginalized by dominant cultures, supported by historical case studies.

GER X97P. Topics in Applied Linguistics and Pedagogy.

GER X97P.1. Second Language Comprehension and Processing.

Explore how second language (L2) learners process language and construct meaning during sentence comprehension. Consider theoretical constructs and research methods as well as the practical applications of sentence processing research.

GER X97P.2. Second Language Assessment and Testing.

Explore how various tools of assessment are designed and implemented in the field of applied linguistics, in language teaching, and for program direction.

GER X97P.3. Input Processing in Second Language Acquisition.

Study linguistic and social-psychological factors unique to second language acquisition situations.

GER X97P.4. Course and Curricular Design.

Examine how theories of teaching and learning influence how courses and series of courses are designed to foster certain learning outcomes.

GER X98. Thesis.

GER X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

GER X98T. Supervised Teaching in German.

Analysis of the major foreign language teaching methodologies; curriculum and curricular materials development.

GER X99W. Dissertation.

Professional Courses

GER X06. First-Year German I.

Basic training in grammatical patterns and usage of modern German.

GER X07. First-Year German II.

Advanced training in grammatical patterns and usage of modern German.

GER X19S. Topics in German.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GER X29S. Topics in German.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded to work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GER X79. Conference Course in Germanic Language or Literature.
Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Germanic languages or literature.

GER X85. Conference Course in Germanic Languages or Literature.

GK - Greek

Greek: GK

Lower-Division Courses

GK X01C. Beginning Greek.
Studies the fundamentals of grammar and reading in ancient Greek.

GK X02. First-Year Modern Greek I.
Introduction to grammar and reading.

GK X02C. Beginning Modern Greek.

GK X03. First-Year Modern Greek II.
Continuation of Greek 502.

GK X04. Intensive Beginning Greek.
An accelerated course for highly motivated students that combines the material covered in Greek 506 with that covered in the first part of Greek 507.

GK X06. First-Year Greek I.
Studies the fundamentals of grammar and reading in ancient Greek.

GK X07. First-Year Greek II.
Continuation of Greek 506.

GK X10. Second-Year Modern Greek I.
Culture, language, and literature of present-day Greece.

GK X10C. Intermediate Modern Greek.
Continuation of Greek 602C.

GK X10K. Second-Year Modern Greek II.
Continuation of Greek 310.

GK X11. Intermediate Greek I.
Continuation of Greek 601C or 507. Introductory readings from classical authors such as Lysias, Plato, and Xenophon. Includes grammar review.

GK X12. Intensive Greek.
An accelerated course for highly motivated students. Completion of this course is equivalent to completion of Greek 506 and 507. Students who enroll in 412 must take Greek 804 in the same summer session. A grade of A may allow the student to advance to Greek 324 with consent of the Greek 324 instructor.

GK X12K. Intermediate Greek II.
Continuation of Greek 311. Selected readings from classical and biblical authors.

GK X12L. Intermediate Greek II: Biblical Greek.
Continuation of Greek 311. A parallel to Greek 312K with a focus on biblical Greek.

GK X19S. Topics in Greek.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GK X29S. Topics in Greek.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

GK X19S. Topics in Greek.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GK X24. Topics in Advanced Greek.
Reading and analysis of classical authors such as Homer, Herodotus, Euripides, and Plato.

GK X24.1. Euripides.

GK X24.10. Solon: Archaic Greek Poetry and Politics.
Explore Archaic Greek verse and classical prose concerning the Athenian poet and statesman, Solon.

GK X24.11. Daphnis and Chloe: Ancient Romance.

GK X24.2. Herodotus.

GK X24.3. Homer's Iliad.

GK X24.4. Plato.

GK X24.5. Sophocles.

GK X24.6. Life of Themistocles.

GK X24.7. Apollonius.

GK X24.8. Greek Love Poetry.

GK X24.9. Xenophon.

GK X26. Advanced Greek Grammar and Composition.
Study of syntax, style, and principles of written composition.

GK X28C. Pauline Epistles.

GK X28D. The Gospel of John.

GK X28E. Biblical Greek: Acts.

GK X29S. Topics in Greek.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken residence. Transfer credit is awarded for work in an affiliated studies program.

GK X65. Topics in Seminar in Greek.
Critical study of authors such as Thucydides, Demosthenes, and Aeschylus.

GK X65.1. Aeschylus.
GK X65.10. Homer's Iliad: Research and Writing.
GK X65.11. Homer's Odyssey.
GK X65.12. Classical Historiography.
GK X65.13. Wisdom Poetry.
GK X65.14. Plato's Symposium.
GK X65.15. Plato Phaedrus.
GK X65.2. Sophocles.
GK X65.3. Thucydides.
GK X65.4. Aristophanes.
GK X65.5. Plato and Greek Prose.
GK X65.6. Female Poets of Ancient Greece.
GK X65.7. Callimachus.
GK X65.8. Aristotle.
GK X65.9. Apollonius Argonautica.
GK X70. Advanced Conference Course.
Supervised reading.

Graduate Courses

GK X19S. Topics in Greek.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GK X29S. Topics in Greek.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken residence. Transfer credit is awarded for work in an affiliated studies program.

GK X80J. Proseminar in Classical Literature.
Brief survey of the history of classical literature; orientation to the major periods and genres.

GK X80K. Topics in Proseminar.
An introduction to the research methodology and the ancillary disciplines used in current classical studies, or to certain disciplines such as meter, textual criticism.

GK X80K.1. Research Methods in Classical Studies.
GK X83. Topics in Classical Greek Literature.
Topics given in recent years include Greek oratory, Aristophanes, and Homer.

GK X83.1. Aeschylus.
GK X83.2. Sophocles.
GK X83.3. Thucydides.
GK X83.4. Aristophanes.
GK X83K. Current Concepts and Research in Greek.
An overview of important theories, issues, and research in classics.

GK X85. Topics in Graduate Reading Course.
Topics given in recent years include Plato and Greek prose, Sophocles, and Sophists.

GK X85W. Topics in Graduate Reading Course: Biblical Greek.
Graduate level translation and analysis of topics such as the Pauline epistles or the Gospel of John.

GK X86L. Conference Course in Greek Language.
GK X90. Topics in Seminar in Classical Studies.
Selected topics in Greek studies. Topics given in recent years include Mycenaean documents, Aristotle's ethics, Archaic poetry, and Plato's Symposium.

GK X98R. Master's Report.
Preparation of a research report to fulfill the requirement for the master's degree.

GK X99W. Dissertation.

Professional Courses

GK X19S. Topics in Greek.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GK X29S. Topics in Greek.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken residence. Transfer credit is awarded for work in an affiliated studies program.

GOV - Government

Government: GOV

Lower-Division Courses

GOV X03D. Introduction to the Middle East: Adjustment and Change in Modern Times.
The responses of the societies of the Middle East and North Africa (Turkey, Iran, Afghanistan, Israel, and the Arab world) to Western cultural and political challenges, primarily since about 1800.

GOV X05C. United States Politics and Government.
Examine the origin and development of the U.S. Constitution and the structure and powers of the national government, including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties, and civil rights.

GOV X06C. Politics and Government in Contemporary Texas.
Develop an understanding of the Texas constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas.

GOV X07. Introduction to Holocaust and Genocide Studies.
Examine interdisciplinary perspectives (including historical, political, socio-psychological, and cultural methods and insights) on genocide as a global phenomenon.

GOV X10L. American and Texas Government.
A basic survey of American government, including fundamental political institutions, federal, state, and local; special attention to the United States and Texas Constitutions.

GOV X12L. Issues and Policies in American Government.
Analysis of underlying themes concerned with American political institutions and policies, including the United States Constitution.

GOV X12P. Constitutional Principles: Core Texts.
Close readings from primary texts that have shaped or that reflect deeply upon American democracy, including the Declaration of Independence, The Federalist Papers, and Tocqueville's Democracy in America.

GOV X14. Introductory Topics in Political Science.
Introduction to varying topics in government and politics.

GOV X14.11. Introduction to Politics in East Asia.
Introduction to politics and political systems of Japan, China, Taiwan, North Korea, and South Korea.

GOV X14.5. Asia's Futures.
Current issues, visible trends, and projections for Asia's future.

GOV X14.7. Race, Politics, and Identity in Asian America.
An introduction to Asian American politics. Subjects include the American political process, and the historic and contemporary role of Asian Americans within that process.

GOV X14C. Competing Visions of the Good Life.
Introduces the great rival conceptions of the moral basis and goals of political life as elaborated by revolutionary thinkers throughout the history of political philosophy, including Aristotle, Aquinas, Locke, late modern critics of the Enlightenment, and others.

GOV X14D. Human Rights Theories and Practices.
Competing viewpoints on issues of human rights from multidisciplinary perspectives.

GOV X14E. Classics of Social and Political Thought.
Explores the origins of social scientific thought in the history of political philosophy and traces the development of one or more of the social sciences in modern times. Focuses on fundamental ideas about human nature, civil society, and politics, explored through reading such authors as Aristotle, Aquinas, Locke, Rousseau, Marx, Weber, Durkheim, and Freud.

GOV X18P. Fighting for Latino Power.
Examine issues that affect Latino political representation in the United States, specifically three aspects that are critical to political power in this country: the decennial Census, voting rights and the legal system, and electoral politics and political campaigns.

GOV X18R. Public Policy and Black Communities.
Examine how public policy has both advanced and hindered opportunities for Black people and communities from the Constitutional era to the present, addressing such areas as education, health, housing, and policing.

GOV X19C. Black and Latinx Intersections.
Examine the complex relationships between and among Black and Latinx communities and the political and structural forces and contexts that shape their interactions. Explore Black identity within the Latinx population, racial politics, coalitions of Black American and Latinx groups, race among Latinxs, racial inequality, and the politics of immigration.

GOV X19D. The New Latinas/os/xs.
Explore the trajectories of various communities many have called the new Latinas/os/xs by identifying how race, gender, sexuality, class, indigeneity, language, migration, and geography influence the lives, identities, and sociopolitical incorporation of new Latinas/os/xs.

GOV X19S. Topics in Government.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GOV X29S. Topics in Government.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GOV X71N. Administrative Internship.
Students perform research and related activities in a national, state, or local administrative agency. Written reports required.

GOV X72N. Campaigns and Elections Internship.
Students perform research and related activities in political campaigns and polling. Written reports required.

GOV X73N. Legislative Internship.
Students perform research and related activities in a national, state, or local legislature. Written reports required.

Upper-Division Courses

GOV X19S. Topics in Government.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GOV X20K. United States Constitutional Development: Structures.
A survey of the origin and growth of the American constitutional system, with emphasis on political structures and processes.

GOV X20L. Arab-Israeli Politics.
In-depth study of domestic, regional, and international factors involved in politics in the Middle East, including simulation of diplomatic interaction in the Arab-Israeli conflict.

GOV X20N. United States Constitutional Development: Rights.
A survey of the origin and growth of the American constitutional system with an emphasis on the development of civil rights and civil liberties in America.

GOV X21M. Politics in Japan.
Survey of postwar Japanese politics; the occupation, governmental institutions, interest groups, protest movements, industrial policy, the government-business relationship, and political and economic reform.

GOV X22C. War and Peace: China, Japan, and Taiwan.
Use the modern theory of war and cutting edge political science research to understand the evolution of war and peace over the past two centuries in East Asia.

GOV X22M. Politics in China.
Survey of twentieth-century China: historical trends; 1911 revolution; Warlord-Nationalist period; Communist revolution; post-1949 issues; new social and political institutions.

GOV X24C. Political Ideologies and Manifestos.
Survey major political ideologies like socialism, capitalism, and fascism; as well as the more recent so-called "Fourth Political Theory of Russian ideologue Aleksandr Dugin, (variable) popular ideologies, and internet manifestos. Explore each ideology through original texts and utopian/dystopian representations in popular culture (e.g., literature, film, music, graphic art, architecture, design).

GOV X24D. Populism in Central and Eastern Europe.
Survey the political nature, profile, and patterns of populism in selected post-communist democracies of Central and Eastern Europe. Examine populism in terms of impact on agenda setting, political process, and governance of the region in focus at specific national and European Union-wide levels.

GOV X24E. Intelligence and Espionage in the Eastern Bloc.
Examine the specific national approaches to foreign and domestic intelligence and espionage of former Communist bloc countries from early twentieth century to the collapse of communism in Eastern Europe.

GOV X24F. Economic Development in Post-Communist States.
Relate broad issues of economic development across the post-communist space since the collapse of the Soviet Union. Question and explore concepts, assumptions, and tools we use to assess development.

GOV X24G. Central Asian Politics and Economies.
Relate major political and economic issues of post-Soviet Central Asia from Soviet legacy and regime types to state-business relations and investment environment. Learn about the characteristics that unite and distinguish the Central Asian region.

GOV X24I. Nature and Politics in Post-Communist States.
Explore the key issues related to the political economy of human-nature interactions in post-communist countries, including politics of point-source natural resources, diffuse resources, and the commons.

GOV X24J. Governments and Politics of Eastern Europe.

GOV X24L. Governments and Politics of Western Europe.
Comparative study of peoples, institutions, parties, interest groups, and bureaucracy in the countries of Western Europe, concentrating on the major political systems of Britain, France, Germany, and Italy.

GOV X24O. Constitutionalism in Divided Societies.
Analyze constitutional strategies for divided societies where social divisions like race, ethnicity, language, or religion are a driving force in politics and risk group exclusion or violence.

GOV X24P. Research in Democratic and Constitutional Development.
Analyze the structures of democratic and constitutional development, the drivers of democratic change, and the practice of actively promoting these factors through democracy assistance.

GOV X25. Political Parties.
Character of the American party system, organization and leadership; pressure politics; the nominating process, campaigns, suffrage, elections, and the expression of public opinion.

GOV X26D. Data Science for the Social World.
Introduction to data science for the political and economic world. Explore a variety of political and economic data and develop proficiency in R and Excel.

GOV X27L. Public Opinion and American Politics.
The nature of and major influences on public attitudes, the measurement of public opinion, and the role of public opinion in government.

GOV X28L. Introduction to Latin American Government and Politics.
An introductory survey of Latin American political systems: governmental organization, political processes, and current problems.

GOV X29S. Topics in Government.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GOV X30K. The American President.
Development of the power and influence of the president; nomination, election, and responsibility; case studies of presidential problems; comparison of president and other executives.

GOV X31L. Law and Society.
The role of law in the context of major social issues; legal research and oral argument.

GOV X34C. Thomas Paine, Liberalism, and the Enlightenment.
Analyze the purpose and philosophy of Thomas Paine's writings in their relation to the political thought and politics of his time.

GOV X34D. Roots of Democracy.
Examine the historical development and ideological underpinnings of Athenian democracy, the first known democracy, from the sixth to fourth centuries BCE. Explore a broad range of primary sources and some secondary scholarships and gain a familiarity with the key principles and practices of this unique participatory government in its political, historical, and intellectual context.

GOV X34E. Citizenship and Patriotism.
Examine the idea of patriotism and citizenship over history, from classical antiquity to contemporary times. Analyze the moral and political value of patriotism, nationalism and cosmopolitanism.

GOV X35C. Religion in American Political Thought.
Explore religion and politics in the United States through reading of mostly primary sources addressing religious arguments taking positions on historical and contemporary issues.

GOV X35D. Natural Law Theory.
Study of the fundamental moral principles that are built into the design of human nature and lie at the roots of conscience.

GOV X35E. Hegel and the Formation of Modern European Identity.
An in-depth study of how Hegel identifies the social conditions necessary for personal self-realization but also for freedom by means of political community.

GOV X35G. African American Social and Political Thought.
Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought.

GOV X35I. Political Bioethics.
Analyze the decisional challenges facing political communities in deciding how to regulate future genetic manipulation of human embryos as therapy for diseases and as enhancement of normal capacities.

GOV X35M. Topics in Political Thought.
Intensive examination of selected issues in political thought.

GOV X35N. Topics in American State Government and Politics.
Analysis of varying topics in the study of American state government and politics.

GOV X35O. Politics and Literature.
Explores the "old battle between the poets and philosophers," in which the two sides battle for recognition as the deepest source of wisdom about politics and ethics. Includes readings from great works of political philosophy and literature.

GOV X35P. Classics of Social Scientific Thought.
Studies a selection of foundational modern classics in economics, psychology, sociology, political science, and anthropology, drawn mainly from the nineteenth and twentieth centuries.

GOV X35Q. Global Justice.
Overview of contemporary theories on core issues of justice across national borders.

GOV X35R. Intellectual World of the American Founders.
A study of readings about politics, history, economics, ethics, religion, and law and their intellectual influence on founders such as Thomas Jefferson, George Washington, James Madison, and Alexander Hamilton.

GOV X36M. Governments and Politics of Russia.
Issues of nationalism and state-building facing Russia and its neighbors. Evaluation of the post-Soviet experience from the perspectives of both domestic and foreign policy.

GOV X37C. The Politics of Mexico.
Explore Mexico's political and economic development.

GOV X37D. Law and Democracy in Latin America.
Explore many of the challenges to the rule of law across Latin America and how they affect the quality of democracy in the region.

GOV X37E. International Politics of Latin America.
Analyze Latin America's political and economic relations with respect to external actors.

GOV X37F. Politics, Economy, and Society of Contemporary Brazil.
Examine major economic, political, and sociological developments in Brazil.

GOV X37G. The Politics of Development in Latin America.
Examine the struggle for development in Latin America.

GOV X37J. Race Politics and Caribbeans.
Examine racial and political themes among Spanish-speaking Caribbeans on the islands and in the United States. Explore racial politics in the three countries and compares notions of identity, experiences with racism and anti-racist protest with the United States

GOV X37N. Race and Ethnicity Politics.
Explore racial and ethnic politics throughout the United States with a focus on Black and Latino politics. Examine group identity, racial inequality, policy making, activism, criminal justice system, and immigration.

GOV X37V. Mexican American Political Thought.
Critically explore the multiple complementary and contradictory intellectual expressions of Mexican American political thought. Pay particular attention to Texas from the mid-nineteenth century through the period of the Chicano Movement in the latter part of the twentieth century.

GOV X38L. East Asian International Relations.
Survey of Russian/Soviet, Japanese, Chinese, and American foreign policies of the twentieth century, emphasizing Pacific-region interests; historical policies; intermittent conflicts, such as China versus Japan, Korean War, Indochina Wars; China's emergence as a nuclear power.

GOV X39L. Research Methods in Government.
An introduction to research design, data collection and analysis, and the use of the computer and related equipment.

GOV X41M. Decision Theory.
An introduction to the basic concepts and models using decision theory in political science, with particular emphasis on utility analysis, game theory, coalition formation, and voting behavior.

GOV X42N. Public Choice.
The political-economic models that have developed in this area of social science.

GOV X44. American Foreign Relations.
The aims, methods, and accomplishments of United States foreign policy since World War II, by geographic areas and by special problems.

GOV X44L. Introduction to Comparative Politics.
Introductory survey of basic concepts, perspectives, approaches, and trends in comparative politics, with emphasis on the formal-legal, group, class, elite, political culture, structural-functional, and systems approaches.

GOV X45C. Gender and Politics in a Comparative Perspective.
Examine the patterns of women's representation over time, and in different regions of the world. Explore why gender equality in political institutions is important, tracing the evolution of feminism over time.

GOV X47K. Governments and Politics of South Asia.
A survey of political developments, governmental organization, and economic and social problems in South Asia.

GOV X47L. Introduction to Political Theory.
Study of political theory: what it is; its origins; tradition; political theory today.

GOV X47N. Governments and Politics of Southeast Asia.
A survey of past and present governments and politics of the entire Southeast Asia region.

GOV X47P. Politics of Protecting the Great Barrier Reef.
Examine the numerous environmental challenges Australia's Great Barrier Reef (GBR) faces. Explore the livelihoods of the people who depend on or impact the GBR, and the people who are trying to save it.

GOV X48C. The European Union and Regional Integration.
Designed to provide a detailed introduction to the European Union, one of America's major economic and political partners and one of the major actors in contemporary international relations.

GOV X50K. Statistical Analysis in Political Science.
Elementary statistical techniques and their applications to problems in political science.

GOV X51C. The Classical Quest for Justice.
Introduces students to classical political thought through a study of seminal works of antiquity, focusing on those of Plato and Aristotle.

GOV X51D. The Theoretical Foundations of Modern Politics.
Examines competing foundations of the ongoing development of political and social modernity. Examines a selection of major authors from Machiavelli to Nietzsche.

GOV X51E. Contemporary Political Theory.
Introduces ongoing debates about identity, power, justice, rights, and democracy that are central to the theories of contemporary thinkers from Arendt to Habermas.

GOV X51F. Visions of Emancipation.
Examine and discuss a selection of the most relevant theories of political, social, and moral emancipation that have marked modern history. Focus on the works of political theorists, political militants, historians, and writers who have advocated visions of liberation from political oppression, social exclusion and discrimination, moral emptiness, and totalitarian domination.

GOV X51G. Critics of Modern Liberalism.
Selected critics of the philosophy of the Enlightenment from both the Left and the Right, and from the time of Rousseau to the present.

GOV X51J. Might and Right among Nations.
Major alternative approaches to the question of the moral character of international relations, as elaborated by some of the greatest political thinkers.

GOV X51K. Origin of the Idea of Religious Liberty.
Explore the origin of the idea of religious liberty in the history of political philosophy, focusing on its early modern development in core texts.

GOV X51L. Morality and Politics.
Interdisciplinary readings from major works exploring issues of ethics and leadership.

GOV X51M. Liberty and Empire: Machiavelli.
Explore Machiavelli's reputations through the examination of his works and analyze how those reputations relate to Machiavelli's own positioning and self-understanding.

GOV X51N. Montesquieu and Rousseau.
Examine the political thought of Montesquieu and Rousseau, the premier thinkers of the French Enlightenment. Use the themes of conservatism and radicalism to consider the thinkers individually and as a pair.

GOV X51O. Forensic Files: Philosophy Crimes.
Explore political philosophies from the continental tradition (Heidegger/Arendt, Nietzsche, Adorno/Horkheimer, and Agamben/Schmitt) implicated in radical politics and answering to political turning points, with a focus on research and reading in historical contexts.

GOV X51P. Tyranny and Politics.
Explore what tyranny is and how it relates to political life.

GOV X51R. Kant and Our Modern Age.
Explore the philosophical principles in the works of Immanuel Kant (1724-1804) as one of the most important and still influential contributors to the European Enlightenment.

GOV X51S. Xenophon and Machiavelli.
Explore the themes of morality and leadership in the writings of two great political philosophers, the ancient Athenian Xenophon and the renaissance Florentine Machiavelli.

GOV X51T. Hegel and His Heirs: Philosophy That Remade the West.
Explore how Hegel's philosophy contributed to the founding of the modern social sciences and led to innovations in the study of religion, psychology, education, social organizations, and social reform.

GOV X53D. Darwin and the Politics of Evolution.
A careful reading of Darwin's influential Origin of the Species by Means of Natural Selection, together with an examination of the religious, political, and scientific controversies the book has inspired from its first publication to the present day.

GOV X55C. Applied Research Methods I.
Introduction to the research process in the social sciences. The primary emphasis is on engaging in research projects, writing research proposals, analyzing data, and presenting research.

GOV X55D. Applied Research Methods II.
Introduction to the research process in the social sciences. The primary emphasis is on engaging in research projects, writing research proposals, analyzing data, and presenting research.

GOV X55J. Human Behavior as Rational Action.
An economic approach in studying rational action.

GOV X55M. Topics in Political Science.
Emphasis on varying topics in government and politics of contemporary interest and concern.

GOV X55N. World War I in Real Time.
Follows the timeline of World War I events as they happened. Using the tools of political science, engages modern, cutting edge theories and evidence about the origins and conduct of war to address why "the seminal tragedy of modern times" occurred when it did, and what we can learn from it in the present.

GOV X55P. Political Sociology.
A survey of approaches to the study of the state as a social structure; political power and power systems; ideology; political parties and elites.

GOV X57C. Constitutional Interpretation.
Designed to improve reasoning and communication skills through constitutional interpretation. Determining what the Constitution means, how to determine what it means, and who should determine what it means.

GOV X57D. Civil Liberties.
Explore the United States constitution and Supreme Court with a focus on civil rights and liberties.

GOV X57E. Supreme Court and Public Policy.
Explore the effects of American politics and culture on the Supreme Court and vice versa.

GOV X57F. Constitutional Structure of Power.
Explore the structures of power in a constitutional democracy.

GOV X57G. Structure of Individual Liberties.
Explore the ways in which the Constitution protects individual rights while accommodating the often competing claims of state, groups, and communities.

GOV X57I. Constitutional Design.
Explore the design and implementation of national constitutions.

GOV X57J. Law of Politics.
Explore theoretical and philosophical issues at the intersection of law and politics.

GOV X57L. Judicial Process and Behavior.
Introduction to traditional and modern approaches to the study of the judicial process, with emphasis on the nature and origin of judicial decisions and the factors that affect judicial decision making.

GOV X57M. Topics in Public Law.
Intensive study of various aspects of law and the legal system.

GOV X57N. Amending the United States Constitution.
Examine the evolution of the United States Constitution from the founding to the present, with a focus on the major forces and fault lines that have made the Constitution today one of the world's most difficult to amend.

GOV X57V. Asian American Jurisprudence.
Examine the historical development of United States law and its relationship to Asian Americans, and of Asian American jurisprudence as an independent field of legal scholarship.

GOV X58. Introduction to Public Policy.
A survey of American public policy, with emphasis on modern problems and trends.

GOV X60C. Introduction to International Relations.

GOV X60D. International Security.
Explore the conditions and motivations behind the use of military force in world politics.

GOV X60E. International Political Economy.
Study of the changing relationship between political and economic power in international relations.

GOV X60F. Global Governance.
Explore the forces that shape global stability and instability with a focus on international agreements.

GOV X60G. Causes of War.

GOV X60I. The Politics of International Trade.
Examine the relationship between international trade, and domestic and international politics.

GOV X60J. Globalization and the Nation State.
Explore the evolution of the global economy.

GOV X60O. Business and Society.
Explore the relationship between firms and society, including the role of regulation and government policy in shaping economic outcomes. Examine how governments encourage economic activity.

GOV X60P. International Organization.
In-depth introduction to the theory and practice of international organizations.

GOV X60R. Civil Wars and Ethnic Violence.
Study of the ethnic conflicts and civil wars that pose the greatest threats to international peace and security today.

GOV X60S. Terrorism and Counterterrorism.
Examines the historical origins of terrorist violence, the primary causes of terrorist acts committed both by opposition and government forces, as well as counter terrorist measures taken by states and international organizations.

GOV X60T. Multinational Corporations and International Law.
Study the ways governments use international economic law to shape international business.

GOV X62C. Globalization and the Coronavirus Pandemic.
Examine the modern globalization process that also incorporates a description of the current Coronavirus pandemic as a phenomenon that is inextricably linked with modern globalization.

GOV X62L. Government Research Internship.
Fieldwork in research and analysis on governmental and political problems.

GOV X62N. Archer Center Washington Internship.
Fieldwork in research and analysis on governmental and political problems.

GOV X62S. Memories of War.
Consider the ways the wars of the twentieth and twenty-first century are being remembered in Germany and the United States - from poems, novels and films to monuments and the controversial debates about military conflicts that the two countries have been involved in. Utilize theories of social memory, and concepts of individual and social mourning, to analyze how war affects individual lives, how societies mourn, and how remembering war impacts national identity and politics.

GOV X62U. Security and Policy in Eastern Europe and Russia.
Examine key contemporary security issues and policy dilemmas through the perspective of post-communist Eastern European countries in the context of European Union (EU) enlargement waves, and in the framework of their membership in supranational organizations. Consider the transformation of regional states' national security strategies, threat perception, and priorities transitioning from former Warsaw pact to full-fledged EU and NATO membership in shaping their respective national security priorities.

GOV X63U. Switzerland and Globalization.
Investigate how the small European country of Switzerland positions itself in a globalized world and how it competes and thrives in it. Explore the questions of how globalization impacts a small, affluent country and how its economy copes with globalization. Consider Swiss history, and its development of direct democracy, to understand Swiss exceptionalism, its response to contemporary issues, and its influence abroad.

GOV X64C. Islam and Politics.
An introduction to Islamic political thought.

GOV X64D. Evolution of Special Operation Forces.
Explore the global evolution of Special Operations Forces from different theoretical perspectives, including historical institutionalism, complexity, and bureaucratic politics.

GOV X64E. Monarchies and Mini-States.
Examine the remarkable variety among the political systems of the 28 remaining monarchies and the survival and thriving of mini-states around the world.

GOV X64F. Soundtrack of Revolutions.
Examine the significance of music in the social and political uprisings of countries across the Middle East.

GOV X64G. Ottoman State and Society.
Explore the social and economic life, religion, law, government, ideology, arts, and sciences of the Ottomans. Examine the Ottoman political governance and the course of its development through a socio-historical lens.

GOV X64V. Political Warfare and Propaganda.
Examine the phenomenon of political warfare in a contemporary global context, focusing on Russia and Eastern Europe. Explore the evolution of techniques of political warfare, including psychological warfare and propaganda.

GOV X65C. Japanese Foreign Policy.
Examine the foreign and domestic determinants of Japanese foreign policy.

GOV X65D. International Relations of East and Southeast Asia.
Examine the international relations of East and Southeast Asia, with particular attention to postwar economic and security issues, the changing political landscape of the post-Cold War period, and the development and functions of regional institutions.

GOV X65E. Political Economy of Asia.
Explore the political economies of East Asia with an emphasis on Japan, China, South Korea, and Taiwan.

GOV X65F. Asian Regionalism and Multilateral Cooperation.
Explore the nature, functional principles, leadership, and policy-making process of contemporary Asian regionalism in comparison to the experiences of European integration.

GOV X65G. The Military in Politics.

GOV X65I. Authoritarianism.
Explore the history and political science explanations of authoritarian governments.

GOV X65J. Australian Society and Politics.

GOV X65O. State Building in China and Taiwan.
Compare and contrast the state building process in mainland China and Taiwan.

GOV X65Q. Comparative Political Parties.
Analysis of varying topics in the comparative study of political processes.

GOV X65R. Institutions and Comparative Political Economic Development.
Comparative study of political processes.

GOV X65S. Comparative Legal Systems.
Comparative study of the nature of courts and law, their position in political systems, and their potential impact on society.

GOV X65T. Suicide Terrorism.
Studies the causes of suicide terrorism at elite, community, and rank-and-file levels.

GOV X65U. European Environmental Politics.
The history of environmental politics in both the member states of the European Union and the EU itself, including conceptual treatment of general environmental politics and policies, history of European environmentalism, and institutional responses at important 'traditional' and new EU member states. Also examines EU environmental policies themselves, such as the EU Emissions Trading System, chemicals policy, and GMO policy.

GOV X65V. Comprehensive Notions of European Security.
Examines the conceptual and practical aspects of European comprehensive security via the institutions charged with implementing it: the European Union (EU), the North Atlantic Treaty Organization (NATO), and the Organization for Security and Cooperation in Europe (OSCE).

GOV X65W. Human Rights and World Politics.
Introduction to the political and policy dimensions of human rights.

GOV X66C. The Ethics of Foreign Intervention.
Explore questions related to an outside power intervening in another country, such as whether foreign military intervention is ever justified and whether outside powers have a responsibility to protect vulnerable populations.

GOV X66D. Capitalism, Socialism, and Democracy.
Explore tensions between capitalism, socialism, and democracy and investigate the interdependence of economics and politics.

GOV X66E. Immigration and Comparative Politics.
Explore key issues in the study of migration policy and immigration politics.

GOV X66F. Issues in Third World Development.
Explore important issues in the politics of developing countries.

GOV X66G. British Politics and Government.
Explore key aspects of British politics and government.

GOV X66I. Israel: Society and Politics.
Analysis of Israeli politics and society in a comparative perspective with a major focus on the social and political cleavages in Israel.

GOV X66J. Ethnic Politics in Taiwan and Asia.
Explore ethnic politics in Taiwan including some comparison with ethnic politics in neighboring countries.

GOV X66L. International Development and Global Justice.
Explore global development including patterns of development, variation in development, and the impact of development.

GOV X66M. International Political Economy of Lower-Income Countries.
Explore the ways that China, India, Brazil and other lower-income countries are transforming the patterns in global finance, trade, aid, women's empowerment, and the control or corruption.

GOV X66N. Contemporary Middle Eastern Cinema.
Introduction to some of the most pertinent social and political themes in celebrated films across Arab countries, Turkey, Iran, and Israel and Palestine.

GOV X66O. Rule of Law in the Middle East.

GOV X66P. The Shock of Modernity in the Middle East.
Explore cross cultural contacts between the East and the West during the modern period. Analyze Islamic civilization in the Middle East of the modern era by addressing the development of religion, law, government, and morality during and after the colonial period.

GOV X66R. Cultures of Revolution in the Middle East.
Examine the cultural production that surrounds key moments of political and social change in the Middle East.

GOV X66T. The Levant: From Colonialism to Coexistence.
Examine the history of the Levant, a region that includes Syria, Israel, Palestine, and Jordan.

GOV X66U. Middle East Outlaws and Lawmen.
Explore the evolution of crime and law enforcement in the modern Middle East.

GOV X67C. Partition of India in History and Memory.
Discover the experiences and memories of many different groups affected by the Partition of British India in 1947 while tracing the effects of the Partition until the present.

GOV X68T. German Nationalisms.
History of diverse views and movements regarding German national identity within their respective contexts, 1800-present.

GOV X68U. Politics of Memory: Germany and the United States.
Examine the role that narratives of the past play in politics and policies in both Germany and the United States, by engaging with key theoretical and empirical debates. Focus on the role of memory in German and US immigration politics.

GOV X68V. Nazi Culture and Politics.
Explore fundamental questions about the unique role of culture in modern democracies and dictatorships by taking an overview of culture and politics in the Third Reich. Examine questions about the relationship between political propaganda and modern entertainment, mass media and authoritarianism, political aesthetics and ideology, and the dynamics of oppression, resistance, and consent.

GOV X70C. Election Campaigns.
The study of contemporary American election campaigns.

GOV X70D. The Military and American Politics.
Study the United States armed forces and the implications of military service and international conflict for domestic politics and policy.

GOV X70E. Congressional Elections.
Examination of congressional campaigns and election outcomes from both historical and contemporary perspectives.

GOV X70F. Public Opinion and Representation.
Examine the relationship between the public and elected officials in representative democracy.

GOV X70I. The Politics of Food in America.
Examine politics and political history of food production and consumption in the United States.

GOV X70J. Campaigns and Elections.
Introduction to American political campaigns and elections with a focus on federal elections.

GOV X70K. Topics in Racial and Ethnic Politics.
An examination of the role of racial and ethnic minorities in politics and of the impact of politics on these minorities.

GOV X70L. Topics in American Government and Politics.
Analysis of varying topics in the study of American government and politics.

GOV X70M. Research on the United States Congress.
Independent research on lawmaking in the modern United States Congress.

GOV X70N. Research on the United States Congress II.
Continuation of independent research on lawmaking in the modern United States Congress.

GOV X70O. The Politics of Title IX.
Examine how the passage of Title IX has affected the educational and career opportunities of women in the United States, with a particular emphasis on collegiate athletics.

GOV X70P. Policy-Making Process.
Focus on the role of Congress and the President in the policy-making process.

GOV X70Q. Political Psychology.
Study of the role of psychological theories in understanding politics and forming political views.

GOV X70R. Money in United States Politics.
Study of the nature and consequences of campaign finance on American politics.

GOV X70S. Social Movements: Theory and Practice.

GOV X70T. The Presidency in the Constitutional Order.
Explores the thought that national politics has become more prone to institutional and partisan conflict, policy gridlock and that national institutions do not function as intended.

GOV X70U. Urban Politics.
Examine politics in American cities.

GOV X70V. The Politics of Health Care.
The role of political institutions and the public in the development of the American health care system.

GOV X70W. The United States as a Territorial Nation.
Explore the territorial or geographic dimension of US political development, examining how the United States became a continent-wide republic and, later, an overseas power.

GOV X71C. Problems in United States Politics.
Examine potential problems in United States politics, seeking to conceptualize and measure them, and explore their causes, effects, and possible solutions.

GOV X71D. Race, Policing, and Incarceration.
Explore inequalities between black Americans and white Americans considering origins of inequalities, and their social and political consequences.

GOV X71E. Policy Formulation and Implementation.
Examine the policy-making process in the United States. Focus on the actors and institutions involved in the formulation and implementation of public policy.

GOV X71F. The Black Church in African American Politics.
Explore the political role of the Black church in the African American experience.

GOV X71G. African-American Politics.
Explore the evolution, nature, and role of African-American politics within the American political system.

GOV X71I. The United States Congress.
Examine the modern Congress and analyze various factors influencing the legislative process.

GOV X71J. Politics of Voter Suppression.
Explore the politics of vote suppression and its policy remedies, including manipulation of the size and composition of elections. Examine how excluded citizens have addressed such measures via politics, policy reforms, and court appeals.

GOV X71L. Latino Politics.
Explore the political experiences of the United States Latino populations.

GOV X71M. African-American Women's Political Activism.
Explore Black feminism and African-American women's political participation.

GOV X71N. Administrative Internship.
Students perform research and related activities in a national, state, or local administrative agency. Written reports required.

GOV X71O. American Political Development.
Examine how American politics, institutions, and political culture evolved and changed from the founding to the present.

GOV X71P. Race and United States Social Policy.
Examine the relationship between race and the development of United States social policy. Explore how specific social policies affect racial and ethnic inequality.

GOV X71R. Politics and Religion in the United States.
Analysis of the key topics in religion and politics in the United States.

GOV X71S. News Media as a Political Institution.
Analyze the roles that the institutional and social media have in American politics and government.

GOV X71U. Politics and Film.
Explore the importance of political life as it has been captured on screen and examine the role of film in important political events.

GOV X71V. Latina/o/x Citizenship.
Explore the concepts of membership, belonging, immigration and citizenship in the Latina/o/x experience. Examine how historically, politically, socially and culturally, Latinas/os/xs have been construed as belonging or not belonging members of the United States society.

GOV X72C. United States Immigration Policy and Stories of Migration.
Explore the history of immigration policy to the United States with memoirs of migration, immigration policy, and incorporation to provide a fuller picture of how immigrants are affected by these policies in the United States.

GOV X72D. Politics of Latino Identity.
Explore the creation of the pan-ethnic Latino group identity, differences between national origin groups from Latin America, and how Latino group and national origin identities influence political participation.
GOV X72E. Power and Money in U.S. Education Policy.
Examine how power dynamics and financial forces shape education opportunity, who controls what gets taught, how resources are allocated, the political influences behind educational decisions, and the impact of the decisions upon different groups of students.
GOV X72F. Black Education Policy.
Examine key educational policy moments that have impacted Black communities–including anti-literacy laws, segregation, contemporary funding, and curriculum debates. Explore how Black communities have responded through institution-building, legal advocacy, and alternative educational practices.
GOV X72G. Race and Policing: History, Policy, and Practice.
Examine the origins and evolution of policing in the United States, with a focus on the development and impact of policing policies. Analyze how policies have supported or oppressed Black, working-class, and ethnic communities.
GOV X72N. Campaigns and Elections Internship.
Students perform research and related activities in political campaigns and polling. Written reports required.
GOV X73N. Legislative Internship.
Students perform research and related activities in a national, state, or local legislature. Written reports required.
GOV X74N. Political Internship.
Students perform research and related activities for an entity directly related to government and politics. Written reports required.
GOV X79C. Regime Perspectives on American Politics.
Explore American politics and culture and examine how the parts of America fit together as a whole.
GOV X79D. Citizenship in Democratic Politics.
Examine the role of ordinary citizens in democratic politics.
GOV X79E. Homer and Plato.
Examine the works of Homer and Plato. Explore the ideas of human nature, existence, leadership, courage, honor, ambition, justice, necessity, fate, divine power, human freedom, and moral responsibility.
GOV X79F. Politics in Fiction.
Examine perspectives on American politics and government through works of fiction.
GOV X79G. Jerusalem and Athens.
Examine the age-old confrontation between the teaching of the Bible and the politics and philosophy of the ancient Greeks.
GOV X79H. Honors Tutorial Course.
Lectures and supervised individual research and the writing of a substantial paper on a special topic in the field of government. No grade is awarded until the student has completed the two-semester sequence.
GOV X79S. Topics in Honors Seminar.
Substantive focus varies each semester. Topics include but are not limited to constitutional interpretation, political thought, the evolution of American politics, and comparative politics.

Graduate Courses

GOV X19S. Topics in Government.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
GOV X29S. Topics in Government.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
GOV X71N. Administrative Internship.
Students perform research and related activities in a national, state, or local administrative agency. Written reports required.
GOV X72N. Campaigns and Elections Internship.
Students perform research and related activities in political campaigns and polling. Written reports required.
GOV X73N. Legislative Internship.
Students perform research and related activities in a national, state, or local legislature. Written reports required.
GOV X80R. Mathematical Methods for Political Analysis.
An introduction to mathematical concepts essential for quantitative analysis, such as statistics and formal political theory.
GOV X81J. Political Institutions and Processes.
Local, state, and national political institutions and policy processes, and specific areas of public policy. Field core course.
GOV X81L. Topics in Seminar in American Government and Politics.
GOV X81L.10. American Political Development.
GOV X81L.11. Evolution of American Politics.
GOV X81L.3. Money in United States Politics.
Explores the role, nature, and consequences of money in American politics.
GOV X81L.6. Ethnic Politics.
An examination of the status and behavior of racial, ethnic, and religious minorities in the American political system.
GOV X81L.7. The American Presidency.
GOV X81L.8. Congress.
GOV X81L.9. Campaigns and Elections.
GOV X81R. Political Behavior.
Political socialization, political psychology, public opinion, and electoral behavior. Field core course.
GOV X81S. Topics in Seminar in Political Behavior.
GOV X81S.1. Public Opinion and Voting Behavior.
GOV X81S.2. Political Participation.
GOV X82K. Studies in Political Theory and Philosophy.
Intensive study of selected classical and contemporary theorists and source materials related to political theory and philosophy. Field core course.
GOV X82M. Topics in Seminar in Political Theory and Philosophy.
GOV X82M.1. Contemporary Political Theory.
Analysis of contemporary theoretical problems and detailed study of the works of contemporary Western theorists.
GOV X82M.2. American Political Thought.
Examination of the origins and development of political ideas that have influenced the evolution of the American political system.
GOV X82M.9. Rousseau.
GOV X83K. Problems in the Study of Politics.
Normative orientations in research, theory formation and empirical assessment, various conceptions of explanation, and historical development of the social sciences.
GOV X84L. Topics in Seminar: Latin American Politics.
Analysis of selected problems in politics and international relations of the countries of Latin America.
GOV X84L.1. Brazilian Public Policies.
GOV X84L.2. Latin American Urban Politics.
GOV X84M. Topics in Seminar in Public Policy and Administration.
GOV X84M.1. Policy Evaluation.
Quantitative assessment and analysis of the impact and consequences of public policies.

GOV X84M.2. Policy Analysis.
Study of the nature and operation of the national policymaking process.
GOV X84M.3. Organizational Theory.
Analysis of the structure and operation of complex public bureaucracies.
GOV X84M.4. Comparative Administration.
Study of administrative theory and practice in comparative perspective.
GOV X84M.5. Public Management.
Analysis of the executive function in the public sector.
GOV X84M.6. Development Policy.
GOV X84M.7. Comparative Public Policy.
GOV X84M.8. Public Policy Clinic.
GOV X84N. Topics in Seminar in Public Law.
GOV X84N.1. The Judicial Process.
An exploration of the nature of the judicial function, with emphasis on the roles of law and discretion in the decisional process.
GOV X84N.2. Core Readings in Public Law.
GOV X84N.3. Constitutional Interpretation.
GOV X84N.4. State Constitutions and Human Rights.
GOV X85K. Foundations of Public Policy.
Introduction to major institutions, values, processes, and problems that shape contemporary public policies. Review and appraisal of current international, national, state, and local policy debates. Sampling of theoretical literature in policy analysis, American politics, institutional and organizational theory, macroeconomic management, democratic theory, policy evaluation, and politics-governance conflicts. Field core course.
GOV X85L. Topics in Seminar in Methodology.
Intensive examination of selected issues in the methodology of political inquiry.
GOV X85L.1. Time-Series Analysis.
GOV X85L.2. Introduction to Political Methodology.
GOV X85L.3. Simultaneous Equation Models.
GOV X85L.5. Bayesian Statistics.
Bayesian statistics with a focus on social science (especially political science) examples and applications.
GOV X85M. Topics in Colloquium in Politics.
Field roundtables, reports of current research, and panel discussions of significant issues in the study of politics.
GOV X85N. Introduction to Formal Political Analysis.
Critical, comparative survey of important formal theories of political processes, stressing general approaches rather than mathematical results. Presupposes no technical background. Field core course.
GOV X85R. Topics in Seminar in Formal Theory.
GOV X86J. Social Science Research for Political Professionals.
A survey of research methods focused on applications for policy, legislative, and advocacy purposes. Covers quantitative and qualitative methods including basic statistical analysis as well as legal and public source research.
GOV X86L. Survey Methods for Campaigns and Advocacy.
An introduction to the use of statistical methods in political practice, including an overview of statistical concepts; special attention is paid to survey design, analysis, and use of common statistical applications.
GOV X88K. The Study of International Relations.
Comparison of various theories of international politics and analysis of basic forces that underlie national policies and condition the nature and concerns of contemporary international relations. Discussion, reading, and research. Field core course.
GOV X88L. Topics in Seminar in International Relations.
GOV X88L.1. Study of International Conflict.
Studies of the determinants of foreign policy in selected countries, with consideration of both domestic and international factors.
GOV X88L.2. American Foreign Policy.
Topics in the study of American foreign policy, including the problems and instruments of American diplomacy, and the process by which policy is made.
GOV X88L.3. International Security.
Study of the political determinants and the substantive issues of national security policy with particular emphasis upon the United States.
GOV X88L.4. Contemporary Issues in International Relations.
An analysis of major current developments and issues in international politics and military relations.
GOV X88L.5. International Law and Organization.
An analysis of the forms and functions of international law and organization, with particular emphasis on the case method as means of adjusting interstate relations.
GOV X88L.6. International Political Economy.
GOV X88L.7. Theory and International Relations.
GOV X88L.8. Competing Approaches to World Politics.
GOV X90K. Comparative Study of Political Systems.
Theory and method of comparative political study; varieties of governmental institutions in Western and non-Western countries; comparative examination of political institutions. Field core course.
GOV X90L. Topics in Seminar in Comparative Government and Politics.
GOV X90L.10. Elites.
GOV X90L.11. Seminar in Russian, East European, and Eurasian Civilizations and Cultures.
GOV X90L.14. Comparative Political Institutions.
GOV X90L.15. Politics and Society in the Third World.
GOV X90L.16. Politics of Mexico.
GOV X90L.17. Ethnicity, Religion, and Politics in South Asia.
GOV X90L.18. Comparative Politics: Latin America.
GOV X90L.19. Advanced Readings in Chinese Politics.
GOV X90L.2. Political Systems of Western Europe.
Analysis of Western European politics; may include both particular political systems and comparative study of political institutions, processes, and behavior.
GOV X90L.20. Japanese Politics.
GOV X90L.21. Comparative Ethnic Conflict.
GOV X90L.22. Analytical Issues in Latin American Politics.
Designed to provide theoretical and analytical tools to engage in cross-national study and research of political processes in Latin America.
GOV X90L.23. The New Middle East: A Critical Approach.
Examine new analytical approaches to understanding the Middle East, including its social and political dynamics, utilizing an interdisciplinary approach.
GOV X90L.4. Politics of the Middle East and North Africa.
Readings and research on the political systems of the Arab world, Israel, Turkey, Iran, and Afghanistan. Precise topics vary.
GOV X90L.7. Authoritarian Political Systems.
Comparative study of authoritarian and totalitarian patterns of government, past and present, Western and non-Western; special emphasis on Communist and Fascist systems.
GOV X90L.9. Political Sociology.
GOV X91J. Statistical Analysis in Political Science I.
An introductory course covering estimation theory and hypothesis testing for statistical models in political science and the basic probability theory needed for statistical theory.
GOV X91K. Topics in Seminar in Political Science.
GOV X91K.8. Writing and Publishing in Political Science.
Examine the craft of writing and data presentation in the social sciences.
GOV X91K.9. Writing Seminar in Political Theory.
Examine the craft of writing and publishing in political science. Designed for students specializing in political theory.

GOV X91L. Statistical Analysis in Political Science II.
Multivariate statistical techniques and their applications to problems in political science. Field core course.

GOV X91M. Scope and Methods of Political Science.
Examine the history, scope, and methods of political science as a discipline; major paradigms and current subfields; conceptions of explanation in the social sciences; concept formation, theory construction, and empirical assessment; problems of interpretation, comparison, measurement, and experimentation; designs for research; and normative orientations in research.

GOV X91R. Research Colloquium in Political Science.
Forum for development of research projects and dissertation proposals.

GOV X97K. Conference Course in Political Science.
Readings in the literature of political science in fields in which the student is preparing for the qualifying examinations for the Doctor of Philosophy.

GOV X98. Thesis.

GOV X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

GOV X98S. Careers in Academia Seminar.
Designed for fourth year GOV Ph.D. students interested in academia. Discuss the academic job market.

GOV X98T. Supervised Teaching in Government.
Teaching under the close supervision of the course instructor; group meetings with the instructor, individual consultations, and reports throughout the teaching period.

GOV X99W. Dissertation.

Professional Courses

GOV X19S. Topics in Government.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GOV X29S. Topics in Government.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GOV X71N. Administrative Internship.
Students perform research and related activities in a national, state, or local administrative agency. Written reports required.

GOV X72N. Campaigns and Elections Internship.
Students perform research and related activities in political campaigns and polling. Written reports required.

GOV X73N. Legislative Internship.
Students perform research and related activities in a national, state, or local legislature. Written reports required.

GPS - Global Policy Studies

Global Policy Studies: GPS

Lower-Division Courses

GPS X01. Introduction to International Development.
Explore the ideational landscape of international development, including the main "schools of thought" in development over time, as well as how the beliefs and assumptions within these schools inform particular policy solutions. Analyze the institutional landscape with respect to the actors, organizations, and transnational communities that shape how global development has been practiced at the local, national and international levels. Examine the indicator landscape concerning where data on development can be found, interpreted and used to pursue evidence-based analysis and decision-making in this space. Survey contemporary development policy issues.

GPS X11D. Empirical Methods for Global Development.
Survey the various qualitative methods and tools used in the design and evaluation of programs and policies in international development and humanitarian assistance work. Analyze how to design and conduct qualitative evaluations in theory and under real-world constraints. Examine some of the key challenges in managing evaluations at the project and organizational levels, along with associated ethical and analytical concerns.

GPS X19S. Topics in Global Policy Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Lyndon B. Johnson School of Public Affairs. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

Upper-Division Courses

GPS X25. Topics in Global Policy.
Survey various topics in global policy.

GPS X29S. Topics in Global Policy Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Lyndon B. Johnson School of Public Affairs. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

GPS X45. Advanced Topics in Global Policy.
Examine various advanced topics in global policy.

Graduate Courses

Professional Courses

GRG - Geography

Geography: GRG

Lower-Division Courses

GRG X01C. The Natural Environment.
An introduction to the study of the Earth from a holistic perspective including geologic, atmospheric, ecological, and water sciences and its relevance to present-day environmental problems.

GRG X01K. Weather and Climate.
A survey of meteorological phenomena and climatological processes of the earth.

GRG X02L. Landscapes and Cosmovision in Mesoamerica.
Explore the ancient civilizations of Mesoamerica, the ways in which they are studied, the landscapes they inhabited, their worldview, and the persistence of the past into the present. Discover how different societies manifested a core set of beliefs shared by all Mesoamerican civilizations while at the same time maintaining local cultural identities. Assess changes in Mesoamerica both spatially and temporally from the Archaic Period through the Spanish Conquest, colonialism, and into modern times.

GRG X02S. Special Topics in Geography.

GRG X04E. Environmental Science: A Changing World.
Surveys the major global environmental concerns affecting the Earth and its residents from the perspectives of the environmental sciences.

GRG X05. This Human World: An Introduction to Geography.
Introductory survey of human geography, including human-environment relations, cultural patterns and processes, and geography's relation to other fields of study.

GRG X06C. Conservation.
Introduction to environmental management, with emphasis on the major causes and consequences of environmental degradation. The course is organized around the premise that people cannot solve environmental problems unless they know how and why they occur; a major objective is to identify and understand the sociocultural forces that drive environmental degradation.

GRG X07C. Introduction to Urban Studies.
A multidisciplinary study of cities and complex urban environments; historical and contemporary issues from both national and international perspectives.

GRG X09C. Creating the Sustainable Society.
Overview of sustainability as something human beings must strive to create in an era of global warming and ever greater social inequalities, both between and within countries.

GRG X10C. Spatial Data and Analysis.
Fundamental concepts in spatial data acquisition, analysis, and presentation, with emphasis on the needs of professionals in cartography, geographic information systems (GIS), and remote sensing.

GRG X12E. Digital Earth.
Explore concepts in geospatial technologies that are becoming increasingly important tools in research, policy, and everyday life. Discuss geospatial data sources (ex. GPS, citizen science, satellite imagery), applications (ex. disaster relief, biodiversity conservation, disease spread), and broader implications of their use (ex. privacy, ethical, legal issues).

GRG X12K. North American Borderlands.
Explore the formation of political borders in nineteenth- and twentieth-century North America, their contestation, and the multiple meanings attached to them.

GRG X19. Geography of Latin America.
Adaptations to population growth and spatial integration in cultural landscapes of great natural and ethnic diversity; problems of frontiers and cities.

GRG X19S. Topics in Geography.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GRG X29S. Topics in Geography.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

GRG X19S. Topics in Geography.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GRG X20J. Environmental Justice.
Examine the socio-political, economic, and racialized history of both environmental ruin and environmental justice via a critical geographic lens connecting feminist political ecology, antiracist and abolitionist ecologies, decolonial geographies, and critical physical geographies.

GRG X20K. Land and Life: The American Southwest.
Historical geography of the southwestern United States, emphasizing the ways of life of American Indian, Spanish, mestizo, and Anglo cultures.

GRG X20M. Geography of Media.
Explores communication media from a geographical perspective. Subjects include place images, changing attitudes about public and private spaces, social networking, and the geography of communications infrastructure.

GRG X20N. Exhibitions and Public Spectacle.
Investigate exhibits, world's fairs, museum, monuments, theme parks, and historical reconstructions from Europe and the US, with attention to images of how their sponsoring nations or other entities want to be seen. Examine evidence for both the good and bad sides of national pride and identity. Explore examples of how large-scale culture projects and the public interact. Consider the lasting marks left on the cities and countries sponsoring them.

GRG X20P. Political Geography.
Explores how social power relations play out across space, and how spatial patterns and processes underlie various forms of social power. Focus on borders, conflicts, peacemaking, migration, environmental politics, urban politics, embodiment, emotion and affect.

GRG X20U. Urban Imaginaries.
Use science fiction literature, film, and other cultural artifacts as a platform to launch an examination into the central concept of urban imaginaries. Discuss the politics (and potential) of urban representation as well as understand how urban imaginaries influence everyday urban life and the ongoing production of urban space and place.

GRG X21D. Development and Social Movement in East and Southeast Asia.
Examine the notions of development and the ways in which development is associated with state building, moral economy, political performance, and accumulation regimes. Explore the development of civil society and social movement in East Asia, and explanations of the mechanisms and drivers of displacement. Conceptualize the "Right to the City", and alternative right-based approaches to land, housing, infrastructure, commons and public resources.

GRG X21F. Food in the Racialized City.
Explore a variety of issues related to producing, accessing, and consuming food in city spaces in the context of racial inequities. Investigate and question constructs such as "food" and "city" as means of exploring different points of view and approaches to studying not only food and cities but also various approaches to food justice.

GRG X21L. Archaeology of Climate Change.
Examines why climate changes, the methods for recording climate change, and includes case studies of the varied responses of past human societies to climate change in different geographic regions and time periods with varying socio-political and economic systems.

GRG X21U. Race, Social Justice, and the City.
Examine the way that race and inequality are built into the structures and ideas surrounding urban life through the spatial and racial structures of capitalist development, racialized migration, and redevelopment and gentrification campaigns. Analyze how United States cities are racial geographies.

GRG X22D. Human Health and the Environment.
Introduction to environmental health concepts. Examine current events to explore the relationship between environment and health and whether an environmental condition is or is not an important threat to health. Discuss the complexity of determining "proof" in this field.

GRG X22G. Politics of Protecting the Great Barrier Reef.
Examine the numerous environmental challenges Australia's Great Barrier Reef (GBR) faces. Explore the livelihoods of the people who depend on or impact the GBR, and the people who are trying to save it.

GRG X22L. Geographies of Latin American to United States Migration.
Examine the contemporary complex multi-scalar origins, patterns, and processes of Latin American and Caribbean migration and settlement in the United States. Through a place-specific, spatially contextualized, and historically situated approach, explore the collective and individual experiences of migrants, asylum seekers, and refugees from select nations including: Mexico, Guatemala, Honduras, El Salvador, Puerto Rico, the Dominican Republic, Haiti, and Cuba. Analyze the multi-layered factors shaping diverse Latin American migratory patterns and processes.

GRG X22M. Maya Art and Architecture.
Introduction to the artistic traditions of the ancient Maya, tracing their development up to the time of European contact. Students will examine various important themes of Maya culture including history, ritual, and cosmology as revealed in sculpture, hieroglyphs, painting, and architectural design.

GRG X23K. South America: Nature, Society and Sustainability.
Field study of environmental and social change in selected landscapes in South America, such as protected areas; places of food production; transportation routes; migrant landscapes; urban areas; sites of cultural and historical importance; and issues of human rights.

GRG X23M. Literature, Culture, and Ecology in Northern and Central Europe.
Explore a variety of texts, films, and artifacts from Northern and Central Europe for the insights they provide about the interrelationships between nature and culture and strategies for developing a sustainable relationship to the world around us.

GRG X24E. Applications and Ethics of Digital Spatial Technologies.
Explore the applications and ethical considerations of remote sensing, the Global Positioning System (GPS), and Geographic Information System (GIS) technologies and practice.

GRG X24F. Race, Capitalism, and the Environment.

GRG X24M. Sustainable Maya Geographies - Past to Future.
Explore landscapes, conservation, and human-environment dynamics in the Maya region of Central America from more than 10,000 years ago to modern times. Compare sustainable practices from the past with those of indigenous Maya communities today to guide the future.

GRG X25. Geography of Texas.
Texas as an environmental and cultural borderland: as a transition zone between plains and mountains, humid and arid, South and West, Anglo-America and Latin America.

GRG X25E. The Healthy, Livable City.
Explore the design of the built environment and its potential for addressing and preventing many childhood and adult health concerns in the United States. Examine how to create healthy, walkable, vital communities for all.

GRG X26. Regions and Cultures of Europe.
Spatial patterns in Europe, with emphasis on cultural, historical, and political geography.

GRG X26C. Sensing: Elemental Media.
Explore a sensory ethnographic investigation of urban ecology, organized around air, water, earth, and fire as themes for engaging with the city through media and the senses.

GRG X26G. International Political Economy of Lower-Income Countries.
Explore the ways that China, India, Brazil and other lower-income countries are transforming the patterns in global finance, trade, aid, women's empowerment, and the control or corruption.

GRG X27. Geography of the Former Soviet Union.
A systematic introduction to cultural, physical, political, and economic geography of the former Soviet Union. Focus on the fundamental transformation that the former Socialist Union Republics, now sovereign states, have undergone since 1991.

GRG X27G. Introduction to Geospatial Artificial Intelligence.
Focus on artificial intelligence (AI) and machine learning (ML) methods and their applications on geospatial problems. Explore python programming and GIS data preparation for machine learning models, ML foundations, regression, clustering, decision tree and random forest, neural network, embedding, and location representation learning.

GRG X28E. Geography in Eastern Europe and Eurasia.
Explore alternatives to nation-state imaginaries across Eastern Europe and Eurasia. Examine spatial thinking, utopia, dystopia, the history of geosciences, counter-mapping, and the decolonial geopoetics of space.

GRG X28F. Black Geographies.
Explore the relationship between Blackness and the production of space and place. Examine the tensions and possibilities that emerge when Black people are rendered un-geographic as a fundamental component of racial capitalism while they are simultaneously creating spaces of freedom under constant threats to Black life.

GRG X28J. Land in America.
Explore how the history of land helps explain the society we live in today and ideas about the human-nature relationship.

GRG X28L. Asian Diaspora on Indigenous Lands.
Explore Indigenous and Asian entanglements and solidarities on Turtle Island (North America) and the Pacific. Examine settler colonialism, racial capitalism, war and militarism, racism and power, and environmental change.

GRG X29S. Topics in Geography.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GRG X30F. Geographies of International Development in Africa.
Critically examines the major approaches to "Development" in colonial and postcolonial eras, with a focus on a range of African resources: from water to wildlife, forests to farms, airways to rangelands, and including a consideration of African bodies themselves as sites of development and resistance.

GRG X30L. Lidar Analysis.
Discuss the fundamental concepts and applications of light detection and ranging (lidar). Assess aerial and ground-based lidar including the quality of the data, how to process the raw data, and analysis of data.

GRG X30W. Water and Watersheds.
Exposure to numerical analyses techniques developed by hydrologists and to fundamental equations controlling water transfer over and through earth materials. Learn how to administer hydrologic applications to practical problems in physical geography, geology, civil engineering, ecology, and environmental sciences.

GRG X31E. East European Transnational Worlds to 1914.
Examine an overview of major developments in the economic, political, social, cultural, and gender and sexuality fields of East European history before 1914. Explore diplomacy, institutional legacies of war and peace, urban and rural developments and inequalities, spaces of language and religion, race, labor migration, and the arts.

GRG X31K. Nature, Society, and Adaptation.
Long term trajectories of change in human environment relationships, including issues of human evolution and human nature, violence, population, food, agriculture, urbanization, globalizing modernization, and

environmental impacts; issues of sustainability, cultural survival, human rights, and environmental protection.

GRG X32L. Community and Citizen Science.
Examine the contributions of volunteered geographic information (VGI) to geographic knowledge alongside an analysis of alternative forms of community-based knowledge production. Explore an overview of citizen science, community science, and VGI datasets. Develop and carry out community-based participatory research projects informed by the growing literature on community and citizen science.

GRG X33C. Severe and Unusual Weather.
A continuation of Geography 301K, focuses on atmospheric hazards such as severe thunderstorms and their offspring (hail, lightning, tornadoes, damaging winds and flash floods) as well as tropical cyclones. Covers human risk perception in relation to atmospheric hazards.

GRG X33K. Climate Change.
Examines changes in climatic systems over both short and long time periods in relation to impacts on physical and ecological systems. Discusses past, present, and future changes in climatic conditions and the methods used to make those evaluations.

GRG X34. Conservation, Resources, and Technology.
Analysis of the relationship between the human population and its resource base, with particular emphasis on current problems in environmental resource management.

GRG X34E. Children's Environmental Health.
Discuss environmental health issues as they pertain to children's health. Focus on emerging scientific and public health issues such as water quality, air pollution, endocrine-disrupting chemicals, and the food environment.

GRG X34K. Soils.
Morphology, genesis, properties, and distribution of world soils. Factors of soil formation.

GRG X34L. Vulnerability to Natural Hazards.
An interdisciplinary approach, set right at the nexus of both physical and human geography, to studying the types of natural disasters that occur throughout Earth with a focus on tropical areas. Explore a region's susceptibility to natural disasters by studying the physical phenomena that incite specific hazards so that their spatial distribution can be outlined. Utilize theoretical frameworks that can expose the social causes of human vulnerability, the political repercussions of disasters, and how disaster response varies from country to country depending on varying political stances and economic conditions.

GRG X35C. Quaternary Landscapes.
Changing physical and biotic landscapes on the Ice Age earth during the last two million years. Reconstruction of Quaternary geomorphic landscapes based on principles and applications of geochronology and paleoclimatology.

GRG X35D. Anthropocene.
Evaluates the role of humans in changing Earth systems. Examines the evidence used to reconstruct past environments, to decipher the ecological and biogeographical consequences of land use, to measure altered surface processes, to distinguish the anthropogenic contribution to climate change, and to predict likely future scenarios. Explores the interaction of human history with altered biophysical patterns and processes. Assesses the recognition of the Anthropocene as a potential new epoch in Earth history, including the implications of that recognition for environmental stewardship.

GRG X35K. Mountain Geoecology.
Geological evolution of mountains. Physical geography of mountains: climates, soils, vegetation, landforms and geomorphic processes.

GRG X35N. Landscape Ecology.
Discuss spatial patterns in the Earth's biosphere found within landscapes, typically areas measured in square kilometers. Examine the processes that create those patterns, drawing from ecology, biogeography, and many other disciplines. Use Geographic Information Systems (GIS) to analyze and understand the spatial arrangements and configurations of natural and human-modified environments.

GRG X36. Contemporary Cultural Geography.
Recent theoretical developments in cultural geography, with a focus on landscapes and the everyday practices that imbue them with meaning; the ways those meanings are contested and are the foci of struggle; and how the relationship between culture and space plays a central role in the social construction of identity.

GRG X36C. National Parks and Protected Areas.
Introduces current conservation principles and management strategies; outlines the challenges, changes, and dilemmas associated with protected areas.

GRG X37. The Modern American City.
Issues facing residents of United States cities, such as transportation and housing, poverty and crime, metropolitan finance, environmental and architectural design; historical/comparative urban evolution.

GRG X38C. Rivers and Landscapes: Fluvial Geomorphology.
Drainage basin evolution and channel adjustment, variability of river systems in differing geomorphic regimes, relationships between fluvial systems and other components of physical geography, and the role of humans as geomorphic agents.

GRG X39. Process Geomorphology.
Analysis of geomorphic processes and their effects on landform development.

GRG X39K. Environment, Development, and Food Production.
Assessment of various types of agriculture with regard to environmental factors and management techniques.

GRG X40D. Political Ecology of Globalization and Environmental Degradation.
Study of current environmental problems from the perspective of political ecology, which critically examines political, economic, and social relations between humans and the natural world. Uses case studies from Africa, Latin America, Asia, and the Middle East to address climate change, deforestation, desertification, biodiversity, and environmental justice.

GRG X40L. Landuse/Landcover Change Practicum.
Focuses on best practices for classifying and mapping land use and land cover, as well as how they change over time in an experiential learning environment. Develop testable hypotheses answered by the original data analysis and interpretation.

GRG X40U. Internship and Service Learning.
Internship experience in an urban studies-related public or nonprofit agency. The opportunity to apply the knowledge, theory, and understanding gained from courses in areas of specialization to urban issues in a professional setting. Includes an academic service-learning component.

GRG X41K. Landscapes of Mexico and Caribbean America.
The natural regions and cultural landscapes of Mexico, Central America, and the West Indies.

GRG X42C. Sustainable Development.
Historical and contemporary analysis of international development with a focus on the prospects for environmental sustainability.

GRG X42N. Sustainable Landscapes and Seascapes.
Survey the ecological, economic, and social dimensions of sustainable uses of land-based and aquatic natural resources. Examine the sustainability of landscapes utilized for forestry, farming, agroforestry, and rangeland systems, as well as the riverscapes and seascapes utilized by people.

GRG X42S. Sustainability, Equity, and Health.

GRG X43E. Mapping Latin America.
Discuss the role of maps in the creation of Latin America as a specific sort of place. As such, allows familiarity with a broad overview of Latin American history from Pre-Columbian civilizations to the modern period.

GRG X44G. Environmental Law.
Examine environmental law and its impact on all life. Analyze key federal environmental statutes and leading cases in which these statutes have been interpreted by courts.

GRG X44K. Global Food, Farming, and Hunger.
Examination of contemporary transformations in global agro-food systems, with emphasis on the current paradox of epidemic obesity in some parts of the world and enduring hunger in others.

GRG X46. The Human Use of the Earth.
The state of the world from an ecological perspective. Case studies are drawn from a wide range of ecological settings and involve both traditional and modern societies.

GRG X48E. Tourism and Place in the Global South.
Debunk the myth that tourism is inherently desirable by unpacking the mechanisms of violence and inequalities of power embedded in tourism and tourism development.

GRG X49S. Global Sustainability and Soil.
Examine soil as a resource from the perspectives of natural and sustainability science, including soil ecology and biodiversity, formation, fertility for ecosystems and farming systems, soil health, distinguishing characteristics in nature, taxonomy, and soil spatial variability around the globe.

GRG X50E. Geoprocessing.
Computer programming and scripting applied to geospatial data.

GRG X50K. Geographies of Globalization.
Examines globalization in historical and contemporary contexts, with a focus on race, class and gendered power.

GRG X56C. Geo-Archaeology and Environmental History.
Long-term ecology as reconstructed from settlement and land-use histories. Empirical case studies in environmental history from the Mediterranean region, the Near East, and Mesoamerica. Applications to degradation, desertification, sustainability, and global change.

GRG X56D. Water Resources in Latin America and the Caribbean.
Examine the variability of landscapes, climatic regions, and anthropogenic activities found throughout Latin America and the insular Caribbean to explore the complex issues related to water resource accessibility.

GRG X56T. Topics in Geography.

GRG X56T.1. The Culture of Cities.
Examines the social, geographical, and cultural evolution of the United States from a rural and small-town society to an urban and suburban nation. Subjects may include the segregation of public and private space; the formation of urban subcultures organized by gender, work, race, religion, and sexuality; social and spatial divisions between rich and poor and native-born and immigrant; and the increasing importance of cultural capital" in reshaping urban politics and in conflicts over revitalization and gentrification.

GRG X56T.14. Geography of Religion in Eastern Europe and Russia.
A comprehensive overview of major religious culture regions in the former Eastern bloc countries.

GRG X56T.2. Memory and Place.
Explores how cultural memory is produced in its various forms, from memorials, public art, and commodities to popular culture, rituals, and museums, and how public remembering is inevitably anchored in specific geographic places.

GRG X56T.3. Geographical Information Systems and Remote Sensing for Archaeology and Paleontology.
Designed to give students interested in the fields of archaeology, physical anthropology, and paleontology a foundation in the use of geographical information systems (GIS) and the analysis of remotely sensed data from satellites and aerial photographs.

GRG X56T.4. Northern Lands and Cultures.
Develops geographical understanding of the Circumpolar region of the North, an ancient human habitat, home to distinct millennia-old civilizations.

GRG X56T.5. Urban Publics.
The concept of the public in the city and how it has shifted over time along the lines of gender, ethnicity, race, and class. Examines contemporary struggles over defining the urban public and how those struggles are linked to social, cultural, political, and economic forces. Subjects include uses of public space, the public sphere, eminent domain, urban politics, civic engagement, and political participation.

GRG X56T.6. The Environmental Change and Management of Large Rivers.
An interdisciplinary perspective on the physical processes of large rivers. Subjects include land degradation; deforestation; river engineering; flood processes; sedimentology; floodplains management; ecohydrology; Quaternary fluvial geomorphology; and paleohydrology.

GRG X56T.8. Global Societies.
The use of geographical perspectives to make sense of the global society. Subjects include globalization, war, economic crisis, and social movements.

GRG X57. Medical Geography.
The geographic distribution, expansion, and contraction of the infectious diseases that have the greatest influence in shaping human societies today: malaria, AIDS, and others.

GRG X58E. Geography and Religion.
Ideas about the relationships among the natural world, myth, and ritual; principal focus on Christianity, Islam, and Judaism and their offshoots and antagonists in the Western world.

GRG X60G. Environmental Geographic Information Systems.
An introduction to the creation and use of geographic information systems.

GRG X64K. Advanced Remote Sensing and Pattern Analysis.
Advanced classification techniques for satellite image processing and landscape pattern analysis.

GRG X66C. Comparative Ecosystems.
The important ecosystem processes that affect the distributions, characteristics, and management of natural environments at landscape, regional, and continental scales. Ecosystem functions, including nutrient cycling, water balance, and the role of natural disturbances in a wide range of ecosystems, from the tundra to the rain forests and grasslands of the tropics.

GRG X66K. Biogeography.
Contemporary patterns of plant and animal distribution, and the environmental and historical processes affecting them.

GRG X67D. Climate Change and Vegetation Response in the Kalahari.
Using the Kalahari as a basis for understanding, explore the ecological dynamics of savanna systems and their interactions with climatic variability over time and space. The focus on monitoring and assessment to inform rangeland management includes vegetation sampling and calculations of carrying capacity. Examine how savanna systems dynamics are comparable across regions, and thus are both globally and UT-locally relevant.

GRG X67K. Vegetation Ecology.
Plant autecology and synecology. Ecological factors and processes of plant communities. Vegetation geoecology, succession, and dynamics.

GRG X68C. Spatial Analysis and Geographic Information Systems.
Addresses spatial problem solving by focusing on both the theoretical/conceptual and practical aspects of geographic information systems modeling. Describes geographic information systems techniques and spatial statistics used to quantify and measure spatial patterns.

GRG X68D. Enviro-Cultural Dynamics in Botswana.
Examines the Kalahari case study of the San "First People" and their history of treatment in the Central Kalahari Game Reserve compared to other more recently arriving peoples. Explores how cultural groups are differentially treated and how that treatment and their ties to and uses of the landscape evolves over time.

GRG X69D. GIS Applications in Social and Environmental Science.
A hands-on approach to covering the appropriate use of geographical information systems (GIS) and spatial statistical analysis in different sub-disciplines.

GRG X70C. Advanced Geographic Information Systems.
Study of methods of spatial analysis, design and implementation of a geographic information system, vector and raster modeling, and advanced applications of geographic information systems.

GRG X70D. Spatial Reasoning with Geographic Information Systems.
Using Geographic Information Systems (GIS) and spatial analysis, examine different types of real-world problems. Read newspaper and journal articles about real issues or problems and explore how they can be addressed and potentially solved. Focus on specific problems and learn about the GIS tools and techniques that are appropriate for each scenario.

GRG X73F. Field Techniques.
Introduction to the collection and mapping of environmental and cultural data, involving both classroom lectures and outdoor exercises.

GRG X73K. Field Methods for Landscape Characterization.
The design of research questions and the acquisition of data for the characterization of landscapes. Utilizes geographical and ecological field-based methods.

GRG X74. Frontiers in Geography.
Current concerns and methodology in the field of geography; an introduction to theory and research in geography.

GRG X76T. Topics in Geography.

GRG X79H. Honors Tutorial Course.
Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. Regular conferences with the faculty supervisor are also required.

GRG X79K. Conference Course.
Supervised individual study of selected problems in geography.

GRG X79L. Practicum: Internships in Applied Geography.
Research and staff experience working in an appropriate government agency or private business.

Graduate Courses

GRG X19S. Topics in Geography.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GRG X29S. Topics in Geography.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GRG X80. Field Course in Geography.
Collection of data, formulation of meaningful categories of regions, development of hypotheses of cause-and-effect relations through direct contact with the phenomena and processes in the area where a problem is located.

GRG X80C. Myth, Ritual, Place, and Environment.
Impact of local religious lore and practice on cultural landscapes, conservation, and sense of place; cultural and environmental consequences of the spatial expansion of world religions; other themes in the geography of religion, including civil religion and environmental theology.

GRG X80D. Environment and Health in Latin America.
Issues related to health, health care, and development in Latin America and the Caribbean, considered with the recognition that health depends on the interactions of social, economic, and political factors as well as on health care services.

GRG X80E. Geomorphology of the Southwest.
Geography of West Texas and New Mexico; late Cenozoic basalt flows, volcanic ashes, sand sheets, alluvium, paleolake deposits, glacial moraines, colluvium, and soils; integration of landforms and landscape ecology. Includes a ten-day field trip.

GRG X80F. Field Techniques in Sediments and Soils.
Designed to provide experience in field description of sediments and soils in Central Texas; second half of course focuses on field interpretation of geomorphology and landscape evolution using sedimentary deposits and soils.

GRG X81. Topics in Seminar in Historical Geography.
Topics include Latin America, Anglo-America, Texas, boundaries, settlement origins and patterns, origins of agriculture.

GRG X81C. Mapping the Middle East.
Ways in which the Middle East is and has been represented cartographically. Cartographic representations of the region during the fifteenth and sixteenth centuries; the nature and evolution of a distinctive Islamic cartographic tradition; the role and use of maps during the nineteenth and twentieth centuries both in the extension of colonialism and in the creation of modern states; and the contemporary use, applications, and implications of geographic information systems in organizing and representing data spatially.

GRG X81D. Soil Geomorphology.
Examine three aspects of soil geomorphology: soil formation as it relates to earth surface processes, soils and sustainability, and soil ecosystem interactions.

GRG X82K. Geo-Archaeology and Environmental History.
Long-term ecology as reconstructed from settlement and land-use histories. Empirical case studies in environmental history from the Mediterranean region, the Near East, and Mesoamerica. Applications to degradation, desertification, sustainability, and global change.

GRG X83C. Topics in Seminar in Environment and Development.
A third- and fourth-world perspective on the geographic implications of international development; emphasis on local and global environmental effects.

GRG X83C.2. Environment and Development in the Middle East.

GRG X83F. Long-Term Climate Change and History.
Climate and atmospheric science considered with long-term climate and historical and archaeological change over Earth history, focusing on the Quaternary to the future.

GRG X84C. Watershed Systems and Environmental Management.
The effect of landcover change on drainage basin processes, considered from a geomorphological perspective over varying temporal and spatial scales. Topics may include watershed management, stream channel restoration, fluvial geomorphic processes, and Geographic Information Systems applications to drainage basin processes.

GRG X85. Topics in Seminar in Regional Geography.

GRG X85.1. Regional Geography of Latin America.
Topics include land and life in Central America; culture, environment, and development in Latin America; recent trends in Latin American geography.

GRG X85.2. Europe.
Topics include various aspects of the economic and political geography of individual nations or regions, such as regional differences in Southeast Europe, agricultural developments in European Community countries, trade, viability of individual countries, the changing resources picture in Western and Eastern Europe.

GRG X85.3. Anglo-America.
Topics include agricultural patterns of the United States, comparative regional studies, measurement and delimitation of regions, analysis of population shifts.

GRG X85.4. Asia.
Topics include economic regionalization in Asia, spatial structure of Asian manufacturing, regional discrimination analysis for selected areas and variables in Asia, urban structure in South Asia, developmental activity and spatial change in India.

GRG X85.5. Regional Geography of the Middle East and North Africa.
Topics include developmental activity and spatial change in the Middle East, comparative regional studies.

GRG X85C. Quaternary Landscapes.
Changing physical and biotic landscapes on Ice Age earth during the past two million years. Reconstruction of Quaternary geomorphic landscapes based on principles and applications of geochronology and paleoclimatology.

GRG X85H. Wetlands: Earth System Science and History.
Biophysical, historical, and policy/restoration components of wetlands with global and regional case studies.

GRG X86C. Topics in Seminar in Quaternary Studies.
Issues and new developments in regional and global aspects of Quaternary climates, biota, prehistory, and landscape evolution.

GRG X87C. Political Ecology.
An introduction to the history of development theory, economic globalization, studies in the history of science, issues of social justice, and critical studies of environmental history.

GRG X87D. Globalization, Conflict, and Resistance.
Focuses on a theoretical and empirical understanding of the economic, cultural, political, and policy dimensions of globalization; study of the impact of globalization on people and places; understanding of class and identity conflicts using case studies from Latin America, the United States, Europe, Africa, the Middle East, and Asia; and exploration of theories of social movement with examples from the global North and South.

GRG X87K. Geoarchaeology of Mesoamerica.
Examine three areas of Mesoamerican geoarchaeology: regional environments, the lines of scientific evidence for current and past environments, and human-environmental interactions from the Pleistocene to the present.

GRG X88. Seminar in Resources and Conservation.
Development of the conservation movement, problems of resource misuse, conservation practices, state and national conservation policies, nature and distribution of natural resources.

GRG X88C. Indigenous Maps, Architecture, and Enculturation of Colonial Mexico.
The encounter of Spanish and indigenous cultures and ecologies; regional diversity of agricultural, urban, and economic development from 1521 to 1810; ethnic transformation and new socioeconomic configurations.

GRG X88R. Forest Hydrology.
Traces the history of forest hydrology as a science that describes the natural complexities of water movement through forested headwater landscapes and the changes imposed to these processes by disturbances associated with extreme weather events, deforestation, timber harvesting, wildfires, and climate change.

GRG X89P. Hydrogeomorphology.
Hydrologic and geomorphologic applications to practical problems in physical geography, geology, civil engineering, ecology, and environmental sciences.

GRG X90. Cultural and Humanistic Geography.
Analysis of human-environment interactions by employing the concepts of place, home, and dwelling. Discussion of humanistic and postmodern geographical research.

GRG X90C. Landscape, Meaning, and Society.
The creation, transformation, and meaning of landscapes within different societies through time. Iconographical analysis of the built environment; impress of belief and ideology on landscape; analysis of nationalistic and authoritarian landscapes; problems of defining and mapping ethnicity; civilizational process and behavior; institutional vandalism, place annihilation, and the destruction and effacement of landscape symbols; cultural and geographical foundations and unintended consequences of global economic integration.

GRG X90K. Issues in Geography.
Examines the history, philosophy, and ontology of geography, including its various subfields.

GRG X90L. Research in Geography.
Builds on topics explored in Geography 390K by focusing on epistemology and research in the field of geography. Students develop plans for research and write a research proposal.

GRG X90S. Environment, Development, and Food Production.
Assessment of various types of nonmechanized agriculture with regard to environmental factors and management techniques.

GRG X91C. Dynamics of Earth Systems.
An overview of climate, vegetation, soil, and landform processes. Principles and methodology of physical geography.

GRG X91M. Multivariate Techniques in Spatial Analysis.
The application of multivariate data analytic techniques including regression, factor, canonical, and discriminatory analysis of spatial problems.

GRG X92C. The Anthropocene in the Longue Duree.
Explore the "Anthropocene" (early to future) from the perspectives of multiple disciplines including geography, anthropology, archaeology, geology, and ecology. Discuss its drivers, its historical roots, and its chronologies.

GRG X92D. Grant Writing in Geography.
Designed to train students to write competitive and successful applications for extramural grants and fellowships.

GRG X92M. Seminar in Biodiversity Conservation.
Examines issues that involve the conservation and sustainable use of plants, animals, and ecosystems.

GRG X93C. Seminar in Digital Landscapes.
Explores the theoretical and applied issues associated with the acquisition, analysis, simulation, and visualization of digital geographic information, with an emphasis on current trends in landscape characterization, landscape ecology, biodiversity, global change, environmental remote sending, and socio-ecological systems.

GRG X93D. Geographical Information Systems and Ecological Modeling.
Covers the steps involved in conceptualizing and formulating predictive models in a raster geographical information systems environment. Although many of the topics covered are fairly generic and can be applied to any application area in which raster data are used, species distribution models will be used as the example application area.

GRG X93M. Advanced Remote Sensing and Quantitative Landscape Ecology.
Advanced digital image processing of optical satellite imagery for landscape composition and pattern analysis.

GRG X94. Seminar in Urban Analysis.
Research seminar in urban issues: demographic, environmental, and transportation modeling; metropolitan finance; and urban social pathologies.

GRG X94F. Feminist Geographies.
Uses a feminist geographic lens to interrogate a range of historical and contemporary geopolitical and geoeconomic issues including (re)productive labor struggles, migration, development, globalization, colonialism, nationalism, militarization and transnational resistance movements.

GRG X94K. Geographic Information Systems.
An introduction to the design and use of geographic information systems and to computer-based tools used to store, manage, analyze, and display spatially referenced data.

GRG X94L. Advanced Applications of Information Technology.
Advanced issues in computer cartography, geographic information systems, three-dimensional environmental reconstruction and rendering, terrain modeling, animation of environmental processes, and hypertext and multimedia authoring. Interdisciplinary subjects, such as the application of geographic information systems to archaeological research, historical demography, and habitat mapping and analysis.

GRG X95. Cultural Adaptation and Change.
A graduate-level introduction to cultural behavior, adaptation, evolution and transformation, with emphasis on demography, diffusion, migration, ethnicity, and institutions.

GRG X95D. Latin American Cultures, Environment, and Development.
Exploration through Latin American examples of issues of cultural identity and territory, adaptive strategies, environmental impact, conservation, cultural survival, parks and people, and sustainable development.

GRG X95K. Getting and Staying Funded.
Written, oral, and multi-media skills for improved success in academic and non-academic professional arenas including, but not limited to, grant and thesis proposal writing, CV and job application writing, audience-targeted formal and informal oral presentations, multimedia production (e.g., poster, video), and career timeline planning.

GRG X96. Techniques in Pollen Analysis.
Field sampling, laboratory processing, microscopy, pollen grain morphology, pollen counting, and data-handling techniques.

GRG X96C. Seminar in Current Geographic Research.
Review and discussion of recent research projects across the field of geography; includes analysis of theories and methodologies, and various methods for presenting results.

GRG X96K. Quaternary Palynology.
Methods, principles, and applications of pollen analysis to vegetational, paleoenvironmental, and ethnobotanical reconstructions.

GRG X96T. Topics in Geography.

GRG X97. Conference Course in Geography.
Supervised study and research.

GRG X98. Thesis.

GRG X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

GRG X98T. Supervised Teaching in Geography.
Teaching under the close supervision of the course instructor; group meetings with the instructor, individual consultations, and reports throughout the teaching period.

GRG X99W. Dissertation.

Professional Courses

GRG X19S. Topics in Geography.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GRG X29S. Topics in Geography.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GRS - Graduate School

Graduate School: GRS

Lower-Division Courses

Upper-Division Courses

Graduate Courses

GRS X82. Inside View of the Federal Policymaking Process.
On-the-ground and behind-the-scenes study of the federal policymaking process and the institutions and people that comprise the federal government. Sampling of literature on federal government dynamic and face-to-face interaction with individuals from the major institutions that participate in federal governance. Discussion and analysis of information gathered from meetings with officials from Congress, the White House, executive branch agencies, lobbying firms, nongovernmental organizations, think tanks, interest groups, and the media.

GRS X85. Archer Center Independent Study and Research.
Tailored to individual students' graduate programs of study. An Archer Center faculty member will work independently with each student to develop a research project that is designed to advance the student's academic and research goals. The project will align with the requirements of the student's graduate degree.

GRS X92. Archer Center Washington Internship.
Internship with a federal government-related agency or organization in Washington, DC, facilitated through the Archer Center's program in public policy. Students select their internships and are supervised by a UT Austin faculty member.

GRS X93. Topics in Graduate Education.

GRS X94. Designing Your Future.
Introduction to design thinking as a framework for exploring and shaping professional futures. Discuss self-reflection, career prototyping, and strategic decision-making. Engage in exercises such as information interviews, self-assessments, and iterative planning to identify meaningful career directions. Explore various pathways across academic, industry, business, nonprofit, and creative sectors.

GRS X96. Reimagining Career Possibilities for Humanities, Arts, and Social Sciences.
Explore the multitude of career options available to advanced degrees in humanities, arts, and social sciences. Includes career self-assessment, informational interviewing, and career preparation.

GRS X97. Teaching Assistant Fundamentals.
Skills, behavior, and strategies for effective college teaching.

Professional Courses

GSD - German, Scandinavian, and Dutch Studies

German, Scandinavian, and Dutch Studies: GSD

Lower-Division Courses

GSD X01. Introduction to the Study of Northern Europe.
Introduces significant moments in and monuments from the cultural histories of the German-speaking, Scandinavian, and Dutch nations from their beginnings to the present. Designed to discuss representative problems in research and analysis in cultural studies and the humanities.

GSD X10. Introductory Topics on Northern Europe.
Introduction to important topics in the history of Northern Europe's culture, including areas from history, the arts, film studies, language and linguistics, and literature.

GSD X10.1. American Jews: The Yiddish Experience.
Focuses on over a century of Yiddish-based contributions to American literature, music, and film, including works by Isaac Bashevis Singer, Michael Chabon, Woody Allen, and the Marx Brothers.

GSD X11C. Movies Go To War.
A comparison of films from various nations about major twentieth century wars to the historical facts of the conflicts as practicums in critical comparative analysis of histories as representations.

GSD X11D. Race and Gender Stereotypes in Germany.
Examination of pseudoscientific popular theories of "race" and gender that developed in Germany and elsewhere in Europe in the nineteenth century, and how these affected the lives of millions and shaped current thinking about "racial" and gender differences.

GSD X11E. Grimms' Fairy Tales.
Reading and discussion of tales from the Grimms' collection, as well as some of the relevant secondary literature.

GSD X11F. Germany and Globalization.

GSD X11G. Luther's World.

GSD X11I. Sweden: Innovating for the World.
Using case studies, trace Sweden's long history with innovation, starting with classic innovations produced with direct governmental support in the eighteenth century and continuing into present day with innovations like Spotify and Swish leading the way.

GSD X11J. Children's Literature of Northern Europe.
Explore nineteenth- to twenty-first-century children's literature from Norway, Sweden, Denmark, Germany, Switzerland, Austria, Finland, Belgium and the Netherlands. Focus on the prominent place of children's literature in the popular culture of central and northern Europe, as well as the serious issues and themes which north Americans might otherwise consider "adult" that are often found in this genre-death, war, poverty, social justice, and family conflict-alongside whimsy, warmth and wonder.

GSD X12C. The Conversion of Pagan Europe.
Examine the familiar and unfamiliar fragments of what remains from pre-Christian European culture--the limited written records, the artifacts, and the folklore--as well as the more plentiful anti-pagan writings of early Christian missionaries. Test many of the popular claims about how Europe's pre-Christian inhabitants lived, what they believed, and how Christianization impacted their lives against the limits of what we can actually know, using the tools from the study of history, cultural studies, and religious studies.

GSD X12E. The Faust Legend: From the Magus to Today.
Examine a broad selection of the (re)tellings of the Faust legend, i.e., the "bargain with the Devil," to reveal how this particular narrative forms a pillar of the cultural heritage of the European Christendom.

GSD X19S. Topics in the Study of Northern Europe.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

GSD X21W. German Cultural History.
Excursions, local research, and exposure to a German viewpoint on contemporary European affairs.

GSD X29S. Topics in the Study of Northern Europe.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

GSD X31C. Films of Ingmar Bergman.
An introduction to the films of Ingmar Bergman.

GSD X31D. Feminism and Film: Women Filmmakers in Northern and Central Europe.
An introduction to the work of women filmmakers from Scandinavia, Germany, as well as to the viewing and interpretation of films in general.

GSD X31E. Scandinavian Cinema Since 1980.

GSD X31F. Central Europe Goes to Hollywood.
Survey research tools and methods used to study the history of Hollywood film industries and the roles that films and film professionals play; based on films and industry careers connected to Central Europe.

GSD X31G. Silent Film in Germany and Scandinavia.
Explore silent film and filmmaking in Germany and Scandinavia.

GSD X31J. German Cinema 1918-1945.
Explore the history and aesthetics of German cinema from 1918 until 1945.

GSD X41D. Social Dramas of Henrik Ibsen.
A detailed introduction to Ibsen's social dramas (1877-1899), emphasizing their unity as a prolonged commentary on the society of his era and the variety of its human problems. Special emphasis on subjects such as: the family and the home; the public world of reputation, work, and citizenship; the predicaments of men and women in a male-dominated society; and the motives of our interventions into the lives of others.

GSD X41E. Hans Christian Andersen.
Introduction to such Hans Christian Andersen tales as "The Little Mermaid," "The Ugly Duckling," and "The Emperor's New Clothes. Examination of their author and the romantic period in which they were written, as well as their historical, philosophical, and literary context.

GSD X41F. Women and the Holocaust.
Introduction to both the history of Jewish and German women during World War II and the Holocaust, and to women's narratives and self-representations of this period. Historical sources, memoirs, films, and interviews will be used as source material.

GSD X41G. Isak Dinesen/Karen Blixen.
An introduction to the twentieth-century Danish author Karen Blixen, focusing on her major themes such as gender and destiny, and examining her role as a literary figure.

GSD X41J. Contemporary Scandinavian Stories.
An analysis of contemporary Scandinavian literature and films, how they reflect Scandinavian reality, and how Scandinavian identity is created through sports, food, and politics.

GSD X41K. The Scandinavian Contribution to World Literature.
Close readings of the most influential Scandinavian texts, including works by Nobel Prize-winning authors such as Knut Hamsun and Selma Lagerlof, as well as the playwrights August Strindberg and Henrik Ibsen while addressing important themes caused by the

revolutionary transition to modernity in Scandinavia around 1900, including emancipation of women and sexuality.

GSD X41L. Vikings and Their Literature.

GSD X41M. Arendt and de Beauvoir.

GSD X41N. Nobel Prizes: Literature and Politics.

An introduction to Nobel Prize winning authors from northern Europe in the context of literary prizes and the politics of literary reputation. Analyze and compare literary works, set novels into historical context, investigate what popular and scholarly reviews do, and research in both popular and scholarly sources.

GSD X41Q. Northern European Comics.

A study of graphic novels from Scandinavia, Germany, and Holland to understand the art form of comics and the influence of the cultures in which they were produced. Readings, all in English, cover various genres and time periods.

GSD X41S. German Media: Print to Television.

Examine the history of media technology and its cultural and political implication in the German (speaking) context.

GSD X41T. Germanic Novels: History, Culture, and Interpretation.

Explore several representative novels by German, Scandinavian, or Dutch writers, along with representative texts and essays on the novel as a genre and interpretative strategies. Examine these works in their literary and cultural contexts via lectures and discussions.

GSD X41U. Hegel and His Heirs: Philosophy That Remade the West.

Explore how Hegel's philosophy contributed to the founding of the modern social sciences and led to innovations in the study of religion, psychology, education, social organizations, and social reform.

GSD X51C. Language, Culture, and the Texas German Experience.

The evolution of the culture and language of German immigrants to Texas from the 1840s through the present and how they have influenced other ethnic groups in Texas.

GSD X51D. Identity, Codes, and Culture.

Explore how to read identities as patterns in literary texts, linguistic and cultural corpora with digital methods, and come to a deeper understanding of individual texts and textual phenomena. Examine digital research methods, tools, and use cases. Work hands-on with literary and linguistic sources.

GSD X60. Topics in Culture and Society.

In-depth explorations of contemporary and historical moments in the cultures, social relations, cultural histories, and intellectual histories of the nations in Northern Europe and its cultural networks.

GSD X60.1. Holocaust Aftereffects.

Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States.

GSD X60.3. Heretics and Freedom Fighters, 1350-1650.

Explores the theologies, politics, and personal identities that emerged and passed away in this era.

GSD X60.5. Germany and Immigration.

GSD X61C. Introduction to Germanic Religion and Myth.

Survey of the sources and main features of Germanic religion and of the transition from paganism to Christianity in northern Europe and the Germanic territories of western Europe. Subjects include cosmogonic myths; the origin of man and of society; the concept of the soul; gods and goddesses and their mythology; and the organization of worship.

GSD X61D. Medieval Women Mystics.

The life and writings of Saint Birgitta of Sweden, fourteenth-century visionary, religious reformer, and pilgrim, examined and compared with her predecessor Hildegard of Bingen (Germany), her successor Margery Kempe (England), as well as Margery's mentor, Julian of Norwich. Social and historical contexts for all four of these women mystics will be explored in depth.

GSD X61E. Tolerance in Dutch Culture.

The historical roots of Dutch "tolerance" and how it plays a role in current Dutch culture and attitudes towards religious, gender, and sexual differences, as well as drug use, prostitution, and euthanasia. Exploration of the stereotypes and the actuality of these Dutch attitudes and policies from an international comparative perspective.

GSD X61F. Squaring the Vienna Circle.

Traces the origin of the Vienna Circle of Logical Empiricism in nineteenth-century Europe, and introduces central texts and problems of intellectual history and historical epistemology at the roots of today's analytic philosophy.

GSD X61G. Northern Gods, Northern Faiths: The Conversion of Scandinavians, Finns, Northern Slavs and Shamans.

An introduction to the basic source texts for several pre-Christian belief systems evolving in geographic proximity and their influence on one another including pre-Christian Slavic; pre-Christian Scandinavian; pre-Christian Sami and Finnish; and ancient and modern Siberian shamanism.

GSD X61J. Protest, Revolt, and Revolution in West Germany.

Explores pivotal political and cultural movements in post-1945 West Germany, including the student movement, terrorism, feminism, the Green movement, and the anti-nuclear movement. Students engage with a wide array of primary and secondary sources ranging from literature and films to essays, newspaper articles, and speeches in order to examine the roots and results of protest, revolt, and revolution during this period of German history.

GSD X61K. German Nationalisms.

History of diverse views and movements regarding German national identity within their respective contexts, 1800-present.

GSD X61L. Anti-Semitism in History and Literature.

GSD X61M. Berlin.

GSD X61N. Exhibitions and Public Spectacle.

Investigate exhibits, world's fairs, museum, monuments, theme parks, and historical reconstructions from Europe and the US, with attention to images of how their sponsoring nations or other entities want to be seen. Examine evidence for both the good and bad sides of national pride and identity. Explore examples of how large-scale culture projects and the public interact. Consider the lasting marks left on the cities and countries sponsoring them.

GSD X61P. Sports and Politics in Germany.

Explore how fascism, communism, liberal democracy, and the current nationalistic backlash against immigration have all used the popularity of sports to achieve their strategic goals, from the 1936 Nazi Olympics to Germany's 2014 World Cup victory and beyond.

GSD X61Q. German Scholars: US Exile.

Examine the migration of established European intellectuals into the US, due to the Second World War. Explore how they worked against their persecutors for their own cultural heritage and to influence US intellectual life. Investigate the ethical dilemmas faced in transplanting their lives and projects into new contexts.

GSD X61R. Viking Language: Runes and Sagas.

GSD X61S. European Immigration to Texas in the Nineteenth Century.

GSD X61T. Switzerland and Globalization.

Investigate how the small European country of Switzerland positions itself in a globalized world and how it competes and thrives in it. Explore the questions of how globalization impacts a small, affluent country and how its economy copes with globalization. Consider Swiss history, and its development of direct democracy, to understand Swiss exceptionalism, its response to contemporary issues, and its influence abroad.

GSD X61U. Politics of Memory: Germany and the United States.

Examine the role that narratives of the past play in politics and policies in both Germany and the United States, by engaging with key theoretical

and empirical debates. Focus on the role of memory in German and US immigration politics.

GSD X61V. Nazi Culture and Politics.
Explore fundamental questions about the unique role of culture in modern democracies and dictatorships by taking an overview of culture and politics in the Third Reich. Examine questions about the relationship between political propaganda and modern entertainment, mass media and authoritarianism, political aesthetics and ideology, and the dynamics of oppression, resistance, and consent.

GSD X61W. Jewish Folklore.

GSD X62C. Globalization and the Coronavirus Pandemic.
Examine the modern globalization process that also incorporates a description of the current Coronavirus pandemic as a phenomenon that is inextricably linked with modern globalization.

GSD X62D. Memories of War.
Consider the ways the wars of the twentieth and twenty-first century are being remembered in Germany and the United States - from poems, novels and films to monuments and the controversial debates about military conflicts that the two countries have been involved in. Utilize theories of social memory, and concepts of individual and social mourning, to analyze how war affects individual lives, how societies mourn, and how remembering war impacts national identity and politics.

GSD X62E. German-American Immigration and Ethnicity.
Explore German immigration to the United States from the colonial era to the present. Examine the motivations for migration; settlement patterns; construction of identity through traditions and festivals; German American's economic, social, and cultural contributions to the United States; and challenges to assimilation.

GSD X62F. Arabs and Vikings: Art and Culture.
Explore the art and culture of the global Middle Ages through close examination of recent films, popular and academic publications, and works of art and architecture that reveal the interconnection between the European and the Islamic worlds.

GSD X62G. Radical Chic: Revolutions from Europe.
Explore innovative European ideas that reshaped United States history and society: Freud and settlement houses, models for education (from Switzerland to Dewey at the University of Chicago), and the labor movement (Marx to Eugene V. Debs and Mother Jones)

GSD X62I. People of the Midnight Sun - Sami Culture and Civilization.
Examine the indigenous people of Scandinavia, the Sami, including their history, culture, and self-expression. Explore issues of indigeneity, decolonization, and religious repression.

GSD X62J. Nordic Noir.
Uncover the dark side of the Nordic countries, from gritty streets to icy fjords, and explore the history, culture, literature, and movies these societies produce.

GSD X62K. Germanic and Scandinavian Modernisms, 1870-1925.
Explore the cultural renaissance between 1880 and 1925 in Northern and Central Europe, covering the period often called the Modern Breakthrough in Scandinavia, but also known as la belle epoque in France and "the gilded age" in the United States.

GSD X62L. Relations Between East Germany and the United States.
Explore and (re)asses the diplomatic, strategic-military relations and socio-cultural entanglements between the United States and the German Democratic Republic, thus complicating our understanding of the West-East divide and Cold War culture.

GSD X62M. Literature, Culture, and Ecology in Northern and Central Europe.
Explore a variety of texts, films, and artifacts from Northern and Central Europe for the insights they provide about the interrelationships between nature and culture and strategies for developing a sustainable relationship to the world around us.

GSD X62N. Memory and Place After the Holocaust.
Examine the literature of Eastern European Jewish Holocaust survivors and their artistic successors. Engage novels, short stories, memoirs, essays, and even song lyrics with questions of memory and of place.

GSD X62P. Transatlantic Memory Cultures.
Explore and compare German and American memory cultures, analyzing the Holocaust, slavery, and colonialism. Analyze the diversity and complexity of (inter)national, local, and indigenous memory cultures while also discussing how Germany and the United States might "learn from each other.

GSD X62Q. Forensic Files: Philosophy Crimes.
Explore political philosophies from the continental tradition (Heidegger/Arendt, Nietzsche, Adorno/Horkheimer, and Agamben/Schmitt) implicated in radical politics and answering to political turning points, with a focus on research and reading in historical contexts.

GSD X62R. Northern Renaissance: Religion, Magic, and Humanism.
Explore Northern Europe's transition from medieval to Early Modern in and through the northern Renaissance. Examine humanist culture and its many tensions with the Church, technological breakthroughs and their social and economic consequences, the connections between the discovery of new lands and the recovery of ancient learning, and the formation of the early modern state.

GSD X62T. Legacies of World War II in Eastern Europe.
Examine the complex and dynamic legacies of World War II and questions of memory, identity, and politics from 1945 to the present.

GSD X73F. Historical Perspectives on the German Language.

GSD X73I. Building Blocks of Modern German.

GSD X77. Capstone Research in German, Scandinavian, and Dutch Studies.
Work leading to assembling a capstone portfolio in German, Scandinavian, and Dutch Studies, including tutorials on norms for presentation, writing, documentation, and research.

GSD X79. Conference Course in German, Scandinavian, and Dutch Studies.
Supervised individual study of selected problems in German, Scandinavian, and Dutch Studies.

GSD X79H. Honors Tutorial Course.
Supervised individual research on a literary or linguistic problem, culminating in an honors paper of some length.

Graduate Courses

Professional Courses

H E - Human Ecology

Human Ecology: H E

Lower-Division Courses

H E X01P. Professional Development I.
Explore common career paths, identify professional and personal goals, and develop entry-level career portfolios.

H E X02P. Ethics Across Life.
Examine applied ethics in the workplace and in adult life with a focus on working in teams and organizations effectively.

H E X03P. Professional Development II.
Explore a practical approach to professional self-presentation, leadership and decision-making, and career development.

H E X15H. Freshman Honors Seminar.
Research presentations by students, faculty, and invited scientists on current issues in human ecology, human development and family sciences, and nutrition.

Upper-Division Courses

H E X25H. Sophomore Honors Seminar.
Students plan, conduct, write, and present research on a current topic in human ecology.

H E X55. Topics in Problems Course.
Intensive study of selected problems of a transdisciplinary nature.
H E X55.1. Research in Family Economics.
H E X78H. Honors Tutorial Course.
Engage in supervised individual research on a special area in human development and family sciences; oral presentation and preparation of a scholarly paper covering the research.

Graduate Courses

H E X92. Topics in Research Problems.
Problems may be chosen from the areas of family and consumer economics or textiles and apparel.

Professional Courses

H S - Health and Society

Health and Society: H S

Lower-Division Courses

H S X01. Introduction to Health and Society.
A broad, multidisciplinary overview that introduces students to the study of health and society.
H S X02. Current Approaches to Health and Society.
Continue exploring how social forces shape health behaviors and outcomes. Examine varied current subjects related to health, paying particular attention to methodological approaches and research designs used in the interdisciplinary health sciences. Explore career possibilities.
H S X10P. Physical Activity and Society.
Explores the way in which people are physically active in a social context - primarily in the United States. Examines how social forces influence physical activity including cultural, economic, historical, and demographic considerations. Examines physical activity on both the individual and population levels to better understand benefits and barriers to activity through the social context.
H S X19S. Topics in Health and Society.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Health and Society major. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

H S X20C. Cancerland.
Explores the social and cultural terrain of cancer research, treatment, and public policy in the United States.
H S X29S. Topics in Health and Society.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Health and Society major. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
H S X30. Health Care Policy in the United States.
An overview of the health care system in the United States and analysis of health policy issues primarily from the perspective of health economics.
H S X30C. Climate Change and Health.
Explore the basic science of climate change, including historical changes and how they have led to health problems and wars. Focus on global warming and how it will cause health problems in the coming decades. Examine solutions and moral and ethical dimensions to both global warming and its effects on human health.
H S X31C. COVID-19 Social Impacts and Public Dilemmas.
Explore the COVID-19 pandemic through multiple social, cultural, and economic lenses. Consider how globalization has influenced transportation networks and economic relationships that shape infectious disease transmission in the twenty-first century. Examine the effectiveness of different public health efforts to curb the spread of this virus. Discuss how the public health efforts of different nations and international governing bodies reveal different cultural values, political realities, and healthcare systems.
H S X40. Topics in Health and Society.
Selected topics on health and society.
H S X40.11. Medical Sociology.
Explores the social context of health, illness, and the health care system in American society. Discussion of the processes of medicalization and demedicalization, social factors influencing health and health care, the organization of the health care delivery system and patient outcomes, and the social meaning and experiences of illness.
H S X40.5. Health Disparities.
Examine health disparities and outcomes in four areas: core medical sociological theories and models; the biology of stress; intersections of race, class, and gender for health; and introduction to genetics and health disparities.
H S X40.7. Contemporary Practice of Medicine.
Explores what it means to be a practicing physician in contemporary America. Structured as a series of guest lectures by doctors from different medical specialties and at different stages in their careers; physician scientists and academicians; hospital administrators and related professionals; providers of medical care from international settings; and ethicists.
H S X40.8. Economic Sociology of Health.
Provides a look at the economics of health and health care through a sociological lens. Examines how the multidimensional nature and distribution of health and healthcare are shaped by a variety of social and economic factors. Gain an understanding of the power of incentives, markets, and cost-benefit analysis, as well as the limits of these tools, in creating effective health care policy.
H S X40.9. Valuing Mental Health.
Explores the value of health in general and mental health specifically. Comparison of notions of health and illness, non-communicable disease and mental illness, and relative valuations in health and mental health. Development of sound, sensitive, and defensible opinions about mental health through the use of plays, poems, songs, videos, short stories, and personal accounts of illness and disability.
H S X41. Health and Justice.
Examines ethical, political, and legal issues surrounding medicine, society, and healthcare.
H S X41C. Comparative United States Health Systems.
Examine the social and economic distribution of health and health care and how underlying social values shape both the health of a population and its approach to health care. Analyze health care systems worldwide to see what the advantages and disadvantages of these models are for different segments of society compared to the US model.
H S X47E. Sustainability, Equity, and Health.
H S X50E. Foundations of Epidemiology.
Introduction to the basic tenets of epidemiology as well as the different types of epidemiological study designs.
H S X78. Seminar in Health and Society.
Focuses on a key topic or debate within the Health and Society area of study and develops students' abilities to use data and write a research or policy paper that informs that topic or debate.
H S X79H. Honors Tutorial Course.
A supervised conference course to provide training in research and writing.

Graduate Courses

Professional Courses

HDF - Human Development and Family Sciences

Human Development and Family Sciences: HDF

Lower-Division Courses

HDF X04. Family Relationships.
The process of family interaction over the life cycle. Application of research findings to the understanding of relationships.

HDF X04H. Family Relationships: Honors.
The process of family interaction over the life cycle. Application of research findings to the understanding of relationships.

HDF X05. Health and Development Across the Lifespan.
Investigate the experiences of health and well-being across the life span of both individuals and families. Apply research findings to explore how physical and mental health are influenced by societal contexts.

HDF X06. Introduction to Gender and Sexuality.
Explore social, emotional, cognitive, and physical aspects of gender and sexuality within the contexts of individual human development, families, and cultures.

HDF X12. Family Resource Management.
Management concepts and theory in resource allocation used to meet family and life demands.

HDF X13. Child Development.
Motor, language, cognitive, social, and emotional development in the family context.

HDF X13H. Child Development: Honors.
Motor, language, social, and emotional development of children in the family context, with an emphasis on research findings and evaluations.

HDF X13L. Child Development Laboratory.
Observe children at the University Child and Family Laboratory and relate observations to the issues discussed in related coursework.

HDF X14H. Child Development Laboratory: Honors.
Observe children at the University Child and Family Laboratory and relate observations to the issues discussed in related coursework.

HDF X15L. Research Methods in Human Development and Family Sciences.
Survey of research methods, including observational and experimental techniques.

HDF X19S. Topics in Human Development and Family Sciences.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

HDF X22. Personal and Family Finance.
Overview from the individual and family perspectives of financial planning tools, cash management, consumer credit, basic tax preparation, and insurance selection. Includes application of knowledge to hypothetical situations and case studies.

HDF X29S. Topics in Human Development and Family Sciences.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HDF X35. Adult Development.
Adulthood and the development, changes, and maturation that occurs, including the impact of relationships in adulthood.

HDF X37. Personal Relationships.
Studies intimate relationships, including dating, cohabitation, marriage, and gay and lesbian relationships, as well as situational factors that may influence basic relationship processes.

HDF X38. Developmentally Appropriate Practices with Young Children.
Developmentally appropriate practices, the importance of play, arranging environments, material selection, and a basic understanding about centers and activities for young children.

HDF X40. Ethical, Philosophical, and Professional Development Issues.
Explores ethical and philosophical issues; personal values and choices; professional development and leadership; and career goals, opportunities, and challenges as they relate to human development and family sciences.

HDF X42. Development of Psychopathology from Infancy through Adolescence.
A developmental approach to the study of emotional and behavioral disorders from infancy through adolescence, including attachment disorders, autism, attention deficit disorder, conduct disorder, phobias, obsessive-compulsive disorder, depression, eating disorders, and schizophrenia. Also includes contrasting theories of psychopathology, epidemiology and outcomes of childhood disorders, therapeutic approaches and their efficacy, and developmental resilience.

HDF X43. Human Development in Minority and Immigrant Families.
Examines the theories of human development and cultural psychology as they apply to the developmental issues of minority and immigrant children and families.

HDF X44. Growing up Latine.
Examine the multiple dimensions of Latine development across the lifespan. Discuss theoretical foundations, empirical findings, and methodological advances in the field.

HDF X45. Peer Relationships.
Children's peer relationships from toddlerhood to adolescence.

HDF X47. Socioeconomic Problems of Families.
An analysis of how socioeconomic factors, including income, education, employment, and their intersection with race and gender affect child development and family functioning.

HDF X51. Infant Development and Attachment Relationships.
The development of emerging social language and cognitive capacities during infancy and toddlerhood and the development and consequences in infant-caregiver attachment security.

HDF X52. Field Experience: Community.
Practicum in applied settings concerning human development and family sciences.

HDF X52F. Field Practicum: Community.
Practicum in settings concerning human development and family sciences.

HDF X52L. Field Experience: Early Childhood.
Study and implementation of skills necessary for planning, guiding, and interacting with young children and their families, and for the management of facilities that provide services for young children.

HDF X52P. Field Practicum: Early Childhood.
Study and implementation of skills necessary for planning, guiding, and interacting with young children and their families; and for the management of facilities that provide services for young children.

HDF X53. Longevity in the 21st Century.
Explores questions concerning the rapidly changing world in which people routinely live into old age. Focus on challenges adults face at the individual, familial, and societal level due to a prolonged adulthood.

HDF X55H. Problems Course: Honors.
Intensive study of selected research problems.
HDF X55R. Problems Course: Research Practicum.
Intensive study of selected problems of a transdisciplinary nature.
HDF X56. The Evolution of Relationships.
Reviews the scientific literature on the evolution and function of adult romantic relationships.
HDF X57. Applied Child Development.
Apply theoretical concepts in child development through fieldwork with children and families in a laboratory school setting. Observe children and practice professional interactions with children and families.
HDF X58. Parent-Child Relationships.
The determinants of parenting attitudes and behavior and the effects on children of variations in sensitivity, discipline, and other aspects of parenting.
HDF X59. Advanced Applied Research Experience.
Apply research experience in areas of a transdisciplinary nature.
HDF X60. Methods of Family Life Education.
An examination, integrating theory and applied knowledge, of the best practices for working with families.
HDF X62. Children and Public Policy.
The positive and negative effects of policy on children and the policy landscape in several major domains of child and family life in the United States and in other countries.
HDF X66C. Guidance in Adult-Child Relationships.
Explore the theory and implementation of positive child and adult interactions, communication, and guidance strategies.
HDF X66L. Guidance in Adult Child Relationships Lab.
Interact with children and families at the Priscilla Pond Flawn Child and Family Laboratory while under supervision, to explore the development of skills in positive child and adult interactions, communication, guidance strategies, and observational data collection.
HDF X71. Adolescent Development in Context.
The biological, cognitive, and social changes that occur during the second decade of life, including the developmental issues faced by adolescents.
HDF X72K. Families in Transition.
Analysis of interaction, transitions, and crises over the family life span.
HDF X78K. Topics in Advanced Child and Family Development.
Concepts, theories, and issues in human development and family sciences.
HDF X78K.10. Sexuality in Human Development and Family Sciences.
Introduction to contemporary understandings of sexuality in the context of human development and families, organized around major subjects in the field of sexuality studies.
HDF X78K.11. Italian Early Childhood Education.
Explore the long history of early childhood education in Italy emphasizing children's engagement in multi-sensory exploration and creative self-expression. Analyze how cultural differences affect how parents and professionals work together to foster optimal development in young children.
HDF X78K.5. Media and the Family.
HDF X78K.6. Introduction to Early Childhood Intervention.
HDF X78K.8. Advanced Early Childhood Intervention.
HDF X78K.9. Introduction to Child Life.
Introduction to the role of child life specialists in health care settings and the application of general human development principles to the care of hospitalized children and adolescents.
HDF X78L. Theories of Child and Family Development.
Study and analysis of major theories in human and family development.
HDF X79H. Honors Tutorial Course.
Supervised individual research on a special topic in human development and family sciences; oral presentation and preparation of a scholarly paper covering the research. May be based on laboratory, library, or field research.

Graduate Courses

HDF X80K. Topics in Research Methods.
HDF X80K.1. Research Methods in Human Development and Family Sciences.
HDF X80K.2. Foundational Statistics and Nested Models in Human Development and Family Sciences.
This course focuses on data organization and statistics used in the social behavioral sciences. It begins with a review of basic data management, inferential statistics, graphing, advanced regression, and ANOVA, then concludes with an introduction into the analysis of nested data.
HDF X80K.3. Analyzing Development and Change.
HDF X80K.4. Advanced Regression and Structural Models.
HDF X92. Topics in Research Problems.
Directed research in various topics in the area of human development and family sciences.
HDF X92.1. Child Development.
HDF X92.2. Family Relationships.
HDF X92.3. Marital Relationships.
HDF X92.4. Peer Relationships.
HDF X92.5. Parent-Child Relationships.
HDF X92.6. The Family and Public Policy.
HDF X92.7. The Family and the Mass Media.
HDF X94. Topics in Graduate Seminar.
Seminars in various topics in the area of human development and family sciences.
HDF X94.1. Parent-Child Interaction.
HDF X94.10. Adult Development.
HDF X94.11. Issues in Early Childhood Development.
HDF X94.12. Attachment and Development through the Life Span.
HDF X94.13. The Self in Relationships.
HDF X94.14. Adoptive Family Relationships.
HDF X94.16. Development of Close Relationships.
HDF X94.17. Prevention, Intervention, and Evaluation in Human Development and Family Sciences.
HDF X94.2. Family-Peer Relationships.
HDF X94.3. Marital Relationships.
HDF X94.4. Sex Roles in Family Relationships.
HDF X94.5. Immigration and the Family .
HDF X94.6. Intergenerational Parenting.
HDF X94.7. Divorce.
HDF X94.8. Family Systems Theory.
HDF X94.9. Children and Poverty.
HDF X95. Topics in Recent Advances in Human Development and Family Sciences.
Research and theory focused on the interplay between individual development, family relationships, and institutions and relationships outside the family.
HDF X95.1. Child and Adolescent Development.
HDF X95.2. Contextual Influences on Individual and Family Development.
HDF X95.3. Adult Development and Aging.
A multidisciplinary overview of adult development from young adulthood through old age. Examines major sociological, psychological, and biological theory and research in the field of adult development such as adult development and the aging process from cells to social security with an emphasis on social and emotional development, as well as psychological aspects of adult development.
HDF X95.4. The Formation and Development of Intimate Relationships.
Critical review of theory and research on dating and marital relationships, with an emphasis on how relationships change over time. Subjects

include attraction, relationship initiation and formation, relationship maintenance processes and relationship dissolution.

HDF X97P. Practicum in Human Development and Family Sciences.

HDF X98. Thesis.

HDF X98T. Supervised Teaching in Human Development and Family Sciences.

Teaching under close supervision, group meetings, individual conferences, and reports.

HDF X99W. Dissertation.

Professional Courses

HDO - Human Dimensions of Organizations

Human Dimensions of Organizations: HDO

Lower-Division Courses

HDO X01. Introduction to the Human Dimensions of Organizations.

Introduction to organizations and how the liberal arts can examine, analyze, and change them. Defines organizations from a liberal arts standpoint; survey of career opportunities related to the human dimensions of organizations.

HDO X10. Researching People-Centered Problems.

Introduction to mixed-methods research using active learning and project-based assignments. Explore the basics of qualitative and quantitative research methods, research ethics, teamwork, project management, and problem-solving.

HDO X19S. Topics in Human Dimensions of Organizations.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

HDO X22L. Law and Organizations.

Examine the intersection of law and organizational/workplace practices. Explore how law regulates the workplace (e.g., laws about sexual harassment), how organizations do or do not comply with the law, and the ways that organizational practices may affect legal standards.

HDO X25. Strategic Human Resources Management.

Overview of the personnel function, covering recruitment, compensation, equal employment, job analysis, training, benefits, employee discipline, collective bargaining, safety, and health.

HDO X25N. Organizational Ethics.

Examine the practical and theoretical aspects of ethical issues in organizations, including philosophical, psychological, anthropological, and strategic approaches.

HDO X29S. Topics in Human Dimensions of Organizations.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HDO X30. Topics in Human Dimensions of Organizations.

HDO X30C. Creativity and Innovation in Organizations.

Explore creative tools people use to solve problems.

HDO X30L. Organizational Learning.

Examine theory regarding organizations, learning, and change. Utilize theory to interact with and analyze real and hypothetical cases of passive and active organizational learning. Experiment with applied tools and techniques for analyzing and managing organizational learning.

HDO X50. Identities in Organizations.

Explore how intersecting identities shape both individuals' and groups' experiences of various organizations.

HDO X59H. Honors Research I.

HDO X60. Conference Course.

Study selected problems in the field of human dimensions of organizations, which can include independent study of a content area, research assistance, or other faculty-supervised independent activity.

HDO X65. Bias.

An interdisciplinary introduction to bias from the perspectives of psychology, political science, business, philosophy, and linguistics.

HDO X79. Applying the Human Dimensions of Organizations.

Explores multidisciplinary methods of the human dimensions of organizations with an external entity. Focus on the role of the liberal arts viewpoint in practical settings.

HDO X79H. Honors Research II.

Supervised conference course for honors candidates in Human Dimensions of Organizations.

Graduate Courses

HDO X80. Cultural Perspectives on the Human Dimensions of Organizations.

Examines broad aspects of the role of culture in organizations through a variety of disciplinary lenses. Culture includes both global cultures, as well as cultures created by organizations.

HDO X81. Individual Perspectives on the Human Dimensions of Organizations.

A general introduction to the roles of individuals in organizations from a multidisciplinary perspective.

HDO X82. Approaches to Leadership.

Examines broad aspects of organizational leadership through a variety of disciplinary lenses.

HDO X83. Society, Culture and Organizational Diversity.

Examines multidisciplinary frameworks for understanding society and culture in organizations. The effects of gender, race/ethnicity, sexual orientation, culture, and globalization on organizational change may be discussed.

HDO X84. Organizational Inertia, Decision Making and Change.

Reviews theories and methods for understanding how organizational environments support habits, and how individuals and groups make decisions.

HDO X85. Organizational Ethics.

Examines ethics as they pertain to organizational contexts.

HDO X86. Persuasion and Argumentation.

Focuses on how effective persuasion works within organizations and at the individual level.

HDO X87. The Structure of Organizations.

A multidisciplinary approach to understanding how money, information, and influence flow through organizations and between related organizations.

HDO X88. Conference Course in Human Dimensions of Organizations.

Individual directed study of selected topics in related human dimensions of organizations field.

HDO X89. Writing and Researching Organizations.

Exposure to various approaches to organizational writing and research. Explores the ways these approaches might inform student Capstone Projects. Examines strategies to plan, organize, and execute an organization-based research project.

HDO X90. Qualitative Research Methods.

Covers qualitative approaches to studying people in organizational settings. Approaches may include narrative, phenomenology, grounded theory, ethnography, case studies.

HDO X91. Quantitative Research Methods.
Quantitative approaches for studying the human dimensions of organizations. Examines the mechanics and assumptions of common methods in quantitative methods, including experimental design, survey research, and quantitative coding of archival data. Emphasizes students' ability to know and identify what types of research questions are best-suited to the different quantitative approaches. Reviews the types of data that various designs produce, and some basic statistical assessments of quantitative data.

HDO X92. Computational Methods.
Analyzing and interpreting data drawn from large-scale data sets. Approaches include social network analysis, web analytics, and linguistic corpus analysis.

HDO X95. Capstone Project.
Focuses on the completion of the capstone project, the culmination of work in the human dimensions of organization degree.

HDO X97. Practicum in Human Dimensions of Organizations.
Applied study in human dimensions of organizations.

Professional Courses

HEB - Hebrew

Hebrew: HEB

Lower-Division Courses

HEB X01C. Intensive Hebrew I.
First semester of intensive Hebrew language instruction.

HEB X02C. Intensive Biblical Hebrew I.
Introduction to the language and texts of the Hebrew Bible, taught in the interactive style of a modern language classroom.

HEB X03K. Biblical Hebrew I.
Introduction to biblical Hebrew, including basic lexicon and grammar. Focus on reading the Hebrew Bible; including texts such as the Creation, the Tower of Babel, the binding of Isaac, the Joseph story, and the David and Goliath story.

HEB X03L. Biblical Hebrew II.
Continue to explore a thorough study of biblical Hebrew grammar, with emphasis on the verb system and the rules of sentence structure. Examine texts including biblical chapters of poetic, legal, and prophetic nature, such as the Ten Commandments, chapters from the Book of Leviticus, Psalms 23, 27, and 121, Proverbs 8 and 10, Isaiah 53, and Jeremiah 31.

HEB X06. First-Year Hebrew I.
Modern Israeli Hebrew, including the writing system, basic sentence structure, vocabulary, and simple conversation.

HEB X07. First-Year Hebrew II.
Continuation of Hebrew 506.

HEB X11C. Intensive Hebrew II.
Second semester of intensive Hebrew language instruction.

HEB X12C. Intensive Biblical Hebrew II.
Continuing the study of the language and texts of the Hebrew Bible, taught in the interactive style of a modern language classroom.

HEB X12K. Second-Year Hebrew I.
Modern Israeli Hebrew. Continuation of Hebrew 507 with expanded grammar and conversation.

HEB X12L. Second-Year Hebrew II.
Continuation of Hebrew 412K, with emphasis on conversation and composition.

HEB X19S. Topics in Hebrew.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HEB X29S. Topics in Hebrew.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

HEB X06. First-Year Hebrew I.
Modern Israeli Hebrew, including the writing system, basic sentence structure, vocabulary, and simple conversation.

HEB X07. First-Year Hebrew II.
Continuation of Hebrew 506.

HEB X19S. Topics in Hebrew.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HEB X20K. Hebrew via Popular Culture.

HEB X20L. Hebrew through the Media.

HEB X29S. Topics in Hebrew.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HEB X30D. Hebrew across Disciplines.
Students read and discuss Hebrew language materials related to the subject matter of another designated course.

HEB X46. Topics in Hebrew Language, Literature, and Culture.

HEB X46.3. Home and Exile in Contemporary Hebrew Literature.

HEB X46.8. Jerusalem in Israeli Literature.

HEB X46.9. Mizrahi Writing in Israel.

HEB X46C. Innovation and Technology in Israel.

HEB X46D. Israeli Society and Culture.
Explore vignettes from the many facets of contemporary Israeli society through the prisms of journalism, media, film, and literature in the Hebrew language. Examine new aspects of Israeli society and learn about their history and their place in modern Israel.

HEB X69. Conference Course in Hebrew Language and Literature.
Supervised individual study of selected problems in Hebrew language or literature.

Graduate Courses

HEB X06. First-Year Hebrew I.
Modern Israeli Hebrew, including the writing system, basic sentence structure, vocabulary, and simple conversation.

HEB X07. First-Year Hebrew II.
Continuation of Hebrew 506.

HEB X19S. Topics in Hebrew.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HEB X29S. Topics in Hebrew.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HEB X80C. Topics in Hebrew Language.
Taught in English with readings in Hebrew.

HEB X80C.2. Advanced Readings in Modern Hebrew.

HEB X80C.21. The Bible in Hebrew: Genesis through Deuteronomy.
Read and analyze Genesis, Exodus, Leviticus, Numbers, and Deuteronomy in Hebrew.

HEB X80C.22. The Bible in Hebrew: Joshua through Chronicles.
Read and analyze the Books of Joshua, Judges, Samuel, Kings, and Chronicles in Hebrew.

HEB X80C.23. The Bible in Hebrew: Isaiah through Book of Twelve.
Read and analyze the Books of Isaiah, Jeremiah, Ezekiel, and the Book of the Twelve in Hebrew.

HEB X80C.24. The Bible in Hebrew: Psalms through Nehemiah.
Read and analyze the Books of Psalms, Proverbs, Job, Song of Songs, Ruth, Lamentations, Ecclesiastes, Esther, Daniel, Ezra, and Nehemiah in Hebrew.

HEB X80C.5. Mishnaic Hebrew/Talmud Aramaic.

HEB X80C.8. Biblical Hebrew.

HEB X81H. Intensive Graduate Language Instruction I.
Intensive cultural and literacy-focused training in Hebrew at the beginning level in preparation for research with Hebrew sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

HEB X81J. Intensive Graduate Language Instruction II.
Intensive cultural and literacy-focused training in Hebrew at the intermediate level in preparation for research with Hebrew sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

HEB X81K. Intensive Biblical Language Instruction I.
Introduction to the language and texts of the Hebrew Bible, taught in the interactive style of a modern language classroom.

HEB X81L. Intensive Biblical Language Instruction II.
Continuing the study of the language and texts of the Hebrew Bible, taught in the interactive style of a modern language classroom.

HEB X81M. Hebrew Via Popular Culture.

HEB X81N. Hebrew Through the Media.

HEB X84C. Topics in Hebrew Literature.

HEB X84C.2. Contemporary Israeli Fiction.

HEB X84C.3. Mizrahi Writing in Israel.

HEB X85. Topics in Hebrew Literature in Translation and Israeli Media.
Study of selected works of Hebrew literature in English translation and Israeli film and television programs with English subtitles.

HEB X85.1. Post-Zionist Perspectives in Israeli Literature.
Israeli literature through the context of the historical, cultural, and artistic movement known as post-Zionism.

HEB X85.2. The Book of Job: Text and Language.

HEB X85.3. Dead Sea Scrolls: Language and Literature.

HEB X85.4. Ethnic and Social Israeli Cinema.

HEB X89. Conference Course in Hebrew Studies.
Supervised individual study of selected problems in Hebrew studies.

HEB X98. Thesis.

HEB X99W. Dissertation.

Professional Courses

HEB X06. First-Year Hebrew I.
Modern Israeli Hebrew, including the writing system, basic sentence structure, vocabulary, and simple conversation.

HEB X07. First-Year Hebrew II.
Continuation of Hebrew 506.

HEB X19S. Topics in Hebrew.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HEB X29S. Topics in Hebrew.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HED - Health Education

Health Education: HED

Lower-Division Courses

HED X09S. Topics in Health Education.

HED X10. Freshman seminar.
Provides an overview of the life skills that are critical to success, such as academic, social, and health behaviors.

HED X11. Introduction to Health Promotion and Behavioral Science.
Provides an introduction to the concepts and core principles of health promotion and behavioral science.

HED X12. Foundations of Stress Management.
Examine stress, mindfulness, and multiple means of stress management. Explore the science of stress and how it impacts health, the history and benefits of mindfulness, and engage with different stress management practices each week; including learning the practices' history, scientific benefits, and varying experiences. Use healthy coping strategies on a consistent basis and tools to address stressors that will arise from being a college student.

HED X19S. Topics in Health Education.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Kinesiology and Health Education. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

HED X27L. Internship/Fieldwork in Health Promotion.
Applied experiences in development, delivery, or evaluation of professional health promotion programs.

HED X28. Internship in Health Promotion.
Applied experiences in development, delivery, or evaluation of professional health promotion programs.

HED X29K. Child and Adolescent Health.
The foundations of child and adolescent health; health education; and the biological, environmental, and behavioral health determinants of health. Includes the application of evidence-based child and adolescent health promotion concepts; prominent health risk behaviors established

during youth that increase the risk of morbidity and mortality; and the application of personal health and wellness information.

HED X29S. Topics in Health Education.
Credit is recorded while the student is enrolled at another institution in a program administered by the University's Study Abroad Office.

HED X35. Theories of Substance Use and Abuse.
An introduction to the psychological, social, pharmacological, and cultural aspects of substance use and abuse. Includes a study and critique of the theories of substance use and abuse.

HED X43. Foundations of Epidemiology.
Introduction to the basic tenets of epidemiology as well as the different types of epidemiological study designs.

HED X50. Theories of Health Promotion Behavioral Science.
Introduction to the field of health promotion, as applicable in the fields of health and education: theories, processes, activities, and settings for health promotion practice.

HED X51. Needs Assessment and Program Planning.
Introduction to the processes of planning, implementing, and evaluating health promotion programs.

HED X52K. Topics in Health Studies.
Analysis and synthesis of the literature and discussion of current and specific issues in health.

HED X52K.3. Psychosocial Issues in Adult Development and Health.
Examines psychosocial issues in adult physical and mental health within the context of adult psychological development, using a biopsychosocial approach. Examines psychosocial factors in the major health risks in adulthood and in preventative health behavior. Also considers psychosocial factors in stress and coping and their implications for health.

HED X60. Adolescent Health Risk Behavior.
Overview of the biological, psychological, social, and environmental determinants of adolescent risk-taking behavior. Focuses on selected behaviors that can result in adolescent mortality, morbidity and social problems including: violence, sexual behavior, obesity-related behaviors, depression, alcohol, tobacco, and other substance use.

HED X61. Psychosocial Issues in Women's Health.
Explores psychosocial issues in women's physical and mental health, including traditional reproductive issues, disorders that are more common in women than in men, and the leading causes of death in women. Covers gender influences on health risk behaviors, and societal influences on women's health through a consideration of social norms and roles.

HED X64. Strategic Health Communication.
Introduces essential components of effective communication strategies and persuasive messaging techniques to aid in the development of a strategic health campaign for a client in an allied health field.

HED X65. Social Determinants of Health and Health Disparities.
Explore social determinants of health and health disparities in the United States and globally, as well as strategies to address them.

HED X66. Human Sexuality.
Introduction to health and sexuality. Explore sexuality, health, and rights and how they relate to the past, present, future, emerging issues, controversial issues, and cutting-edge areas. Examine the evolution of sexual rights, global sexual health, how health and sexuality constructs positive and negative messages throughout communities, nationally, and globally, methods to improve sexual health, and advocacy.

HED X70K. Topics in Health Promotion: Seminar.
Identification, causes, incidence, prevention, control, and social implications of major problems in health.

HED X70K.1. Foundations of Health Promotion I.
Introduction to the field of health promotion, as applicable in the fields of health and education: theories, processes, activities, and settings for health promotion practice.

HED X70K.3. Environmental Health.
Provides an introduction to the key areas of environmental health in developed and developing countries. Using the perspectives of the population and community, the course will cover factors associated with the development of environmental health problems.

HED X70K.4. Public Health Challenges Along the United States-Mexico Border.
Explore border health issues and health promotion strategies to address them using a bi-national framework.

HED X71K. Foundations of Health Promotion II.
Introduction to the processes of planning, implementing, and evaluating health promotion programs.

HED X73. Evaluation and Research Design.
Develop knowledge and application of research methods and program evaluations in health promotion settings. Subjects include experimental and non-experimental research, validity, reliability, experimental and quasi-experimental research designs, data collection procedures, measurement of health knowledge, attitudes, behaviors, and data analysis.

HED X78C. Topics in Fieldwork in Health.
Undergraduate research and/or experience with a health agency in the field attempting to analyze or solve community health problems through education; students are supervised by the health agency and by the kinesiology and health education faculty.

HED X78D. Topics in Peer Health Leadership I.
Literature and discussion of current and specific issues in health.

HED X78D.3. Clinic Volunteer Program.
Analysis of literature and weekly discussion of current and specific issues relating to health. Focus on teamwork and leadership skills through a group capstone presentation at the end of the semester.

HED X78E. Topics in Peer Health Leadership II.
Literature and discussion of current and specific issues in health.

HED X78E.3. Clinic Volunteer Program.

HED X78E.4. Peer Support Practicum Seminar.

HED X78F. Topics in Peer Health Leadership III.
Literature and discussion of current and specific issues in health.

HED X78F.3. Clinic Volunteer Program.

HED X78G. Applied Peer Education.
Continue to examine concepts related to peer education, public health, and health promotion. Discuss campus resources and learn how to integrate that information in workshops, campus events, and public health initiatives. Work collaboratively in "pods" which aim to promote comprehensive health promotion strategies across campus. Explore group facilitation and peer-led discussion skills.

HED X78I. Foundations of Peer Health Leadership.
As incoming peer educators, explore content related to health promotion among college students and examine how to effectively use that information in their role. Deliver workshops, attend Longhorn Wellness Center (LWC) events, represent the LWC at campus functions, and develop public health initiatives and projects.

HED X78J. Fieldwork in Peer Education.
Continue to explore the skills necessary to be effective public health promotion peer educators. Deliver workshops, serve as mentors to the new class of peer educators, attend Longhorn Wellness Center (LWC) events, represent the LWC at campus functions, and develop initiatives and projects in committees. Examine how peer educator skills apply to professional development skills.

Graduate Courses

HED X95. Topics in Advanced Studies.
Group and individual studies of advanced topics; critique and synthesis of research findings and of literature.

HED X95.71. Cognition and Exercise Across the Lifespan.
Detailed study of the relationship between brain health and physical activity behaviors across the developmental life stages; focused on

the effects of physical activity programming on cognitive control and performance.

Professional Courses

HHM - Humanities, Health, and Medicine

Humanities, Health, and Medicine: HHM

Lower-Division Courses

Upper-Division Courses

Graduate Courses

HHM X80. Introduction to Humanities, Health, and Medicine.
Survey the history, aims, and challenges of the field of humanities, health, and medicine, as well as the field's current role in health-professional education and practice. Explore subfields within the health humanities such as the history of medicine, narrative medicine, literature and medicine, medical anthropology, disability studies, medicine and the arts, and bioethics.

HHM X83. Topics in Theories and Methods.

HHM X85. Topics in Humanities, Health, and Medicine.

HHM X86. Conference Course.
Independent study on a subject relevant to the field of humanities, health, and medicine.

HHM X87. Internship.

HHM X98. Thesis.

HHM X98R. Master's Report.

Professional Courses

HIN - Hindi

Hindi: HIN

Lower-Division Courses

HIN X04. Accelerated First-Year Hindi.
For speakers of Hindi who have not studied it formally.

HIN X06. First-Year Hindi I.
Modern Hindi of India.

HIN X07. First-Year Hindi II.
Continuation of Hindi 506.

HIN X12. Accelerated Second-Year Hindi.
Continuation of Hindi 604.

HIN X12K. Second-Year Hindi I.
Modern Hindi of India.

HIN X12L. Second-Year Hindi II.
Continuation of Hindi 312K.

HIN X18. Practice in Spoken Hindi.
Instruction and practice in conversation for intermediate-level students.

HIN X19S. Topics in Hindi.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser of the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HIN X29S. Topics in Hindi.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in affiliated studies program.

Upper-Division Courses

HIN X06. First-Year Hindi I.
Modern Hindi of India.

HIN X07. First-Year Hindi II.
Continuation of Hindi 506.

HIN X19S. Topics in Hindi.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser of the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HIN X25. Advanced Practice in Spoken Hindi.
Instruction and practice in conversation for advanced students.

HIN X29S. Topics in Hindi.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in affiliated studies program.

HIN X30. Topics in Hindi Language and Literature.
Study of specific subjects related to Hindi culture as reflected in its literary productions and other modes of expression.

HIN X30.1. Contemporary Hindi Narratives.
Designed to enhance all four language skills: reading, writing, speaking, and listening.

HIN X30.2. Hindi Drama and Film.
Contemporary Hindi plays and film scripts in Devanagari script.

HIN X30.3. Hindi Literature in the Nationalist Era.
Examines the poetry and prose of a diverse group of writers who shaped Hindi literature during the nationalist era. Also includes critical studies in English.

HIN X30.4. Language and Identity at the Margins of Hindi Fiction.
Focuses on the stories and novels of a diverse group of writers, including Muslims, women, Biharis, and Marwaris, who have broadened the landscape of Hindi writing.

HIN X30.5. Autobiography in Hindi.

HIN X30C. Discourses of Identity in Hindi Fiction.
Explore four prominent identity discourses in Hindi literature involving traditionally marginalized communities or identities in India. Consider writings from women as well as those from marginalized communities such as Dalit, Tribal, and Transgender (Hijra) groups. Focus on texts in the original Hindi, as well as interactive class discussion in Hindi, to develop advanced vocabulary and grammar.

HIN X30D. Hindi Across Disciplines.
Reading and discussion of Hindi language materials related to the subject matter of another designated course in Asian studies, with a focus on linguistic and literary features, and crucial passages.

HIN X30E. Realism and Urbanism in Hindi.
Focus on texts or films in Hindi to develop vocabulary and grammar, and explore Realism and Urbanism as two prominent themes in twentieth-century Hindi literature. Consider how authors addressed changes in life and family values in the Indian urban middle class, and how they transformed the literary taste of Hindi readership from marvelous tales to reading short stories with social critique.

HIN X30F. Brajbhasha Texts.
Explore the literary genres of Brajbhasha, its key poets and texts, grammatical constructions and metrical forms and learn to recite poetry in prevalent meters.

HIN X32. Style and Register in Hindi.
Practicing skills in reading, listening, writing, and speaking in everyday social situations and some formal situations. Relevant for students working toward the "Advanced" level on the American Council for the Teaching of Foreign Languages (ACTFL) proficiency scale, and equivalent to level two on the Interagency Language Roundtable (ILR) scale.

HIN X60. Conference Course in Hindi Language and Literature.
Supervised individual study of selected problems in Hindi language and literature.

Graduate Courses

HIN X06. First-Year Hindi I.
Modern Hindi of India.

HIN X07. First-Year Hindi II.
Continuation of Hindi 506.

HIN X19S. Topics in Hindi.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser of the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HIN X29S. Topics in Hindi.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in affiliated studies program.

HIN X81. Conference Course in Hindi Language and Culture.
Supervised individual study in Hindi language or culture.

HIN X84. Topics in Hindi Language and Culture.
Study of various aspects and periods of Hindi language and culture.

HIN X84.1. Advanced Reading, Composition, and Conversation I.

HIN X84.10. Realism and Urbanism in Hindi.
Focus on texts or films in Hindi to develop vocabulary and grammar, and explore Realism and Urbanism as two prominent themes in twentieth-century Hindi literature. Consider how authors addressed changes in life and family values in the Indian urban middle class, and how they transformed the literary taste of Hindi readership from marvelous tales to reading short stories with social critique.

HIN X84.11. Brajbhasha Texts.
Explore the literary genres of Brajbhasha, its key poets and texts, grammatical constructions and metrical forms and learn to recite poetry in prevalent meters.

HIN X84.2. Advanced Reading, Composition, and Conversation II.

HIN X84.3. Readings in Hindi.

HIN X84.4. Contemporary Hindi Narratives.

HIN X84.5. Hindi Drama and Film.

HIN X84.6. Hindi Literature in the Nationalist Era.

HIN X84.7. Language and Identity at the Margins of Hindi Fiction.

HIN X84.8. Style and Register in Hindi.
Practice and improve skills in reading, listening, writing, and speaking for everyday social situations and some formal situations. Relevant to students working toward the "Advanced" level on the American Council for the Teaching of Foreign Languages (ACTFL) proficiency scale, equivalent to level 2 on the Interagency Language Roundtable (ILR) scale.

HIN X84.9. Discourses of Identity in Hindi Fiction.
Explore four prominent identity discourses in Hindi literature involving traditionally marginalized communities or identities in India. Consider writings from women as well as those from marginalized communities such as Dalit, Tribal, and Transgender (Hijra) groups. Focus on texts in the original Hindi, as well as interactive class discussion in Hindi, to develop advanced vocabulary and grammar.

Professional Courses

HIN X06. First-Year Hindi I.
Modern Hindi of India.

HIN X07. First-Year Hindi II.
Continuation of Hindi 506.

HIN X19S. Topics in Hindi.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser of the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HIN X29S. Topics in Hindi.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in affiliated studies program.

HIS - History

History: HIS

Lower-Division Courses

HIS X01F. The Premodern World.
Survey of world history from human origins to the sixteenth century.

HIS X01J. Globalization: A Modern History.
Survey of world history from the sixteenth century to the present.

HIS X01R. Introduction to Russian, East European, and Eurasian Studies.
An introduction to the former Soviet Union and Eastern Europe through each of the major disciplines represented in the program: language, literature, anthropology, geography, history, government, sociology, and economics.

HIS X02C. Introduction to China.
Introduction to Chinese civilization, past and present, including religion, literature, arts, philosophy, and history.

HIS X02F. Female Voices in China.
Introduction (in translation) to the most important texts and other sources by, for, and about women in Chinese intellectual, political, social, and cultural history.

HIS X02P. Popular Culture in Modern Japan.
Introduction to the history of popular culture in modern Japan focusing on works of literature, film, and visual culture.

HIS X04C. The Conversion of Pagan Europe.
Examine the familiar and unfamiliar fragments of what remains from pre-Christian European culture--the limited written records, the artifacts, and the folklore--as well as the more plentiful anti-pagan writings of early Christian missionaries. Test many of the popular claims about how Europe's pre-Christian inhabitants lived, what they believed, and how Christianization impacted their lives against the limits of what we can actually know, using the tools from the study of history, cultural studies, and religious studies.

HIS X04K. English Civilization before 1603.
Survey of English civilization from Roman times to the death of Queen Elizabeth I.

HIS X04L. English Civilization since 1603.
Survey of English history from the seventeenth century to the present.
HIS X04Q. Luther's World.
HIS X04R. Judaism, Christianity, and Islam: An Introduction.
Examines the intertwined historical developments of the religions of Judaism, Christianity, and Islam, and explores the principal beliefs and practices of Jews, Christians, and Muslims.
HIS X04S. Jews, Pagans, and Christians.
Investigate, using a range of primary and secondary readings, how religious identity was imagined and expressed in the 4th-6th centuries CE. Examine the complex interactions of, in particular, Jews, Christians, and Pagans.
HIS X05C. Korean Literature and Film.
Explore the literature and film of Korea from earliest times to the present.
HIS X05K. History of East Asia to 1800.
A survey of the traditional history and culture of China, Japan, Korea, and Vietnam.
HIS X05L. History of East Asia since 1800.
A survey of the modern history of China, Japan, Korea, and Vietnam.
HIS X06C. Cuisine and Culture of Central and Eastern Europe.
An in-depth survey of the culinary traditions, history, and practices of Central and Eastern Europe.
HIS X06J. Introduction to the Middle East: Adjustment and Change in Modern Times.
The responses of the societies of the Middle East and North Africa (Turkey, Iran, Afghanistan, Israel, and the Arab world) to Western cultural and political challenges, primarily since about 1800.
HIS X06K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations.
A survey of the history and civilization of the Middle East from the sixth to the fourteenth century.
HIS X06N. Topics in History.
HIS X06N.10. Jewish Civilization: Beginnings to 1492.
Introduction to the history, culture, and religion of the Jewish people from around 1000 BC to the end of the medieval period. Subjects may include ancient Israel, late Second Temple sectarianism, the rise of Christianity, rabbinic Judaism, medieval Jewish philosophy, Jewish mysticism, and Hebrew poetry.
HIS X06N.11. Jewish Civilization: 1492 to the Present.
Subjects may include trends toward secularization, the emancipation of European Jewry, the emergence of American Jewry, the Holocaust, the establishment of the State of Israel, and the Arab-Israeli conflict.
HIS X06N.12. Introduction to Modern North Africa.
Introduction to the major themes of North African history from the sixteenth century to the present.
HIS X06N.13. Introduction to the History and Culture of Spain.
The history of Spain from its beginnings in the stone age through the great social and economic upheavals of the twentieth century.
HIS X06N.14. Prague, Magic, and the Struggle for Power.
Examines historical texts from four different magical traditions to find the truth behind the fiction and the historical events that sometimes permitted and sometimes persecuted the religions, philosophies, and sciences that some call magic.
HIS X06N.15. History of Human Sexuality.
The history of human sexuality is approached from four angles: sexual behaviors; sexual consequences; sexual regulation, and sexual science.
HIS X06N.3. Key Ideas and Issues in Latin America.
Broad introductory course to acquaint students with the main areas of interest in Latin American studies.
HIS X06N.7. Introduction to Islam.
The beliefs, theology, history, and main social and legal institutions of Islam, including the concept of God and society, the role of women, and Islamic government and movements.
HIS X06Q. The Ancient Middle East.
Survey the history of the Middle East from the beginning of the Neolithic period (9000 BCE) through the invasion of the region by Alexander the Great in 332 BCE and into the pre-Islamic era.
HIS X07C. Introduction to the History of India.
Survey of the history of the Indian subcontinent from prehistoric times to the present.
HIS X07P. A History of Violence from 1500 to Present.
Examine how violence acts as a force shaping history in the modern era. Historicize violence to understand how it has changed over time.
HIS X07Q. Introduction to Holocaust and Genocide Studies.
Examine interdisciplinary perspectives (including historical, political, socio-psychological, and cultural methods and insights) on genocide as a global phenomenon.
HIS X09C. Medieval Material Culture.
Explore the history of medieval Europe primarily through the lens of material culture.
HIS X09J. The Roots of Religious Toleration.
Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle.
HIS X09M. The Medieval Millennium in Europe.
Explore new conceptions of medieval Europe by examining how the social practices, ideas, and institutions of the middle ages developed through interactions with Europe's neighbors.
HIS X10. Introduction to Modern Africa.
Introduction to modern Africa, with focus on colonial and postcolonial development in political organization, economics, sociolinguistics, and literature.
HIS X10E. Early Mesoamerican Religions.
Introduction to the study of indigenous religions in Mesoamerica, a geographic and cultural area spanning north-central Mexico through western Honduras, from approximately 250 BC - AD 1700. Examine the role of religion and ritual in daily life, as well as the lines of evidence available today for understanding them.
HIS X10K. Latin American Civilization: The Colonial Experience.
A broad survey of the political, economic, social, and cultural aspects of the Latin American past, stressing both that area's achievements and its enduring problems.
HIS X10L. Latin American Civilization: The National Experience.
A broad survey of the political, social, and cultural aspects of the Latin American past.
HIS X10M. Film and History in Latin America: Colonial Period.
Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures.
HIS X10N. Film and History in Latin America: Modern Period.
Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures.
HIS X10P. Revolution and Decolonization in North Africa.
Examine the history of anti-colonial struggles in North Africa and the victory over European colonial powers.
HIS X10R. Latin America and the United States.
An exploration of the different social, economic, political, and cultural structures and concerns that came to both divide and unite the western hemisphere (North, Central, and South America, as well as the Caribbean) following independence from Europe.
HIS X11J. The History of Israel.
An introduction to the history of Israel, from the emergence of the modern Zionist movement beginning in 1881 to the present.
HIS X11K. Introduction to Traditional Africa.
Introductory, interdisciplinary course on the peoples and cultures of Africa.

HIS X12D. North American Borderlands.
Explore the formation of political borders in nineteenth- and twentieth-century North America, their contestation, and the multiple meanings attached to them.

HIS X14K. History of Mexican Americans in the United States.
Examines the origin and growth of the Mexican American community in the United States.

HIS X15G. Introduction to American Studies.
An interdisciplinary introduction to the historical exploration of American culture.

HIS X15K. The United States, 1492-1865.
Survey of United States history from the colonial period through the Civil War.

HIS X15L. The United States since 1865.
Survey of United States history since the Civil War.

HIS X17L. Topics in United States History.

HIS X17L.1. Colonial America.

HIS X17L.10. Rights in Modern America.

HIS X17L.11. Latinx Histories.
Explore the cultures, politics, and policies that shape the many Latinx histories in the United States.

HIS X17L.12. Mexican American Women, 1910-Present.
Examines the history of Mexican and Mexican American women in the United States from the twentieth century to the present.

HIS X17L.13. Origins of American Revolution.
Focuses on the rise and fall of the British-American Atlantic Empire in the third quarter of the eighteenth century.

HIS X17L.14. Building America: Engineering, Society, and Culture, 1868-1980.
Examines building in American society from the late 1860s to 1980.

HIS X17L.15. Establishing America, 1565-1815.
Introduction to the foundations of American History.

HIS X17L.16. History of Religion in the United States.
Explores instances of religious dominance and religious diversity in United States history. Moving from the pre-colonial period to the present, it examines the changing circumstances of several religious communities, including American Indians and Puritans, Protestant evangelicals, Mormons, Roman Catholics, Jews, Muslims, and Hindus.

HIS X17L.17. Reading United States History Between the Lines.
Explores how historians read between the lines and where they look for clues, looking at the many methods historians use to discover and make sense of their evidence.

HIS X17L.18. Immigration and Ethnicity.
Examine the changing population of the United States from colonial times to present.

HIS X17L.2. The Era of the American Revolution.

HIS X17L.20. Introduction to African American Women's History.

HIS X17L.21. American Jewish History.
Examine the history of Jews in the United States from the seventeenth century to the present. Explore the formation of a distinct American Judaism and the involvement of Jews in American cultural and political affairs.

HIS X17L.22. Urban Economic Development in the United States and South Africa.
Examine economic development within the United States and South Africa.

HIS X17L.23. History of Social Entrepreneurship in the United States and China.
Examine the history of social entrepreneurship in the United States and China.

HIS X17L.24. The Places of Mexican American History.
Examine Mexican American history from the point of view of three distinct places: Los Angeles, the mountains of northern New Mexico, and the far southern tip of Texas.

HIS X17L.25. American History Through Sight and Sound.
Explore American history through visual and auditory media--films, paintings, photographs, plays, and songs--examining how these multimedia sources have shaped national identity, conveyed social movements, and captured historical moments.

HIS X17L.26. History of College Football.
Discuss the origins, growth, and development, of college football from its elite Ivy League school origins, to what is has become today: arguably one of the most popular sports in America. Examine college football within the broader history of American history and culture from the Gilded Age to the Age of Trump.

HIS X17L.27. Black Southerners in the Age of Jim Crow.
Explore the experiences of Black people during the age of segregation, more commonly referred to as Jim Crow. Discuss the timeframe of 1890-1954, while also talking about the legacy of slavery and the Juneteenth generation. Examine how Black southerners responded to segregation by creating a vibrant community culture rooted in self-help, entrepreneurship, family, and faith.

HIS X17L.3. Introduction to African American History.

HIS X17L.4. Introduction to Asian American History.
Introduces students to the national and transnational histories of Asian Americans in the United States. Explores a wide range of themes related to the Asian American experience.

HIS X17L.5. United States Women, Sexuality, and Gender to 1865.

HIS X17L.6. The United States in the 17th-Century Atlantic World.
The United States during a period marked by the spread of knowledge and experience of the world through conflict, economic exchange, cultural creativity, exploration, New World colonization, technological innovation, and religious reformation and counter-reformation.

HIS X17L.7. The United States and Africa.
History of political, economic, and cultural relations between the United States and Africa from the early origins of the slave trade to the present.

HIS X17L.8. Introduction to Native American Histories.
Examine the history of Native American societies in North America from the earliest records to the present.

HIS X17L.9. The Black Power Movement.
Examines the major organizations, key figures, and ideologies of the Black Power movement from the late 1960s and early 1970s.

HIS X18N. Discovery History.
Analyzes claims from popular books in the light of accurate historical sources. Introduction to the process of making discoveries in historical research.

HIS X18Q. Supervised Research.

HIS X19D. The Ancient Mediterranean World.
Survey of the ancient Mediterranean from ca. 3000 BC to AD 476. Focus on the development of ideas and institutions in the Greek and Roman worlds and on the active cultural exchange among the diverse civilizations of the broader region that shaped Greek and Roman history and cultural identity.

HIS X19S. Topics in History.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HIS X29S. Topics in History.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study

Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

HIS X19S. Topics in History.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HIS X20C. Power and Place: Making Texas History.

HIS X20E. Texas before 1900.
Focus on the basic history of Texas from roughly 1450 to 1900. Investigate major events such as the Texas Revolution and Civil War with an emphasis on how and why Texas, its culture, and its groups of people changed or did not change over time.

HIS X20F. Texas, 1900 to the Present.
Examine the steady dissociation of Texas from its Old South status to a transitional state and a power in national politics.

HIS X20T. Topics in Texas History.
Explore selected topics in the field of Texas history.

HIS X20T.1. Mexican Americans in Texas History.
Introduction to the historical experience of Mexican-American persons in Texas.

HIS X20T.2. Texas Black History.
Surveys the history of blacks in Texas from before American settlement to the present.

HIS X20T.4. Texas History's History.
Explore evolving ideas and meanings concerning the most significant events, personages, and social processes in Texas' history.

HIS X20W. Thinking Like a Historian.
To understand history as an academic discipline in terms of research methods, evidence, and analysis.

HIS X21. The History of Rome: The Empire.
A survey of the Roman world from Augustus to Constantine the Great.

HIS X21C. Ancient Slavery.
Examine the practices of slavery in the ancient Mediterranean world, focusing on the case of Rome.

HIS X21D. Ruling the Roman Republic.
Examine the core question about the way the Late Roman Republic was governed: To what extent and in what ways was the Republic "democratic or not?

HIS X21E. Romans in Court.
Examine how Roman law operated at three levels of granularity, focusing mainly on attested disputes that made it to court for resolution.

HIS X21J. Africa and Rome.
Explore the history of Roman Africa with emphasis on what is now Tunisia and northern Algeria.

HIS X21M. The History of Rome: The Republic.
A survey of Roman history from the founding of Rome to the death of Julius Caesar.

HIS X22C. Cultural History of World Science to 1650.
Cultural history of science from ancient times to the seventeenth century.

HIS X22D. The Scientific Revolution of the Seventeenth Century.
The history of science and its place in society from the mid-sixteenth century to the time of Isaac Newton.

HIS X22G. History of the Modern Life Sciences.
History of the life sciences from the eighteenth century to the present.

HIS X22M. History of Modern Science.
The history of science and its place in society from the time of Newton to the present.

HIS X22R. Biology, Behavior, and Injustice.
Explores questions about human behavior related to biological factors as compared with personal experiences and societal standards.

HIS X22S. The History of Genetics and Eugenics.
The history of genetics and eugenic practices in the twentieth century.

HIS X23D. Trash and Treasure in Europe, 1400 - 1800.
Examine Europe in the period that witnessed the "birth" of a consumer society, the transition to fossil fuel as an energy source during the Little Ice Age, the Protestant reformation that trashed formerly treasured relics, the rise of imperial networks of global trade, and much more. Trace the circulation, use, and consumption of things from the renaissance to the consumer revolution using material culture, environmental history, and economic history.

HIS X23L. Europe since 1919.
Survey course emphasizing the impact of the two world wars on European social, political, and cultural life in the twentieth century.

HIS X24C. Mapping Urban Destruction.
Investigates how demolitions have shaped the material and social lives of two compelling, rapidly-changing global cities: Sao Paulo and Austin. Develop technical skills in digital mapping in a supportive environment.

HIS X25C. Global Catholicism, 1400-1800.
Explore the global reach of the Catholic Church before modernity. Examine the tension between the local and the "universal" church, that is, how encounter, religious devotion, and political power were shaped by local circumstances as well as global connections. Analyze recent scholarship, texts, artwork, and objects made by early modern people who shaped Catholicism in this period.

HIS X25F. Religions in the Ottoman Empire.
Examine Jewish, Christian, and Muslim communities in the Ottoman Empire (fourteenth to twentieth centuries), with a focus on dynamics both within and between the communities.

HIS X25J. South Asian Migration to the United States.
Examine the South Asian diaspora in the United States.

HIS X25Q. Russian Orthodox Religion and Culture.
Examine the role and force of the Orthodox Church in Russian history, from the Christianization of the pagan Slavs in the 10th century, through the Russian Revolution into the Soviet era, and up to the present, while considering the prescriptive tenets of the Orthodox faith (religion) alongside descriptive experiences of life within and under Russian Orthodoxy (religiosity).

HIS X25S. History of Jewish Thought.
Examine major thinkers and movements in both Jewish philosophy and Jewish mysticism since the Middle Ages, with a focus on the importance of modern Jewish thought in the twentieth and twenty-first centuries.

HIS X25T. History of Sephardi Jews.
Examine the early-modern networks established by the Sephardi Jews (Sephardim) across the Mediterranean and Atlantic, the rich Ladino Judeo-Spanish culture that thrived in the Ottoman Empire, and Sephardi encounters with the modern world.

HIS X26D. Russia Through American Eyes.
Examine a wide array of American attitudes towards Russia and Russians. Using a variety of political, social, and cultural events and encounters, analyze the ways in which nationalism, imperialism, and geopolitics informed American narratives about Russia and Russians, assessments that range from enthusiasm and curiosity to condemnation and outright hostility.

HIS X26E. Socialism's Past and Futures.
Examine ordinary people's experience of socialism in the Soviet Union and the plural interpretations of this experience after the USSR's collapse.

HIS X28M. Modern Brazil.
The social, economic, political, and cultural forces that have shaped modern Brazil.

HIS X29P. History of the Atomic Bomb.
The development, use, and influence of nuclear weapons from the 1930s to 1954.

HIS X29S. Topics in History.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HIS X29U. Perspectives on Science and Mathematics.
Explores the intellectual, social, and cultural history of science and mathematics, focusing on the 17th century to the present. Designed for students in the UTeach-Natural Sciences program.

HIS X30S. History of Modern Media and Culture.
Examine the history of modern media and media culture.

HIS X31C. History of the Ottoman Empire.
A survey of Ottoman society and culture and of the empire's place on the world scene.

HIS X31D. Arab Citizens of Israel.
Examine the historical, social, and political processes of change experienced by the Palestinian-Arab community in Israel, including the fundamental aspects pertaining to the founding of Israel as "a Jewish and democratic state" and the relations between the Arab minority and the Jewish majority.

HIS X31E. The Arab-Israeli Conflict.
Examine the elements of the Arab-Israeli conflict, including the main figures involved, events, and turning-points in its history.

HIS X31G. History of Iran to 1800.
A survey of the social, economic, and religious components unique to Iran from the pre-Islamic empire of the Achaemenids through the development of Iran as a medieval and premodern Islamic state.

HIS X31I. The Shock of Modernity in the Middle East.
Explore cross cultural contacts between the East and the West during the modern period. Analyze Islamic civilization in the Middle East of the modern era by addressing the development of religion, law, government, and morality during and after the colonial period.

HIS X31J. History of the Arab World.
A general survey of the origins and development of Arabic civilization.

HIS X31L. Modern Iran.
Explore the development of modern Iran; special attention is given to the impact of the West, the constitutional movement, nationalism, the oil crisis, and the Islamic Revolution of 1979.

HIS X31O. Twentieth-Century Arab World.
Introduction to 20th-century Arab world history, primarily focusing on the Eastern Mediterranean, including Lebanon, Syria, Iraq, Jordan, Palestine, and Egypt. Explore the transformation of this region from a single cultural and political entity under imperial Ottoman rule, through colonial rule to the age of the nation-state and its struggles. Discuss key themes including colonial rule and relation to Europe and the US, Arab nationalism, revolutionary modernism, the impact of Zionism and Israel, the Palestinian revolution, the emergence of political Islam, civil wars, and the oil revolution. Examine internal and external forces and pivotal processes that have shaped the region over the past century through political, social, intellectual, and economic factors.

HIS X31R. Re-forming the Arab East, 1914-Present.
Introduction to the history of the Middle East in the twentieth century. Examines forces that transformed the area from a relatively peaceful region to a radicalized environment. Explores colonialism, nationalism, secular modernism, impact of Zionism, rise of political Islam, status of women, and the oil revolution.

HIS X32G. European Intellectual History from the Enlightenment to Nietzsche.
Explores significant intellectual developments in Europe throughout the nineteenth century. Themes include romanticism, positivism, socialism, and nihilism.

HIS X32J. Twentieth-Century European Intellectual History.
Explores significant intellectual developments in Europe in the twentieth century. Topics include psychoanalysis, sociology, existentialism, and poststructuralism.

HIS X32Q. Forensic Files: Philosophy Crimes.
Explore political philosophies from the continental tradition (Heidegger/Arendt, Nietzsche, Adorno/Horkheimer, and Agamben/Schmitt) implicated in radical politics and answering to political turning points, with a focus on research and reading in historical contexts.

HIS X32R. Marx and Marxist Theory.
Introduction to the writings of Karl Marx as well as to those of his intellectual successors in Europe and around the globe in the nineteenth and twentieth centuries.

HIS X33L. United States Foreign Relations, 1776-1914.
The history of United States foreign policy and diplomacy from the founding of the United States to the outbreak of the First World War.

HIS X33M. United States Foreign Relations, 1914 to the Present.
The history of United States foreign policy and diplomacy from the First World War to the present.

HIS X34C. Music Cultures of the Middle East, Past and Present.
A historical and ethnomusicological survey of the Arab, Turkish, and Persian music cultures.

HIS X34D. Myths and Legends of the Ancient Near East.
Explore myths and legends contained in a variety of ancient sources, including texts from Israel, Greece, Egypt, and Mesopotamia.

HIS X34E. Modern Egypt: A History.
Critically examines the social, political, and intellectual dynamics that shaped the different forms of political community, economic organization, and public culture over the past century. Covers colonialism, liberalism, Arab socialism, authoritarian capitalism, and Islamic republicanism.

HIS X34F. Modern Egypt in Film and Fiction.
Explore the history and culture of modern Egypt through selected readings in twentieth-century film and fiction.

HIS X34G. Cultures of Revolution in the Middle East.
Examine the cultural production that surrounds key moments of political and social change in the Middle East.

HIS X34I. Culture in Turkey: Myths and Realities.
Explore how Turkish culture is neither static nor monolithic but is continuously contested and redefined. Investigate tensions between secularism and Islam, Orientalist and Occidentalist fantasies, and imperialist and nationalist desires to better understand the sociopolitical dynamics that define Turkish society today.

HIS X34J. History of Britain from the Restoration to 1783.
Surveys the political, social, economic, and intellectual history of England and Great Britain from the restoration of the Stuart monarchy in 1660 to the conclusion of the War for American Independence in 1783.

HIS X34L. The American Revolution and the Founding of the United States, 1763-1800.
The Revolutionary transformation of America between 1763 and 1800.

HIS X34O. The Levant: From Colonialism to Coexistence.
Examine the history of the Levant, a region that includes Syria, Israel, Palestine, and Jordan.

HIS X34P. Middle East Outlaws and Lawmen.
Explore the evolution of crime and law enforcement in the modern Middle East.

HIS X34Q. Multiculturalism in Jordan.
Explore how past, present, local, and regional events inform current Jordanian culture and identity.

HIS X37C. Relations Between East Germany and the United States.
Explore and (re)asses the diplomatic, strategic-military relations and socio-cultural entanglements between the United States and the German Democratic Republic, thus complicating our understanding of the West-East divide and Cold War culture.

HIS X37D. German Cinema 1918-1945.
Explore the history and aesthetics of German cinema from 1918 until 1945.

HIS X37E. Transatlantic Memory Cultures.
Explore and compare German and American memory cultures, analyzing the Holocaust, slavery, and colonialism. Analyze the diversity and complexity of (inter)national, local, and indigenous memory cultures while also discussing how Germany and the United States might "learn from each other.

HIS X37J. Nordic Noir.
Uncover the dark side of the Nordic countries, from gritty streets to icy fjords, and explore the history, culture, literature, and movies these societies produce.

HIS X37N. Germany in the Twentieth Century.
Survey of German political and military institutions, economic development, culture, and society.

HIS X39Q. Medieval Middle East History in One Hundred Objects.
Survey the history of the medieval Middle East, from the period of Late Antiquity (in the seventh century) to the rise of early modern empires of the Safavids, Ottomans, and Mughals (in the seventeenth century), through close examination of the meaning and significance of 100 objects.

HIS X39S. Sufism: Islamic Thought and Spirituality.
Explore Sufism and other Islamic mystical traditions that color cultural milieus spanning four continents and fourteen centuries. Focus on the historical developments in the Islamic theosophical tradition, as well as the relationship between Sufism and poetics, colonialism, and post-colonial resistance movements.

HIS X40C. The Chinese in Diaspora.
Explores narratives of migration, race, ethnicity, and a wide range of experiences of acculturation and assimilation from the perspective of a sending society--China--which has one of the longest and most diverse histories of sending people overseas. Over the last millennia, Chinese have migrated around the world and made homes under a great range of adversity and opportunity, producing many stories of human differences and commonalities.

HIS X40G. History of the Southeast Asian Diaspora in the United States.

HIS X40L. Post-Mao China: Change and Transformation.
Examines in a historical context the Chinese economy, society, politics, and culture during the reform era that began in the late 1970s. Explores the transformation of rural and urban economies and related social consequences; government systems, political ideologies, and popular values; and China's integration into the global system and its impact on China's role in world politics.

HIS X40M. Modern China.
History of China from the intrusion of the West circa 1500 to the Communist revolution.

HIS X40P. European Expansion in Asia.
European exploration, the commerce of the East India Companies, and the beginnings of empire in South and Southeast Asia from the fifteenth to the early nineteenth century.

HIS X40R. European Empires in Asia.
The British in India and Malaya, the Dutch in Indonesia, and the French in Indochina since 1800.

HIS X40S. The Chinese in the United States.
History of the Chinese in the United States from their first arrival in significant numbers during the California Gold Rush of the mid-nineteenth century to the present.

HIS X40T. Taiwan: Colonization, Migration, and Identity.
Explores issues of ethnicity, empire, and modernization in East Asia from the sixteenth century to the present, as seen through encounters between Taiwan and aborigines, Han Chinese, Dutch, Portuguese, the imperial Qing, Japanese, mainland Chinese Nationalist Party (KMT), and the United States.

HIS X40U. The Cultural Outsider: Memoirs of East Asia.
Focus is on the cultural outsider's perceptions of East Asia in greater travel" dating from as early as Marco Polo up to works published in contemporary America. Selected memoirs and travelogues are presented from the perspective of the cultural outsider, written by missionaries, colonizers, journalists, POW's, scholars, students, and tourists.

HIS X40V. Big Asian Histories.
Examines ways in which Asia and other areas of the globe have had connected intellectual, artistic, and social developments with focus on world histories centrally involving Asia from the medieval period to the present.

HIS X41F. The Two Koreas and the United States.
The political, social, and cultural relationship between North and South Korea, and between the Koreas and the United States, since 1945.

HIS X41J. History and Memory in Japan and Korea.
Explore the fraught and entangled histories of modern Japan and Korea as depicted in literature and film to consider experiences of imperialism, rapid modernization, war, decolonization, and trauma.

HIS X41K. Origins of Modern Japan.
Japan to the beginnings of the Industrial Revolution, with a focus on the culminating age of samurai rule, the Tokugawa period (1600-1867).

HIS X41M. Imperial Japan.
Japan from the Meiji transformation through war, defeat, and occupation.

HIS X42C. Postwar Japan.
Japan since the war and occupation.

HIS X42D. Political Economy of Japan.
Historical development of the Japanese economy since early modern times.

HIS X43. The Age of Reformation.
Examines late medieval religion, the rise of Protestant movements, and the Catholic response in their cultural, political, and social contexts.

HIS X43C. Transnational Asia: From the Middle East to the Far East.
Examine how various groups of people understood, experienced, and imagined concepts such as "the East" and "Asia" with a primary focus on the nineteenth and twentieth centuries.

HIS X43D. Muslim Travelers and Traders.
Introduction to modern Middle Eastern and Islamic history in the broader context of globalization, with a primary focus on the nineteenth century to the present.

HIS X43E. Modern Middle East History in One Hundred Objects.
Survey the history of the medieval Middle East, from 1500 to the present, through close examination of the meaning and significance of 100 objects.

HIS X43F. Food History of Asia and the Middle East.
Explore the history of food and beverages in the Middle East and Asia, including Palestine/Israel, Egypt, Iran, India, China, and Japan. Investigate themes of identity, capitalism, and globalization to reflect on the role of food consumers in an interconnected world.

HIS X43G. Italian Renaissance, 1350-1550.
Survey of political, socioeconomic, religious, and intellectual trends during the Italian Renaissance.

HIS X43L. History of Russia to 1917.
Survey of Russian history from seventeenth-century Muscovy to the fall of the Romanovs in 1917.

HIS X43M. History of Russia since 1917.
A survey of Russian history from the revolution of 1917 to the collapse of the Soviet Union.

HIS X43Q. Russian Food Ways.

HIS X43R. Revolutionary Russia.
An in depth examination of the political, social, economic, and cultural dynamics at work in early twentieth-century Russia.

HIS X43W. Witches, Workers, and Wives.
Explores the role of families and concepts of gender as expressed in key economic, social, political, and cultural patterns in early modern Europe.

HIS X44E. France in the Middle Ages.
Social, cultural, political, and economic history of France from the fall of the Roman Empire to the fifteenth century; emphasis on the development of feudalism and nationalism.

HIS X44F. Anglo-Saxon England.
The political, social, cultural, and legal history of England from about 410 to 1154. Lectures and discussion of primary sources.

HIS X44G. Twelfth-Century Renaissance: 1050-1200.
An examination of social, cultural, and intellectual developments in eleventh- and twelfth-century Europe.

HIS X44J. Norman and Angevin England.
Political, social, and legal history of England from the Norman conquest in 1066 to the end of the reign of Richard III in 1485.

HIS X44M. Everyday Life in Early Modern Europe.
Social history of early modern Europe (1400-1700), with emphasis on material conditions of social existence.

HIS X44N. Death and the Afterlife in Ancient China.
Investigate ancient Chinese beliefs and practices surrounding death and the afterlife from the Neolithic era to the arrival of Buddhism. Explore tombs, burial objects, and funeral rites; philosophical essays and historical accounts; medical practices; religious relics, tokens, and talismans; ghost stories; poetry; and paintings.

HIS X44Q. Northern Renaissance: Religion, Magic, and Humanism.
Explore Northern Europe's transition from medieval to Early Modern in and through the northern Renaissance. Examine humanist culture and its many tensions with the Church, technological breakthroughs and their social and economic consequences, the connections between the discovery of new lands and the recovery of ancient learning, and the formation of the early modern state.

HIS X44R. Machiavelli: Politics and Culture.
Through Niccolo Machiavelli's chief writings, consider the local, regional, Mediterranean, European, and global aspects of his work.

HIS X44S. The Crusades.
An exploration of the religious encounters between eastern and western Christians, Christian heretics, Jews, Muslims, and polytheists; political, military, and cultural changes of the high middle ages; and the ways that crusading ideas and symbols have been reused in contemporary politics and popular culture.

HIS X44T. Law and Society in Early Modern Europe.
Research seminar on how historians have explored the significance of law, criminal and civil, in the lives of early modern Europeans. Topics include infanticide, fornication, drunkenness, theft, debt, slander, and family disputes.

HIS X45J. The Coming of the Civil War, 1829-1861.
Lecture and discussion course dealing with the historical conditions that led to the American Civil War.

HIS X45L. The American Civil War and Reconstruction, 1861-1877.
Lecture and discussion course on the Civil War and Reconstruction period.

HIS X45O. Debt and Colonialism in the Caribbean.
Examine the role that debt has played in the formation of colonial and neocolonial practices in the Caribbean region. Take a broad approach to the concept of debt in order to explore the financial and monetary dynamics of debt, but also the political and cultural implications of debt. Focus in particular on debt as justification in the furtherance of colonialism throughout the Caribbean. Engage in a historical examination of the United States' colonial projects and military interventions in the region throughout the 20th and into the 21st centuries.

HIS X46C. Ancient India.
History and culture of South Asia from its protohistoric beginnings in the Indus Valley through the period of the early empires of the Mauryas and Guptas.

HIS X46D. Medieval India.
History and culture of South Asia from approximately 500 to 1500, with emphasis on religious and political institutions and the emergence of regional cultures.

HIS X46E. Colonial Encounters in Mesoamerica.
Study European-indigenous encounters in Mesoamerica, a geographic and cultural area spanning north-central Mexico through western Honduras, between approximately 1450-1750. Examine strategies of contact, accommodation, and resistance that indigenous communities and European colonizers used to communicate with each other and negotiate the conduct of daily life in colonial society.

HIS X46G. Precolonial India, 1200-1750.
Surveys the history of South Asia during the era prior to British colonial rule.

HIS X46J. Colonial Latin America through Objects.
Examines objects, such as paintings, reliquaries, monstrances, and churches from colonial Latin America in order to understand colonial culture. Includes critical reading of original texts.

HIS X46K. Colonial Latin America.
Basic survey course, designed as an introduction to Latin American history in the colonial period.

HIS X46L. Modern Latin America.
Continuation of History 346K and Latin American Studies 366 (Topic 2).

HIS X46M. Early Modern India.
The history and culture of South Asia from approximately 1500 to 1750.

HIS X46N. The Indian Subcontinent, 1750-1950.
Examines the cultural and political movements and events that led to formation of the two nation-states India and Pakistan.

HIS X46P. The Indian Republic Since 1947.
An overview of Contemporary India, a republic that emerged from the British Empire.

HIS X46R. Revolution in Modern Latin America.
Comparison of the Mexican and Cuban revolutions and of their challenges to inter-American relations.

HIS X46S. Revolution in Twentieth-Century Latin America.
An introduction to recent Latin American history, with emphasis on phenomena that explain the apparent social unrest and political instability of the region.

HIS X46T. The Cuban Revolution and the United States.
The special economic and political relationship between the United States and Cuba from 1898 to 1967; and how the 1959 revolution affected the Cold War relationships between East and West, North and South.

HIS X46V. Twentieth-Century Rural Latin America.
Examines causes of some of the unresolved conflicts affecting Latin America today, including the social-agrarian relationships linking landlords and campesinos; the role of the state and the impact of official ideologies involving indigenous people; religion and the Catholic Church; the history of rural institutions; and the success or failure of land reforms.

HIS X46W. Church and State in Latin America.
History of Church-state relations and religious politics in modern Latin America, with emphasis on the nineteenth to early twentieth-century periods.

HIS X47C. Reimagining Cuba, 1868-Present.
Explores Cuban-United States relations from the nineteenth century to the present, including issues of empire and transnationalism, and social change engagements between Cuba and the United States before and after the Cuban Revolution.

HIS X47D. Cuba in Question.
Explore Cuba's peoples, cultures, ethnicities, and the social and historical processes that go far beyond the common media stereotypes.

HIS X47J. Puerto Rico In Crisis.

HIS X47L. Seminar in Historiography.
Designed to familiarize students in the honors program with general problems of historiography, historical interpretation, and the philosophy of history.

HIS X47N. Urban Slavery in the Americas.
Examines urban slavery in the Americas.

HIS X47P. When Christ was King.
The history of Catholicism in twentieth-century Mexico, often seen as Latin America's most "Catholic" nation.

HIS X47R. Chile: From Revolution to Counterrevolution.
An examination of the key political, social, and economic events that underpin contemporary Chilean society.

HIS X49R. Military History to 1640.
A broad survey of world military systems from ancient times to about 1640.

HIS X49S. Survey of Military History, 1640 to 1900.
An investigation of world military systems and of the evolution of military technology from about the time of the Thirty Years' War to the end of the nineteenth century.

HIS X50L. Topics in Undergraduate Seminar in History.
Lectures, discussion, reading, and research on selected topics in the field of history.

HIS X50L.19. Resistance, Rebellion, and Revolution in Colonial Spanish America.

HIS X50L.33. Heresy and the Inquisition.

HIS X50L.35. Nigeria: A History of Nation-Building.

HIS X50L.41. Stalinist Russia.

HIS X50L.42. History of Modern Central America.

HIS X50L.44. Culture and Identity in Colonial Mexico.

HIS X50L.5. Gandhi and Gandhism.
Explore Gandhi's life, work, philosophy, and influence, as well as his historical and cultural context.

HIS X50L.54. Epics and Heroes of India.
Focus on India's classical epics, the Mahabharata and the Ramayana, with emphasis placed on understanding the epic characters in relation to the heroic traditions of premodern India, as well as on the role of the epics in contemporary Indian political and religious culture.

HIS X50L.59. Stalin's Russia at War.

HIS X50L.62. History of the Caribbean.
Overview of Caribbean history from 1492 to the present. Topics include contact between European and native cultures, piracy, slavery, colonialism and decolonization, and revolutions.

HIS X50L.64. Einstein in the Age of Conflict.
Following the life and work of Albert Einstein, course examines the rise of the theories of relativity and quantum mechanics upon the stage of international political upheaval.

HIS X50L.67. Mughal India in History and Memory.
Focuses on South Asia during the era of the Mughal empire (1550-1750), continuing through the symbolic relevance of the Mughal dynasty in British India and in India today.

HIS X50L.68. Afro-Latin America.
Examines the historical experiences of people of African descent in Latin America and the Caribbean beginning in the slavery era, and focuses on the histories of Afro-Latin Americans after emancipation.

HIS X50L.69. The Decolonization of the British Empire.
Explores the era of decolonization of the British empire after World War II.

HIS X50L.70. Historical Imagining of Africa in Films.

HIS X50L.71. Liberalism and the British Empire.
Explores the emergence of the political and economic ideas of liberalism in Britain and the evolution of British overseas expansion during the seventeenth-, eighteenth-, and early nineteenth- centuries.

HIS X50L.73. Race, Science, and Racism.
Explores important episodes in the history of biology regarding the classification of human races.

HIS X50L.75. Rethinking the Conquest of Mexico.
Explores the "conquest" of Mexico and the social, cultural, political, and economic processes which were set in motion by the Spanish invasion of Mexico.

HIS X50L.77. The Spanish Inquisition.

HIS X50L.84. African Travel Narratives.
Examines histories of Africa and travel through eyewitness accounts. Studies journeys Africans have made within and from the continent alongside accounts of travelers visiting Africa from elsewhere.

HIS X50L.85. The Cold War in Five Continents.
Examination of the Cold War and the ensuing conflicts around the world (1945-1990).

HIS X50L.86. Latin America in the Nineteenth Century.
Questions the geographical category of Latin America by examining the kinds of trends and forces of the nineteenth century that contributed to its conceptual emergence and to its growing political, economic, and cultural significance on the global stage.

HIS X50L.87. Global Environmental History.
Explore how human societies and natural environments have shaped each other in world history.

HIS X50L.88. Medicine in African History.
An exploration of how communities have confronted disease throughout Africa's history.

HIS X50L.91. History of Money and Corruption.
Investigate how financial crises have arisen in the past and to what extent they transpired because of wrongdoing.

HIS X50L.95. Radical Hope and Global Environmental History.
Explore the meaning of "radical hope" and how it is related to the environment, climate change, or the Anthropocene.

HIS X50L.96. Africa and Indian Ocean World.
Explore the connected histories of the geographical regions and economic communities that share the littoral space of the Indian Ocean.

HIS X50L.97. Global Commodities: Asia and the World.
Explore the vital role of commodities in Asian history with a particular focus on East and Southeast Asia.

HIS X50R. Topics in Undergraduate Seminar in United States History.
Lectures, discussion, reading, and research on selected topics in the field of United States history.

HIS X50R.1. Coastal Communities in Early America.

HIS X50R.10. Slavery in the United States.

HIS X50R.13. History of Sexuality in America.

HIS X50R.14. Gender and Slavery in the United States.
Examines the gendered experience of chattel slavery in the United States. Includes critical analysis of classic and contemporary texts, films, and songs that focus on slave labor, family, community, sexuality, and the economy.

HIS X50R.17. Black Women in America.
Uses primary sources, historical monographs, and essays to provide a chronological and thematic overview of the experiences of black women in America from their African roots to the circumstances they face in the present era.

HIS X50R.18. Women in Sickness and Health.
Explores medical and biological views throughout the nineteenth and twentieth centuries of women and women's health, the social context of those views, the development of medical practices, and the treatment of illness and debility.

HIS X50R.19. American Popular Culture, 1682-Present.
Explores the evolution of American popular culture and its relationship to national consolidation, and at times, disunion, over the last 330 years.

HIS X50R.2. Lyndon Johnson and His Times.

HIS X50R.20. History of American Feminism.

HIS X50R.21. Pluralism in Early America.

HIS X50R.22. The History of Islam in the United States.
A brief introduction to Islam. Defines the role of Islam and views of Muslims in the early history of the United States, and introduces students to major issues concerning contemporary American Muslims.

HIS X50R.23. Twentieth-Century Native American History.
Studies Native American life and culture from the late nineteenth- to the twentieth- century through the use of historical and anthropological texts, autobiographies, documentaries, and fiction.

HIS X50R.24. Domestic Slave Trade.
Explores the inner workings of the domestic slave trade from the perspectives of slaveholders, speculators, and the enslaved. Analysis of maps, letters, diaries, newspaper advertisements, and legislation relating to the domestic slave trade.

HIS X50R.27. Arts and Artifacts in the Americas.
Surveys the changing material culture of the western hemisphere from pre-Columbian times to the beginning of the industrial revolution.

HIS X50R.28. Debating the American Revolution.
Examination of the precipitant events and ideas leading up to the American Declaration of Independence through discussions, lectures, and an extended exercise in historical role playing.

HIS X50R.35. The Civil Rights Movement from a Comparative Perspective.
Focuses on African American and Mexican American struggles for civil rights. Asian American and Native American movements will also be addressed. Using a comparative approach the student will consider the distinctiveness of each of these struggles while also viewing them in relation to each other.

HIS X50R.37. Refugees in Twentieth-Century United States.
Explores the history of refugees in the twentieth century, with special attention to the United States and its engagement in the international arena of refugee politics.

HIS X50R.38. Barack Obama and American Democracy.
Focuses on the impact of Barack Obama's watershed presidency on American democracy.

HIS X50R.40. Black Women on Trial.
Using press coverage of historical and contemporary court cases and trials of women ranging from Angela Davis to Marissa Alexander, explores how media shapes public and popular perceptions of race, class, gender, sexuality, and the law.

HIS X50R.42. Terrorism and Insurgency in American History.
Investigate terrorism throughout American history through selective case studies and independent research.

HIS X50R.5. American Cultural History of Alcohol and Drugs.
Study of the American use and perception of drugs, including alcohol, and how they have changed over time. Examines significant shifts in American attitudes toward individualism and social control.

HIS X50R.7. Environmental History of North America.
The history of humanity's influence on the plants, animals, microlife, soils, water, and air of North America, and vice versa, from the arrival of the proto-Indians to the contemporary environmental crisis.

HIS X50R.8. Women in Postwar America.

HIS X51D. Alexander the Great and the Hellenistic World.
History of Asia, Egypt, and the Mediterranean world from Alexander's expedition to Asia to Rome's defeat of the last of the Hellenistic monarchs at Actium (ca. 334 to 31 BC).

HIS X51P. History of Religion in America since 1800.
Introduction to the history of religion in the United States of America from the nineteenth century to the present. Focuses on how diverse peoples imagined and transformed the landscape, interacted with one another at different sites, and moved within and across national borders.

HIS X51Q. Slavery and the New Testament.
Examine slavery in the New Testament.

HIS X52F. The Mexican Revolution, 1910-1940.
Explore the initial decade of the Mexican Revolution, the first of the twentieth-century nationalist social revolutions. Examine the historical antecedents and the political, economic, social, and intellectual elements of the upheaval.

HIS X52G. History of Modern Mexico, 1940-present.
Introduction to the history of modern Mexico from the close of the Mexican Revolution (1940) to the present.

HIS X52P. England in the Twentieth Century.
A survey of political, economic, social, and intellectual trends, with emphasis on class relationships.

HIS X53. The French Revolution and Napoleon.
Analysis of the social, political, and economic origins and outcomes of the French Revolution and Napoleon's empire.

HIS X54E. Archaic and Classical Greece.
Survey of Greek history from the emergence of the city-states to the rise of Macedonia.

HIS X54F. The Three French Wars of the Twentieth Century.
Focuses on 20th century France, with an emphasis on three critical conflicts: World War One, World War Two, and the Algerian war.

HIS X54G. France in the Dark Years.
Explore the Nazi occupation of France and Vichy's collaboration. Consider the devastating fall of the French Republic, the organization of Vichy France, Vichy's complicity in the Holocaust, the ethical complexities of collaboration and resistance, and the ramifications of World War II for the French empire.

HIS X54N. France in Modern Times.
The impact of revolution on French political, economic, and social development in the nineteenth and twentieth centuries.

HIS X55F. The United States, 1877-1920.
Examines the Gilded Age and Progressive Era to depict the rise of modern America.

HIS X55M. The United States, 1920-1941.
A history of political, economic, diplomatic, military, social, and cultural developments in the United States between the two world wars.

HIS X55N. Main Currents of American Culture to 1865.
Traces the development of American culture and society from the colonial era until the end of the Civil War. Major themes include racial conflict, religion, slavery, the development of democracy, and cultural reform.

HIS X55P. The United States since 1941.
A history of political, economic, diplomatic, social, and cultural developments in the United States since the nation's entry into World War II.

HIS X55S. United States Constitutional History.
A lecture and discussion course dealing with the history of the development of the American constitutional tradition from colonial times to the present.

HIS X56C. Land in America.
Explore how the history of land helps explain the society we live in today and ideas about the human-nature relationship.

HIS X56G. History of the United States West.
Examines the history of the trans-Mississippi West with a special focus on the concepts of conquest, resistance, and region from the nineteenth to the twentieth century.

HIS X56K. Main Currents of American Culture since 1865.
Traces the development of American culture and society from the end of the Civil War to the present. Major themes include racial conflict, pluralism, religion, urban development and reform, modernism, government centralization, cultural radicalism, and the rebirth of conservatism.

HIS X56P. The United States in the Civil Rights Era.
Examines United States history in the post-World War II era, including how civil rights and other racial issues helped shape the politics, popular culture, and social life of this period.

HIS X56R. America and the Holocaust.

HIS X56S. American Presidency: 1789 to the Present.
Examines the presidency and the individuals who have held it, with an eye toward discovering trends of historical and contemporary interest.

HIS X57C. African American History to 1860.
Review of West African origins; New World settlement patterns, social life, and culture; discussion of the Atlantic slave trade, the development of capitalism and plantation slavery, and the origins of racism.

HIS X57D. African American History since 1860.
Survey of the history of African Americans in the United States from 1860 to the present: Emancipation, Reconstruction politics, migration and urbanization, and the evolution of African American culture; kinds of sources and methods valuable for analyzing African American life and culture.

HIS X57Q. German-American Immigration and Ethnicity.
Explore German immigration to the United States from the colonial era to the present. Examine the motivations for migration; settlement patterns; construction of identity through traditions and festivals; German American's economic, social, and cultural contributions to the United States; and challenges to assimilation.

HIS X58C. History Internship.
Apply historical methods in office and organizational workplaces. Utilize research, analytical, writing, and information skills.

HIS X58M. History of Britain from 1783 through World War I.
Surveys the political, social, economic, and intellectual history of Great Britain from the years preceding the outbreak of the French Revolution to the conclusion of World War I.

HIS X58Q. Supervised Research.

HIS X59C. African Cities Since 1500.
Explore Africa's past through the story of urbanization beginning with an overview of African cities around 1500--a time of increasing human migration and global trade. Assess African cities in the modern period, focusing on the advent of European colonialism in the 1800s and its aftermath.

HIS X59D. Fashion in Africa.
Examine fashion history through readings, videos, social media, and textile making to provide an immersive experience in African design history. Address the ways in which textiles are tied to class distinctions and politics, wrapped up in the history of trade (including human trafficking and slavery), mixed into revolutionary struggles and post-independent governance, and inspire haute couture and global fashion trends.

HIS X59N. History of Africa since 1800.
Development of sub-Saharan Africa from the end of the slave trade to independence.

HIS X59P. History of East Africa.
A survey of the history of Kenya, Tanzania, and Uganda from prehistoric times to the postindependence era.

HIS X59R. History of West Africa.
A history of the West Africa region: the rise and fall of kingdoms, relations with Europe and Asia, the great revolutions of the nineteenth century, colonial administration, decolonization, and the search for economic development and political stability since independence.

HIS X61C. The World of the Victorians.
Introduction to the main contours of social and cultural British history, both in Britain and in its burgeoning empire.

HIS X61D. The Church and the Jews.
Examination of the complex relationship between the Western Church and Jews over two millenia.

HIS X61E. Rebels and Revolutionaries in Russian History and Literature.
Study of fictional and real rebels and revolutionaries across almost a century of Russian literature.

HIS X61F. Berlin.

HIS X61G. The Sacred and the Secular in Modern European Thought.
Introduces key themes and methodologies of intellectual history and social theory by exploring the dueling approaches to secularization and sacralization in modern European thought.

HIS X61I. World War II in Eastern Europe.
Examines the war in Eastern Europe with a particular emphasis on occupation, collaboration, and resistance; the Holocaust; and the connection between ethnic cleansing, population transfer, and the establishment of communism in postwar Eastern Europe.

HIS X61J. Medieval Warfare.
Examine the development of warfare between the late Roman Empire and the early modern world (c. 400-1500), including a brief retrospective on war in the ancient world.

HIS X61O. Russia's Soul: Spiritual Traditions.
Explore complex history of Orthodox Christianity, Judaism, Islam, and Buddhism in Russia. Examine important worship sites, including monasteries and pilgrimage destinations. Have discussions with Russian scholars of religion and practitioners of different faiths.

HIS X61Q. Cultural Citizenship in the United States and Latin America.
An introduction to the history of relations between the United States and Latin America. Designed to prepare each student for a potential experience in Latin America (or with Latino communities in the United States) such as study abroad, research, and/or community engagement.

HIS X61R. Nazi Culture and Politics.
Explore fundamental questions about the unique role of culture in modern democracies and dictatorships by taking an overview of culture and politics in the Third Reich. Examine questions about the relationship between political propaganda and modern entertainment, mass media and authoritarianism, political aesthetics and ideology, and the dynamics of oppression, resistance, and consent.

HIS X61S. European Espionage 1914-1989.
Examine the development and transformation of espionage, intelligence, and surveillance in Europe from the first World War to the end of the Cold War.

HIS X61T. East European Transnational Worlds to 1914.
Examine an overview of major developments in the economic, political, social, cultural, and gender and sexuality fields of East European history before 1914. Explore diplomacy, institutional legacies of war and peace, urban and rural developments and inequalities, spaces of language and religion, race, labor migration, and the arts.

HIS X61U. Geography in Eastern Europe and Eurasia.
Explore alternatives to nation-state imaginaries across Eastern Europe and Eurasia. Examine spatial thinking, utopia, dystopia, the history of geosciences, counter-mapping, and the decolonial geopoetics of space.

HIS X61V. Technology and Society in Modern Eastern Europe and Russia.
Learn how technologies and social changes shape each other. Use case studies from Eastern Europe and Russia from the Industrial Revolution to the Era of AI. Explore the industrialization of production and consumption, the professionalization of engineering, the emergence of multidivisional industrial enterprises, the relationship between humans and machines, the uses of "cheap nature", and technological utopianism.

HIS X61W. Russia and Ukraine in World History.
Focus on multicultural history, shared imperial and national spaces, and geopolitics of entangled Russian-Ukrainian relations.

HIS X62C. Vienna: Memory and the City.
Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria.

HIS X62E. Early Western Colonialism.
An examination of the phenomenon of colonialism, with an emphasis on the European expansion across the globe that began at the end of the western Middle Ages and continued throughout the early modern period.

HIS X62F. The First World War.
Examine the tensions and conflicts between 1914 and 1918 that set the stage for the violent twentieth century.

HIS X62I. Living a Catastrophe: Chernobyl.
Examine different ways of narrating the Chernobyl disaster and general disasters through history, environmental history, sociology, art, film, fiction, and science.

HIS X62J. Poland and the Second World War.
Examine the occupation of Poland by Germany and the Soviet Union and the ways in which this dual occupation impacted people and their communities.

HIS X62O. Cold War Eastern Europe.
Discover the primary historical developments of the post-war period in Eastern Europe from the imposition of communism in 1945 until its collapse in 1989. Explore political, economic, and cultural transformations of the Cold War.

HIS X62P. Spinoza and Modernity.
Introduction to the core of Spinoza's writings and the diverse reactions they have elicited. Examines Spinoza's refusal of mind-body dualism, as well as a transcendent god or ideal as a way of understanding Spinoza's concepts and ideas.

HIS X62Q. Eastern Europe in the Twentieth Century.
Examines the major political, social, and cultural events that shaped Eastern European society in the twentieth century.

HIS X62R. Jews of Eastern Europe.
Explores the history and culture of Jews in Eastern Europe.

HIS X62S. Southeast Europe in the Twentieth Century.
Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century.

HIS X62T. Heretics and Freedom Fighters, 1350-1650.
Explores the theologies, politics, and personal identities that emerged and passed away in this era.

HIS X62U. Environmental History of Eastern Europe.
Explore and relate commodification of nature, the climate crisis, and preserving biodiversity from the past and present. Investigate how human societies have changed their environments and how the environment has influenced the courses of societies through case studies from the ecological impact of the Teutonic Crusades to nuclear waste management in Chernobyl.

HIS X62V. War and Genocide: The Holocaust.
Examine the Holocaust as part of Nazi Germany's quest to build a new racial order.

HIS X62W. Legacies of World War II in Eastern Europe.
Examine the complex and dynamic legacies of World War II and questions of memory, identity, and politics from 1945 to the present.

HIS X63C. Argentina: Populism and Insurrection.
An overview of principal trends and issues in Argentine history from independence to the present.

HIS X63D. Religion, Conquest, and Conversion in Colonial Latin America.
Focuses on the histories of the Catholic Church and religious devotion in colonial Latin America between 1521 and 1821.

HIS X63E. Mapping Latin America.
Discuss the role of maps in the creation of Latin America as a specific sort of place. As such, allows familiarity with a broad overview of Latin American history from Pre-Columbian civilizations to the modern period.

HIS X63F. The Bible in the Colonial Americas.
Varied perspectives on the central role played by the Old Testament in the construction of colonial cultures in the Americas.

HIS X63J. Life and Politics in Contemporary Mexico.
Examine an overview of life and politics in contemporary Mexico.

HIS X63T. Latin America in the Sixties.
Explore the impact of the Cuban revolution in Latin American politics, gender roles, and women's participation in public life during the sixties.

HIS X64C. History of Hindu Religious Traditions.
History of major doctrines, practices, and institutions that shaped the development of Hinduism; how religions adapt to social and cultural change and often provide the catalyst for change.

HIS X64D. Prophet of Islam: His Life and Times.
A detailed study of the prophet Muhammad's life and message, and of the means by which his life was recorded and popularized.

HIS X64E. The Dead Sea Scrolls.

HIS X64F. African History in Films and Photographs.
Explore the social, economic, and political challenges of the past fifty years of Africa's history through an examination of several popular films.

HIS X64I. Major Islamic Texts.
Introduction to key religious, philosophical, and political ideas from part of the Islamicate world through sustained readings of core texts.

HIS X64J. African Women's History.
Major themes include politics, economics, religion, the family, culture, technology, feminism, colonialism, nationalism, and development in relation to the lives of African women.

HIS X64O. Culture and Crisis in Contemporary Japan.
Explore the cultural history of Japan from the 1980s to the present, with particular attention paid to economic and ecological issues represented in literature, film, and visual culture.

HIS X64P. Apartheid: South African History.
A study of the social, political, economic, and cultural history of South Africa to contextualize the rise of apartheid. Primarily focuses on the period since 1948 from the perspectives of women, children, and men of all racial backgrounds who lived through that particular period.

HIS X64Q. French Empire: The West and Islam.
The development of regions within the Mediterranean, variously called the West and East or Europe and Islam, with an emphasis on the role of modern France and France's Mediterranean empire.

HIS X64R. Modernization in East Asia.
Examines the different historical experiences of mainland China and Taiwan in the context of the East Asian model of development.

HIS X64S. Black Slavery in the Atlantic.
Examine the history of slavery in the Atlantic from 1450 to 1865.

HIS X65G. Topics in United States History.

HIS X65G.1. United States Catholic History.
Examine how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latino/as.

HIS X65G.10. Twentieth-Century United States Lesbian and Gay History.
Examines classic texts and recent and varied writings on LGBT history, focused on experiences, ideas, and conflicts that have shaped modern LGBT identities.

HIS X65G.12. History of the United States-Mexico Borderland.
Introduction to the history of the United States and Mexico border region.

HIS X65G.13. Race, Law, and United States Society.
Examines the intersection of racial ideology and legal culture in the United States.

HIS X65G.15. United States Military History.
Explore the use of "authorized violence" and "unauthorized violence" by the U.S. military and examine how both types of violence have changed American history since initial colonization.

HIS X65G.16. Unbelief in America.
Examine the history of unbelief and the role that it has played in US history.

HIS X65G.17. Mexican American Studies at UT.
Trace the origins and development of Mexican American Studies at the national, regional, and local levels. Collaborate to help preserve and recognize the significance of Mexican American Studies at the University in historical and contemporary contexts.

HIS X65G.18. The History, Politics, and Future of American Higher Education.
Explore seventeenth-, eighteenth-, and early nineteenth-century American higher education.

HIS X65G.19. Museums: Past, Present, and Future.
Examine the history, varieties, and philosophies of museums.

HIS X65G.2. Popular Music in the United States.
Traces the history of popular music in the United States and its influence on American politics, economics, and culture from the 1880s to present day.

HIS X65G.20. Native American Women's History.
Investigate the histories of Native American women to reaffirm and reclaim their place and role in the histories of Native Americans, indigenous peoples, women, Chican@/xs, Greater Mexico, and the United States. Contemplate how many understandings that center colonization, settler colonialism, genocide, race, and environmentalism are essential to examining Native American women's history. Explore the stories, struggles, and ideas of community-building, sovereignty, and liberation as integral to their genders and sexualities as Native American, Indian, First Nations, indigenous, and red and brown women.

HIS X65G.23. La Causa, The Farmworker Movement.
Examine the twentieth-century expansion of commercial agriculture and concomitant labor organizing struggles waged by agricultural workers in the United States, including Arkansas, California, Hawai'i, Puerto Rico, and Texas. Explore the role of the United Farm Workers of America.

HIS X65G.24. The United States and the United Kingdom: The Transatlantic Alliance.
Explore the diplomatic and military history of the United States and Great Britain and how the two nations have interacted and shaped each other's national security policies and visions of a liberal international order.

HIS X65G.25. Black Women and Mass Incarceration.
Examine the history of Black women and mass incarceration in America. Explore how race, class, and gender have historically influenced the production of crime and unfair criminal justice policies. Investigate why mass incarceration matters, what its historical legacy is, and how it impacts Black women today.

HIS X65G.26. Slavery and Its Legacies.
Explore how slavery has evolved in the United States since the end of the Civil War.

HIS X65G.27. History of American Childhood.
Explore the history of American children and youth from the colonial era to the present.

HIS X65G.3. United States Economic History since 1880.
The history of American capitalism from 1865 to 2000; examines innovation, economic rights, and the role of the state.

HIS X65G.4. The Vietnam Wars.
Introduction to the complex and controversial history of the wars fought in Vietnam from 1941 to the 1980s.

HIS X65G.5. Science, Ethics, and Society.
Explores the ethics of scientific experimentation on humans in the nineteenth and twentieth centuries.

HIS X65G.6. Antebellum Slavery.
Examination of slavery at its maturity during the nineteenth century.

HIS X65G.8. Women and Social Movements in the Twentieth-Century United States.
Examines women's participation in well-known and lesser-known social movements during the twentieth century.

HIS X66D. Jews: Nation or People.

HIS X66E. Restitution and Restorative Justice after the Holocaust.
Examine attempts to find a measure of justice after the Holocaust. Explore themes of human rights and international law.

HIS X66F. Politics of Food in Latin America.
Examine food production, food consumption, and socio-cultural identities in Latin America through comparative and multidisciplinary research.

HIS X66N. Topics in History.

HIS X66N.15. Anti-Semitism.
Surveys trends in Judeophobia/anti-Semitism over 2,500 years in both Christian and non-Christian societies. Designed to use anti-Semitism as way to explore more general ideas in social theory such as boundary making; models of racial, ethnic, and cultural conflict; and the role of intellectual and scientific elites.

HIS X66N.17. British History, Literature, and Politics.
Reading course in history, literature, and politics, and as a class in professional writing. Examines not only the literature, history, and politics of England, Wales, Scotland, and Ireland, but also the interaction of British and other societies throughout the world.

HIS X66N.18. Global History of Disease.
Introduction to major themes in the history of medicine through the lens of disease. To be considered are the roles governments, medical practitioners, and patients play in the social construction of disease and health.

HIS X66P. Sexuality and Gender in Latin America.
Explore gender as a broad analytical tool to understand key problems concerning social organization, power relations, and inequality in contemporary Latin America.

HIS X66Q. Newton's Principia.
Examine key sections of Newton's Principia Mathematica Philosophiae Naturalis.

HIS X67C. Business and Society in South Asia.
Examine the long history of commerce and enterprise in the Indian sub-continent up to the present.

HIS X67D. Gender and Modern India.
Examine gender and the shifting nature of modernity between precolonial and colonial periods in the Indian subcontinent.

HIS X67E. History of the Pilgrimage to Mecca, Hajj.
Survey of the Hajj, Islam's major pilgrimage to Mecca and the nearby Holy Places. It will examine the Islamic pilgrimage from its beginnings in the seventh century C.E. through today.

HIS X67F. Slavery and South Asian History.
Examine the presence of slavery in the subcontinent in the third century BCE to the twentieth century.

HIS X67J. Partition of India in History and Memory.
Discover the experiences and memories of many different groups affected by the Partition of British India in 1947 while tracing the effects of the Partition until the present.

HIS X67Q. History of Food and Healing in China and Taiwan.
Explore the cultural, historical, philosophical, social, and scientific background against which the connection between food and healing has evolved through Chinese history.

HIS X67S. Islam in the Early Modern World: Religion and Culture.
Examine a history of the religious and cultural development across the Islamic world between the thirteenth and eighteenth centuries, stemming from the rise of the Mongols and the end of the caliphate. Explore the early modern Muslim empires of the Ottomans, Safavids, and the Mughals.

HIS X68C. Piracy in East Asia.
Examine how pirates helped bind East Asia together into an integrated zone of economic and cultural exchange. Explore how they formed the leading edge of early modern globalization and linking diverse economies and societies together.

HIS X68D. Banned in Japan: Censored Art.
Focus on banned works of literature, painting, photography, film, and manga that encountered censorship in Japan from the early eighteenth century to today. Explore the censored texts in-depth alongside the sociopolitical contexts of their banning in order to understand how censorship worked historically and to help us consider how it works in our own time and place.

HIS X68S. The Age of the Samurai.
Explore the history of Japan via an examination of the complex and ever-changing figure of the samurai.

HIS X69Q. Black Lives in the Archives.

HIS X71Q. Nationalisms in the Caribbean.

HIS X72L. Proseminar in Historical Source Readings.
Individual instruction in reading history and historiography.

HIS X72M. Proseminar in Historical Writing.
Individual instruction in historical research and writing.

HIS X72Q. Race, Rebellion and Revolution in the Caribbean.

HIS X74C. Race and Migration: The Mediterranean.
Examine the history of migration within and from the Mediterranean area.

HIS X74Q. Race Against Empire: Americas.

HIS X75D. Islamic Spain and North Africa to 1492.
An introduction to the impact of Islam on Spain and North Africa, with emphasis on social, economic, and cultural development.

HIS X75K. Tudor England, 1485-1603.
Exploration of the most important political, religious, social, economic, and intellectual changes that occurred in England between the accession of Henry VII and the death of Elizabeth I.

HIS X75L. Stuart England, 1603-1689.
Topical lecture course focusing on the most significant political, religious, social, economic, and cultural developments in seventeenth-century England.

HIS X75M. Modern Spain, 1800 to the Present.
Political, social, and economic changes in the nineteenth century: the Second Republic; the Spanish Civil War; the Franco Era and the transition to democracy after 1975.

HIS X75N. History of Britain, 1500-1700.
Explore how the archipelago of islands that make up the nations of England, Scotland, Wales, and Ireland underwent a series of dramatic transformations in the sixteenth and seventeenth centuries. Focus on politics, religious upheaval, and the beginnings of "British empire," a phrase first coined in this period.

HIS X76F. The United States and the Second World War.

HIS X76G. Hitler, Nazism, and World War II.

HIS X78W. Capstone in History.
Pursue in-depth the research interests and skills developed in other history classes.

HIS X79C. History and Computer Science Capstone.
Investigate questions at the intersection of history and computer science through collaborative projects. Develop computational tools and methods to study history. Explore how ideas in history and computer science can inform each other.

HIS X79H. Honors Tutorial Course.
An individual instruction course to provide training in the methods and teaching of historical research and writing.

Graduate Courses

HIS X19S. Topics in History.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HIS X29S. Topics in History.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HIS X80K. Topics in History of Science.
Topics cover scientific development since ancient times, including the scientific revolution, 1500-1800; the development of specific scientific disciplines; and the relationship between science and social change.

HIS X80L. Topics in European Imperialism.

HIS X80L.1. European Imperialism: British Empire.
Study of the British empire in the Middle East, Asia and Africa.

HIS X81. Topics in World History.

HIS X81J. Topics in Research Seminar in World History.

HIS X82H. Topics in Research Seminar in the History of East and South Asia.

HIS X82J. Topics in Research Seminar in African History.

HIS X82L. Topics in African History.
Seminar on selected topics on precolonial African societies and African societies since 1875.

HIS X82N. Topics in the History of East and South Asia.

HIS X82N.1. Social and Religious Reform in Modern India.

HIS X82N.2. Women in Islamic Societies.

HIS X82N.4. Communalism in Colonial India.

HIS X82Q. Introductory Conference Course in African History.

HIS X82R. Introductory Conference Course in Asian History.

HIS X82S. Introductory Conference Course in Middle Eastern History.

HIS X82T. Introductory Conference Course in European History.

HIS X82U. Introductory Conference Course in American History.

HIS X82V. Introductory Conference Course in Latin American History.

HIS X83. Topics in Seminar in Modern European History.

HIS X83C. Topics in Literature of European History.

HIS X83C.1. Literature of European History: The Medieval Period.

HIS X83C.2. Literature of European History: The Early Modern Period.

HIS X83C.3. Literature of European History: The Modern Period.

HIS X83D. Communism in Eastern Europe.
Explore the complicated nature of communist rule in Eastern Europe in its many forms, from Poland in the North to Yugoslavia in the South. Examine the variety of lived experiences of citizens of Eastern Europe, from the imposition of communism in the region after World War II to the collapse of the system in 1989. Discuss the most recent scholarship on the region that ties regional developments to the broader Cold War context, and covers issues ranging from state-society dynamics, to religion, consumer culture, urban change, and collectivization.

HIS X83J. Topics in Research Seminar in Modern European History.

HIS X83L. Seminar in General Economic History.

A historical study of economic development and economic policy.

HIS X83M. Topics in the Atlantic Worlds.

HIS X84K. Topics in Seminar in British History.

HIS X84M. Topics in Seminar in Tudor-Stuart History.

Reading and research in the history of England under the Tudors and Stuarts, 1485-1689.

HIS X85P. Topics in Public and Digital History.

HIS X86K. Topics in Seminar in Latin American History.

HIS X86L. Topics in Research Seminar in Latin American History.

HIS X86S. Stalinism: Ideology and Culture.

Examine Stalinism as a complex historical, ideological, and cultural phenomenon that crucially shaped Russia's destiny from the twentieth century to the present moment. Consider this phenomenon beyond popular stereotypes (blood-thirsty tyrant; miserable and terrorized population; total propaganda; etc).

HIS X87J. Topics in Research Seminar in Early Modern Europe.

HIS X87M. Topics in Early Modern Europe.

HIS X88J. Topics in Research Seminar in Middle Eastern History.

HIS X88K. Topics in Seminar in Middle Eastern History.

Development of Middle Eastern history since the beginning of modern times.

HIS X88K.2. Intellectual History of Indo-Iranian Islam.

HIS X88M. Problems and Methods of Historical Demography.

HIS X89. Topics in Research Seminar in United States History.

HIS X91C. Conference Course.

Designed to expand the graduate student's opportunity for individual consultation.

HIS X92. Topics in Seminar in United States History.

HIS X93L. Qualifying Examination.

Preparation for qualifying examinations.

HIS X94H. Introduction to Historical Inquiry.

Introduction to a variety of theoretical, methodological, or historiographical approaches to the past.

HIS X95. Topics in Seminar in Bibliography and Methods.

A seminar to acquaint the advanced student with the nature and extent of materials for study and writing in United States history.

HIS X97K. Topics in Literature of United States History.

Survey of historical writing and historiography from colonial times to the present.

HIS X97K.1. Literature of United States History Before 1865.

Survey of historical writing and historiography to 1865. Designed to introduce students to the field of early American history.

HIS X97K.2. Literature of United States History Since 1865.

Examines trends in American historiography from 1865 to the present.

HIS X97L. Topics in Medieval History.

HIS X98. Thesis.

HIS X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

HIS X98T. Supervised Teaching in History.

Weekly group meetings with the instructor, individual consultations, and reports.

HIS X99W. Dissertation.

Professional Courses

HIS X19S. Topics in History.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HIS X29S. Topics in History.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

HMN - Humanities

Humanities: HMN

Lower-Division Courses

HMN X01. Community Service.

Tutorial course, in which the student submits a report based on a community service project and appropriate supplementary reading.

HMN X02T. Design A Path.

Design a humanities contract of courses and write a personal statement. Examine the research process and academic writing.

HMN X04. Introduction to Humanities Honors Research.

Explore research from an interdisciplinary perspective. Develop a thesis project proposal in groups.

HMN X16. Topics in the Humanities.

Intensive lecture or seminar course addressing topics in various disciplines in the humanities.

HMN X18Q. Supervised Research.

Upper-Division Courses

HMN X21. Humanism and Western Civilization: The Ancient World.

A history of humanism in ancient Greece and Rome. The contributions of humanism to the values we place on the individual and human potential, democratic government, the arts, religion, and the family.

HMN X22. Humanism and Western Civilization: The Renaissance.

A history of humanism during the European Renaissance, the thirteenth through the sixteenth century. The contributions of humanism to the values we place on the individual and human potential, democratic government, the arts, religion, and the family.

HMN X23. Humanism and Western Civilization: The Enlightenment.

A history of humanism during the Enlightenment. The contributions of humanism to the values we place on the individual and human potential, democratic government, the arts, religion, and the family.

HMN X25J. Junior Fellows Seminar.

Receive guidance on developing and producing an undergraduate research project.

HMN X25K. The Arts, Sciences, and Social Sciences.

Analysis of topics in the arts, sciences, and social sciences through reading, discussion, and lectures.

HMN X50. Topics in the Humanities.

Study of the values underlying humanistic disciplines.

HMN X50.10. Literature of World War I.

Selected readings from autobiographies, poetry, fiction, and memoirs, primarily about the Western Front, by German, British, and American authors; a short history of World War I; readings of a central book of literary analysis; exploration of the nature of war, the experience of combatants, and the legacy of the war itself and its unique literature.

HMN X50.2. Daily Life in Northern Europe.

HMN X50.3. Geography and Religion.

Ideas about the relationships among the natural world, myth, and ritual; principal focus on Christianity, Islam, and Judaism and their offshoots and antagonists in the Western world.

HMN X50.4. Reading Images: Icons and Beliefs.
The content (not the aesthetics or the technical, compositional features) of selected Renaissance paintings, sculptures, and prints.
HMN X50.5. Great Trials in Western History.
The intellectual and historical importance of a variety of significant trials in Western history.
HMN X50.6. In Search of Meaning.
Intensive lecture course exploring various disciplinary perspectives and values underlying humanistic disciplines. Concepts include: monotheism, the nature and personality of this god, the soul, chosen people, linear time, history as divine classroom, original sin, heaven, hell, salvation, etc. Establishes how and when these and a host of other features came into existence and created Judeo-Christian reality, and contrast the reality created therein with other realities, such as Hinduism, Buddhism, Confucianism, and Islam.
HMN X50.7. The Enlightenment.
HMN X50.8. Sites, Structures, and Images of Italy.
Examination of the historical factors of religion, politics, economics, and local culture that define the significance of selected late medieval and Renaissance (twelfth through fifteenth century) buildings and the visual art they formerly housed and displayed. Taught in Italy.
HMN X50T. Treasure Hunt Archival Research.
Discover, explore, and identify the boundless treasures that can be found on The University of Texas at Austin campus by hunting through the vast cultural and historical collections at the archives on campus including the Harry Ransom Center, the Dolph Briscoe Center for American History, and the LLILAS Benson Latin American Collection. Explore essential skills for pursuing original research projects in humanities disciplines and apply these skills to bring public attention to hidden histories and marginalized voices in American culture.
HMN X51C. The Johnson Years.
HMN X51D. Money In American Politics.
Explores the nature and consequences of money in American politics.
HMN X51N. Archival Advocacy: Experiential Learning.
Use digital archives and exhibits to amplify voices that actively promote social justice, cultural awareness, and service; and to test the ethical positions about impartiality and advocacy in archival and exhibit practices.
HMN X58Q. Supervised Research.
HMN X68H. Honors Tutorial Course I.
Read and research under direction. Write a report or create a project.
HMN X69H. Honors Tutorial Course II.
Read and research under direction. Write a report or create a project.
HMN X70. Senior Tutorial Course.
A tutorial program of supervised reading and writing, including an individual paper or papers in which the student draws together the central directions and discoveries of his or her studies in the humanities.
HMN X79. Conference Course.
Individual instruction in a topic approved by the instructor and the humanities adviser.

Graduate Courses
Professional Courses

I - Informatics

Informatics: I

Lower-Division Courses

I X01. Introduction to Informatics.
Introduction to the field of informatics, including cultural heritage informatics, health informatics, human-centered data science, social informatics, social justice informatics, and user experience design.
I X02. Academic Success in the Digital University.
Examine a wide variety of information and academic resources, tools, and skills; with a focus on the digital landscape of higher education. Explore the features of the primary learning management system; communication and organization tools; library resources; basic online research resources; and ethical and safety concerns.
I X03. Ethical Foundations for Informatics.
Survey the ethical foundations for informatics, incorporating non-Western and feminist perspectives. Apply these ethical foundations to contemporary problems in informatics. Examine the confrontation of ethical dilemmas in the workplace, including recognizing value trade-offs, affected stakeholders, and potential solutions.
I X04. Programming for Informatics.
Examine the fundamentals of computer programming and practice developing and documenting code.
I X05. Research Methods for Informatics.
Explore diverse research approaches to investigate informatics-related problems. Examine principles and hands-on practices of data collection and analysis with respect to qualitative, quantitative, and mixed research methods.
I X06. Statistics for Informatics.
Examine fundamental principles of probability and statistics. Cultivate an understanding of descriptive and inferential statistics. Conduct and interpret statistical analyses using statistical analysis software, and apply these analyses to common issues in informatics.
I X10. Topics in Introductory Informatics.
I X10C. Introduction to Cultural Heritage Informatics.
Examine the fundamentals of managing, describing, organizing, preserving, and providing access to data and information in a wide range of technological forms.
I X10D. Introduction to Human-Centered Data Science.
Examine the fundamentals of collecting, managing, and analyzing data; with consideration for the ethical responsibility of data science and the importance of critical thinking.
I X10J. Introduction to Social Justice Informatics.
Explore the leveraging of data, information, and technology for the greater benefit of society and to help ensure a level playing field for everyone in the information age.
I X10M. Introduction to Health Informatics.
Explore designing and implementing information technologies to improve healthcare delivery, healthcare management, and health outcomes.
I X10S. Introduction to Social Informatics.
Explore the leveraging of data, information, and technology to improve the efficiency and effectiveness of organizations while also providing a more ethical and humane environment for workers.
I X10U. Introduction to User Experience Design.
Introduction to user experience, human-computer interaction, and the human-centered design of interfaces and applications for mobile devices and the web.
I X19S. Topics in Informatics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

I X20. Topics in Informatics.
I X20.2. Children's Literature.
Explore the evaluation, selection, and proper and creative use of books and other media with children.
I X20.3. Comics, Graphic Novels, and Manga.
Examine the historical development and a contemporary survey of prominent visual narrative formats and genres such as graphic and visual novels, comics, and manga.

I X20C. Topics in Cultural Heritage Informatics.
I X20D. Topics in Human-Centered Data Science.
I X20J. Topics in Social Justice Informatics.
I X20M. Topics in Health Informatics.
I X20S. Topics in Social Informatics.
I X20U. Topics in User Experience Design.
I X29S. Topics in Informatics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

I X72. Career Success in the Digital Organization.
Examine the essential skills for obtaining a job and sustaining a successful career with an emphasis on integrity, teamwork, time management, responsiveness to feedback, and written and oral communication. Explore tools for computer-supported cooperative work that facilitate online collaboration.

I X78I. Independent Study.
I X78R. Research Experience.
I X78T. Internship.
I X79C. Capstone.
I X79H. Honors Thesis.
Research, read, and develop an honors thesis subject and proposal for one semester; followed in the second semester by the writing and defense of a final honors thesis.

Graduate Courses
Professional Courses

I B - International Business

International Business: I B
Lower-Division Courses

I B X19S. Topics in International Business.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Business, Government, and Society. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

I B X20F. Foundations of International Business.
Fundamentals of international trade and the international economy; international dimensions of several functional areas of business, including management, marketing, finance, and human resource management; theoretical, institutional, and functional foundations of international business.

I B X29S. Topics in International Business.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Business, Government, and Society. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

I B X32F. Topics in Foundations of International Business.
I B X40S. Topics in International Business.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Business, Government, and Society. University credit is awarded for work in an exchange program; it may be counted a coursework taken in residence.

I B X50. International Trade.
Study of the principles, policies, and problems of the international exchange of goods and investments.

I B X50S. International Commerce Analysis.
Study of the principles, policies, and problems of the international exchange of goods and investments. This course is used for classes taken on an approved study abroad program with the content equivalent of International Business 350 or 320F.

I B X51S. Independent International Analysis.
Country analysis by independent study. Designed for marketing majors who participate on a McCombs summer faculty led program.

I B X60D. International Security.
Explore the conditions and motivations behind the use of military force in world politics.

I B X62. Global Regulatory Strategy.
Examine management of a firm in a rapidly evolving regulatory environment across the world as new technology reshapes social norms, legal rules, and society itself.

I B X65. Finance and Global Business.
Examine investments across sectors and countries in the face of a rapidly evolving world. Explore micro-investing to build a framework for analyzing different sectors across countries and how it applies to different countries around the world. Investigate macro-investing to develop a broader understanding of how financial markets work in different countries.

I B X66. International Accounting and Transfer Pricing.
Discover how to price transactions between subsidiaries of multinational corporations buying and selling goods, services, intellectual property and other assets in light of tax obligations and other considerations.

I B X66P. International Business Practicum.
Apply skills learned in International Business courses through group projects conducted in a professional setting. Work with a private or public enterprise.

I B X67C. Intercultural Management.
Examine a conceptual framework and specific tools for interacting successfully in international teams, negotiations, and partnerships. Discuss cultural patterns characteristic of world regions and particular countries in terms of their implications for corporate management.

I B X67D. Global Entrepreneurship.
Explore how to start, manage, and exit a business in a global context. Examine aspects of global entrepreneurship including opportunity analysis, business planning, fundraising, competing in a global marketplace, and managing through crisis explored through practical experience and real-world examples.

I B X68. Global Value Chains.
Investigate problems that complicate the operation of supply chains on a global scale, such as political risk.

I B X71T. Topics in International Business.
I B X72T. Topics in International Business.
I B X72T.1. Global Political Economy.
Explore how firms can successfully integrate their traditional strategies with non-market strategy in the global arena, including how to successfully engage with international non-market actors, such as foreign governments, regulators, political parties, NGOs, and the media. Examine the necessary tools to craft successful, integrated firm strategies in diverse institutional and political environments.

I B X72T.14. Global Marketing.
I B X72T.2. Procurement and Supplier Management.
Explore strategic issues in procurement and supplier management; a review of competitive analysis and benchmarking; the purchasing role in fulfilling a firm's operational and competitive strategies; supplier evaluation, development, and relationship management; negotiating with suppliers for results; and commodity planning.

I B X72T.3. Introduction to Global Finance and Business.
Explore how international finance operates in theory, mechanics, and current events. Examine how firms react to risks posed by international developments.

I B X72T.4. Global Net Zero Strategy.
Discuss the actions that firms around the world are taking regarding global warming, and whether these actions and innovations will keep the growth of global greenhouse gas emissions to zero.

I B X72T.6. International Marketing and Consumer Behavior.

I B X72T.8. Global Trade and Principles of Import and Export.
Introduction to the world trading system and international trade policy. Examine the policies and realities of international economic relations for the United States and major U.S. trading partners, founding trade institutions and their impact on importing and exporting commerce, and a brief history of negotiating rounds, international negotiations, and the anatomy of a Free Trade Agreement. Learn the basics of importing and exporting in relation to the business world, how free trade policy (including institutions, free trade agreements, dispute resolution, etc.) affects normal commerce and trade flows, and key steps to export from the United States.

I B X73. Business in Emerging Markets.

I B X75C. Supply Chain and Operations Management Strategy.
Discuss the role of supply chain management to increase a firm's competitive performance and understand how that performance affects the economy and society as a whole. Examine supply chain and operations design as well as environmental, social, and governance (ESG) issues. Explore the impact of new business models including e-commerce and automation; contracting; outsourcing and vertical integration, resiliency; and new delivery modalities.

I B X76. International Finance.
Explore the international financial environment, with emphasis on the factors affecting exchange rates and how exchange rate changes affect the firm.

I B X78. International Business Operations.
Establishment and conduct of international business operations: trade, investments, branch and subsidiary management, intermediary functions; case studies in international enterprise.

I B X79C. Independent Research in International Business.

Graduate Courses

I B X85E. Directed Studies in Global Management and Business Practices.
Study global business practices through lectures on campus and trips to international partner schools.

I B X95. Topics in Seminar: International Trade.
Study of contemporary topics in international trade and investment theories, policies, and problems.

I B X95.1. Global Strategic Management.
The changing global business environment and the ways multinational corporations compete in this environment. Case studies and readings, followed by a global management computer simulation.

I B X95.2. International Trade and Investment.
The basis for international trade, foreign exchange determination, balance of payments, and international trade and investment policy. Macro-level aspects of the international economy, which provide the basis for the functioning of the global economy.

I B X95.3. Global Business Operations.
Overview of management in a multinational context, focusing on the multinational corporation; the economic, political, and social environments in which it operates; and its basic managerial concerns with finance, management, marketing, and personnel. Includes an international operations computer simulation.

I B X95.4. Business in Developing Countries.
The traditional challenges to business in developing countries and the new challenges of market liberalization. Similarities and differences among countries and regions.

I B X95.5. Business in Japan.
Comprehensive examination of macro-level and micro-level issues involved in conducting business in Japan and in competing with the Japanese in the global marketplace. Macro-level issues include government industrial policy, interfirm relationships, and United States-Japan trade relationships; micro-level issues include management style, foreign expansion strategy, research and development strategy, and distribution practices.

I B X95.6. International Marketing Management.
An overview of international marketing, with emphasis on the multinational corporation. Subjects include the changing international environment, researching and entering foreign markets, and the marketing mix in international marketing.

I B X95.7. International Operations and Management.

Professional Courses

ILA - Iberian and Latin American Languages and Cultures

Iberian and Latin American Languages and Cultures: ILA

Lower-Division Courses

Upper-Division Courses

Graduate Courses

ILA X80. Introduction to Theory and Research of Literature and Culture.
An introductory survey of theories, research methods, and issues of professionalization relevant to the study of Latin American and Iberian literatures and cultures. Designed to be taken in the first long semester of graduate study.

ILA X81. Introduction to Theory and Research of Linguistics.
An introduction to the prevalent theories, research methods, and issues of professionalization relevant to the study of the language forms and language practices of individuals and societies. Designed to be taken in the first long semester of graduate study.

ILA X83. Creative Writing in Spanish.
Explore the creative process of writing in different genres including non-fiction, fiction, and poetry.

ILA X83L. Conference Course.

ILA X84. Colloquium.
Share research between, and foster discussion with, faculty and students.

ILA X85T. Teaching Practicum.
Mentorship and pedagogical training by working one-on-one with a faculty member on the development and design of an undergraduate, upper-division level course in their area of specialization.

ILA X86. Topics in Iberian and Latin American Linguistics.
Topics in Iberian and Latin American linguistics, including diasporic and indigenous communities.

ILA X87. Topics in Iberian and Latin American Literatures and Cultures: Spanish.
Topics in the literatures and cultures of Spanish America, Spain, and related diasporas.

ILA X88. Topics in Iberian and Latin American Literatures and Cultures: Portuguese.
Topics in the literatures and cultures of Brazil, Portugal, and related diasporas.

ILA X88C. Brazilian Cultural Theory.
Explore some of the most influential subjects and theories that have informed contemporary scholarship on the politics of Brazilian literary and cultural production.

ILA X88D. Cultural Tropicalities.
Examine the centrality of Brazil, and the New World in general, in the context of global controversial meanings, symbology, memory, and knowledge of the inter-tropical cultural and geographic zone.

ILA X89. Topics in Iberian and Latin American Literatures and Cultures: Spanish and Portuguese.
Comparative topics in the literatures and cultures of Brazil, Spanish America, the Iberian Peninsula, and related diasporas.

ILA X94. Supervised Preparation of the Qualifying Paper.
Supervised preparation for the doctoral degree qualifying paper. Designed to be taken in the same semester the student submits the paper.

ILA X95. Supervised Preparation of the Dissertation Fields.
Preparation of field lists, and critical summaries of these lists, under faculty supervision. Prepares students for Iberian and Latin American Languages and Cultures 396.

ILA X96. Supervised Preparation of the Dissertation Proposal.
Supervised preparation for the dissertation proposal for the doctoral degree. Designed to be taken in the same semester the student submits the proposal, typically the sixth or seventh long semester of study.

ILA X98R. Master's Report.
Preparation of the report required to fulfill the requirement for the master's degree under the report option.

ILA X98T. Supervised Teaching in Spanish and Portuguese.
Required for teaching assistants during their first semester that they teach. Fundamentals of foreign language teaching methodology, with particular reference to the teaching of Spanish and Portuguese. Presentation of theoretical concepts on which classroom practice is based, in conjunction with teaching under close supervision of the course instructor, individual consultations, reading assignments, and reports.

ILA X99W. Dissertation.
Supervised writing of the dissertation for the doctoral degree.

Professional Courses

INB - Integrative Biology

Integrative Biology: INB

Lower-Division Courses

INB X08L. Field Biology.
Explore the principles and applications of ecology, and some of the experimental and descriptive methods of ecological investigations, using field projects, laboratory exercises, field trips, and computer simulation exercises.

INB X19S. Topics in Integrative Biology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the Biology Instructional Office. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

INB X21G. Principles of Computational Biology.
Introduction to computational methods for the analysis of nucleic acid and protein sequences, with applications towards biological problems.

INB X21L. Aquatic Entomology.
Examine the taxonomy of aquatic insects, including the use of aquatic insects in biomonitoring.

INB X22. Structure, Physiology, and Reproduction of Seed Plants.
Explore the principles of structure and functioning of higher plants with special attention to the dynamics of growth and development and reproduction.

INB X22L. Structure, Physiology, and Reproduction of Seed Plants Laboratory.
Observe the structure and reproduction in seed plants and employ experimental techniques that demonstrate physiological processes, especially processes of growth and development.

INB X23. Mathematical Modeling for Biology.
Translate between qualitative hypotheses regarding biological processes and their more exact expression in the form of mathematical models. Analyze these models to determine predicted biological behavior under those hypotheses.

INB X24. Survey of the Plant Kingdom.
Survey the groups of living and fossil plants, comparing organization and reproduction to understand major shifts in the evolution of plant life.

INB X24L. Survey of the Plant Kingdom Laboratory.
Explore major plant groups emphasizing organization, reproduction, and evolution. Examine cultures, prepared and living material. Local field trips.

INB X29S. Topics in Integrative Biology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the Biology Instructional Office. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

INB X37. Topics in Biology.
Examine recent developments and research methods in the biological sciences.

INB X37.1. Human Medical and Population Genomics.
Read and interpret the primary literature in human genomics. Learn and apply computational genomics tools, group projects, presentations, and the preparation of scientific manuscripts.

INB X37.2. Quantitative and Population Genetics.
Discuss critical reading of primary quantitative literature on the drivers of genetic variation and its mapping to trait variation, focusing on humans. Analyze central ideas in mathematical modeling and statistical analysis of human genetic variation and explore mutation and recombination, genetic drift, natural selection, analyses of gene-expression variation, population structure, genotype-phenotype stratification, and study designs for mapping genotype to phenotype.

INB X38L. Animal Communication.
Examine animal communication from a multidisciplinary perspective, with emphasis on quantitative analysis, sensory processing, and evolution of signals.

INB X40L. Biology of Birds.
Examine the anatomy, physiology, classification, and ecology of birds

INB X45E. Endocrinology.
Examine vertebrate endocrinology (primarily mammalian), with a focus on human pathophysiology.

INB X46. Human Biology.
Introduction to human evolution, genetics, sexuality, senescence, and population growth.

INB X46L. Human Microscopic and Gross Anatomy.
Designed for students preparing for biomedical research and the health professions. Explore microscopic and gross anatomy of human tissues and organs, with an emphasis on structure function relationships. Examine the effects of disease and aging in addition to normal human anatomy.

INB X48L. Invertebrate Biology.
Examine the diversity and evolution of multicellular invertebrate animals, with emphasis on common themes in animal body construction and function.

INB X49P. Pandemic Science.
Examine the history, spread, mitigation, and forecasting of pandemics.

INB X51. Economic Botany.
Analyze the origin of domesticated plant species, the role in nature of plant products, and the ways natural products have been altered through artificial selection.

INB X52. Reproductive Biology of Flowering Plants.
Examine pollination biology, breeding systems, reproductive strategies, and fruit and seed dispersal from evolutionary and ecological vantage points.

INB X53F. Field Entomology.
Discuss insects with emphasis on field study techniques, visual identification of species, collecting techniques, and curation in the field.

INB X53L. Entomology.
Examine the characteristics, importance, and biology of the major groups of insects.

INB X53S. Sleep Science.
Explore the basics of sleep science. Examine current research questions and novel approaches. Discuss the range of sleep disorders and their diagnoses.

INB X54L. Ichthyology.
Discuss an overview of the evolution, biology, and ecology of fishes, emphasizing freshwater fishes.

INB X55L. Vertebrate Natural History.
Examine phylogeny, taxonomy, life histories, habits, and distribution.

INB X56L. Limnology and Oceanography.
Introduction to the study of the interactions between aquatic organisms and their environments.

INB X59J. Behavioral Ecology.
Examine behavioral ecology, with detailed consideration of animal communication, altruism, sexual selection, and plant-animal interactions.

INB X59K. Principles of Animal Behavior.
Introduction to the study of animal behavior: descriptive analysis of behavior; physiological basis of behavior; development of behavior; adaptive significance and evolution of behavior; communication and social behavior.

INB X59L. Animal Behavior Laboratory.
Explore the evolution of animal behavior through hands-on modules that emphasize a range of analytical approaches commonly used in modern evolutionary biology.

INB X61T. Comparative Animal Physiology.
Examine the physiology of organ systems in animal phyla, with special emphasis on the neural and behavioral adaptations of organisms to their environment.

INB X63L. Plant Systematics.
Examine the principles of plant classification, phylogeny, and diversity as exemplified by families and species of flowering plants found seasonally in Texas with an emphasis on the local flora.

INB X64. Microbial Ecology.
Examine population, community, and ecosystem ecology of microbes and microbiomes.

INB X65S. Human Systems Physiology.
Explore an overview of human physiology, including the cardiovascular, respiratory, and renal systems, with an emphasis on critical thinking, integration, and application. Examine membrane movement, osmolarity and tonicity, endocrinology, and neurophysiology.

INB X65U. Human Systems Physiology Laboratory.
Examine human physiology through case studies and hands on experience. Explore the scientific method through the reading of scientific journal articles; writing protocols for basic physiological experiments; and collecting, analyzing, and presenting data.

INB X69F. Field Herpetology.
Explore species identification by sight and sound, and research techniques such as sampling populations, data collection, and analysis.

INB X69L. Herpetology.
Examine the biology of amphibians and reptiles, including evolution, ecology, behavior, physiology, life history, and identification.

INB X70. Evolution.
Introduction to modern evolutionary biology, focusing on the evolution of molecular, developmental, morphological, and behavioral traits. Examine the genetic and ecological bases of evolutionary changes within populations and of evolutionary divergence in animals and plants.

INB X70L. Evolution Laboratory.
Perform group lab and field experiments and observations, computer simulations and analyses, and independent research.

INB X71. Introduction to Systematics.
Study diversification of living and fossil organisms, including speciation, biogeography, taxonomy, and phylogeny of genes, species, and higher taxa.

INB X71G. Natural History Museum Science.
Introduction to curatorial practices in natural history museums.

INB X71L. Experimental Physiology.
Explore an experimental approach to physiological mechanisms by which animals adapt to their environment.

INB X73. Ecology.
Introduction to ecology, the study of relationships among organisms and between organisms and their environment; adaptations, population, communities, and ecosystems. Examine both plants and animals and both terrestrial and aquatic ecosystems.

INB X73L. Ecology Laboratory.
Explore intensive field ecology, including group field experimentation and observation, independent projects, and field trips to other vegetation zones.

INB X74. Plant Anatomy with Histological Techniques.
Examine tissue organization and cellular details of stems, roots, and leaves of seed plants, with emphasis on development and function.

INB X74L. Laboratory in Plant Anatomy and Histological Techniques.
Explore a demonstration of cellular details and tissue systems of plant organs. Discuss the preparation of plant materials for histological examination.

INB X75. Conservation Biology.
Apply the principles of ecology to the preservation of wild plant and animal species and to the preservation, management, and restoration of natural and seminatural ecosystems. Focus on scientific, biological aspects of issues such as endangered species protection, preserve design, and forest management.

INB X76G. Biodiversity in the Anthropocene.
Examine how global change is impacting biodiversity in what is now called the Anthropocene -- a new geological era where humans are the largest driver of changes in the earth system.

INB X77. Undergraduate Research.
Conduct laboratory or field research in the various fields of biological science under the supervision of one or more faculty members.

INB X78L. Comparative Vertebrate Anatomy.
Study vertebrate morphology from developmental anatomy to the function, biomechanics, and phylogenetic relationships of living and fossil taxa.

INB X79H. Honors Tutorial Course.
Perform original laboratory or field research project under the direction of a faculty mentor, leading to a thesis or research presentation for students in the honors program in biology.

Graduate Courses

INB X98. Thesis.

INB X98R. Master's Report.

Prepare a report to fulfill the requirement for the master's degree under the report option.

INB X99W. Dissertation.

Professional Courses

INF - Information Studies

Information Studies: INF

Lower-Division Courses

Upper-Division Courses

Graduate Courses

INF X80C. Information in Social and Cultural Context.

Examines the role of information in human activities, particularly in relation to particular social and cultural contexts. Examines how individuals, groups, organizations, institutions, and society at large create, find, use, understand, share, transform, and curate information.

INF X80D. Designing Dynamic Web Pages.

Principles and practices for designing, developing, and evaluating interactive desktop and mobile Web pages. Theories and models for color, styles, and interactive page elements, such as forms. Students create and evaluate Web pages using current technologies, such as XHTML/HTML5, CSS, JavaScript, AJAX, and Adobe Flash.

INF X80E. Perspectives on Information.

Multidisciplinary and historical examination of concepts of information. Contrasts key literature from information studies with perspectives from other fields.

INF X80K. Internet Applications.

Introduction to Internet concepts, protocols, applications, and services. Examines the impact of policy and management decisions on current and future developments, and studies the design and implementation of Internet applications, including HTML, CSS, and related tools.

INF X80P. Introduction to Programming.

Introduction to common concepts and constructs of modern computer programming such as classes and objects, methods, inheritance, data types, variables, operators, procedures, and code libraries. Development of programmatic solutions to specific computing problems and design applications for modern computing platforms such as desktop, tablet, mobile, and the World Wide Web. Intended for students with no significant prior programming experience.

INF X81. Individual Studies.

In-depth study of a problem or topic related to information studies, usually culminating in an examination or a scholarly written report.

INF X81E. Electronic Portfolio.

Creation of a Web site that displays the student's professional aims, interests, and pursuits, including resume and work samples. Designed to be taken during the final semester of the Master of Science in Information Studies degree program.

INF X81W. Advanced Problems in Information Studies.

Study of a problem or topic related to information studies. Offered as an online course.

INF X82C. Understanding and Serving Users.

Overview of human-computer interaction, understanding client groups, information filters, information literacy and information-seeking behavior, as well as user studies and usability testing.

INF X82D. Introduction to Information Resources and Services.

Major reference resources and strategies useful in providing information services in libraries and other information agencies.

INF X82G. Topics in Information Resources and Services for Children and Young Adults.

Examines the evaluation, selection, and use of books and other media for young adults of junior and senior high school age. Briefly surveys the reading experience, psychology of adolescence, and reading interests of young adults. Includes extensive reading and viewing.

INF X82G.3. Materials for Children and Young Adults.

Explore the evaluation, selection, and use of books and other media and materials to meet the needs of children and young adults.

INF X82H. Legal Information Resources.

Identification of relevant legal information resources, efficient retrieval of legal information, and the role of technology in legal information access.

INF X82K. Information Resources in the Health Sciences.

Evaluation of conventional and online health information resources used by consumers and health care professionals for health promotion and disease and disorder prevention, diagnosis, treatment, and management. Includes traditional and alternative approaches, genetic clinical information approaches, and evidence-based approaches to the use of resources.

INF X82L. Topics in Information Resources and Services.

Evaluation and use of printed online information resources and services in specialized areas, with emphasis on new information technologies. Information-seeking behavior of users, document delivery, new roles of the information specialist in user support, and information needs of a variety of clients.

INF X82L.3. Inquiry and Information Seeking in K-12.

Examine inquiry models and information-seeking theories relevant to K-12 teaching and learning. Explore tools and resources for student learning and strategies for teaching specific information literacy skills within the context of an inquiry process and varying K-12 subject areas. Designed for students pursuing the Information Studies: School Librarian stackable certificate.

INF X82N. Information Resources in Business.

Communication patterns, bibliographic organization, and information resources in business and industry.

INF X82P. Competitive Intelligence Resources and Strategies.

Resources and strategies for market and competitive analysis. Research and analysis of market trends and financial, technical, and cultural strengths and weaknesses of companies. Online, print, and primary research and analytical techniques. Ethics, process, and presentation are emphasized.

INF X82R. Introduction to Scientific Data Informatics.

Introduction to the characteristics of scientific data and the emerging practices applied toward their management and preservation.

INF X82S. Library Instruction and Information Literacy.

History of instruction in information service settings; learning theory, including learning styles; professional organizations involved in supporting instruction; instructional delivery modes and materials; and evaluation.

INF X82T. Information Services: Theory, Techniques, and Subject Areas.

Exploration of reference services; and evaluation and use of printed and online information resources and services, with emphasis on interpersonal communication and new information technologies. Information needs and information-seeking behavior of users; and new roles of the information specialist in user services. Includes information resources and services in the humanities and social sciences.

INF X82U. Digital Resources for Children and Youth Seminar.

Exploration of digital information resources available for children and youth, including the range of content and availability, how information resources are conceived and created, and the implications of these resources for school and public libraries.

INF X82V. Visual Resources for Youth Seminar.
The history and selection criteria of the Caldecott Award; the history of picture books and publishing; academic and professional literature about children's materials; and selection criteria for picture books, including evaluating children's literature and developing the tools to analyze picture books for narrative, artistic, and compositional elements. Illustrative techniques and their effectiveness in relation to particular texts.

INF X83D. Mathematical Foundations of Information Studies.
Introduction to traditional finite mathematical concepts, including probability distributions and models, linear equations, matrix algebra, linear statistical models, basic information theory, and the use of mathematical and statistical software for modeling and data analysis.

INF X83E. Interpreting Implicit Information on the Web.
Theories and methods of Internet language and image interpretation. Examines persuasion, group and individual identity projection, and group-value demonstration. Focuses on how discourse is shaped by ideology, social forces, and the knowledge and beliefs of its producers within several information contexts, such as online communities, education, science, and healthcare.

INF X83H. Introduction to Digital Humanities.
A hands-on introduction to guiding infrastructural and institutional developments involved in digital humanities. Explore areas of focus including archives, collection, data curation; funding, tool building, and scholarly publishing.

INF X83S. Library Information Science, Espionage, and Intelligence Gathering.
Examines the historical and conceptual linkages between the field of library information science and the practices of intelligence gathering and espionage. Explores the role and structure of the intelligence community, the similarities and contrasts between intelligence practitioners and other information professionals, and historical case studies that illuminate areas of overlap and cooperation between the disciplines.

INF X84C. Organizing Information.
Introduction to the concepts of information organization, representation, and classification. Consideration of different traditions of practice and user concerns.

INF X84D. Collection Management.
Philosophical and social context, objectives, and methodology of evaluating, selecting, and managing library materials.

INF X84F. Seminar in Information Organization.
Critical, in-depth examination of significant concepts in information organization.

INF X84H. Concepts of Information Retrieval.
The science and engineering of building automated search engines: foundations and emerging methods, key models and approaches, front-end usability and back-end algorithms, theories of relevance, annotation practices, and system evaluation/benchmarking.

INF X84M. Topics in Description and Metadata.
Principles and practices for describing information resources.

INF X84R. Digital Repositories.
Introduction to issues in selecting, managing, and using digital repositories in diverse institutional settings. Covers repository models, collections, metadata, interoperability, preservation, policies, work flows, interfaces, visualization, applications, and services. Includes working with different repository software. Examines the impact of repositories on institutional culture, work practices, and publication models.

INF X84W. Descriptive Cataloging and Metadata.
Standards, rules, and metadata formats for representing information entities in library catalogs and other bibliographic systems. Emphasis on the Anglo-American Cataloguing Rules and the MARC metadata format.

INF X85C. Human-Computer Interaction.
The history and importance of human-computer interaction (HCI), theories of HCI design, modeling of computer users and interfaces, empirical techniques for analyzing systems and interfaces, interface design, and styles of interaction. Emphasis on reviewing research papers, current works, and future directions in HCI research.

INF X85E. Information Architecture and Design.
The theory and design of information architecture: models that provide structure and context for information to shape meaning, purpose, and utility toward understanding. Students present theoretical reviews; map and design; and develop novel information architectures using a variety of methods and software applications.

INF X85G. Advanced Usability.
Designed to build upon the skills covered in Information Studies 385P. Individual project evaluating a Web site or other software user interface. Students devise a plan for testing, secure IRB approval to test human subjects, conduct study, analyze date, write a report, and present the results and conclusions.

INF X85H. Digital Media Design.
Design and production of graphic, audio, video, and multimedia materials, with emphasis on aesthetics and usability.

INF X85K. Projects in Human-Computer Interaction.
Projects based on theories of human-computer interaction design, modeling of computer users and interfaces, empirical techniques for analyzing systems and interfaces, interface design, and styles of interaction.

INF X85L. Information Networks.
History, design, and use of digital information networks. Emphasis on origins of the Internet in the United States, varied technical models for networked information services, and social analysis of networked communication from multiple disciplinary perspectives. Includes close review of classic papers in networked communication as well as current works.

INF X85M. Database Management.
Principles and practices of database management and database design. Discussion and implementation of a database. Application life cycle, data dictionaries, relational database design, SQL queries, reports and other interfaces to database data, and documentation. Students work on individual and group projects.

INF X85N. Topics in Informatics.
Investigation of informatics movements around the world and in various disciplines and professions, such as biomedicine, nursing, public health, education, business, law, and public affairs.

INF X85P. Usability.
The basics of user-centered design through the lifecycle of a software product. Includes perceptual, psychological, and other scientific underpinnings of usability and the justification for the application of usability engineering in software development.

INF X85Q. Knowledge Management Systems.
Survey of knowledge management systems that enable the access and coordination of knowledge assets, including intranets, groupware, Weblogs, instant messaging, content management systems, and e-mail in both individual and organizational contexts.

INF X85R. Survey of Digitization.
Introduction to the issues and trends in digital asset management and digitization initiatives, including planning and project management, asset delivery and management systems, interoperability and the importance of standards, copyright, metadata basics, digital preservation, and specific digitization processes for documents, images, video, and sound.

INF X85S. Digital Libraries.
Research, development, and evaluation issues related to digital collections of documents, data, and multimedia formats, including metadata and interoperability; access strategies and user interfaces; implications for policies and social issues; collection development with physical as well as digital materials

INF X85T. Special Topics in Information Science.

INF X85T.1. Presenting Information.

Visual, numerical, textual, and verbal presentation of information based on fundamental theories of human information perception and communication. Examples may include tables, graphs, dashboards, infographics, and reports.

INF X85T.10. Interaction Design.

Introduction to the design and production of useful and elegant interactive experiences, including iterative design, prototyping, and user testing.

INF X85T.11. Crowdsourcing for Computer Vision.

Examine the opportunities and challenges for using crowdsourcing to teach computers to "see".

INF X85T.12. Ethics of AI.

Identify and address a variety of ethical challenges related to AI and its applications. Apply a broad range of ethical theories, including non-Western and feminist theories, to contemporary issues in the design, development, and deployment of AI-based systems.

INF X85T.13. Human-AI Interaction.

Introduction to combining human and machine intelligence to benefit people and society. Explore cutting-edge research on a number of subjects related to human-AI interaction, including the psychological and societal impacts of AI as well as design guidelines and methods for human-centered AI.

INF X85T.2. Visualization.

Concepts, principles, strategies, techniques, and tools for the visual presentation of large, high-density, or complex information resources from a variety of disciplines such as the sciences, humanities, law, arts, and business.

INF X85T.3. Human Computation and Crowdsourcing.

Introduction to the theory, methods, and applications of human computation and crowdsourcing; covering a breadth of key concepts as well as more specialized depth in one or more key sub-areas.

INF X85T.4. Mobile Interaction Design.

Introduction to the design of mobile interactions with emphasis on research and analysis, conceptual design, mobile interface prototyping, and the basics of interface evaluation and usability testing.

INF X85T.5. Data Mining.

A hands-on introductory overview of the applications, methods, tools, and technologies that constitute data science and data mining. Fundamentals of Python and R programming languages and relevant libraries. A semester project applying the learned methods and technologies to a specific dataset.

INF X85T.6. Information Modeling.

An introduction to fundamental information modeling methods such as relational database design, conceptual modeling, markup systems, and ontologies.

INF X85T.7. Information Science in the Intelligence Community.

Introduction to the U.S. Intelligence Community (IC) and the world of espionage from a Library and Information Science perspective: how intelligence agencies collect, manage, and analyze data and information to produce actionable insights for policymakers.

INF X85T.8. Information Ethics.

Examination of contemporary information ethics issues applying a variety of ethical theories, including non-Western and feminist theories.

INF X85T.9. Data Wrangling.

An introduction to working with data - reading a variety of formats, designing a database schema, and introductory programming skills for inserting, querying, and transforming of data.

INF X85U. Digital Media Collections.

Collection design, resource selection, description and organization, development of user access mechanisms. May include collection considerations in regards to various media, workflow and project management, audience analysis, and notions of authorship in the collection context.

INF X85V. Health Informatics.

Introduction to health informatics; includes fundamentals of information in biomedicine, nursing, public health, bioinformatics and genomics, electronic records, and integrated systems.

INF X85W. Security Informatics.

Explores information, computer, and network security in several contexts. Examines business impacts of security, societal implications of the protection of information resources, and technical aspects of securing information technology systems and data.

INF X86. Topics in the History of Information and Society.

Topics on the histories of information; libraries; archives; information science, technology, and businesses; conservation; and museums.

INF X86C. Archives, Records, and Preservation in the Modern World.

Progress of archival enterprise, records management, and preservation administration from the Renaissance to the present.

INF X86E. Topics in Information and Culture.

Examines information as a cultural phenomenon; may include e-commerce, privacy and secrecy, censorship, information as a commodity, Internet culture, access to cultural heritage, and control of the cultural record.

INF X86G. Gender, Technology, and Information.

Definitions of and metaphors for technologies; in-depth analysis of feminism and science and technologies studies, masculinities and technologies, women's underrepresentation in technology, reproductive and sexual technologies, domestic technologies, design and architecture, book clubs and reading, and gender and (information) articulation work.

INF X86H. Theory and Methods of Oral History.

Theories of oral history; practical methods for producing, recording, annotating, and searching oral and video histories; archival issues related to documentation of oral histories; use of oral histories in various scholarly fields.

INF X87. Topics in Administration.

Theory and practice in the design, behavior, evaluation, and administration of libraries and other information agencies and systems. Marketing of information organizations and resources. Administrative applications of technology.

INF X87.5. School Library Management I.

Designed for students pursuing Texas Education Agency (TEA) certification in school librarianship. Examine the philosophy, objectives, and management of the school library with an emphasis on standards and competencies, and the roles of the school librarian as collection curator, literacy leader, and program administrator.

INF X87.6. School Library Management II.

Designed for students pursuing Texas Education Agency (TEA) certification in school librarianship. Examine the philosophy, objectives, and management of the school library with an emphasis on the roles of the school librarian as an instructional partner and information specialist.

INF X87C. Managing Information Organizations.

Management theory, concepts, processes, and practices as applied to information agencies and systems.

INF X87E. Evaluating Information Programs.

Use of evaluation in support of decision making, setting priorities, allocating scarce resources, and improving programs. Students study how to conceptualize, design, implement, and report on evaluation in the context of working with a local client.

INF X87M. Information Marketing.

Examines the marketing of information agencies, systems, services, publications, and software and hardware products to consumers. Includes marketing research, planning, user studies, product development, communication, pricing and distribution for profit and nonprofit organizations.

INF X87T. Information Technology and Work.
Examines the role information technology plays in modern work. Case studies of historical and modern examples of technology implementation and work transformation. Includes qualitative techniques, such as interviewing and observing, for data collection; data analysis; and presentation of data.

INF X88D. Planning and Management of Programs for Children and Young Adults.
Designing and planning effective services and programs for children and young adults: technologies, information need analysis, and trends.

INF X88E. Historical Museums: Context and Practice.
The process of exhibit creation in historical museums, from planning through development to opening and maintenance, as a negotiation among stakeholders for influence on the story that is told. Students visit local historical museums and examine how presentations are influenced by the institutional position of the museum, including its history and resources; the concerns of museum employees; the influence of the audience and of those who are directly affected or represented by an exhibit; and the role of contractual professionals.

INF X88K. Topics in Organizational Environments.
Mission, goals, and objectives of specific information settings.

INF X88K.1. Public Libraries.
History, missions, values, governance, funding, services, user communities, architecture, leadership, and issues in public librarianship.

INF X88K.2. Academic Libraries.
The relationship of academic library management to trends in postsecondary education, to the institution the library serves, and to the research community at large.

INF X88K.3. Special Libraries.
Development and management of special libraries and information centers.

INF X88K.5. Rare Book and Special Collections.
Administration of rare book and manuscript collections. Introduction to analytical bibliography.

INF X88K.6. Law Libraries.
Overview of law librarianship, the discipline of law, and the culture of the legal environment, including the context in which law librarians, legal publishers, and other legal information professionals work.

INF X88L. Professional Experience and Project.
Study of a practical problem, current phenomenon, or professional issue in an institutional setting.

INF X88R. Practicum in School Libraries.
Designed for students pursuing Texas Education Agency (TEA) certification in school librarianship. Fieldwork in varied school library settings under the supervision of qualified personnel.

INF X88T. Internship in Libraries and Other Information Agencies.
Supervised fieldwork.

INF X89C. Archival and Records Enterprise.
Theory and practice of archival administration and records management. Problems in acquiring, organizing, and providing for use of archives and office records; issues in deterioration and care of paper, books, photographic material, magnetic records, and other media through preservation programs for libraries and archives.

INF X89E. Introduction to Records Management.
Systems for controlling recorded information in an organizational setting.

INF X89G. Introduction to Electronic and Digital Records.
Examines personal recordkeeping and information management to explore the creation, management, and preservation of digital information. Includes current developments in digital technology that affect recordkeeping.

INF X89J. Appraisal and Selection of Records.
Investigates the history, theory, and practice of selecting and appraising records information for permanent or quasi-permanent retention in an archival environment. Explores influences of other stakeholders on the selection and appraising process.

INF X89K. Life Cycle Metadata for Digital Objects.
Constructing the "metadata continuum" in order to understand how metadata may function as an authenticating wrapper for an electronic record. Analysis of the elements of the continuum, including records surveys and inventories, creation metadata, active management metadata, records schedules, accession records, cataloging and description metadata, maintenance records, and usage records.

INF X89M. Introduction to Issues in Records Information.
Exploration of the fundamentals of records information and their role in society.

INF X89N. Topics in Archival Enterprise: Seminar.
Theory and practice of archival administration and records management. Problems in acquiring, organizing, preserving, and providing for use of administrative and collected archives.

INF X89R. Introduction to Archival Enterprise I.
Introduction to the records aspect of archival enterprise, from acquisition to use, with emphasis on arrangement and description.

INF X89S. Introduction to Archival Enterprise II.
Administrative and professional issues, including organizing the work of a repository, management issues, marketing, space, law, and ethics.

INF X90C. Copyright: Legal and Cultural Perspectives.
Digital and other important communication technologies; how copyright in the United States developed and has evolved; and copyright seen from a number of disciplinary points of view, such as legal studies, cultural history, and public policy. Other subjects may include the cultural commons; natural rights arguments for copyright versus social bargain and statutory arguments; identifying and protecting the public interest in information; the law of copyright and cultural categories such as the author, the work, intellectual property, and creation; and important federal court cases.

INF X90N. Topics in Information Policy.
Critical examination of conflicts and trends in information policy in private organizations and in federal, state, and international public-sector organizations.

INF X90N.1. Federal Information Policy.
Exploration of major information-policy conflicts around topics such as privacy, surveillance, and freedom of information; in-depth analysis of the implications of digital technologies in the post-9/11 United States. Designed to help students develop skill in policy analysis as a research method and familiarity with many kinds of sources of information about federal information policy.

INF X90N.2. Seminar in Information Policy.
Analysis of issues and trends in information policy in various environments.

INF X90P. Topics in Privacy.
Policy, value systems, and critical theory regarding privacy, studied from historical, sociological, feminist, or other perspectives.

INF X91D. Topics in Doctoral Inquiry in Information Studies.
Topics in the theoretical, methodological, and practical aspects of information studies.

INF X91D.10. Survey of Information Studies.
An overview of the major ideas, concepts, and theories of information studies.

INF X91D.11. The Research Enterprise.
An overview of the nature and purposes of research, and common methods and methodologies in information studies.

INF X91D.12. Disciplinary Foundations for Information Studies.
An overview of concepts, results, and perspectives from philosophical, social science, humanistic, design, and technological disciplines that provide important underpinnings for information studies.

INF X91D.8. Introduction to Doctoral Research and Theory I.
Foundations of inquiry in the humanities, social sciences, and natural sciences, and a review of theories and methods of inquiry in information studies in particular.

INF X91D.9. Doctoral Research and Theory II.
Epistemological concepts and processes of theory generation and testing in information studies, with special attention to research methods and specific problems of interest to the student.

INF X91E. Advanced Topics in Information Studies.

INF X91F. Advanced Topics in Research Methods, Methodologies, and Design.

INF X91G. Doctoral Writing Seminar.
Intensive writing, critique, and rewriting to assist senior doctoral students with refining their research writing in preparation for qualifying papers, dissertation proposals, and formal publications.

INF X91R. Directed Readings.

INF X91S. Directed Research.

INF X92C. Preservation Administration and Services.
Theory and practice of preservation administration and services. Problems in planning, organizing, and implementing preservation work in libraries, archives, and museums.

INF X92D. Preservation Basics.
Fundamental issues and problem solving in the preservation of cultural heritage collections in libraries and archives. Topics include the development and ethics of preservation and conservation, types and causes of deterioration, preventive care and stabilization, monitoring and controlling interior environments, reformatting, and performing preservation-needs assessments.

INF X92E. Materials in Libraries, Archives, and Museums.
Underlying factors in the physical nature of materials; concepts of permanence, durability, and deterioration; challenges of both traditional and modern collections; emphasis on print and photographic collections.

INF X92F. Risk Assessment and Collections Management.
Agents of deterioration, including physical forces, security, disaster, and environmental conditions; risk assessment, strategies to reduce risk, and personal safety.

INF X92G. Management of Preservation Programs.
Management of specific preservation strategies for cultural record; preservation policy; the selection process for preservation; minor mending and repair operations; library binding and conservation treatment; preservation assessments; emergency preparedness; contracting for services; and budgeting, grant writing, and fund- raising for preservation.

INF X92H. Creating Sustainable Digital Collections.
Hands-on activities that focus on building sustainable collections of digitized resources. Designed to help students gain curatorial understanding of the media to be digitized and knowledge of and experience with the technical and managerial aspects of the digitization process. Includes creation of metadata and digital preservation strategies for long-term access.

INF X92K. Digital Archiving and Preservation.
Examines the permanent archiving of digital information. Covers media refreshment, emulation, migration, and electronic records repository construction and administration. Case study projects involving campus repositories and off-campus institutions. Students use legacy hardware and software and digital forensics tools to preprocess digital collections for repository storage. Also explores issues in long-term electronic records preservation.

INF X92L. Introduction to Audio Preservation and Reformatting.
Study of audio recording through a chronological examination of the development of recording; basic care and preservation of recordings; economics of audio preservation; and stability concerns of modern media.

INF X92M. Advanced Audio Preservation and Reformatting.
Exploration of changing concepts in the nature of audio information in different formats, issues of access within the context of preservation, criteria for prioritization of materials to be reformatted, considerations in invasive versus minimal restoration, and study of rare formats.

INF X92P. The Politics of Preservation.
Introduction to the components of the media industries, using the available literature as well as the University's film and video resources. The course employs both a theoretical and a practical approach to the archival media product. Debate over defining historical media material as artifact complements discussion of the realities of digitization and physical deterioration.

INF X93C. Topics in Conservation Laboratory Techniques.
Analysis, housing, and treatment of physical objects.

INF X93C.10. Treatment Techniques for Flat Paper.
Basic techniques for care and handling of paper materials including but not limited to mending, dry cleaning, humidification and flattening, exhibit design and installation, enclosures, and documentation.

INF X93C.11. Treatment Techniques for Bound Materials.
Basic techniques for care and handling of bound materials including but not limited to sewing structure, minor mends, and enclosures.

INF X93C.8. Conservation Science I.
Introduction to the physical and chemical properties of materials used in fabrication; and identification and repair of books, photographs, manuscripts, and related objects.

INF X93C.9. Conservation Science II.
Advanced exploration of the physical and chemical properties of materials used in fabrication; and identification and repair of books, photographs, manuscripts, and related objects. Includes a research investigation of a typical conservation problem.

INF X97. Topics in Information Studies Research.
Methods and subjects of research in information studies.

INF X97.1. Bibliography and Methods in Historical Research.
Sources of information for, and techniques of conducting, investigations in history.

INF X97.2. Practicum in Research.

INF X97.3. Digital Libraries Research.
Exploration of theoretical and practical research on creating digital collections and making them available.

INF X97.4. Seeking Funding for Information Studies.
Designed to help students gain an understanding of and hands-on experience with the pursuit of funding for information studies. Students investigate possible funding sources, and develop at least one grant or contract application.

INF X97C. Understanding Research.
Survey of the goals, methods, processes, and products of systematic inquiry. Designed to prepare students to critically evaluate information studies research.

INF X97D. Bibliography and Methods in Historical Research.
Sources of information for and techniques of conducting investigations in history.

INF X98. Thesis.

INF X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

INF X98T. Supervised Teaching in Information Studies.
Teaching strategies for course design, syllabus creation, material development, classroom activities, student engagement, and grading. Additional subjects may include negotiation of course load and timing, course marketing, TA management, online teaching, and doctoral teaching/advising.

INF X99W. Dissertation.

Professional Courses

IRG - International Relations and Global Studies

International Relations and Global Studies: IRG

Lower-Division Courses

IRG X01. Introduction to International Relations and Global Studies.

IRG X19S. Topics in International Relations and Global Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

IRG X20F. Foundations of International Relations and Global Studies.

Survey of contemporary debates related to international relations and global studies.

IRG X29S. Topics in International Relations and Global Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

IRG X50M. Research Methods in International Relations and Global Studies.

Introduction to social research methods and how disciplines in the liberal arts use these methods to assess contemporary global challenges.

IRG X78. Capstone Research in International Relations and Global Studies.

IRG X78H. Honors Tutorial Course.

Supervised individual research on an international relations and global studies topic.

Graduate Courses

Professional Courses

ISP - Information Security and Privacy

Information Security and Privacy: ISP

Lower-Division Courses

Upper-Division Courses

Graduate Courses

ISP X80. Introduction to Information Security and Privacy.

Explore foundational concepts of information security and privacy, including information value, classifications, threats, liabilities and risk management, identity and access controls (IAM), trust frameworks, technology for network, web, software and cloud security; and privacy laws and regulations.

ISP X81. Information and Privacy in Society.

Examine how information is socially and culturally variable and fluid, changing throughout history and differing from place to place. Explore the anthropological study of information; societal norms; and individual, device, communal, and organizational information strategies.

ISP X82D. Data Governance for Information Security and Privacy.

Examine theory and practical applications of data and artificial intelligence governance related to information security, privacy, compliance, and ethics. Explore optimization of technical and human dimensions for information risk management. Explore pervasive and emerging risks, risk assessments of data architectures and analytics, and regulations, controls, and governance to protect and safeguard information assets.

ISP X82P. Public Policy and Law Governing Information Security and Privacy.

Examine established and emerging laws and public policy related to information security and privacy. Examine different classes of protected information and case studies documenting compliance and violation of legal and public policy protections. Explore legal requirements, corporate responsibilities and social responsibilities as they pertain to data protection and the prevention of different types of fraud and information crimes.

ISP X83. Business Governance and Controls for Information Security and Privacy.

Explore an organizational perspective on the management and governance of information. Examine business practices and governance mechanisms for minimizing risks and maximizing returns of information.

ISP X84. Strategic Communication for Information Security and Privacy.

Explore framing messages and the impact on people, organizations, risks and privacy; effective crisis management communications; communication and business continuity planning; time management; sense making processes in organizational crisis; and reputation management.

ISP X85. Information Risk and Benefit Analysis.

Explore and evaluate the risks and benefits related to information in multiple sectors including financial services, healthcare, consumer services, government, education, and energy.

ISP X85T. Topics in Information Security and Privacy.

Study the characteristics of information and the technologies, stakeholders, and questions involved in managing, protecting, and securing information.

ISP X86. Information Security.

Explore the enrollment and authentication for cyber and physical access and transactions, cryptography, biometrics, device identity security, and security culture.

ISP X87. Information Management and Repositories.

Explore knowledge and data management, storage, and mining. Examine information representation and algorithms. Discuss information security and privacy applications in all market sectors for enrollment, authentication, operational use, fraud detection, and fraud prevention.

ISP X88L. Professional Experience and Project.

Study practical problems, current phenomenon, or professional issues in an institutional setting.

ISP X89. Individual Studies.

In-depth study of a problem or subject related to information security and privacy.

ISP X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

Professional Courses

ITC - Italian Civilization

Italian Civilization: ITC

Lower-Division Courses

ITC X19S. Topics in Italian Civilization.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study

Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

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Upper-Division Courses

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ITC X30. Topics in Italian Studies.

ITC X35. Rome Sets the Stage.

ITC X35R. Italian Resistance Mediated.

Explore Italian modes of resistance and their representations in a variety of media.

ITC X36. Vamps, Stars, and The Diva.

Examine French and Italian films through the lens of stardom.

ITC X36E. Elena Ferrante: Politics and Passion.

ITC X37. Italian Masterpieces.

Study of representative texts in visual arts, film, literature, and opera, from the Renaissance to the present, in their historical context.

ITC X38. Italian Television Advertising.

Analysis of Italian television commercials in order to identify changes that have taken place at the level of language, with some attention to socio-cultural dynamics.

ITC X39. Italian Cinema.

ITC X40. Sicily: Cultures and Conquest.

Examine Sicily from the earliest prehistoric settlements to its first Norman king, with a focus on questions of change, recurrence, and continuity as viewed within the dual frames of archaeology and history.

ITC X47. American Dante.

Examine the influence of the Italian poet Dante on American culture from the nineteenth century to the present.

ITC X47R. Race and Migration: The Mediterranean.

Examine the history of migration within and from the Mediterranean area.

ITC X48. Dante.

Graduate Courses

ITC X19S. Topics in Italian Civilization.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

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ITD - Integrated Design

Integrated Design: ITD

Lower-Division Courses

ITD X01. Introduction to Integrated Design.

Introduction to the concepts, mindsets, and methods of design thinking as a fundamental skill for all disciplines.

ITD X01D. Introduction to Design Thinking.

Introduces design thinking and design methods, with a focus on design process.

ITD X02. Sketching for Thinking and Communication.

Discussion of sketching as the fastest way to convey ideas, both in an ideation session or taking notes in a meeting. Explores the basic elements of sketching to visualize concepts and quickly bring alignment to any team.

ITD X04. Design in Business.

Introduction to the role that business plays in the design industry. Designed to help students learn business principles to enhance problem solving skills.

ITD X06. Presentation and Improvisational Skills in Design Thinking.

Focus on presentation skills and improvisational/impromptu speaking skills in meetings.

ITD X07C. Everyday Design.

Explore the influence of design in daily life, its impact on society, and how design disciplines shape the world through purposeful choices and creative practices.

ITD X10. Topics in Integrated Design.

Studies within integrated design.

ITD X10T. Topics in Innovative Design.

Exploration of topics in innovative design.

ITD X11. Intro to Design for Artificial Intelligence.

Introduction to exploring design as a problem-solving tool for real-world scenarios posed from artificial intelligence and robotics.

ITD X12. Introduction to Design for Health.

Introduction to how design is playing a role in the changing healthcare industry.

ITD X19G. Storytelling in Design.
Examine the role of storytelling in the user-centered design process and explore the principles that drive influential stories.
ITD X19S. Topics in Integrated Design.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Design. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ITD X20. Advanced Design for Artificial Intelligence.
Advanced exploration of real-world scenarios posed from artificial intelligence and robotics. In-depth study of designing and solving problems for artificial intelligence.
ITD X25. Topics in Artificial Intelligence Design.
Studies within design and artificial intelligence.
ITD X29S. Topics in Integrated Design.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Design. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ITD X30T. Topics in Innovative Design.
Explore innovative topics in design.
ITD X50. Advanced Topics in Integrated Design.
Advanced studies in integrated design.
ITD X50D. Business of Design.
Designed to help students form an advanced understanding of the role that business plays in the design industry and the operational components necessary to be successful in the design industry.
ITD X50T. Topics in Advanced Innovative Design.
Exploration of topics in advanced innovative design.
ITD X60. Perspectives in Design.
Explore unique perspectives in design.
ITD X65. Applied Ethnographic Research in Design.
Focus on how to create actionable insights using ethnographic research.
ITD X70. Topics in Off-Site Field Studios.
Project-based work with off-campus industry studio partners. Professional experience solving real-world problems including, but not limited to, commissioned projects, student-initiated projects, and pro bono projects.
ITD X75. Capstone in Integrated Design.
Multidisciplinary groups of students research an integrated design problem and propose and prototype an appropriate solution, guided by feedback from supervising instructor(s).

Graduate Courses

ITD X80. Design Thinking.
Explores the concepts of design thinking and human-centered design methods, with a focus on design process and problem solving.
ITD X85. Topics in Integrated Design.
Graduate studies within integrated design.
ITD X86. Topics in Integrated Design Studio.
Project-based studio graduate work within integrated design.
ITD X90. Design for Health.
Exploration of creative design-based approaches and problem-solving methods and their application to solving contemporary health care challenges.
ITD X91. Health Design Seminar.
Design techniques, case studies, and team critiques. Seminar component of Integrated Design 692.
ITD X92. Health Design Lab.
Team-based, project-focused application of the principles of design to real-world health and wellness challenges. Lab component of Integrated Design 291.
ITD X95. Topics in Health Design.
Graduate studies within health design.
ITD X96. Topics in Health Design Studio.

Professional Courses

ITL - Italian

Italian: ITL

Lower-Division Courses

ITL X01C. Beginning Italian.
An intensive beginning course with an emphasis on basic skills: listening, speaking, reading, and writing.
ITL X04. Accelerated First-Year Italian.
Designed for students of high motivation. A six-hour course comparable to Italian 506 and 507.
ITL X05. Introduction to Italian Language and Culture.
An introductory course in Italian language and culture taught in Castiglion-Fiorentino, Italy.
ITL X11C. Intermediate Italian.
An intensive intermediate course with an emphasis on basic skills: listening, speaking, reading, and writing. Does not meet the prerequisite requirements for Italian 328, 326K, or 326L.
ITL X12. Accelerated Second-Year Italian.
Comparable to Italian 312K and 312L combined. Intensive work in writing, reading, and speaking at the second-year level.
ITL X17C. Enhancing Italian Skills.
Listening, speaking, reading, and writing course designed to provide students who have credit for Italian 611C with additional preparation for upper-division Italian courses.
ITL X18K. Practice in Spoken Italian I.
Designed to be taken concurrently with Italian 312K.
ITL X18L. Practice in Spoken Italian II.
Designed to be taken concurrently with Italian 312L.
ITL X19S. Topics in Italian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ITL X29S. Topics in Italian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ITL X19S. Topics in Italian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ITL X20. Advanced Italian.
Designed to develop the listening, speaking, reading, and writing skills needed for the analysis of literary and cultural readings in Italian.

ITL X21. Introduction to Italian Literature.
Reading and analysis of literature, literary criticism, textual analysis.
ITL X22L. Tradition and Change in Contemporary Italy.
An analysis of Italy's trends and of conflicting values in its political, economic, and social development.
ITL X25C. Italian Through Cinema.
Designed to enrich knowledge of Italian language and culture through screening and discussion of Italian films.
ITL X26C. Italian through Creative Writing.
Develop knowledge of Italian lexicon and its grammar through creative writing practice.
ITL X27C. Italian through Cuisine.
Refine reading, writing, speaking, and listening skills in Italian through the context of gastronomy.
ITL X28. Composition and Conversation.
Focuses on idioms, grammar, syntax, and style.
ITL X29. Advanced Composition and Conversation.
Advanced work in writing and speech, based on current events and contemporary readings.
ITL X29S. Topics in Italian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ITL X30. Topics in Italian Studies.
Analysis of Italian culture. Texts include literature, film, popular culture, and other forms.
ITL X30C. The Language of Italian Crime Fiction.
Analyze Italian language and culture as reflected in the crime fiction genre studies through literature, film, popular culture, and other forms.
ITL X30D. Italian across Disciplines.
Students read and discuss Italian language materials related to the subject matter of another designated course.
ITL X30L. Introduction to Italian Linguistics.
Examine fundamental aspects of the Italian language including its structure as well as geographical, socio-cultural and communicative variation.
ITL X32. Italian Translation Workshop.
Focuses on the practical aspects of translation as a means to expand students' resources by practicing and improving grammar, style and lexicon.
ITL X46. Italian Politics.
Explore the Italian language, culture, and society through the examination of Italy's political system and the organization of the Italian government.
ITL X47. Italian Popular Cinema.
Analysis of Italian genre films (melodrama, comedy, horror, western, action), in their cultural and historical contexts.
ITL X48. Italian Drama Workshop.
Intensive analysis of one or several plays or short literary texts, with emphasis on diction, delivery of lines, and acting and staging.
ITL X49P. Italian Internship.
ITL X58Q. Supervised Research.
ITL X65. Conference Course in Italian Language and Literature.
Course content varies according to needs of students; designed to fill in gaps and give students a good overall picture of the development of Italian literature.
ITL X75C. The Antihero in the Twentieth-Century Italian Novel.
Explore the crisis of certainties at the turn of the last century and the end of the role of the hero, through the examination of major Italian novels.
ITL X75F. Writing Fascism: Writing the Resistance.
Examine major novels dealing with the Italian narrative on World War II and the resistance.
ITL X75N. Neorealism and its Legacy.
Analyze the legacy of neorealism in Italian literature and cinema from approximately the late 1940s to the early 1950s.
ITL X75S. Sicily in Literature and Film.
Examine Sicilian culture through novels and films.
ITL X79H. Honors Tutorial Course.
Supervised individual research on a literary, linguistic, or cultural topic, and writing and defense of a thesis under the direction of a committee of two faculty members.

Graduate Courses

ITL X19S. Topics in Italian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ITL X29S. Topics in Italian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ITL X80C. Italian for Graduate Students in Other Departments.
Intensive reading course, emphasizing basic grammar and vocabulary with translation practice.
ITL X80L. History of the Italian Language.
Survey of the development of Italian from spoken Latin to the present day.
ITL X80P. Introduction to Studies in Literature and Culture.
Proseminar in methods of study and research in Italian Studies.
ITL X80W. Doctoral Writing Workshop.
Acquire the crucial skills for writing a cogent prospectus, dissertation, or article, and complete the prospectus, dissertation chapter, or article.
ITL X81. Topics in Readings in Italian Literature.
Intensive study of a period or a major writer.
ITL X82. Topics in Italian Studies.
Study of various aspects and periods of Italian culture and society.
ITL X83K. Studies in Italian Language.
Synchronic approach to the modern Italian language: phonology, morphology, syntax, lexicology, stylistics.
ITL X85L. Conference Course in Italian Language and Literature.
For students needing specialized courses not normally or not often included in the regular course offerings.
ITL X85T. Graduate Teaching Practicum.
Engage in mentorship and pedagogical training by working one-on-one with a faculty member to develop and design an undergraduate, upper-division level course in an area of specialization.
ITL X90K. Topics in Italian Literature through the Renaissance.
Intensive study of a particular writer, school, or literary movement.
ITL X90L. Topics in Italian Literature since the Renaissance.
Intensive study of a particular writer, school, or literary movement.
ITL X95L. Comprehensive Examination Preparation.
Supervised preparation for the comprehensive examination for the doctoral degree.

ITL X96K. Topics in Comparative Romance Linguistics.
General survey of the development of spoken Latin in Italy, Spain, Portugal, and France; main traits of phonology, morphology, and syntax in each modern derivative language.

ITL X96K.1. Introduction to Romance Linguistics.

ITL X98. Thesis.

ITL X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

ITL X98T. Supervised Teaching in Italian.
Practical exercises in second-language instruction and closely supervised classroom teaching, supported by theoretical studies of second-language learning.

ITL X99W. Dissertation.

Professional Courses

ITL X19S. Topics in Italian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ITL X29S. Topics in Italian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

J - Journalism

Journalism: J

Lower-Division Courses

J X01F. Fundamental Issues in Journalism.
Examination of major issues facing the news media in a democratic society and the exploration of digital technology on the future of news gathering, including ethics, institutions, effects, and standards of journalistic performance.

J X02F. Digital Storytelling Basics.
Explores the mindsets and skill sets of digital journalism. Covers subjects like: how technology helps journalists do their jobs; how traditional journalistic values and ethics relate to the digital world; how to explore new trends in journalism; how to report and tell stories in multiple ways; and how to be comfortable with analyzing and engaging online audiences.

J X04F. The Journalist Voice.
Introduction to best practices on writing with a clear, concise, and organized style for a variety of platforms while learning and following ethical standards.

J X05. Sustainability and the News.
Explore covering issues like sustainability and climate change when many people are not convinced by science and facts -- even within the media. Examine navigating news about saving the planet.

J X08C. Sports, Media, and Society.
An examination of historical and contemporary issues regarding the sporting world's interaction with media production, including journalism, talk radio and social media.

J X08D. Data, Privacy, and You.
Explores approaches to understanding what some have termed 'datafication'. Covers literacy of these types of data as well as the ways in which these data are transmitted, stored, compiled, aggregated, analyzed, and used in predictive analytics. Examines privacy aspects in terms of the increased blurring between the private and public in spaces such as social media and explores the implication of this on news production and consumption.

J X08F. Analyzing Media Bias.
Critical analysis of the ways news is presented, misrepresented and critiqued, with an emphasis on perceived bias in the news media.

J X08J. Becoming Citizen Journalists.
Covers the basics of journalism for students who are interested in sharing truthful stories to a public audience, but do not intend to pursue a career in the profession. Uses digital and social media tools. Explores three subjects: how to find and gather the best factual information, how to present it in clear and engaging ways, and how to make ethical decisions that serve the needs of the audience and democracy.

J X08L. Media and News Literacy.
Analyze the information, values, and underlying messages conveyed via media. Examine the accuracy of those messages and explore how media shapes views of politics, culture and society.

J X08M. Society, Media, and Identity.
An analysis of how U.S. media - especially the news industry, film, television and social media - influence culture, and vice versa. Uses readings and observation to recognize that the stories media tell influence identities such as race, ethnicity, gender, religion and sexual orientation.

J X08N. Computer Concepts and Internet Technologies.
An introduction to the scope, significance, history, and social implications of data processing on systems and networks. Examine programming languages, elements of a software system, databases, computer networks, and Internet security. Explore hardware concepts including number systems, data representation, central processor, storage, input/output, and system configurations.

J X08S. Introduction to Media Studies.
Examine the historical, cultural, political, economic, and international characteristics of journalism, film, television, digital media, and other media in society.

J X08T. Topics in Journalism.
Contemporary social, political, and intellectual concerns in the practice of journalism and media.

J X10F. Reporting: Words.
Reporting, writing, and editing skills for print, online, mobile, and broadcast.

J X10K. Visual Literacy.
Introduction to the visual concerns of message design and interpretation, including their bases in theories of visual perception, semiotics, and media practice.

J X11F. Reporting: Images.
Video and images for web and broadcast, including design principles, visual perception, typography, manipulation of images, and photographs.

J X13P. Multimedia News Reporting.
Skills-based introduction to journalistic forms of news gathering and writing. Gaining the tools for journalism storytelling.

J X13S. Topics in Texas Sports and Media.
Introduction to various contemporary and historical issues, emphasizing interdisciplinary perspectives and critical discourse.

J X15R. Contemporary Representation in Media.
An examination of how underrepresented and marginalized groups are portrayed in the news media.

J X17. Journalism Practices.
Introduction to writing skills for the media, including readability, clarity, verification, and style.

J X18P. Podcasting.
Examination and practice of writing and reporting news for audio broadcasts, including podcasts.

J X19I. Topics in International Learning Seminars.
Discuss various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.

J X19S. Topics in Journalism.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Journalism. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

J X29S. Topics in Journalism.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Journalism. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

J X19S. Topics in Journalism.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Journalism. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

J X20F. Covering Law Enforcement and Courts.
Specialized reporting, research, and writing skills for investigating and covering incidents and issues occurring in law enforcement, public safety, and criminal justice.

J X20G. Internship Practices.
Internships to be arranged by student and approved by instructor.

J X21F. Reporting on City and County Government.
Basic beat reporting skills to navigate city and county governments, and conducting reporting, research, and writing on issues and people at the local level.

J X22E. Reporting on Elections.
Examine election reporting through instruction and supervised fieldwork. Explore candidate identification and monitoring, campaign coverage, misinformation verification, issues of social justice and election access, and communicating complex political issues to lay audiences.

J X22F. Navigating State Government.
Training and instruction in specialized reporting, research, and writing skills as applicable to covering state governments. Analysis of enduring issues and politics at the state level. Fieldwork at the Texas Capitol and state agencies.

J X22J. Reporting Social Justice.
Explore how to cover such social justice issues as poverty, inequality and disenfranchisement and the skills needed to research, report and write on people in underrepresented communities.

J X22P. Reporting Public Issues.
Specialized reporting, research and writing skills for covering government institutions and public policies.

J X23C. Reporting California and Texas.
Explore reporting from California and Texas to produce content that bridges both states.

J X23F. Education Reporting.
Covering school districts and higher education to produce stories that humanize the bureaucracy of public education and compellingly depict issues, structures, and policies.

J X23N. Reporting New York and Texas.
Explore reporting from New York and Texas to produce content that bridges both states.

J X23R. Regional Reporting.
Explore reporting from Texas and the southern region of Texas, in addition to Austin, to produce content connecting to a wider scope of communities.

J X24C. Reporting Consumer News.
Emphasizes writing and reporting for consumers, finding and honing stories that help people thrive. Practice in writing creative, relevant and vivid descriptions that tell an engaging story. Analysis of community perspective, public sourcing, what's possible, and interdependent dramatic arc. Uses journalistic skills to reward an audience, adapt to a community, and push the envelope.

J X24F. Business and Financial Reporting.
Instruction in how to conceptualize, source, and prepare news reports on global financial markets, commercial transactions, and company performance. The course is global, with the United States a subset of the material covered. Hands-on course during which students produce multiple news packages for publication.

J X25C. Reporting Health Care.
Explore production of multi-media stories to inform local, state, and national audiences about the health care system in the United States. Consider health care policy at all levels of government, and private and public systems of health care. Examine how to investigate, report and publish on this complex issue.

J X25F. Covering Politics.
Specialized research, reporting, and writing skills to cover politics, elections, and candidates.

J X25J. Community Journalism.
Explore reporting on communities and neighborhoods and the issues that affect them.

J X25S. Solutions Journalism.
Explore the production of news content focusing on solutions to public issues.

J X26C. Introduction to Coding for Journalists.
Learn basic coding skills and develop best practices used in digital newsrooms to create data-driven online presentations.

J X26F. Reporting Sports.
Contemporary professional skills and techniques in sports journalism.

J X26S. Advanced Topics in Texas Sports and Media.
Critical assessment of various contemporary and historical issues, emphasizing interdisciplinary perspectives.

J X27D. Reporting With Data.
An investigation of the basics of computer-assisted reporting. Subjects include finding compelling data sets; cleaning and analyzing the contents; using data visualization and simple statistical models to accurately report based on the data; and presenting results through stories, charts and maps.

J X28D. Advanced Reporting with Data.
Explore advanced data-assisted reporting techniques through use of databases, scripted analysis, and visualizations.

J X28L. Reporting Latino/a Communities.
Examine how Latino/a communities are represented in the media. Explore production of news stories about various aspects of the Latino/a experience at the national, state, and local levels.

J X28S. Reporting en Espanol.
Spanish-language news in the U.S. offers important possibilities for public service journalism. Production of multimedia news stories in Spanish for a local audience. Discusses issues facing the local Latino population from the international, to national, to state and local levels. Includes weekly pitch meetings, rewrites, photography and digital storytelling. Students must be fluent in Spanish.

J X29F. Interdisciplinary Business Reporting.
Explore an in-depth, interdisciplinary approach to covering budgets and funding, whether in the private or public sector, by integrating business expertise and journalistic reporting.

J X29S. Topics in Journalism.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Journalism. University credit is awarded for work in an

exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

J X29T. Topics in Public Affairs Reporting.
Contemporary social, professional, and intellectual concerns in the practice of public affairs reporting.

J X30C. Television Reporting.
Write, shoot, and edit for broadcast news as part of a weekly Reporting Texas TV newscast.

J X30G. Creative Nonfiction for Magazines and Books.
Report and write for narrative nonfiction projects, including producing magazine articles, documentary films, and podcasts.

J X30J. Advanced Photo Editing and Design.
Explores intensive photographic reportage and documentation using the camera as a tool of investigation and interaction. Emphasis on creation of photo stories, photo essays, and feature stories, with editing and page layout.

J X30L. Community Life: Documented.
Explores video filmmaking in a multicultural, diverse city. Emphasis on learning the steps of producing a short documentary with a small group of students, then posting the final films on personal portfolio websites.

J X30M. True Crime Podcasts.
Analyze true crime podcasts, with an ear for ethical concerns, sensitivity, storytelling prowess, and more.

J X30P. Editing Techniques.
Edit professional writing, provide constructive feedback, and elevate content on digital platforms.

J X30S. International Solutions Journalism.
Examine how solutions journalism covers public and governmental issues outside the United States.

J X31. Web Publishing.
Focus on in-depth understanding of the web platform and its applicability to various types of content across multiple devices. Examination of web usage by individuals and organizations with the need for a digital presence. Experience the web publishing process, including planning, production, tracking, and marketing. Exposure to HTML coding, design, content management systems, web analytics, and digital advertising.

J X31D. Intermediate Photographic Communication.
Intermediate level photograph skills and techniques. Evaluation of recent trends, visual design, and use of images in the media. Students must provide their own digital 35-mm format camera.

J X31G. Audio Storytelling.
Focus on broadcast writing for the ear and includes the production of NPR-style radio stories and the creation of original podcasts.

J X31J. Studio Photography.
An investigation of the principles of studio lighting, theory and practice of contemporary color, location lighting, and production of portfolio-quality work, as applicable to advertising, photographic illustration, and photojournalism.

J X31M. Media Innovation and Entrepreneurship.
Learn how the digital revolution has disrupted the media industry, creating opportunities for entrepreneurial, innovative initiatives. Study cases of successful media startups, and develop a startup project, using digital technologies and human-centered design.

J X31N. Digital Production and Analytics.
Examine the digital publishing process, including planning, production, tracking, and marketing.

J X31W. Web Editing and Production.
Examine the skills needed to produce and maintain a website, including understanding of content management systems and search engine optimization.

J X32D. Web Production and Editing.
How to plan, edit, package and publish multimedia news. Includes ethical news curation; use of social media to drive audience growth; and leveraging web content into the print product.

J X32G. Explanatory Journalism: Storytelling in a Digital Age.
Examination of the evolution of long-form explanatory storytelling from print and film to new forms of Web-based and interactive storytelling.

J X32I. The Interview Process.
Explore the methodology of inquiry as a foundational but specialized form of reporting that requires advanced preparation, keen listening, and adaptability.

J X32J. Sports for Reporting Texas.
Students work as sports reporters for the School of Journalism's Reporting Texas Web site.

J X32P. Images in Culture.
Explore the production of images related to entertainment and pop culture.

J X32S. Sport Commentary.
Examine the skills needed to produce well-reported and artfully crafted columns, commentary, and analyses about sports on and off the field, no matter the platform.

J X33G. Advanced Visual Journalism: Photo.
Explores intensive photographic reportage and documentation using the camera as a tool of investigation and interaction. Emphasis on creation of photo stories, photo essays, and feature stories, with editing and page layout.

J X33J. Photography for Reporting Texas.
Students work as photographers for the School of Journalism's Reporting Texas Web site.

J X33L. Video Production for Live Events.
Examine the basics of shooting and editing live events.

J X33P. Podcast Scripting.
Write descriptive scenes and push forward a journalistic narrative in the podcasting space.

J X33S. Video Production for News and Sports.
Examine the basics of shooting and editing events, including live sports, news, and entertainment.

J X34. Multimedia Journalism.
Review of online reporting techniques, advanced multimedia skills, and current issues in new media.

J X34F. Oral History as Journalism.
Instruction in the use of oral history to generate journalistic coverage. Modules include concepts and methods of gathering oral history; illustration of the techniques using the Vietnam War as a topic; and generating oral history-based coverage focusing on the Mexican American experience.

J X34G. Advanced Visual Journalism: Video.
Explores intensive video reportage and documentation using the camera as a tool of investigation and interaction. Emphasis on creation of video news and feature stories.

J X34I. Immersive Sound Design.
Create a soundscape through music, interviews, natural sounds for podcasts, and other audio stories.

J X34J. Web Publishing for Journalism.
Provides students with an up-to-date understanding of the Web publishing process, including conceptualization, production, and marketing.

J X34K. Interviewing For Historical Context.
Examine methods for recording interviews that become high-quality archival recordings for multiple platforms. Explore concepts and methods of power dynamics in an interview, asking evocative questions, preparation, and technical considerations.

J X34N. Oral History in Multimedia Storytelling.
Instruction in using oral history to generate archival material and short-term multimedia stories. Covers concepts and methods of gathering oral history with an emphasis on interviewing techniques. Centers on U.S. Latinos and ways to build a multimedia representation of the interview. Includes one major interview trip, generally out of town.

J X34P. Podcast Production.
Analyze current podcasts. Create and produce two segments of an original podcast.

J X34S. Place and Audio Storytelling.
Learning how to find the essence of a specific location and tell its story. Audio recording/editing, infographics, and photographs will be the tools used.

J X34V. Integrated Video Production.
Examine video storytelling that integrates practices found in different areas of communication and platforms.

J X35. Narrative Journalism.
Explore techniques for reporting non-fiction stories with the tools of fiction, including scene and dialogue. Analyze exemplary pieces of narrative, from written form to documentary film. Examine the reporting and writing of original non-fiction narratives.

J X35D. Making Magazines.
Includes simulated publication teams that craft a concept, develop a business plan, and create a prototype. Focus on market research, writing, team building, design and production skills.

J X35F. Magazine Writing and Production.
Explore magazine analysis with an emphasis on longform feature writing and reporting.

J X35G. Advanced Television Reporting and Producing.
Advanced writing and reporting skills for the collaborative production of television news programs on deadline. Students assist in producing a television news program.

J X35J. Mobile Programming for Journalists.
Coding and other skills in preparation for designing mobile news apps.

J X35K. News Documentary Production.
Produce original news documentaries with an emphasis on films covering current affairs, contemporary life, and historical subjects.

J X35N. News Application Development.
Explore the skills necessary to create interactive web applications for journalism and related fields.

J X35P. TV Reporting and Producing.
Explore the skills needed for the collaborative production of television news programs on deadline.

J X36D. Graphic Design for Print and Online.
Overview, design, and production of materials for online and print storytelling. Subjects include design principles, visual perception, typography, manipulation of images and photographs, and page design for media platforms.

J X36F. Social Media Journalism.
The role of journalism in using social media to engage a wide audience, building a marketable brand for journalists and media organizations, and engaging an audience with the news media. Practice in using tools and techniques to be an engaging and effective media practitioner.

J X36J. Lifestyle Journalism.
Specialized reporting and writing in lifestyle coverage, including food, fashion, entertainment and travel.

J X36M. Music Journalism.
Study the main areas of music journalism, utilizing the resources of Austin's live music scene.

J X37C. Culture Reporting and Criticism.
Cover and review cultural productions such as music, theatre, fine arts, film and food.

J X37D. Advanced Graphic Design for Print and Online.
Advanced exploration of graphic design tools, theory, industry trends, and history. Emphasis on design in journalism, infographics, long-form print design, and user interface (UI) and user experience (UX) design.

J X37F. Long-Form Feature Writing.
Advanced instruction in reporting and writing long-form narratives, including lessons in analyzing story-telling tools, strategies, and techniques. Examination of narrative strategies and techniques across different media platforms.

J X37G. Opinion Writing.
Examines opinion writing and commentary in traditional print and evolving online formats.

J X37J. Writing for Online News Audiences.
Students will learn how to write informatively and effectively for online audiences, and how to repurpose traditional print journalism for online publication.

J X37L. Food Journalism.
Explore the production of content centered on food and dining, including restaurants and recipes.

J X37M. Feature Writing.
Explore the production of profiles, enterprise pieces, and non-deadline stories.

J X37P. Writing and Producing for Online Publications.
Examine how to write informatively and effectively for online audiences and how to be a web producer at a major news organization, including social media, newsletters, mobile apps, content management systems, and more.

J X38F. Advanced Visual Design.
Advanced exploration of principles and processes of visual design, including design principles, visual perception, typography, image making, uses of color, printing techniques, and publication design.

J X38J. News for a Mobile Audience.
Examine the mobile landscape, including news and entertainment platforms, social media, and the practice and principles of journalism. Explore ideas for increasing mobile news engagement, especially by Generation Z and Millennials.

J X39D. News Documentaries and Public Affairs.
Study and practice of researching, writing, and producing short-form and magazine documentaries for television.

J X39F. Investigative Reporting.
Emphasis on determining what an investigative story is, finding investigative stories, and basic tactics in pursuing such stories.

J X39M. Mobile Media Apps Development.
Planning and building a mobile app, whether for Android, iOS, or web-based, and personal communication in the news business and in various other journalism-related topics.

J X39S. Research in Texas Sports and Media.
Supervised research with a faculty member; research may consist of an individual project or assisting a faculty research project.

J X39T. Topics in Specialized Journalistic Skills.
Contemporary social, professional, and intellectual concerns in the practice of specialized journalistic skills.

J X39T.1. Mapping in Storytelling.
Creating visual stories that combine text, charts and maps. Foundations of data analysis, spatial analysis, design, data visualization and cartography, including hands-on practice with GIS software and discussions of editorial and ethical concerns in visual storytelling. Assignments include combining new skills and reporting to produce visual stories.

J X39T.3. Producing Documentaries for Sports Journalism.
Applied skills in teams to produce one original documentary sports story. Emphasis placed on stories that transcend competition and explore larger social issues, such as race, sex, gender, class, opportunity, community, and identity.

J X39T.4. Tracking Online Audience Engagement.
Introduction to current practices in tracking and engaging online audiences such as web metrics, Google Analytics, search engine optimization, and keyword advertising.

J X40C. Topics in Journalism, Communication, and Culture.
Issues concerning minority or nondominant groups within the United States.

J X40C.4. Leadership, Management, and the Media.

J X40D. Reporting on Technology.

How to report on technology and its meaning for business and society using the Austin technology scene. Hands-on reporting, from robotics and mobile media to gaming and music production.

J X40F. Covering the Global Economy.

Examines the enduring financial, economic, and business issues journalists confront in covering the global economy.

J X40G. Reporting Asia: A Foreign Correspondent's Framework.

Explores dynamic ways of looking at, thinking about, and reporting the world, and establishes a framework for analyzing how the news media cover key events, issues, and processes that shape our lives in a global society.

J X40J. Documentary Tradition of Latin America.

Contemporary social, professional, and intellectual concerns with the practice of journalism. Study of still photographic and video documentary work by Latin Americans about Latin America. Production of photographic essays on Latin American culture.

J X40N. Journalism in the 1960s.

Through readings and critiques, examine "New Journalism," a bold style of journalistic reporting and writing in the 1960s and 1970s that was a sharp departure from previous newspaper and magazine storytelling.

J X41F. Understanding African Americans and the Media.

Documentaries, readings, discussions, projects, and theories facilitate the examination of the relationship between African American history and contemporary American society. Media representations of African Americans are evaluated and news coverage of African Americans is explored in depth.

J X41G. Reporting China: A Foreign Correspondent's Workshop.

Contemporary social, professional, and intellectual concerns with the practice of journalism.

J X41J. Minorities and the Media.

Issues concerning news media depiction of underrepresented groups in the United States.

J X41M. Representation in the News Media.

Examine issues concerning news media depiction of minority and nondominant groups in the United States.

J X42F. Women and the News.

Historical and contemporary exploration of women and the news. Examination of the role of women in producing news and the construction of women within news texts.

J X42G. Reporting the World: A Critical Examination of the United States News Media.

Dynamic ways of looking at, thinking about, and reporting the world, both abroad and at home. Establishes a framework for analyzing how the news media cover key events, issues, and processes that shape our lives in a global society.

J X42J. Visual Media and the News.

Explores the power of mediated images in culture and society. Examines the way images, language, and human activity shape visual messages and the historical relationship between technology and image-creation.

J X43F. Journalism and Religion.

Critical examination of how religion traditionally has been covered in the United States, and guidelines for developing individual thinking and reporting on religious issues.

J X43G. Exploring Digital Media and Society.

Examines the connection between new media and society through a variety of theoretical and practical perspectives to explore the implications of the use of technology and new media in influencing community, social relationships, and public and private spaces, as well as the profession of journalism.

J X44F. Reporting on Gender and Sexuality.

Instruction on how to cover controversial issues around gender and sexuality. Review of the sociology of gender and sexuality, with a focus on political, economic, and cultural implications.

J X44G. Urban Journalism.

Studies of basic city functions and how to detect urban dysfunctions before crises become news. Topics include infrastructure decay, traffic congestion, poverty and homelessness, digital divides, school dropouts, conflict and crime, riots and protests, obesity and disease, recreation, and pollution.

J X44J. Media Images and Society.

The power of mediated images in culture and society; exploration of the way images, language, and human activity shape visual messages; and the historical relationship between technology and image creation.

J X45F. Social Issues Reporting.

Coverage of social issues such as immigration, health care, and child welfare. Examination of stereotypes, how they affect reporting, and how they change as student reporters encounter new subjects.

J X45G. Human Rights Journalism.

Exploration of the role of journalists in exposing human rights abuses. Modules include case studies from El Salvador, South Africa, Zimbabwe, Rwanda, Bosnia, Sudan, Israel, and Russia, as well as the legal and moral obligations of journalists as witnesses to atrocities and genocide. Examination of the Bush Administration's global War on Terror and the legacy confronting the Obama Presidency.

J X45R. Film and Television Criticism.

Explore a theoretical and practical introduction to the ways critics review movies and narrative series. Examine the history of criticism, its evolution from print to TV to digital, and the narrative approaches used by critics in their analyses.

J X46F. Reporting on the Environment.

Instruction and supervised fieldwork in environmental coverage. Topics include interviewing, elements and structures of good environment writing, the concepts of scientific certainty and uncertainty, and communicating complex science to lay audiences. Issues covered include climate change, energy, air and water quality, and sustainability.

J X46G. Domestic Issues and Global Perspective.

Examining domestic issues (consumerism, food/heath, environmentalism, energy consumption) from global and intercultural perspectives. Proper positioning of the United States helps journalists and news consumers think outside the box.

J X47F. Reporting Latin America.

Foreign reporting and international news production processes, with special emphasis on Latin America.

J X47G. Cultural Survey of Photography.

Examine the development of photography focused on reportage, documentary, and social issue art photography, including historical processes, the evolution of stylistic trends, and critical issues in the field. Explore the Harry Ransom Center and other University of Texas photographic archives.

J X48D. Gender and the News.

Historical and contemporary exploration of gender and the news. Examination of the role of marginalized gender groups in producing news and the construction of gender within news texts.

J X48E. Ethics of Sports Media.

Analyze the role of journalistic ethics in the coverage and media production of sports.

J X48F. Covering the Latino Community in the United States.

Challenging and developing views of the contemporary Latino community and other underrepresented people in the United States. Topics include a history of ethnic groups in the United States and their politics, education, organization, immigration, culture, power, and media.

J X48G. The Business of Sports Media.

Examination of the business of sports-related media, including over-the-air television, cable, satellite television, print, radio, social media,

and internet-based media, and the impact of such media on sports presentation and development, professional franchises, colleges, and conferences. Emphasis on how the business of sports media generates revenue and content, and the business models for each type of media, the challenges to such models, and the likely future changes to them.

J X48J. Covering Criminal Justice.

Examine how criminal justice is covered in the news media.

J X48L. Making Sense of the News.

Gaining the critical thinking skills necessary to analyze what is news in our digital age. Examines accuracy, sources and verification, and bias behind information in the public sphere.

J X48M. Diversity in News Organizations.

J X48N. Leadership in News Organizations.

Examine concepts and frameworks related to skills integral to ethical, effective leadership and management in news organizations. Explore making ethical decisions, communicating supportively to others, gaining power and influence, managing conflict, building effective teams, and leading positive change.

J X48S. Media Management.

Print and broadcast management and planning in operations, personnel, content, marketing, finance, technology, and regulation.

J X49E. Elections, Voters, and News.

Explores U.S. election history, dimensions of and influencers in U.S. elections, news coverage of candidates and issues, and voters and their attitudes toward candidates and issues as well as their engagement with election news.

J X49F. Reporting Public Health and Science.

Specialty reporting to help news consumers understand complex health and medicine issues. Considers the lack of critical perspective, balanced reporting, and grasp of fundamental issues that afflict much health reporting. Focuses on the latest reporting techniques and narrative skills to illuminate an intellectually demanding field that also includes public health policy.

J X49L. News Literacy for a Digital Age.

Explores news, journalists, the practice and ethics of journalism, news platforms, history, and threats to the future of news, and the attitudes, demographics, and behavior of the news audience.

J X49N. News Media and Politics.

Examines central controversies and theories about the role the media in politics and the political systems.

J X49T. Topics in Understanding and Reporting Social Issues.

Contemporary social, professional, and intellectual concerns in the practice of journalism.

J X49T.1. Senior Seminar.

Capstone experience in analysis of current journalism issues. Students complete a major research project.

J X49T.11. Editorial Column Writing.

J X49T.14. Latino Policy Issues.

J X49T.20. Video Journalism for the Web.

J X49T.21. Writing for Magazines and Specialty Publications.

J X49T.22. Writing for Online Publications.

J X49T.5. Broadcast News Practices and Analysis.

J X49T.8. Alternative Media.

J X49T.9. Covering Technology and Innovation.

J X50F. Media Law.

Examination of legal rights and restrictions for online and print journalism, including Constitutional guarantees, libel, invasion of privacy, and contempt of court.

J X50M. Media Policy and Ethics.

Explore the contemporary ethical and policy issues facing the transforming media industries and the American public. Examine a range of issues that new media and the Internet have complicated, rooted in an understanding of the First Amendment as well as the development of communication industries.

J X50N. Ethnic Media.

Examine the history of media devoted to ethnic communities underrepresented by mainstream media, as well as news consumers whose primary languages are not English, in New York - including the country's first African-American newspaper in 1827 - and their continuing relevance in a global world.

J X50R. Covering Rural America.

Examine the coverage and the narratives the news media construct about rural America.

J X51C. Contemporary Media Systems.

Explore the contemporary role of media systems in the U.S. Examine the structure and reach of today's media systems, and the role of individuals and corporations in new digital systems.

J X51F. Journalism, Society, and the Citizen Journalist.

Examine journalism's principles, process, and role in society. Discuss distinctions between journalists and citizen journalists and explore the news audience in depth with special attention paid to Millennials and Generation Z and their engagement with different news platforms.

J X51G. Introduction to Global Media.

Examine the role of global media as a set of texts, technologies, and industries that shape our identities, our social worlds, and our political practices.

J X51J. Technology and the Internet in Journalism.

Examine the literacy of computer and Internet technologies in the context of journalism and communication. Focus on software, databases, computer/wireless networks, hardware, cybersecurity, and the Internet work. Explore case studies from science and technology journalism in order to reflect on the technical knowledge needed to effectively report and communicate in these areas.

J X51P. Social Media, Propaganda, and Elections.

Explore the spread of "computational propaganda," including misinformation, disinformation, and political trolling, with a special focus on U.S. politics, media, and reporting.

J X51S. Globalization and Social Media.

Examine the issues surrounding the hype, myth, paradox, and reality of social media in a global context.

J X51T. Technology and Culture.

Examine ideas about the relationship between technology and culture, how U.S. culture views technology, and the historically contingent design, development, and use of different media and communication technologies.

J X52. Topics in Journalism.

Contemporary social, professional, and intellectual concerns in the practice of journalism.

J X52.6. Presidents and the Press.

J X52F. Ethics in Journalism.

In-depth examination of the ethical choices individual journalists face and the ethical implications of how news media operate in a larger social and political framework.

J X53F. Historical Perspectives in Journalism.

Evolution of journalism and mass media, including the social, economic, and political factors that have contributed to changes in news gathering and distribution.

J X54F. Journalism and Press Freedom in Latin America.

Focus on journalism in Latin America with an emphasis on the struggle for democracy and press freedom in the region through country-by-country survey of historical, political, economic, cultural, ethnic and geographical aspects. Examination of the evolution of professional journalism in Latin America, including topics such as the legal framework for freedom of expression, ethical principles, concentration of media ownership and the emergence of digital media. Knowledge of Spanish language is recommended, but it is not a requirement.

J X54L. Mapping Latino Culture in East Austin.

Explore the cultural history of majority Anglo and minority (Latino, African-American, and Asian) Austin with a focus on how the sources

of information, culture, and media available to minority residents have evolved, and how those sources have been used by people and communities there.

J X54M. Journalism and Press Freedom in the Middle East and North Africa.

Explore journalism in the Middle East and North Africa with an emphasis on the period leading up to the Arab Spring and subsequent developments. Survey historical, political, economic, cultural, ethnic, and geographical aspects of the region. Examine the evolution of professional journalism in the Middle East and North Africa. Includes legal framework for freedom of expression, ethical principles, concentration of media ownership and the emergence of digital media. Knowledge of Arabic is not a requirement.

J X54N. Nonprofit Journalism.

Examine and analyze the growing field of nonprofit journalism, its business models, and its impact on news content.

J X54R. International Broadcasting.

Survey broadcast production and content outside of the United States.

J X54S. Contemporary Issues in Sports Journalism.

Examine the range of problems and opportunities prevalent in coverage of American sports. Includes discussion of class, equality, gender, labor, political expression and race. Examine timeless themes in sports coverage such as community, ego, identity, money, opportunity and tradition, as well as sports-specific journalistic ethics.

J X55F. Living in the Information Age.

Examine communication and information technologies with particular emphasis on the Internet and its components. Explore how digital and mobile technologies are used by Millennial and post-Millennial generations and with what effects.

J X55G. The Information Society.

Examine information technologies such as the Internet, telephones, and computers and their relation to existing media, including history, policy, economics, and social impact.

J X55M. Media Industries and Entrepreneurship.

Examine the social, political, and economic contexts in which media and culture are produced, distributed, and monetized. Explore these with an emphasis on new media and communication technologies.

J X55P. The Business of News.

Discusses trends and innovations shaping the business of news, from rapidly evolving content consumption patterns to emerging storytelling platforms like streaming, podcasting, and AR/VR. Examines the challenges and opportunities of the business of news, for-profit and non-profit alike, essential for those planning a career in media. Includes on-site, interactive conversations with news professionals and entrepreneurs, students will learn about

J X56C. Digital Mainland China and Taiwan.

Examine disruptive innovations and entrepreneurship such as social and mobile media, big data, and AI; and their media, cultural, and social implications in Chinese societies such as mainland China and Taiwan.

J X56G. Social Media: Growth, Uses, and Impacts.

Explore a range of issues related to the growth, uses, and impacts of social media, including the rapid rise and adoption of social media.

J X56M. Social Media and Society.

Explore social media's rise and influence in society.

J X56R. Race and Digital Media Cultures.

Examine a range of issues related to the adoption of various digital and social media platforms and experiences across the digital media landscape, with a focus on how digital media culture is influenced by systemic racism. Using a number of studies, recent data trends, and keen observations, analyze the interconnectedness of race, racism, and uses of digital media.

J X58C. Becoming Citizen Journalists.

Covers the basics of journalism for students who are interested in sharing truthful stories to a public audience, but do not intend to pursue a career in the profession. Uses digital and social media tools. Explores three topics: how to find and gather the best factual information, how to present it in clear and engaging ways, and how to make ethical decisions that serve the needs of the audience and democracy.

J X58N. Online Incivility.

Define and explore different types of incivility through the lens of online discussions. Critically assess why incivility exists online and what influence it has on politics, society, and journalism.

J X58P. Popular Culture and the Press.

Explores the relationship between American popular culture and the press, its role in our everyday lives, and how it helps shape our attitudes and identities. Explores popular culture in television, film, magazines, the Internet, social media, and advertising. Subjects include movies, music, film, fashion, food, travel, celebrity and society news, among others.

J X58S. Communicating Social Change.

Utilizing communication skills to tell truthful stories of underrepresentation and marginalization.

J X58T. Topics in Journalistic Practices.

J X59M. Topics in Journalism and Media Studies.

Examine contemporary issues in the fields of journalism and media studies.

J X59S. Topics in Current Journalistic Issues.

J X59S.1. Covering Marginalized Communities.

J X59T. Topics in Journalism, Skills, and Techniques.

Examine the contemporary professional decisions and techniques used in the practices of journalism.

J X60F. Internship.

Internships to be arranged by student and approved by instructor.

J X60G. Journalism Internship.

J X60S. Sports Media Internship.

Sports media internships to be arranged by student and approved by instructor.

J X61F. Reporting Texas.

Students work as online reporters, photographers, and editors for the School of Journalism's Reporting Texas website.

J X62F. Journalism Portfolio.

A synthesis experience to polish journalism skills, showcase reporting and production abilities across multiple journalistic platforms, and complete a professional online portfolio.

J X63. Theories of Mass Communication.

Comparative survey of perspectives, research, and theories on communication through the mass media; theories on media effects and the construction of social reality, especially regarding the news media.

J X63C. Broadcast Capstone.

Write, produce, and present a weekly television newscast, culminating in seven episodes of Reporting Texas TV. Includes on-air, digital, and social media skills.

J X63D. Digital Innovations Capstone.

Working in groups or individually; conceive, pitch, plan, design, and create cutting-edge media products.

J X63F. Capstone Projects in Journalism.

The design and execution of special projects showcasing the individual student's interests in one or more journalistic platforms.

J X63K. News Documentaries.

Use applied skills as individual filmmakers to produce one original news documentary under ten minutes. Emphasis placed on films covering current affairs, contemporary life and historical subjects, films that might be found on The New York Times or The New Yorker.

J X63L. Journalism Research Capstone.

Emphasizes proficiency in researching and writing.

J X63M. Capstone in Application Development.

Plan and build a mobile application, whether for Android, iOS, or web-based, and use journalistic multimedia skills to promote and explain the products.

J X63N. Newsroom Capstone.
Take part in a newsroom experience to refine journalism skills, and showcase reporting and production abilities across multiple journalistic platforms.

J X63P. Television Newsmagazine.
Explore the production of a television newsmagazine program, including on-air reporting, editing, and segment production.

J X63Q. Capstone in Podcasting.
Plan, research, report, record, and produce professional-quality podcasts. Analyze podcasting audiences, build revenue streams, and market podcasts to a regional or global audience.

J X63S. Sports Media Capstone.
Stresses proficiency in sports writing, reporting, and editing by emphasizing professional skills and habits.

J X63V. Visual Capstone.
Stresses proficiency in visual reporting by emphasizing professional skills and habits.

J X63W. Reporting Capstone.
Stresses proficiency in writing, reporting, and editing by emphasizing professional skills and habits.

J X65M. Experiential Learning.

J X65P. Specialized Practice in Journalism.
Specialized journalistic instruction by a professional from the field.

J X70K. Topics in Advanced Photojournalism.
Explores intensive photographic reportage and documentation using the camera as a tool of investigation and interaction. Emphasis on creation of photo stories, photo essays, and feature stories, with editing and page layout.

J X70K.2. Documentary Video.

J X70K.3. Picture Editing.

J X71K. Topics in Photographic Illustration.
Principles of studio lighting, theory and practice of contemporary color, location lighting, and the production of portfolio-quality work, as applied to advertising, photographic illustration, and photojournalism.

J X71K.1. Location Lighting.

J X71K.2. Studio Photography.

J X78P. Special Projects in Journalism.
Supervised projects in the field of journalism.

J X79. Journalism Independent Study.
Designed to give students the opportunity to pursue special studies for which separate courses have not been organized.

J X79H. Honors Tutorial Course.
Conference course of intensive study, planned by Journalism Honors Committee; research and the writing of a substantial paper on a special journalism topic.

J X79P. Photojournalism Research Projects.
Designed to give photojournalism students the opportunity to pursue special studies for which separate courses have not been organized.

Graduate Courses

J X19S. Topics in Journalism.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Journalism. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

J X29S. Topics in Journalism.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Journalism. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

J X80. Introduction to Research Methods.
Research methods and ethics, from design to data analysis and report writing.

J X80C. Introduction to Graduate Studies in Journalism and Media.
Discuss journalism and media research, theory, and professional development.

J X80M. Advanced Projects in Photography.
Advanced projects to demonstrate professional competence.

J X80N. Advanced Projects in Journalism.
Designed to prepare students to write the master's report. Students develop professional projects to demonstrate their competence in specialized skills; students present, discuss, and critique their own and other students' work.

J X80V. Visual Journalism.
Basics of aesthetics, visual design, photography, Web publishing, and videography.

J X80W. Writing and Reporting.

J X81. Topics in Research Methods Seminar.
Research techniques for investigating the control, content, audience, and effects of mass media.

J X81.1. Content Analysis.

J X81.2. Experimental Design.

J X81.4. Qualitative Methods.

J X81.6. Qualitative Textual Analysis Methods.
Explore a variety of qualitative methods for analyzing texts for communication research. Apply various methods for qualitative analysis such as: critical discourse analysis, multi-modal discourse analysis, narrative analysis, feminist/queer/racialized analyses, interview analysis and conversational analysis and grounded theory analysis, among others.

J X81F. Fundamentals of Statistics.
An introduction to descriptive and inferential statistical procedures commonly used in communication research. Explore basic underlying assumptions of common statistical procedures, how to test hypotheses using these statistical procedures and what inferences can be drawn from the results, how to critically evaluate statistical analyses of others, and how to conduct descriptive and basic inferential statistics using SPSS for analyses.

J X81M. Computational Media and Data Science.
Examine advanced computational social science research methods through practical, hands-on applied data science projects in the field of computational media using large scale datasets from social media platforms.

J X82. Topics in Seminar in Mass Communication.
Readings, research, analyses in mass communications; oral and written reports in an area approved by the instructor.

J X82.4. Agenda Setting.

J X82.5. Media Sociology.

J X82T. Theory Building.
Examine the process of theory building and explore the construction of social science theories. Analyze models of the theory building process by tracing the development of popular contemporary social science theories. Advance a personal social science theory by using theory-building techniques and following specific theory building steps.

J X83M. Frameworks of Media Innovation.
Survey of innovative practices in media.

J X83P. Advanced Visual Design.
Advanced exploration of principles and processes of visual design, including design principles, visual perception, typography, image making, uses of color, printing techniques, and publication design.

J X84. Mass Communication Theory.
Study of the processes and effects of mass communication.

J X84T. Mass Communication Theory II.
Explore critical and cultural perspectives for communication systems. Examine ways to explain communication content, processes, organizations, interactions and outcomes, and broader social systems.

J X85N. The Business of News.
Examine the challenges and opportunities of the business of news, for-profit and non-profit alike, with context provided by media professionals.

J X86. Topics in Public Relations Seminar.
Readings, research, and analyses in public relations. Examination of the role of public relations in social, economic, and political campaigns.

J X86.1. Research Analyses in Public Relations.

J X86.2. Public Relations and Management.

J X86.3. Specialized Application of Public Relations.

J X86.4. International Public Relations.

J X87M. Media Images: Theory and Methodology.
Explores theoretical and methodological approaches to the study of images in media. Examines the biology and psychology of vision and how images "work" in media. Explores contemporary research on images in news, visual persuasion, political campaigns and criminal investigation. Methods for the study of media images, include content analysis, multi-modal discourse analysis, semiotics and effects experiments.

J X87P. Cultural Survey of Photography.
Examine the development of photography focused on reportage, documentary, and social issue art photography, including historical processes, the evolution of stylistic trends, and critical issues in the field. Explore the Harry Ransom Center and other University of Texas photographic archives.

J X87S. Photographic Storytelling and Social Justice.
Explore the production of images related to social justice issues.

J X89. Topics in Problems in Specialized Fields.
Research project chosen from area of student's major interests; written report required.

J X89.1. Photojournalism.

J X89E. Professional Experience in Journalism Internship.
Supervised internship experience in a professional journalism setting.

J X90. Seminar in Journalism History.
Research projects in the history of communication media; examination of the social, economic, and political relationships of the media within historical environments.

J X90E. Photography in a Cross Cultural Context.
Examine tools and critical ideas that will enhance camera-led reporting and research in cross cultural contexts. Explore the development of a critical toolkit for visual documentation, evidence, and storytelling, as well as multi-modal ethnography. Practice photography and approaches to the ethics of visual representation and the critical frames for reflecting on and writing about one's work.

J X90P. Advanced Documentary Project.
Advanced exploration of documentary storytelling skills, with an emphasis on the skills required for the master's report.

J X92. Topics in Seminar in Media Law.
Research in selected areas of social and legal responsibilities of the media.

J X92.1. Constitutional Issues in Media Law.

J X92.2. Studies in Regulation of the Mass Media.

J X93S. Technology and Culture.
Analyze social and cultural issues related to communications technology systems.

J X95. Topics in Journalism.
Contemporary social, professional, and intellectual concerns with the practice of journalism.

J X95.10. Multimedia Journalism.
Review of online reporting techniques, advanced multimedia skills, and current issues in new media.

J X95.11. Advanced Writing and Public Affairs Reporting.

J X95.12. Advanced Social Science Methods.

J X95.13. Framing Public Issues.

J X95.14. Qualitative Communication Theory.

J X95.16. Proseminar in Journalism.
Introduces doctoral students to major areas of research and selected researchers in journalism. Designed to help students cultivate scholarly skills, ethical norms, awareness of funding possibilities, and teaching skills.

J X95.17. Reporting Asia: A Foreign Correspondent's Framework.
Dynamic ways of looking at, thinking about, and reporting the world. Establishment of a framework for analyzing how the news media cover key events, issues, and processes that shape our lives in a global society.

J X95.2. Advanced Photo Editing and Design.
Advanced training in photo editing and publication design. Taught abroad; location may vary by semester.

J X95.21. Historical Perspectives in Journalism.
Examines the development of the mass media through social, economic, and political factors that have contributed to changes in the press.

J X95.23. Ethics in Journalism.

J X95.24. Media Law.
Examination of legal rights and restrictions for online and print journalism, including Constitutional guarantees, libel, invasion of privacy, and contempt of court.

J X95.25. Business and Financial Reporting.
Conceptualizing, sourcing, and preparing news reports on global financial markets, commercial transactions, and company performance. Subject matter is global; the United States is a subset of material covered. Hands-on course during which students produce multiple news packages for publication.

J X95.26. Covering Politics.
Specialized research, reporting, and writing skills to cover issues, candidates, and campaigns.

J X95.27. Entrepreneurial Journalism.
For-profit and nonprofit journalistic enterprises in the news media ecosystem. Impact of digital technology on the news industry, with emphasis on changes to business and distribution models, and ways people consume and produce news and information. Emphasis on projects and prototypes that include business plans and content planning.

J X95.28. Computer-Assisted Reporting.
Study of computer-assisted journalism, including electronic document retrieval and manipulation, spreadsheet and database management, and Internet skills. Collaborative work on major investigative projects.

J X95.29. Oral History as Journalism.
Modules include concepts and methods of gathering oral history; illustration of the techniques using the Vietnam War as a topic; and generating oral history-based coverage focusing on the Mexican American experience.

J X95.30. Investigative Reporting.
Emphasis on determining what an investigative story is, finding investigative stories, and basic tactics in pursuing those stories.

J X95.31. Creative Nonfiction for Magazines and Books.
Reporting and writing skills for producing narrative nonfiction, including writing book proposals, magazine pitches, and sample chapters.

J X95.32. Audio Storytelling.
Examination and practice of writing news for audio platforms.

J X95.33. Explanatory Journalism: Storytelling in a Digital Age.
Examination of the evolution of long-form explanatory storytelling from print and film to new forms of Web-based and interactive storytelling.

J X95.34. Advanced Visual Journalism: Photo.
Explores intensive photographic reportage and documentation using the camera as a tool of investigation and interaction. Emphasis on creation

of photo stories, photo essays, and feature stories, with editing and page layout.

J X95.35. Producing Social Documentaries for Television News.

Instruction in the production of social documentaries for television, with emphasis on social issues often ignored by television news. Includes production of a twenty-minute long-form story.

J X95.36. Opinion Writing.

Examines opinion writing and commentary in traditional print and evolving online formats.

J X95.38. Reporting Latin America.

Foreign reporting skills and international news production processes, with special emphasis on Latin America.

J X95.39. Covering the Latino Community in the United States.

Development and challenging of views of the contemporary Latino community. Topics include a history of ethnic groups in the United States and their politics, education, organizations, immigration, culture, power, and media. Students will apply what they learn to other underrepresented people in the United States.

J X95.4. Documentary Tradition of Latin America.

Study of still photographic and video documentary work by Latin Americans about Latin America. Production of photographic essays on Latin American culture.

J X95.40. Reporting China: A Foreign Correspondent's Workshop.

Contemporary social, professional, and intellectual concerns with the practice of journalism.

J X95.41. Reporting the World: A Critical Examination of the United States News Media.

Examination of dynamic ways of looking at, thinking about, and reporting the world, both abroad and at home. Establishes a framework for analyzing how the news media cover key events, issues, and processes that shape our lives in a global society.

J X95.42. Human Rights Journalism.

Exploration of the role of journalists in exposing human rights abuses. Modules include case studies from El Salvador, South Africa, Zimbabwe, Rwanda, Bosnia, Sudan, Israel, and Russia, as well as the legal and moral obligations of journalists as witnesses to atrocities and genocide. Examination of the Bush Administration's global War on Terror and the legacy confronting the Obama Presidency.

J X95.43. Minorities and the Media.

Issues concerning minority or nondominant groups in the United States. Survey of minority communication problems, including alienation, fragmentation, and media and Internet access. Criticism and feedback for minority groups based on racial/ethnic background, age, sex, disability, social or economic class, and sexual orientation.

J X95.44. Reporting Texas.

Students work as online reporters, photographers, and editors for the School of Journalism's Reporting Texas Web site.

J X95.46. Gender and the News.

Explores how gender relates to news, both historically and currently, and the role of the news media in reinforcing and/or challenging prevailing stereotypes and attitudes about gender. Focuses on women both as producers of journalism and as subjects of media portrayals.

J X95.47. Living in the Information Age.

Examines communication and information technologies, and how individuals, media organizations and corporations employ the Internet for their benefit. Explores how the communication and information technologies evolve and the cultural, economic, political, and social implications of such technologies for society.

J X95.48. Mobile News Application Design.

Students will work toward building an iPhone application in one semester, with the goal of having an application accepted in the Apple App Store.

J X95.49. Media and Politics.

J X95.50. News for a Mobile Audience.

Examines the mobile world and how journalism and the news audience fit in it.

J X95.51. Quantitative Research Practicum.

Contemporary social, professional, and intellectual concerns with the practice of journalism.

J X95.52. Reporting on the Environment.

J X95.53. Studio Photography.

An investigation of the fundamentals of photography using principles of studio lighting, theory and practice of contemporary color, location lighting, and production of portfolio-quality work, as applicable to advertising, photographic illustration, and photojournalism.

J X95.54. Web Design for Journalists.

J X95.55. Economics of New Media.

Subjects include the structure, behavior, and performance of media operations; audience behaviors and preferences; competition; and social implications.

J X95.56. Covering the Global Economy.

J X95.57. Journalism and Religion.

Explores some of the world's belief systems, including Judaism, Christianity, Islam, Baha'i, Hinduism, Buddhism, and atheism.

J X95.58. Media Management.

Examines how and why media leaders behave and operate by assessing current and past research, theories, and practice to arrive at a better view of what it is like to direct and manage a media organization. Students will investigate issues such as market orientation, diversity, group culture, competition, ownership, structure, ethics, and leadership from a media organizational standpoint.

J X95.59. Long-form Feature Writing.

Explores long-form journalism for print, online and books. Students will study the use of narrative, immersion, profile/biography, plots, back stories, and voice.

J X95.60. Media, Culture, and Civic Engagement.

J X95.61. Sports for Reporting Texas.

Designed to serve reportingtexas.com, the School of Journalism's open-content news Web site. Students will produce original and high-quality journalism for and about Central Texas.

J X95.62. Reporting with Data.

Examine basics of computer-assisted reporting. Explore how to find compelling data sets; clean and analyze the contents; use data visualization and simple statistical models to accurately report based on the data; and present results through stories, charts, and maps.

J X95.63. Oral History in Multimedia Storytelling.

Instruction in the use of oral history to generate long-term archival material and short-term multimedia stories. Covers concepts and methods of gathering oral history; a topic (varies by semester) centering on U.S. Latinos; and ways to build a multimedia representation of the interview.

J X95.64. Online Incivility.

Explores online incivility - defined as nasty remarks intended to hurt that often contain profanity, capital letters to indicate yelling, and put-downs or name-calling - in news story comments and social media. Critically assess the impact of incivility on public discussions online and how that influences journalists and other media practitioners.

J X95.65. Introduction to Coding for Journalists.

Explore basic coding skills and develop best practices used in digital newsrooms to create data-driven online presentations.

J X95.66. Media Innovation and Entrepreneurship.

Learn how the digital revolution has disrupted the media industry, creating opportunities for entrepreneurial, innovative initiatives. Study cases of successful media startups, and develop a startup project, using digital technologies and human-centered design.

J X95.67. Digital Production and Analytics.
Examine the digital publishing process, including planning, production, tracking, and marketing.

J X95.68. Social Capital and Social Networks.
Explore theories, methods, and applications, drawing on literatures from sociology, communication, media studies, and management. Examine the relational and structural embeddedness of actors, communities, and organizations, and focus on how to collect network data and do network analysis.

J X95.69. Advanced Reporting with Data.
Explore advanced data-assisted reporting techniques through use of databases, scripted analysis, and visualizations.

J X95.70. Globalization and Social Media.
Perform a critical analysis of the causes, patterns, and consequences of social media production and usage in a global context. Examine cases from diverse cultures and nations, and engage with major debates on the role of communication and media technologies in network society, globalization, and transnationalism. Investigate how social media and other new technologies have facilitated changes in politics, organizations, and networks, as well as media and culture.

J X95.71. Social Media Research Methods.
Using a selection of empirical case studies from the social media literature, consider the historical formation of social media and the lines that can be drawn to contemporary consequences, particularly the blurring of public and private lives, shifts in power relations, and the spread of rumors and urban myths that is seen today. Explore basic social network analysis and relevant statistical methods.

J X95.72. Social Media Journalism.
Explore the role of journalism in using social media to engage a wide audience, building a marketable brand for journalists and media organizations, and engaging an audience with the news media. Practice using tools and techniques to be an engaging and effective media practitioner.

J X95.73. Photography for Reporting Texas.
Work as photographers for the School of Journalism and Media's Reporting Texas website.

J X95.74. Lifestyle Journalism.
Examine specialized reporting and writing in lifestyle coverage, including food, fashion, entertainment, and travel.

J X95.75. Domestic Issues and Global Perspective.
Examine domestic issues, such as consumerism, food and health, environmentalism, and energy consumption, from global and intercultural perspectives.

J X95.76. Social Media and Society.

J X95.9. International Reporting.
Designed to provide students with skills in foreign reporting and an understanding of international news production processes, with special emphasis on Latin America.

J X98. Thesis.

J X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

J X98T. Supervised Teaching in Journalism.
Teaching under the close supervision of the course instructor; weekly group meetings with the instructor, individual consultations, and reports required throughout the teaching period.

J X99W. Dissertation.

Professional Courses

J X19S. Topics in Journalism.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Journalism. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

J X29S. Topics in Journalism.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Journalism. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

J S - Jewish Studies

Jewish Studies: J S

Lower-Division Courses

J S X01. Introduction to Jewish Studies.

J S X04M. Jewish Civilization: Beginnings to 1492.
Introduction to the history, culture, and religion of the Jewish people from around 1000 BC to the end of the medieval period. Subjects may include ancient Israel, late Second Temple sectarianism, the rise of Christianity, rabbinic Judaism, medieval Jewish philosophy, Jewish mysticism, and Hebrew poetry.

J S X04N. Jewish Civilization: 1492 to the Present.
Subjects may include trends toward secularization, the emancipation of European Jewry, the emergence of American Jewry, the Holocaust, the establishment of the State of Israel, and the Arab-Israeli conflict.

J S X05D. Introduction to Jewish Latin America.
Historical and cultural analysis of how Jews constructed lives and communities in predominantly Hispanic, Catholic countries of Latin America.

J S X06E. The Rise of Christianity.
Introduction to the origins and development of Christianity.

J S X07. Introduction to Holocaust and Genocide Studies.
Examine interdisciplinary perspectives (including historical, political, socio-psychological, and cultural methods and insights) on genocide as a global phenomenon.

J S X10R. Introduction to Middle East Religions.
Introduction to the religious landscape of the Middle East including the various expressions of Eastern Christianity, Islam, and Judaism as well as Zoroastrianism.

J S X11. Topics in Jewish Studies.

J S X11.2. Judaism, Christianity, and Islam: An Introduction.
Examines the intertwined historical developments of the religions of Judaism, Christianity, and Islam, and explores the principal beliefs and practices of Jews, Christians, and Muslims.

J S X11.4. Introduction to the Old Testament.
Introduction to the many interpretations of the Hebrew Bible (the Old Testament) and its meaning in the context of its historical and cultural setting in the ancient Near East.

J S X11.7. The History of Israel.
An introduction to the history of Israel, from the emergence of the modern Zionist movement beginning in 1881 to the present.

J S X11.9. American Jews: The Yiddish Experience.
Focuses on over a century of Yiddish-based contributions to American literature, music, and film, including works by Isaac Bashevis Singer, Michael Chabon, Woody Allen, and the Marx Brothers.

J S X11C. The Roots of Religious Toleration.
Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle.

J S X11E. Comparative Religious Ethics.

J S X14C. Jewish American Literature and Culture.
Examine Jewish American literature in its cultural contexts with an emphasis on skills and methods. Explore texts, drawn from a variety of genres and periods, that indicate the range of Jewish American experiences and how those experiences are influenced by issues such as citizenship, class, ethnicity, gender, and sexuality.

J S X17. American Jewish History.
Examine the history of Jews in the United States from the seventeenth century to the present. Explore the formation of a distinct American Judaism and the involvement of Jews in American cultural and political affairs.

J S X19S. Topics in Jewish Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Jewish Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

J S X29S. Topics in Jewish Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Jewish Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

J S X62. Independent Research in Jewish Studies.
Tutorially directed research in Jewish studies.

J S X63. Topics in the Humanities and Arts.

J S X63.10. The Sacred and the Secular in Contemporary Jewish Literature.

J S X63.17. Israel Through Its Literature.

J S X63.18. Jerusalem in Israeli Literature.

J S X63.19. Postmodernist Israeli Literature.
Study of the first decades of Israeli literature. Themes include the establishment of a new state in the aftermath of the Holocaust, conflict between Israel and Arab nations, and conflict between Israelis and Palestinians.

J S X63.21. Introduction to the Music of the Middle East.

J S X63.22. Comparative Jewish Literature: Israel, France, and the United States.

J S X63.23. Israel and Palestine: A Cultural Perspective.

J S X63.24. Divine Persuasion in Biblical Times and Place.
Explore the use of persuasive strategies in an ancient and non-Western culture, that of the Hebrew Bible. Using rhetorical techniques, analyze three types of texts: narratives of interactions between ordinary people and God; interactions between people, God, and authorized prophets; and prayers in prose and poetry.

J S X63.25. Jewish Folklore.

J S X63.26. Debating Genesis.

J S X63.27. Jewish Identities In the Americas.
Examine the work of Jewish creative intellectuals from the United States, Latin America, and Canada from a comparative perspective.

J S X63.28. Biblical Prophecy.
An introduction to the diversity of prophetic literature in the Old Testament, its historical development, social context, and Near Eastern parallels.

J S X63.29. The Book of Job.

J S X63.30. Law and Justice in the Bible.
Examine the legal traditions of the Torah (Pentateuch) and what they reveal about the practice of law and justice in ancient Israel and the wider biblical world.

J S X63.31. Jewish Stereotypes in American Literature and Culture.
Examine stereotypes that have come to define Jewishness in American culture by focusing both on the antisemitic tropes perpetuated by non-Jewish representations of 'the Jew' in literary classics and on the archetypes employed as coping mechanisms in cultural representations created by Jews themselves. Analyze how stereotypes become enmeshed in cultural consciousness and investigate ways in which representations of ethnic, religious, and racial minorities are governed by these kinds of one-dimensional archetypes.

J S X63.32. Childrearing in Israel.
Examine the coalescence of educational theories and national aspirations in the process of shaping child-rearing practices within the Jewish population of Palestine under the Ottoman Empire and the British Mandate and into the first two decades of the State of Israel.

J S X63.33. Jews of the United States, Canada, and Latin America.
Explore the cultural history of Jews in the United States, Latin America, and Canada through a representative sample of short literary texts, film clips, and musical recordings.

J S X63.34. Space, Time, and Religion.
Examine religions through the concepts of space and time.

J S X63.35. Memory and Place After the Holocaust.
Examine the literature of Eastern European Jewish Holocaust survivors and their artistic successors. Engage novels, short stories, memoirs, essays, and even song lyrics with questions of memory and of place.

J S X63.36. Sports and Politics in Germany.
Explore how fascism, communism, liberal democracy, and the current nationalistic backlash against immigration have all used the popularity of sports to achieve their strategic goals, from the 1936 Nazi Olympics to Germany's 2014 World Cup victory and beyond.

J S X63.37. Spinoza's Philosophical System.
Examine the significance of Benedict de Spinoza's philosophical system.

J S X63.7. Love and the State in Contemporary Israeli Literature.

J S X63.8. Mizrahi Writing in Israel.

J S X63D. Abraham and Abrahamic Religions.
Examines the figure of Abraham as portrayed in the Bible and the reception of that portrayal in Judaism, Christianity, and Islam.

J S X63E. Jewish Voices from Latin America.
Overview of popular Jewish writers from Brazil and Spanish America, with special emphasis on those who portray in their work the situation of the Jewish communities of their respective cities and countries. Conducted in Spanish.

J S X63F. Women and the Holocaust.
Introduction to both the history of Jewish and German women during World War II and the Holocaust, and to women's narratives and self-representations of this period. Historical sources, memoirs, films, and interviews will be used as source material.

J S X64. Topics in History.

J S X64.1. Anti-Semitism in History and Literature.

J S X64.10. The Church and the Jews.
Examination of the complex relationship between the Western Church and Jews over two millenia.

J S X64.11. World War II in Eastern Europe.
Examines the war in Eastern Europe with a particular emphasis on occupation, collaboration, and resistance; the Holocaust; and the connection between ethnic cleansing, population transfer, and the establishment of communism in postwar Eastern Europe.

J S X64.13. Origins of Monotheism.

J S X64.14. Austin Jews in the Civil Rights Era.

J S X64.15. The Five Books of Moses.
Study the socio-historical circumstances that gave shape to the first five books of the Bible: Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. Examine how these five books achieved the status of sacred literature.

J S X64.16. Jews: Nation or People.

J S X64.17. Restitution and Restorative Justice after the Holocaust.
Examine attempts to find a measure of justice after the Holocaust. Explore themes of human rights and international law.

J S X64.18. History of Jewish Thought.
Examine major thinkers and movements in both Jewish philosophy and Jewish mysticism since the Middle Ages, with a focus on the importance of modern Jewish thought in the twentieth and twenty-first centuries.
J S X64.24. Arab Citizens of Israel.
Examine the historical, social, and political processes of change experienced by the Palestinian-Arab community in Israel, including the fundamental aspects pertaining to the founding of Israel as "a Jewish and democratic state" and the relations between the Arab minority and the Jewish majority.
J S X64.25. The Arab-Israeli Conflict.
Examine the elements of the Arab-Israeli conflict, including the main figures involved, events, and turning-points in its history.
J S X64.26. The Levant: From Colonialism to Coexistence.
Examine the history of the Levant, a region that includes Syria, Israel, Palestine, and Jordan.
J S X64.27. War and Genocide: The Holocaust.
Examine the Holocaust as part of Nazi Germany's quest to build a new racial order.
J S X64.28. Legacies of World War II in Eastern Europe.
Examine the complex and dynamic legacies of World War II and questions of memory, identity, and politics from 1945 to the present.
J S X64.29. History of Sephardi Jews.
Examine the early-modern networks established by the Sephardi Jews (Sephardim) across the Mediterranean and Atlantic, the rich Ladino Judeo-Spanish culture that thrived in the Ottoman Empire, and Sephardi encounters with the modern world.
J S X64.3. The Bible and History.
The critical uses of biblical and extrabiblical data in the reconstruction of the history of the biblical period.
J S X64.30. Religions in the Ottoman Empire.
Examine Jewish, Christian, and Muslim communities in the Ottoman Empire (fourteenth to twentieth centuries), with a focus on dynamics both within and between the communities.
J S X64.4. The Dead Sea Scrolls.
J S X64.5. The Spanish Inquisition.
J S X64.7. Jews of Eastern Europe.
Explores the history and culture of Jews in Eastern Europe.
J S X64.8. Southeast Europe in the Twentieth Century.
Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century.
J S X64.9. Spinoza and Modernity.
Introduction to the core of Spinoza's writings and the diverse reactions they have elicited. Examines Spinoza's refusal of mind-body dualism, as well as a transcendent god or ideal as a way of understanding Spinoza's concepts and ideas.
J S X65. Topics in the Social Sciences.
J S X65.1. America and the Holocaust.
J S X65.10. Israel: Society and Politics.
Analysis of Israeli politics and society in a comparative perspective with a major focus on the social and political cleavages in Israel.
J S X65.11. Representation of Jews in the American Public Sphere.
Examines how Jews have been represented and constituted in American public culture as a race, religion, and/or nation through distinct institutions and display practices.
J S X65.12. American Jewish Material Culture.
Examines the interplay between material culture and Jewish identity and thought in contemporary America.
J S X65.13. Anti-Semitism.
Surveys trends in Judeophobia/anti-Semitism over 2,500 years in both Christian and non-Christian societies. Designed to use anti-Semitism as way to explore more general ideas in social theory such as boundary making; models of racial, ethnic, and cultural conflict; and the role of intellectual and scientific elites.
J S X65.14. Holocaust Aftereffects.
Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States.
J S X65.16. Jewish Cuba.
J S X65.17. Spatializing Culture.
J S X65.18. Contemporary Jerusalem.
Explore what life is like in today's contested, rapidly growing, and increasingly diverse Jerusalem.
J S X65.19. Archaeology of Jesus's World.
Explore archaeological methods in examining texts and artifacts from first century CE.
J S X65.4. Jewish Immigrant Culture in America.
J S X65C. Multicultural Israel.
Examines the complex social fabric that comprises contemporary Israeli society, and that shapes Israeli identity, practice and politics.
J S X65D. Cultural Geographies of Israel.
Examines critical spatial theory, landscape phenomenology, histories of Zionist architecture and urban planning as applied to Israel from the Yishuv period to the present.
J S X75. Senior Seminar.
Intensive study and research on selected topics in Jewish studies, with on-going, in-class presentations for critique by fellow students and the instructor.
J S X79H. Honors Tutorial Course.
Supervised individual reading and research for one semester, followed by writing a substantial honors thesis during the second semester.

Graduate Courses
J S X83. Topics in Jewish Studies.

Professional Courses

JPN - Japanese

Japanese: JPN

Lower-Division Courses
JPN X01D. Japanese I.
Designed for students with no previous coursework in Japanese. Emphasis on basic skills in listening and speaking Japanese and in reading and writing hiragana, katakana, and kanji. Introduction to Japanese culture. Includes computer-assisted instruction.
JPN X06. First-Year Japanese I.
JPN X07. First-Year Japanese II.
JPN X10D. Japanese II.
Expand on skills in listening and speaking Japanese and in reading and writing hiragana, katakana, and kanji.
JPN X11D. Intermediate Japanese.
Intermediate level of competency in Japanese to enable students to function in a variety of real-life contexts.
JPN X12K. Second-Year Japanese I.
JPN X12L. Second-Year Japanese II.
JPN X17C. Japanese Grammar, Composition, and Conversation.
Designed to prepare students for specialized advanced Japanese language courses.
JPN X19S. Topics in Japanese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
JPN X29S. Topics in Japanese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study

Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

JPN X19S. Topics in Japanese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

JPN X20K. Readings in Modern Japanese I.
Exploration of different types of texts written in a variety of grammar structures with rich vocabulary. Examination of similarities and differences between various aspects of Japanese culture and the student's own culture.

JPN X20L. Readings in Modern Japanese II.
Continued development of Japanese reading and comprehension skills using authentic print and web-based resources.

JPN X22. Classical Japanese.
An introduction to the principal elements of premodern literary or classical" Japanese (bungo), the standard form of the written language. A survey of the principal linguistic features, close reading, and translation of a variety of prose and poetry texts.

JPN X25K. Advanced Conversation I.
Participate in conversations on more complex situations and subjects, including formal and informal contexts.

JPN X25L. Advanced Conversation II.
Continued development of conversation skills taught in Japanese 325K.

JPN X26. Business Japanese.
Development of basic business manners and business-related vocabulary and conversation skills appropriate in an office environment.

JPN X27. Advanced Reading and Writing of Kanji Characters.
Building more advanced vocabulary and kanji knowledge through systematic study (recognition, reading, and writing) of kanji.

JPN X29S. Topics in Japanese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

JPN X30. Topics in Advanced Japanese.
Fourth-year Japanese readings on special topics.

JPN X30.2. Advanced Readings in Newspaper Articles.
For students with an advanced level of proficiency in Japanese. Conducted in Japanese. Readings from newspaper articles and other authentic materials, including short stories and websites, selected to expand linguistic and social knowledge, vocabulary, and knowledge of kanji.

JPN X30.3. Practical Readings in Advanced Japanese.
For students with an advanced level of proficiency in Japanese. Conducted in Japanese. Readings selected to promote a wide variety of reading skills such as scanning, skimming, prediction, reading for details, and reading for meaning. Readings include essays, comic strips, short stories, websites, magazine and newspaper articles, and other authentic materials.

JPN X30.4. Reading Japanese Literature.

JPN X30.5. Murakami Haruki and the Art of Translation.
Explore the fiction of the novelist Murakami Haruki in relation to the act of translation. Engage with Murakami's Japanese-language literary style and experiment with ways of rendering it into literary English. Recommended for those with an advanced level of proficiency in Japanese.

JPN X30D. Japanese across Disciplines.
Reading and discussion of Japanese language materials related to the subject matter of another designated course in Asian studies. Meetings with the instructor will be devoted to the discussion of linguistic problems, literary features, and crucial passages.

JPN X60. Conference Course in Japanese Language and Literature.
Supervised individual study of selected problems in Japanese language or literature.

Graduate Courses

JPN X19S. Topics in Japanese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

JPN X29S. Topics in Japanese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

JPN X81. Conference Course in Japanese Language and Culture.
Supervised individual study in Japanese language or culture.

JPN X84. Topics in Japanese Language and Culture.
Study of various aspects and periods of Japanese language and culture.

JPN X84.3. Modern Japanese Literature.

JPN X84.4. Murakami Haruki and the Art of Translation.
Explore the fiction of the novelist Murakami Haruki in relation to the act of translation. Engage with Murakami's Japanese-language literary style and experiment with ways of rendering it into literary English.

Professional Courses

JPN X19S. Topics in Japanese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

JPN X29S. Topics in Japanese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

KIN - Kinesiology

Kinesiology: KIN

Lower-Division Courses

KIN X06C. Topics in Conditioning.

KIN X10. Physiological Basis of Conditioning.
Explore the current state of health and fitness, health-related components of fitness, and ways that the human body responds to

exercise and physical activity. Discuss the importance of exercise and physical activity for improving overall wellness, including physical and mental health, prevention, and treatment of chronic disease, and how to apply the principles of conditioning.

KIN X11. Water Safety Instruction and Lifeguard Training.
Principles and practical application of water safety instruction and lifeguard training, personal water safety skills sets, professional rescues, first aid, and CPR/AED programs. Successful completion of course sessions, activities, lectures, skill development and evaluation requirements will qualify the student to test for certifications from nationally recognized safety agencies.

KIN X11K. Sport Psychology.
Through the materials presented in this course, become familiar with the fundamental principles of sport and social psychology and their impact on sports performance and athlete well-being. Develop life-skills, such as, self-regulation, productive responses to adversity, stress-management, the setting of goals and achieving them, interpersonal communication, and leadership.

KIN X12. Topics in Kinesiology: Issues.
Analysis and discussion of current issues within the discipline of kinesiology.

KIN X12.2. Care and Prevention of Athletic Injuries.
Principles of athletic training, including mechanisms, signs and symptoms, treatments, and basic rehabilitation of athletic injuries and illnesses.

KIN X12.3. Fundamentals of Coaching.
An introduction to the principles and practices of coaching as they relate to the integration of sports science, practice structure and design, and the development of a coaching philosophy. Involves group work and field experience with youth athletic organizations.

KIN X12.4. Philosophy and Leadership in Sport Physical Activity.

KIN X12.5. Sport Industry in America.
Introduction to the history, growth, and diversity of the sport industry in school settings and the world of business.

KIN X12G. Golf Instruction.
Designed to train students to teach the game of golf.

KIN X12M. Management of Physical Activity and Sport Programs.
Designed for physical culture and sports, applied movement science, health education, and kinesiology majors. Introduction to the purpose and function of sport and sport management in society, including management, marketing, events, and other components of the field.

KIN X13. Topics in Safety Information and Procedures.
Factors affecting human safety; techniques and procedures to promote and ensure safe living.

KIN X13.1. First Aid.

KIN X13.2. Water Safety Instruction.
Trains instructor candidates to teach courses in swimming and water safety by developing their understanding of how to use the course materials, conduct training sessions and evaluate participants' progress. Students will be introduced to several swimming strokes, springboard diving, cardiovascular conditioning, exercise physiology, nutrition, personal safety. Elementary rescue skills and basic snorkeling techniques. Culminates in American Red Cross certification.

KIN X13.3. Lifeguarding.

KIN X13.4. Lifeguarding Instruction.

KIN X14. Children's Movement.
Covers skills to support positive, effective physical education and to implement well-planned and stimulating physical activity for children. Focus on integrating academic content with physically active classrooms. Subjects include principles of movement and motor development in children, curriculum, legislation and policy, physiological principles, learning principles, coordinated school health (CSH), and comprehensive school physical activity programming (CSPAP).

KIN X15. Motor Learning.
Psychological factors affecting performance and acquisition of motor skills.

KIN X16. Structure and Organization of Sport Programs.
Introduction to sport management and effective organizational behavior for sport programs. Analysis of the dynamic management process necessary for the improvement of organizational productivity.

KIN X17. Advanced Scuba Diving Leadership.
Designed to prepare experienced scuba divers to instruct, organize, and conduct safe, appropriate-level dives for certified divers. Also designed to prepare students to apply for certification as a National Association of Underwater Instructors (NAUI) Assistant Instructor or Divemaster.

KIN X19. Topics in Movement Competence.
Designed for applied movement science, health education, and kinesiology majors. Introduces a variety of movement and dance activities that can be used to teach rhythm to youth, with an emphasis on grades K-6.

KIN X19.1. Archery.

KIN X19.10. Conditioning.
Basic principles involved in designing a sound conditioning program emphasizing resistance training techniques.

KIN X19.11. Rhythmic Activities and Dance.
Designed for applied movement science majors, and kinesiology and health education majors. Introduces a variety of movement and dance activities that can be used to teach rhythm to youth, with an emphasis on grades K-6.

KIN X19.12. Gymnastics.

KIN X19.13. Manipulative Activities.

KIN X19.14. Tennis.
Introduction to methods, progressions, strategies, and teaching cues appropriate for playing, teaching, and coaching basic tennis.

KIN X19.15. Volleyball.
Introduction to methods, progressions, and teaching cues appropriate for playing, teaching, and coaching basic volleyball.

KIN X19.16. Social Dance: Leads.
Introduction to popular social dances, including swing, waltz, bachata, nightclub two-step, cross-step waltz, salsa, west coast swing, and tango. Emphasis on connecting with a dance partner and the art of leading and following. Must register for the role you want to learn: lead or follow.

KIN X19.17. Basketball.
Designed for applied movement science majors, and kinesiology and health education majors. Introduces methods, progressions, strategies and teaching cues appropriate for playing, teaching, and coaching basic basketball.

KIN X19.18. Adventure Activities.
Acquistion and knowledge of basic skills needed to participate in outdoor/adventure activities. Examines methods, progressions, drills, and performance cues appropriate for participating in and leading outdoor/adventure activities. Includes off-campus activities. Students will need to demonstrate basic swimming skills during the first week of class.

KIN X19.19. Kinesthetic Awareness and Core Body Development.
Introduction to basic movement skills from simple to more complex, and how they relate to more advanced sport skills through developmental gymnastics, yoga, Pilates, and martial arts.

KIN X19.2. Ballet.

KIN X19.20. Social Dance: Follows.
Introduction to popular social dances, including swing, waltz, bachata, nightclub two-step, cross-step waltz, salsa, west coast swing, and tango. Emphasis on connecting with a dance partner and the art of leading and following. Must register for the role you want to learn: lead or follow.

KIN X19.3. Bowling.
KIN X19.4. Diving.
KIN X19.5. Fencing.
KIN X19.6. Golf.
KIN X19.7. Scuba Diving.
KIN X19.8. Swimming.
Designed for kinesiology and health education majors. Development of swimming techniques including instruction in seven swimming strokes, springboard diving, cardiovascular conditioning, exercise physiology concepts, nutrition, personal safety, elementary rescue skills, CPR/AED and basic snorkeling techniques. Provides preparation for American Red Cross certification.

KIN X19C. Aiding for Social Dance.
Supervised aiding in social dance leads/follows courses.

KIN X19D. Movement Analysis: Dual Activities.
Designed for applied movement science, health education, and kinesiology majors. Application of biomechanical and motor learning principles to selected movement activities, with particular emphasis on dual sports. Includes physical activity.

KIN X19G. Advanced Golf.
Designed for the advanced golfer. Includes technical swing analysis and instruction, course management and course play, and tournament play.

KIN X19K. Topics in Athletics.
Knowledge and skills required for officials, coaches, and athletic trainers of interschool sports.

KIN X19K.1. Coaching.
KIN X19K.2. Officiating.
KIN X19K.3. Introduction to Athletic Training.
Designed for athletic training majors. An introduction to athletic training principles and theories, including the prevention, recognition, and management of athletic injuries and illnesses. Includes basic skill development in areas such as first aid, emergency care, and supportive taping, wrapping, and bracing. Requires completion of a one-day CPR and AED (BLS) course outside of class time.

KIN X19L. Teaching Social Dance.
Examine social dance and social dance pedagogy. Explore new dances, higher-level partnering, and skills for teaching social dance in one-on-one and group contexts.

KIN X19M. Advanced Running.
Explores various advanced aspects of running training regimens, with emphasis on interval training, fartlek, speed play, long slow distance used in competitive running. Includes functional assistive training movements: flexibility and stretching, plyometrics and bounding.

KIN X19N. Advanced Volleyball.
For those with high levels of skills and knowledge of multiple offenses and defenses. Explores various aspects of competitive volleyball with emphasis on strategic utilization of defenses used in interscholastic and intercollegiate competitive teams.

KIN X19P. Advanced Swimming.
Designed for the advanced swimmer. Includes technical stroke analysis on four power strokes and exposure training/conditioning programs used by interscholastic and intercollegiate competitive programs. Expanded emphasis is on body form, stroke efficiency, and conditioning in all strokes.

KIN X19R. Topics in Kinesiology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Kinesiology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

KIN X19S. Movement Analysis: Individual Activities.
Application of movement skill analysis and biomechanical principles, physical laws of movement, fitness training principles and programs, exercise physiology, performance techniques, and skill progressions in individual activities and sport.

KIN X19T. Movement Analysis: Team Activities.
Application of scientific and psychosocial aspects of team sports, basic mechanical principles, and basic progressions relevant to performing and teaching selected team sport skills. Students also learn basic strategies and tasks related to coaching and organizing a team.

KIN X96T. Directed Research.
Investigation of assigned problems under direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; production of an acceptably written research report.

KIN X97P. Graduate Internship.
Supervised practice in a professional organization, business, or institution.

Upper-Division Courses

KIN X20. Applied Biomechanics of Human Movement.
Designed to provide students with an understanding of applied scientific analysis of movement. Examines the physiological, structural, and mechanical bases for human movement, with examples drawn from sport and rehabilitation. Lectures concentrate on a scientific approach to mechanisms underlying human movement and to strategies and practices of clinical and sport applications. Laboratory sessions focus on both theoretical and applied aspects of selected mechanical concepts.

KIN X21. Theory of Human Performance.
Designed for applied movement science, health education, and kinesiology majors. Examines foundational knowledge of theories of human performance and development and the concomitant changes that occur during an individuals lifespan. Explores interactive theories of the associated physiological, biomechanical, and cognitive disciplines that explain the control systems of the human body while in motion and subsequent development.

KIN X21M. Motor Development and Performance.
A review of movement skill progressions with emphasis on the processes that underlie changes in movement competence. Typical growth and maturation from birth to adulthood serves as the metric against which to identify atypical development. The principles underlying motor skill changes are applied to teaching, coaching, and clinical applications.

KIN X22. Diagnosis and Evaluation of Fitness.
Covers the science behind assessing physical fitness, and the role of physical activity and exercise in prevention and rehabilitation of cardio-respiratory and metabolic diseases.

KIN X24K. Applied Human Anatomy.
Combines the study of systematic and regional human anatomy. Includes applications of the skeletal system, and attachments and actions of muscles, with an emphasis on the mechanics of support and motion and their clinical applications.

KIN X25K. Physiology of Exercise.
Application of principles of physiology to muscular activities and an examination of physiological responses and adaptations to both acute and chronic exercise.

KIN X26. Advanced Weight Training.
Explores various advanced techniques of weight training, with emphasis on the lifts used in the competitive strength sports of weightlifting and powerlifting. Includes plyometrics and functional training movements for athletic enhancement.

KIN X26K. Biomechanical Analysis of Movement.
Study of the principles of equilibrium, force, and motion as applied to humans. Includes applications to human movement and to biological tissues and structures, with emphasis on practical applications (e.g., human performance, causes/prevention of injury etc.).

KIN X27D. Fieldwork: Aiding.
Supervised fieldwork in appropriate activity courses.

KIN X27E. Fieldwork: Applied Learning and Development Majors.
Supervised fieldwork or clinical work in appropriate activities.
KIN X27F. Topics in Internship.
Supervised fieldwork or clinical work in appropriate activities.
KIN X27F.1. Internship in Health Fitness.
KIN X27F.2. Internship in Medical Fitness.
KIN X27J. Internship/Fieldwork: Off Campus.
Supervised fieldwork or clinical work in appropriate activities off campus.
KIN X27K. Fieldwork: On Campus.
Supervised fieldwork or clinical work in appropriate activities on campus.
KIN X27M. Exploring Teaching and Physical Activity Leadership.
Supervised fieldwork or clinical work in appropriate activities.
KIN X27R. Fieldwork: Lab Research.
Supervised fieldwork or clinical work in appropriate activities.
KIN X27T. Topics in Internship.
Designed for health education and kinesiology majors or minors. Supervised fieldwork or clinical work in appropriate activities.
KIN X27T.1. Clinical Exercise Testing.
KIN X27T.2. Personal Training.
KIN X27T.3. Practicum in Disabilities.
Supervised academic service learning or clinical hours in instructor approved environments.
KIN X27T.4. Internship in Strength and Condition Coaching.
KIN X28. Internship/Fieldwork in Sport Management.
KIN X28C. Internship in Sport Management.
Supervised fieldwork or clinical work in appropriate activities.
KIN X29S. Topics in Kinesiology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Kinesiology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
KIN X30E. Sport Nutrition.
Explore the nutritional needs of people whose physical activity ranges from recreational to elite athletes. Develop practical dietary strategies based upon understanding how macronutrients, vitamins, minerals, water, and dietary supplements are digested and absorbed and how they effect metabolism.
KIN X31. Physical Aging in America.
KIN X32. Techniques of Fitness Leadership.
Practical application of theoretical content from exercise physiology, anatomy, and biomechanics. Emphasis on program design and development for healthy adults and special populations.
KIN X34. Children's Exercise and Physical Activity.
Focuses on the capacity for physical performance by children and adolescents from both physiological and psychosocial perspectives. Addresses children's readiness for physical training and competitive activities. Considers the active and inactive child with, and without, disabilities and secondary disabling conditions. Entails development of programs designed to keep children appropriately active for a lifetime of positive health outcomes.
KIN X35C. Motor Learning.
Psychological, behavioral, physiological, and environmental factors involved in performance and learning of motor skills; covers both theoretical and experimental evidence for the effects of these factors, with applications in physical activity, sport, and rehabilitation. Weekly laboratory sessions to collect and analyze data to assess motor performance and learning.
KIN X36. Neuromuscular Control.
Study of the brain and motor and sensory pathways involved in the control of movement. Covers nerve, muscle, and sensory cell function along with spinal cord reflexes. Application to research and clinical populations is emphasized.
KIN X38. Motor Development and Assessment.
Training in screening, diagnostic, and programmatic motor assessment instruments. Designed to give students practical experience in assessing physical and motoric development in children with and without disabilities.
KIN X40. Modern Olympic Movement in World Affairs.
Examination of the place of the modern Olympic movement in world affairs. The cultural, political, and economic dynamics of this relationship will receive special emphasis.
KIN X40C. Practicum in Athletic Training: Level 1A.
Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, and immediate care of injuries and illnesses suffered by athletic and physically active populations. Students use cognitive, psychomotor, and affective skills and knowledge to complete a prescribed set of educational competencies and clinical proficiencies under the direction of an approved clinical instructor.
KIN X40D. Practicum in Athletic Training: Level 1B.
Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, immediate care, and treatment of injuries and illnesses suffered by athletic and physically active populations. Emphasizes the application of therapeutic modalities and soft-tissue therapy techniques. Students use cognitive psychomotor and affective skills and knowledge to complete a prescribed set of educational competencies and clinical proficiencies under the direction of a clinical preceptor.
KIN X40E. Practicum in Athletic Training: Level 2A.
Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, immediate care, treatment, evaluation, and diagnosis of injuries and illnesses suffered by athletic and physically active populations. Emphasizes clinical evaluation and assessment techniques. Students use cognitive, psychomotor, and affective skills and knowledge to complete a prescribed set of educational competencies and clinical proficiencies under the direction of an approved clinical instructor.
KIN X40F. Practicum in Athletic Training: Level 2B.
Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, immediate care, treatment, evaluation, diagnosis, rehabilitation, and reconditioning of injuries and illnesses suffered by athletic and physically active populations. Emphasizes therapeutic exercise and rehabilitation procedures. Students use cognitive, psychomotor, and affective skills and knowledge to complete a prescribed set of educational competencies and clinical proficiencies under the direction of a clinical preceptor.
KIN X40G. Practicum in Athletic Training: Level 3A.
Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, immediate care, treatment, evaluation, diagnosis, rehabilitation, and reconditioning of injuries and illnesses suffered by athletic and physically active populations. Emphasizes general medical conditions. Students use cognitive psychomotor and affective skills and knowledge to complete a prescribed set of educational competencies and clinical proficiencies under the direction of an approved clinical instructor.
KIN X40J. Practicum in Athletic Training: Level 3B.
Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, immediate care, treatment, evaluation, diagnosis, rehabilitation, and reconditioning of injuries and illnesses suffered by athletic and physically active populations. Emphasizes the administrative and professional aspects of managing these conditions. Students use cognitive psychomotor and affective skills and knowledge to complete a prescribed set of education

competencies and clinical proficiencies under the direction of a clinical preceptor.

KIN X40M. Advanced Manual Therapy.

Designed for athletic training majors. Examines the theory and application of manual therapy techniques in patient care. The athletics and physically active populations will be targeted and an aggressive treatment approach for the restoration of function as quickly and as safely as possible will be emphasized.

KIN X40S. Senior Seminar in Athletic Training.

Designed for athletic training majors. Explores the study and practice of reviewing and applying research findings and evidence based practice concepts to ask and answer clinically relevant questions affecting clinical practice for athletic trainers.

KIN X41. Therapeutic Modalities in Athletic Training.

Designed for athletic training majors. The study and practice of using therapeutic modalities, including soft tissue and manual therapy techniques, to treat athletic injuries. Covers physiological effects, indications, contraindications, protocols, injury pathology, and tissue healing.

KIN X42. Clinical Evaluation of Athletic Injuries in the Lower Body.

Designed for athletic training majors. The study and practice of techniques involved in the evaluation of athletic injuries affecting the lower body.

KIN X43. Clinical Evaluation of Athletic Injuries in the Upper Body.

Designed for athletic training majors. The study and practice of techniques involved in the evaluation of athletic injuries affecting the upper body.

KIN X44. Therapeutic Exercise and Rehabilitation Techniques: Lower Body.

Designed for athletic training majors. The study and practice of therapeutic exercise techniques and rehabilitation protocols in treating athletic injuries and illnesses.

KIN X44U. Therapeutic Exercise and Rehabilitation: Upper Body.

Designed for athletic training majors. Explores the theory and application of therapeutic exercise techniques and rehabilitation protocols. The athletics and physically active populations will be targeted and an aggressive treatment approach for the restoration of function as quickly and as safely as possible will be emphasized. The classroom and laboratory experiences will provide the student with opportunities to apply these techniques under the direct guidance of knowledgeable clinicians specializing in athletic training.

KIN X45. General Medical Conditions in Athletic Training.

Designed for athletic training majors. Presentations, including some by medical and allied medical specialists, covering topics in athletic training and sports medicine.

KIN X46. Athletic Training Program Administration.

Designed for athletic training majors. The study of organizational and administrative principles involved with athletic training programs. Includes legal issues, budgetary concerns, and policies and procedures. Also includes resume development and career planning.

KIN X47. Historical and Ethical Issues in Physical Culture and Sports.

Designed for kinesiology and health education majors. Explores the history of sport industry and sport science and how laboratory revelations lead to new fitness regimens. Covers ethical issues in the field of physical culture and sport, such as the use of ergogenic drugs, the social consequences of high performance sport, and professional ethics in the fields of kinesiology and health education.

KIN X48. Psychological Aspects of Exercise.

Designed for applied movement science, health education, and kinesiology majors. Examines both the psychological benefits that accrue from exercise, such as reduced depression and stress, as well as the psychological predictors of exercise adherence.

KIN X49. History of Sport and Physical Activity.

Significant developments in sport and physical activity since prehistoric time; emphasis on events influencing contemporary American programs and the International Olympic Games.

KIN X50. Sociological Aspects of Sport and Physical Activity.

KIN X51. Philosophy of Sport and Physical Activity.

Designed for kinesiology and health education majors. Introduction to the ideas and methodologies of the philosophic exploration of play, sport, athletics, exercise, and the body. Emphasis on the study of sport and ethics.

KIN X52K. Topics in Human Movement Studies.

Analysis and synthesis of the literature and discussion of current and specific issues in kinesiology.

KIN X52K.18. Physiology of Brain Injury.

Examines the physiology of healthy brain and neural function and the pathophysiology associated with brain injury and the subsequent detection, diagnosis, treatment, short and long term consequences, and strategies to protect from and prevent brain injury.

KIN X52K.28. Musculoskeletal Functional Anatomy.

Explore a hands-on application of human anatomy as it applies to injury and strength/conditioning.

KIN X52K.29. Research Methods in Exercise Science.

Engage in every part of the research process, from defining a specific research question, designing the experimental protocol and performing data collection to presenting results and conclusions in a poster presentation.

KIN X52K.30. Sport Pedagogy.

KIN X52K.31. Sport, Society, and the International Olympic Movement.

KIN X52K.33. Nutrition: Exercise, Health, and Sport.

Explore general nutrition concepts including basic definitions and how nutrition affects health. Examine the current nutrition recommendations at various ages.

KIN X52K.34. Exercise Physiology Cardiovascular Disease.

Explore cardiovascular diseases and the effect of exercise in patient populations. Examine current research in the field by reading peer-reviewed, published articles.

KIN X52K.35. Client Services and Venue Management.

Examine the Americans with Disability Act and how it designates accessibility and services in public spaces. Identify client/attendee escalation and the dispute resolution practices necessary for successful return to common interest. Explore different models and techniques adopted by entities with respect to fundamentals of marketing.

KIN X52K.36. Exercise Physiology in Cardiovascular Diseases.

Examine the physiology of cardiovascular diseases and their consequences on autonomic regulation during exercise in these patient populations. Analyze and synthesize the literature and discussion of current peer-reviewed research articles.

KIN X52K.37. Environmental Physiology.

Learn responses and adaptations of the cardiovascular and pulmonary systems to different extreme environments.

KIN X52K.38. Exercise and Sport for Health, Fitness, and Performance.

Discuss the impacts that sports and exercise have on health, fitness, and performance.

KIN X52K.6. Race and Sport in African American Life.

KIN X52L. Women and Sport.

Examine the role sport and exercise has played in the lives of women since ancient times with an emphasis on events influencing American women in sport, their fight for access to sport, and the International Olympic Games.

KIN X52M. Sport, Fitness, and Mass Media.
Examine the evolution of sport media related to competitive sports and physical culture in print, television, and online.

KIN X52N. History of Physical Culture.
Survey the history of major trends and movements in physical culture, including fitness and exercise, strength sports, body cultures, and alternative health.

KIN X53. Sport Law.
Designed for sport management majors. Introduction to the United States legal system and to the major cases, laws, and regulations that together make up "sports law.

KIN X54. Sport and Event Marketing.
Application of the fundamental principles used in the marketing of sport and events, with an emphasis on how sport marketing is distinct from traditional goods and services marketing. Focus on key consumption behaviors in sport and their implications for sport marketing practice.

KIN X55. Media and Public Relations in Sport.
Designed for sport management majors. Examination and application of the concepts of public and media relations to sport and leisure organizations. Subjects include effective interpersonal communication, persuasion, media relations, publicity tactics, social and new media, and writing and oral communications skills.

KIN X56. Revenue and Budgeting in Sport.
Introduction to financial analysis and budgeting techniques in the context of sport organizations; conventional and innovative methods for the acquisition of revenue available to sport organizations. Examine financial trends in various sectors of the sport industry, including: professional, college, government/public, and nonprofit sport.

KIN X57. Strategic Management of Sport Organizations.
Designed for sports management majors. Examines the strategic development of sport and health promotion programs. Focus on strategy development within organizations, which includes complementary course material deriving from various sub-disciplines related to strategic thinking and decision-making.

KIN X60. Programming for People with Disabilities.
Covers early detection of disabilities in children, assessment, recommendations for educational settings, and writing an Individualized Education Program. Reviews real-life scenarios featuring individuals with disabilities in active settings. Covers skills useful for a career in a school environment, public policy, and recreation.

KIN X61. Coaching Theory and Principles I.
Examines the philosophy, ethics, strategies, motivational techniques, performance analysis, program organization, contest administration, and facilities management related to coaching.

KIN X62. Coaching Theory and Principles II.
Examines the process of becoming a successful coach and developing a coaching protocol for a specific sport.

KIN X63. Theory and Practice in Strength Coaching.
Examine the physiology and biomechanics of strength and conditioning training, as well as popular assessment protocols and exercise prescription principles. Explore the management of a strength/conditioning facility, including organization and administration, staff utilization, integration of weight training with other training techniques, and standard strength coaching practices.

KIN X64. Aquatic Facility Operator: Management and Administration.
Designed to prepare the aquatic professional for leadership in the management of indoor and outdoor facilities. Includes aquatic facility operation, administration of programs, physical operations, policies and procedures, and staff development and training. Includes design, pool operation, water chemistry, facility management, safety procedures and risk management, budgeting, and marketing aquatic programs. Studies educational, sport, and recreational aspects of pools, lakes, camps, and beachfronts.

KIN X65. The Business of Golf.
Designed for students pursuing a career in the golf business. Includes clubhouse and links management, sales, agronomy, technology, and equipment.

KIN X66R. Adapted Fitness and Recreation.
Investigate fitness and recreation as integral components of optimal health and well-being for individuals with illnesses and disabling conditions. Explore the benefits of exercise for people with disabilities and the preparation necessary to clear the pathways for individuals to successfully pursue a lifetime of fitness and recreation.

KIN X67S. Sport and Disability.
Delve into a comprehensive look at the history of disability sport and current elite and Paralympic athletes. Explore disability sport in its historical context; organizations, competitions, and sport opportunities for athletes with disabilities; international perspectives; and coaching and training of athletes with disabilities, including sports medicine issues, activity modifications, equipment uses, and event management for both adult and young athletes.

KIN X68T. Perspectives in Assistive Devices, Products and Technology.
Participate in a multidisciplinary collaborative approach in the development of devices and products to assist people with disabilities in recreational and daily life pursuits. Join a team of medical and engineering students in prototyping technologies, and be guided through early insight marketing research, and development strategies. Engage with leaders in successful business ventures and learn from experts in technology, medicine and product development. Present concluding projects to a panel of mentors in the fields of research, marketing, development and patenting.

KIN X70K. Topics in Health Promotion: Seminar.
Identification, causes, incidence, prevention, control, and social implications of major problems in health.

KIN X70K.1. Emergency Medical Technology.

KIN X75. Issues and Trends in Developmental Movement Programs.
Introduction to issues related to the goals, organization, and success of developmental movement programs, such as school physical education, youth sports, YMCA, and other recreation programs and community activities. Issues include equity, competition, fitness, social development, safety and liability, and sportsmanship. Involves group work and observation and involvement in community programs.

KIN X76. Measurement in Kinesiology.
Measurement and assessment procedures; application of statistical procedures; standards for authentic assessment; measurement/assessment selection and evaluation; use of technology in tracking development of motor skills and fitness.

KIN X78. Topics in Fieldwork in Health.
Undergraduate research and/or experience with a health agency in the field attempting to analyze or solve community health problems through education; supervision by the health agency and by the kinesiology and health education faculty.

KIN X78.1. Substance Abuse Prevention I.

KIN X78.2. Substance Abuse Prevention II.

KIN X78.3. Sexual Health I.

KIN X78.4. Substance Abuse Prevention III.

KIN X79H. Honors Tutorial Course.
Readings or a research project, under the supervision of a faculty member, in specific areas of research within kinesiology.

KIN X96T. Directed Research.
Investigation of assigned problems under direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; production of an acceptably written research report.

KIN X97P. Graduate Internship.
Supervised practice in a professional organization, business, or institution.

Graduate Courses

KIN X82. Topics in Conference- Laboratory.
Laboratory or workshop-type instruction dealing with selected problems in specialization areas of kinesiology.

KIN X82.1. Laboratory Techniques in Exercise Physiology.
Study techniques to measure the cardiovascular and metabolic responses to exercise.

KIN X82.10. Pedagogical Technology.
Analysis and application of fundamental and advanced technologies in physical activity settings.

KIN X82.4. Biomechanics Laboratory.

KIN X82.6. Advanced Laboratory Techniques in Exercise Physiology.
Knowledge and skills needed to assess the metabolic characteristics of the rat, to evaluate the metabolic characteristics of skeletal muscle, and to perform essential biochemical assays and procedures that are typically used in biochemical and molecular biology experiments.

KIN X82.7. Clinical Exercise Physiology: Theory and Practice.
Designed for students interested in assessing physical fitness and well-being and designing exercise programs in corporate, community, clinical, occupational, and commercial settings. Students receive practical experience assessing physical fitness.

KIN X82.9. Motor Development: Assessment.
Review of screening, diagnostic, or programmatic motor assessment instruments. Includes test psychometrics, test content, appropriate population, and comparable or competing assessments.

KIN X86. Topics in Research Methodologies.
Disciplines of research methods, research design, data-producing techniques, treatment and interpretation of data, reporting on research.

KIN X86.1. Research Methods: Proposal Writing.

KIN X86.2. Research Methods: Applied Research Techniques.

KIN X86.3. Qualitative Research Methods PCSS.
Introduction to the theoretical and methodological aspects of qualitative research, as well as qualitative research approaches from a variety of disciplines and philosophical traditions with an emphasis on the application of research designs, data collection, and analysis techniques for researchers of sport, physical culture, exercise, and physical activity. Recommended for students specializing in sport management or interdisciplinary sport studies.

KIN X86.4. Research Methods: Grant Writing.
Disciplines of research methods, research design, data-producing techniques, treatment and interpretation of data, and reporting on research. Recommended for doctoral students interested in pursuing a post-doctoral experience.

KIN X86.5. Archival Research Methods in Physical Culture and Sport History.
Selected research methods and techniques used in archival research at the theoretical and pragmatic level. Familiarizes students with research methods for both paper-based and digital archives.

KIN X95. Topics in Advanced Studies.
Graduate seminar in topics related to specialization areas.

KIN X95.1. Ergogenic Aids for Exercise.

KIN X95.10. Neural Control of Posture and Locomotion.

KIN X95.11. Pulmonary Exercise Physiology.
Examine the interactions between the cardiovascular and pulmonary systems at rest and during exercise.

KIN X95.12. Muscle Physiology and Plasticity.

KIN X95.13. Aging Motor Systems.

KIN X95.15. Conditioning for Competitive Athletes.
The physiological factors that govern the adaptations derived from acute and chronic exercise training. Focus will be placed on training adaptation in competitive athletes as they represent the extreme.

KIN X95.16. Cardiovascular Response to Exercise.

KIN X95.18. Fitness Testing and Evaluation.

KIN X95.2. Cardiac Metabolism.

KIN X95.21. Children's Exercise and Activity.
Physiological bases for changes in exercise and sports performance and in exercise capacity throughout childhood and adolescence. Includes aspects of cardiovascular, respiratory, and metabolic changes and issues related to thermoregulation, training, gender, and health and fitness.

KIN X95.23. Critical Issues and Events in American Sport.
Introduction to historical research process through a reading and analysis of significant works in the field of sport history and the writing of a research paper.

KIN X95.25. Fat Metabolism during Exercise.

KIN X95.26. Legal Issues in Sport.

KIN X95.27. Athletics Administration.

KIN X95.28. Physical Dimensions of Aging.

KIN X95.29. Ethics in Sport.

KIN X95.3. Physiology of Aging.

KIN X95.32. Sport Marketing.
Apply the fundamental principles used in the marketing of sport and events.

KIN X95.33. Musculoskeletal Biomechanics.
Synthesis of properties of the musculotendon and skeletal systems to construct detailed computer models that quantify human performance and muscular coordination.

KIN X95.36. Biomechanics of Human Movement.

KIN X95.38. Muscle Metabolism during Exercise.

KIN X95.4. Biomechanics of Sport.

KIN X95.42. Facility and Event Management.
Management and operation of sport, recreation, convocation, convention, and other public assembly facilities.

KIN X95.43. Psychology of Exercise.
The benefits of exercise in moderating negative psychological states such as anxiety, stress reactivity, and depression.

KIN X95.44. Sport Finance.
Examine finance in sports organizations. Explore the knowledge and skills needed in the administration of both sport and non-sport organizations or firms.

KIN X95.45. Pediatric Motor Development.

KIN X95.46. Advanced Exercise Physiology I.
Designed to provide students with the essential graduate background for the application and practice of exercise physiology. The integration of the nervous, skeletal muscle, and cardiovascular systems from the subcellular level to the whole-organism level.

KIN X95.47. Advanced Exercise Physiology II.
The physiological and metabolic response to exercise, with emphasis on integrating the whole-body and cellular responses. In a variety of topics, students review basic physiology, focus on responses during exercise, and apply their findings to situations in the clinical and sporting environments.

KIN X95.48. Social Psychology of Sport and Physical Activity.
The theoretical structure that underlies social psychology as it has been applied to sport. Emphasis on the psychological concerns that confront coaches in their interactions with individual athletes and teams.

KIN X95.49. Sports Nutrition.
The nutritional needs of people whose physical activity ranges from recreational to elite competitive athletics. Development of practical

dietary strategies that recognize the unique nature of sport and the role of diet in promoting optimal physiological adaptation to training.

KIN X95.5. Exercise and Preventive Medicine.

KIN X95.50. Sport Psychology.

The general field of experimental sport psychology, with emphasis on the psychological components of individual performance. Designed to prepare students to discuss the important questions, methodology, and experimental literature in selected areas of sport psychology.

KIN X95.51. Adult Development, Aging, and Health.

KIN X95.52. Organizational Behavior in Sport.

Determinants and consequences of individual motivation and attitudes in organizations generally and in sport organizations specifically. Theory related to the individual often responsible for motivating people toward organizational goals, the leader.

KIN X95.53. Sport Public Relations and Sales.

Detailed study of the relationship between the media, corporate sponsorship, and sport. Focus on various media techniques utilized by sport managers and sport sponsorship basics.

KIN X95.54. The Biology of Aging.

KIN X95.55. Assessment of Physical Function in Older Adults.

Introduction to the goals, issues, and procedures that relate to the clinical assessment of physical function in the elderly (sixty-five and older).

KIN X95.56. Sport and Special Event Management.

Introduction to key considerations when planning, implementing, and evaluating an event. Considers the organization of the events industry worldwide and examines how events link to other sectors of the economy. Specialized skills for the management and marketing of events. Students have the opportunity for hands-on practice in the use of the necessary tools for planning, programming, administering, and evaluating an event.

KIN X95.57. Managing People and Organizations.

Graduate-level preparation in select subjects in organizational behavior and human resources management.

KIN X95.58. Sport Consumer Behavior.

An examination of contemporary theory and research on the subject of sport consumer behavior.

KIN X95.59. Biomechanics in Clinical Settings.

Designed to provide students with the basic biomechanical competence required to understand how normal human movements are generated, how movements are altered by injury or pathology, and how clinical intervention can improve performance.

KIN X95.60. Sport Policy.

The formulation and analysis of sport policies: the uses of policy analysis in sport settings; environmental, economic, and sociopolitical impacts of sport, including policy implications.

KIN X95.61. Central Questions in Biomechanics and Motor Control.

Designed to allow students to explore specific topics of current interest in biomechanics and/or motor control; to learn to evaluate the scientific literature in areas of current debate or controversy; and to develop scientifically sound, relevant, and experimentally testable research hypotheses.

KIN X95.62. Aging and Cardiovascular Function and Disease Risks.

Cardiovascular changes associated with aging; scientific issues and hypotheses in the area of aging and cardiovascular function and disease risks; and presenting critical analyses of these issues.

KIN X95.63. Introduction to Nonlinear Dynamics in Biological Systems.

Basic concepts of nonlinear mathematics and their application to biological systems.

KIN X95.64. Neuromuscular Aspects of Fatigue and Training.

The role of the central nervous system during muscular fatigue and exercise training.

KIN X95.65. Sport Development.

Examine contemporary theory and research on the subject of sport systems and athlete development.

KIN X95.66. Marketing Research for Sport.

KIN X95.67. Theories and Issues in Sport Management.

Examine legal, policy, financial, and marketing trends and how they affect the management of sport organizations and systems.

KIN X95.68. Human Resource Management in Sport Organizations.

KIN X95.69. Physical Activity Assessment in Individuals and Populations.

Provides an understanding of the various methods used to measure physical activity and related constructs (such as sedentary behavior, movement, and physiological attributes), and the mechanisms by which physical activity influences health outcomes. Covers all forms of physical activity measurement, assessment of built environment, and psychosocial correlates of physical activity, as well as validity, reliability, and related statistical strategies.

KIN X95.70. Human Cardiovascular and Autonomic Physiology.

Introduction to the regulation of the cardiovascular and autonomic nervous system in health and disease.

KIN X95.71. Cognition and Exercise Across the Lifespan.

Detailed study of the relationship between brain health and physical activity behaviors across the developmental life stages; focused on the effects of physical activity programming on cognitive control and performance.

KIN X95.72. History of Strength and Strength Training.

Explore the history of the physiological understanding of human strength, training methodologies to promote strength, the evolution of the profession of strength coaching, gendered-attitudes toward the possession of physical strength, and the rise of competitive strength sports. Using a cultural studies approach, consider ideas about strength (and muscularity) from Ancient Greece and Rome. Examine the rise of circus strongmen and strongwomen, the professional physical education community's shunning of "strength" as a desirable physiological goal, and the rise of non-professional entrepreneurs like Bob Hoffman, Joe Weider, and Arthur Jones who helped debunk the myth of muscle binding.

KIN X95.73. History of Sport and Business.

Survey of the development of modern sport industry from late nineteenth-century roots to twenty-first century global phenomenon. Examines connections between media and sport; the role of IMG and other sport agencies in event sponsorship and creation of celebrity athletes; growth of professionalism in the Olympic movement; the rise of megacorporations; and the commercialization of college and high school athletics.

KIN X95.74. History of Physical Culture and Alternative Medicine.

Examines the history of the various practices used to strengthen, enhance, and improve the health of the body through exercise, dietary manipulation, and other holistic practices.

KIN X95.75. Sport and International Relations.

Examines the relationship between sport and international relations.

KIN X95.76. History of Exercise Science and Sports Medicine.

Traces the evolution of exercise science and sports medicine from Classical Greece to the present.

KIN X95.77. Strategic Management in Sport.

Graduate level preparation in developing and analyzing organizational strategies. Preparation for consultancy work as well as composing and analyzing business plans.

KIN X95.78. History of Sports Nutrition.
Explore the many ways in which nutritional science, diet, and folk remedies came to be popularized among athletes, and what the ramifications of these developments were. Examine the relationship between exercise and diet in the early nineteenth century, with attention paid to British and American culture. Discuss the emergence of new dietary practices for athletes throughout time, ranging from vegetarian diets to high protein meals. Identify methods and theories found in histories of gender, sport, health, medicine, politics, and culture among other disciplines.

KIN X95.79. Race, History and the Quest for Body Perfection.
Explore issues of race, gender, and sexuality as applied to the human body through the lens of cultural history. Examine beliefs about what has been considered "beautiful," "fit," "obese," and "healthy" and bodies have been defined as "masculine," "feminine," or outside this traditional binary. Assess how the human body has been measured and critiqued by physical educators, scientists, and government agencies; how muscularity and the quest for ideal measurements has been celebrated and derided in different historical eras; how beauty and physique contests celebrate particular kinds of bodies; and how ideal bodies have been portrayed in art, photography and film.

KIN X95.8. Motor Control: Neuromuscular Bases.

KIN X95.80. Statistical Methods in Education and Health.

KIN X95.81. Leadership in Sport Organizations.

KIN X95.82. Human Anatomy Dissection.
Analyze human anatomy and train in human cadaver dissection. Perform detailed regional dissections on human cadavers to study the anatomy and anatomical relationships of the entire human body with an emphasis on clinically relevant anatomy.

KIN X95.83. Sports Economics.
Examine the economics of sports leagues, particularly those in North America. Use a managerial economics approach to cover three core areas of sports economics: industrial organization, labor, and public policy.

KIN X95.84. Endocrine Physiology of Exercise.
Examine the hormones involved in exercise physiology and maladaptation(s) in disease states.

KIN X95.85. Environmental Physiology.
Learn responses and adaptations of the cardiovascular and pulmonary systems to different extreme environments.

KIN X95.86. Sport Coaching History, Theory, and Ethics.
Investigate the historical, theoretical, and ethical considerations of coaching, including strategies, motivational techniques, and program organization for different age and skill levels. Develop a coaching philosophy and apply content to various coaching scenarios.

KIN X95.87. Sport Injury Management.
Provide the knowledge, skills, and abilities necessary to prevent, assess, recognize, and manage injuries and conditions that commonly occur during exercise, physical activity, and athletic participation.

KIN X95.88. Strategies and Techniques in Sport Coaching.
Examine principles and practices of sport coaching and development of athletes from youth through adolescence and into young adulthood. Discuss the integration of motor learning and development, sports science, practice structure and design, and performance analysis and feedback.

KIN X95.9. Motor Control: Performance and Learning.

KIN X95D. Neurological Rehabilitation.
Explore the scope, techniques, and research findings of the field of neuromuscular and biomechanical mechanisms in neurological rehabilitation. Review basic neuromuscular and biomechanical concepts and principles, and study recent efforts to apply them to selected clinical situations.

KIN X96. Doctoral Seminar.
Individual or shared project research with reports evaluated by seminar participants and the instructor.

KIN X96T. Directed Research.
Investigation of assigned problems under direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; production of an acceptably written research report.

KIN X97. Research Problems.
Individual or group research topics in a specialization area of kinesiology.

KIN X97C. Movement and Cognitive Rehabilitation Science Seminar.
Participate in facilitated research and professional development. Share work with peers and faculty and receive friendly and constructive feedback.

KIN X97P. Graduate Internship.
Supervised practice in a professional organization, business, or institution.

KIN X98. Thesis.

KIN X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

KIN X99W. Dissertation.

Professional Courses

KIN X96T. Directed Research.
Investigation of assigned problems under direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; production of an acceptably written research report.

KIN X97P. Graduate Internship.
Supervised practice in a professional organization, business, or institution.

KOR - Korean

Korean: KOR

Lower-Division Courses

KOR X04. Accelerated First-Year Korean.

KOR X06. First-Year Korean I.
Intended for non-native speakers of Korean.

KOR X07. First-Year Korean II.
Continuation of Korean 506, 606. Intended for non-native speakers of Korean.

KOR X12. Accelerated Second-Year Korean.
Continuation of Korean 604.

KOR X12K. Second-Year Korean I.
Intended for non-native speakers of Korean.

KOR X12L. Second-Year Korean II.
Intended for non-native speakers of Korean.

KOR X19S. Topics in Korean.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

KOR X29S. Topics in Korean.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

KOR X19S. Topics in Korean.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

KOR X20K. Third-Year Korean I.

KOR X20L. Third-Year Korean II.

KOR X29S. Topics in Korean.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

KOR X30. Topics in Advanced Korean.
Fourth-year Korean readings on special topics.

KOR X30.1. Advanced Conversation in Korean.
Emphasis on achieving an advanced level of proficiency in modern conversational Korean, with additional practice in advanced writing and listening skills.

KOR X30.2. Advanced Readings in Korean I.
Selected modern Korean poems, short stories, and essays to develop reading and writing skills in advanced Korean. Includes discussion of cultural and historical issues.

KOR X30C. Introduction to Modern Korean Literature.

KOR X30F. Korean Conversation through Media.
Develop conversational skills in Korean language through the analysis of authentic Korean media resources such as newspapers, the Internet, TV news, and audio files. Focus on the comprehension, analysis, translation, and critique of media texts, as well as some formal speaking.

KOR X60. Conference Course in Korean Language and Literature.
Supervised individual study of selected problems in Korean language or literature.

Graduate Courses

KOR X19S. Topics in Korean.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

KOR X29S. Topics in Korean.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

KOR X81. Conference Course in Korean Language and Culture.
Supervised individual study in Korean language or culture.

KOR X84. Topics in Korean Language and Culture.

Professional Courses

KOR X19S. Topics in Korean.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

KOR X29S. Topics in Korean.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

L A - Liberal Arts

Liberal Arts: L A

Lower-Division Courses

L A X01E. Discovering the Liberal Arts and Humanities.
Introduction to the College of Liberal Arts (COLA) and its variety of research methodologies and scholarly opportunities.

L A X01L. Topics in Introduction to the Liberal Arts.
Topics related to exploring the various disciplines in the College of Liberal Arts.

L A X01M. Liberal Arts to Career.

L A X01N. Liberal Arts Career.
Explore professional development areas such as marketing your liberal arts degree to employers, exploring career industries, identifying strengths and skills, conducting job and internship searches, and preparing resumes and cover letters.

L A X01P. Creating Your Academic Pathway.
Focuses on opportunities within the College of Liberal Arts, academic success, extracurricular support, and professional development.

L A X01Q. First-Year Seminar.

L A X02. Critical Thinking Seminar.
An examination of fundamental concepts in critical thinking, including the role of intellectual virtues, an analysis of the elements of thought, Socratic thinking, and the application of universal intellectual standards.

L A X02F. Foundation Scholars Program Seminar.

L A X02P. Path to Admission through Co-Enrollment (PACE) Workshop.
Provides guidance to first-year students in the Path to Admission through Co-Enrollment (PACE) program.

L A X04R. Topics in Community Service.
Tutorial course, in which students submit reports based on service learning and appropriate supplementary reading.

L A X04R.1. Leadership, Ethics, and Society.

L A X04R.2. Civic Engagement and Civic Responsibility.

L A X11. Internship Experience.
Experience an internship and create SMART goals. Reflect on the internship experience and explore approaches in overcoming obstacles toward goals.

L A X12C. Topics in Community Engagement.

L A X13P. Topics in Peer Mentoring.

L A X17. Strategies in Critical Thinking for Success.
Introduction to strategies that enable well-informed decisions for success in college and beyond.

L A X19. Topics in International Learning Seminars.
Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.

L A X19S. Topics in Liberal Arts.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser

in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

L A X20. Internship.
Designed to establish the academic foundations of an internship course in the liberal arts. Students integrate knowledge derived from their academic studies with the experiences gained in an internship setting.

L A X20D. Digital Humanities Internship.

L A X20J. Jewish Studies Internship.

L A X20L. Military Leadership Internship.
Field leadership training program.

L A X21. International Internship.

L A X21F. French Studies Internship.

L A X21J. Italian Studies Internship.

L A X21M. Health and Society Internship.

L A X21S. Security Studies Internship.

L A X25. Topics in the Liberal Arts.
Analysis of topics in the philosophy and real-life application of the liberal arts.

L A X25I. Intelligence and National Security.

L A X29. Topics in International Learning Seminars.
Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.

L A X29S. Topics in Liberal Arts.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

L A X30G. Global Disinformation Research.
Focus on various aspects of global disinformation from security, social, and policy perspectives.

L A X31C. Research Internship.

L A X31R. Research Internship.

L A X40. Leadership and Urban Engagement.
Explore leadership skills and goals in the urban context. Read and discuss leadership challenges that arise when stakeholders come together to plan, make decisions, and take action in organizational and community settings.

L A X50. Research Conference Course.

Graduate Courses

L A X80L. Topics in Liberal Arts: Methods for the 21st Century.
Offer skills-based training for students at different stages of their programs.

L A X81. Topics in Liberal Arts: Advanced Methods.
Offers skills-based training for students at different stages of their program.

L A X87. Graduate Internship.

L A X98T. Supervised Teaching in Liberal Arts.

Professional Courses

LAH - Liberal Arts Honors

Liberal Arts Honors: LAH

Lower-Division Courses

LAH X01. The Idea of Reacting to the Past.
Develop skills in public speaking, debate, critical thinking, research and writing using historically-based perspectives through role play.

LAH X02H. The Idea of the Liberal Arts.
An overview of the liberal arts disciplines.

LAH X03H. The Ideas of Civic Engagement.
Introduces Liberal Arts Honors students to the resources of the University, their history, and how to make best use of them. Provides guidance on internships, scholarships, and career paths, encouraging students to prepare for a lifetime of civic engagement and public service.

LAH X04H. Professionalization and Career Development.
Introduction to the ideas, concepts, and best practices of career development, professionalization and professional online brand management. Provides guidance on internships and career paths working in conjunction with Liberal Arts Career Services.

LAH X05. Topics in Liberal Arts Freshman Honors Seminar.
Intensive small class lecture or seminar course addressing basic issues in various liberal arts disciplines. Lectures, readings, discussions, examinations.

LAH X05R. Reacting to the Past.
Introduction to major philosophical, political, and historical concepts. Re-create the contexts in which these ideas acquired significance through role-playing games.

LAH X12H. The Nature of Inquiry.
Introduction to the nature of research in liberal arts disciplines.

LAH X18Q. Supervised Research.

LAH X19S. Topics in Liberal Arts Honors.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

LAH X22L. Law and Organizations.
Examine the intersection of law and organizational/workplace practices. Explore how law regulates the workplace (e.g., laws about sexual harassment), how organizations do or do not comply with the law, and the ways that organizational practices may affect legal standards.

LAH X29S. Topics in Liberal Arts Honors.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAH X40L. Legal Internships.
Explore the role of lawyers and how the practice of law has shaped American society. Intern in law offices or legal settings. Gain practical experience and first-hand knowledge of different legal fields. Internships help shape classroom discussions. Examine the practice of law and how lawyers serve the public interest and larger society

LAH X40M. Business Consulting Internship.
In a classroom setting, explore and discuss the role of consultants in the business world and how both have shaped American society. Discuss hands-on experience from internships in the classroom.

LAH X40N. Nonprofit Management Internship.
In a classroom setting, explore the role of non-profit organizations and how they have shaped American society. Discuss hands-on experience from internships in the classroom.

LAH X40P. Public Health Internship.
In a classroom setting, explore the role of public health organizations and how they have shaped American society. Discuss hands-on experience from internships in the classroom.

LAH X40Q. Technical Writing and Social Media Internship.
In a classroom setting, explore the expanding role of social media and technical writing in society and how both have shaped American society. Discuss hands-on experience from internships in the classroom.

LAH X40R. Public Policy Internships and Advocacy.
Examine how public policy is made, functions, and can be changed through the use of case studies, policy reports, and articles on current issues. Participate in a public policy oriented internship.

LAH X40S. Foundations of Intercultural Competency.
Study the ability to accurately understand and adapt behavior to cultural differences and commonality. Examine self and other awareness, explore culture, practice cross-cultural communication, and develop intercultural competency.

LAH X41T. Creative Writing and Crisis.
Examine how writers are able to respond creatively to challenging conditions and circumstances through certain writing practices and aesthetics. Study various writers and how their work responds to various forms of crises, such as personal, social, environmental, and existential. Explore a wide range of literary texts that capture contemporary dialogue with crisis.

LAH X42U. Poetics and Performance.
Explore depth and range of various poetic forms of contemporary poetry. Study writing poetry as a way of expressing thought and feeling that is shared with others. Engage in a conversation between voices and texts to produce informed writing.

LAH X43V. American Literature and Culture of the Late 1960s.
Examine subjects that polarized Americans in the late 1960s, such as counterculture, the Vietnam War, youth protests, racism in the South, and the Black Power/Black Arts Movement. Explore the culture and social milieu of the late 1960s through the prism of American literature, film, and popular music of the era.

LAH X45C. Tell Your Stories: A Workshop.
Practice writing stories as a way of exploring oneself, relationships and the world. Study examples of written storytelling in various genres including poetry, literary nonfiction, and short fiction.

LAH X45D. Inequality in the United States Educational System.
Examine how inequality has developed and is maintained within the American public education system.

LAH X49. Scholars Honors Capstone.
Produce a paper that reflects upon the student's academic enrichment experiences and how it impacted their views and career goals.

LAH X50. Topics in the Liberal Arts.
Intensive lecture course treating topics from a variety of disciplinary perspectives, taught by instructors from various departments. Lectures, readings, discussions, examinations.

LAH X50.10. In Search of Meaning.
Concepts include monotheism, the nature and personality of this god, the soul, chosen people, linear time, history as divine classroom, original sin, heaven, hell, salvation, etc. Establishes how and when these and a host of other features came into existence and created Judeo-Christian reality, and contrast the reality created therein with other realities--Hinduism, Buddhism, Confucianism, Islam.

LAH X50.11. Rhetoric of Great Speeches.
Exploration of the nature and history of rhetoric and analysis of some of the great speeches of the Western tradition.

LAH X50.12. Technologies of the Book.
Examines the technologies that enabled the book and explores its impact on society, with particular attention paid to the printed book that has flourished since the mid-fifteenth century. Explores the technologies of production and manufacture, and those that enabled the creation of texts by authors and their distribution and reception, and considers the future of the book in today's society.

LAH X50.13. Writing Nonfiction.
The craft of writing profiles, narratives, and essays. Concentration on the fundamental components of nonfiction: beginnings, organization, character development, narrative flow, and conclusions.

LAH X50.14. Money In American Politics.
Explores the nature and consequences of money in American politics.

LAH X50.15. History at Play.
Explores the great religious, political, and cultural debates that occurred around two historic events: England's break with the Catholic Church in 1536 and India gaining independence from Britain in 1947.

LAH X50.16. Psychology and Religion in Modern American Culture.
Explores the historical, religious, and psychotherapeutic manifestations of the "search for meaning" in modern American culture. Examines theology, psychological theory, literature, music, politics, and art.

LAH X50.17. Race and Medicine in American Life.

LAH X50.18. The Johnson Years.

LAH X50.19. British History, Literature, and Politics.
Reading course in history, literature, and politics, and as a class in professional writing. Examines not only the literature, history, and politics of England, Wales, Scotland, and Ireland, but also the interaction of British and other societies throughout the world.

LAH X50.2. Our Lives In Fiction.
Examines the hypothesis that human beings have and continue to create and recreate themselves through the telling of stories. Explores the concept that stories help define what is significant, what is praiseworthy, and what it is we should value and why.

LAH X50.22. Leadership Strategy In Sports.

LAH X50.23. The Human Place in Nature.

LAH X50.27. Sicily: Myth, Reality, and Mafia.
Examine the artistic traces left in Sicily by Greek, Roman, Arab, Norman, and Spanish civilizations and how they contributed to create the present Sicilian reality.

LAH X50.29. David Foster Wallace.

LAH X50.3. Technical Change and Financial Crisis.
Explores the economics of the business firm, the management of technical change, and the interaction between technology and finance in the writings of major twentieth century economists. Emphasis on attempting to understand the social and income-distributional consequences of technical change, the potential for system instability, and the dilemmas of public policy in this area.

LAH X50.30. Paradise Lost: Reception History.

LAH X50.31. Immigration Literature.

LAH X50.32. Literature, Cultural Memory, and the American Civil War.
Examines the American Civil War not in terms of its military or political history but in relation to the ways literary and cultural texts have remembered and rewritten it.

LAH X50.4. Literature of World War I.
Selected readings from autobiographies, poetry, fiction, and memoirs, primarily about the Western Front, by German, British, and American authors; a short history of World War I; readings of a central book of literary analysis; exploration of the nature of war, the experience of combatants, and the legacy of the war itself and its unique literature.

LAH X50.5. Modern Masters of the Novel.
An examination of a range of subjects and styles that distinguish the capacity of the novel to reflect private lives and public moments. Focuses on nineteenth and twentieth century British and American novelists such as George Eliot, Philip Roth, Ford Maddox Ford, and Graham Greene.

LAH X50.6. Documentary Film and Inquiry.
Examines how narrative accounts such as documentary film, biography, or other non-fiction work impact the interpretation of significant events. A component of the class includes individual or collaborative research on a chosen topic and presentation of a life history project via a narrative description, video, photography, or other medium.

LAH X50.7. Power and Belief in Early Modern Europe.
The historical and cultural processes that lead people to change the way they look at the world, and also brought some early modern Europeans to

argue for religious toleration - first as a practical matter, and eventually as a matter of principle.

LAH X50.8. The Decolonization of the British Empire.
Explores the era of decolonization of the British empire after World War II.

LAH X50.9. Getting it in Writing.
An exploration of nonfiction writing and the process of translating facts, ideas, and experiences into words.

LAH X50G. Guns in America.
Examine firearms in the United States. Engage with literature drawn from the social sciences, law, medicine, and public policy to develop a holistic understanding of the historical and contemporary role of firearms in the cultural, social, and political landscape of the U.S.

LAH X50M. John Milton and the Enlightenment.
Examine the impact of Milton's political and social writings by pairing Milton's political prose with eighteenth-century Enlightenment texts from both sides of the Atlantic. Discover the role Milton's ideas played in shaping the foundations of liberty in both Britain at the Glorious Revolution and in North America at the American Revolution.

LAH X50P. The Paper Chase: Law School and the Life of the Law.
Explore the liberal arts through the lens of the first-year law school experience and the first-year law school experience through the lens of the liberal arts.

LAH X50T. Treasure Hunt Archival Research.
Discover, explore, and identify the boundless treasures that can be found on The University of Texas at Austin campus by hunting through the vast cultural and historical collections at the archives on campus including the Harry Ransom Center, the Dolph Briscoe Center for American History, and the LLILAS Benson Latin American Collection. Explore essential skills for pursuing original research projects in humanities disciplines and apply these skills to bring public attention to hidden histories and marginalized voices in American culture.

LAH X51C. African American Family in Historical and Contemporary Contexts.
Examine how African Americans managed to maintain a sense of family from the time of slavery to the present trend of mass incarceration.

LAH X51D. Ethical Issues in Medicine and Society.
Explore, analyze, and evaluate health and health care in the twenty-first century. Examine the social factors at play in relation to disease and illness, the rise of the medical-industrial complex, and how the issues of power underlie ethical dilemmas in both medicine and society.

LAH X51E. Gender Equality in World Development.
Examine the causes and consequences of gender equality and inequality in the world. Identify where the most and least progress has occurred for gender equality. Analyze the causal links between women's empowerment and development.

LAH X51F. Philanthropy and Nonprofit Organizations.
Examine the scope and diversity of the nonprofit sector, as well as individual patterns of giving and volunteering. Focus on the tools and skills needed to evaluate charitable programs for effectiveness using social scientific techniques.

LAH X51G. Reacting to Revolutionary Ideas.
Explore revolutionary themes in Western and non-Western countries during the nineteenth and twentieth centuries.

LAH X51I. Rejection Immunity.
Examine the neuroscience and psychology behind the brain's calculations of risk in various aspects of our lives. Explore and craft research based response systems to inform future reactions to receiving a rejection.

LAH X51J. Regime Perspectives on American Politics.
Explore American politics and culture and examine how the parts of America fit together as a whole.

LAH X51K. Citizenship in Democratic Politics.
Examine the role of ordinary citizens in democratic politics.

LAH X51L. Homer and Plato.
Examine the works of Homer and Plato. Explore the ideas of human nature, existence, leadership, courage, honor, ambition, justice, necessity, fate, divine power, human freedom, and moral responsibility.

LAH X51M. Jerusalem and Athens.
Examine the age-old confrontation between the teaching of the Bible and the politics and philosophy of the ancient Greeks.

LAH X51N. Archival Advocacy: Experiential Learning.
Use digital archives and exhibits to amplify voices that actively promote social justice, cultural awareness, and service; and to test the ethical positions about impartiality and advocacy in archival and exhibit practices.

LAH X51O. Data Analytics In Contemporary Society.
Investigate the influence of data analytics in contemporary society. Explore how data is generated and presented in popular, scholarly, and other forms of media.

LAH X51P. Machiavelli: Politics and Culture.
Through Niccolo Machiavelli's chief writings, consider the local, regional, Mediterranean, European, and global aspects of his work.

LAH X51Q. Holocaust Aftereffects.
Explore the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States.

LAH X51R. Social Inequality and Health in the United States.
Examine how socioeconomic status and social inequality shape health and mortality across the United States. Consider various possible explanations including stress, health behaviors, violence, and other factors.

LAH X51S. Interpreting Black Rage.
Examine the residual effects of slavery and its impact on race relations in the United States. Explore Black rage in literature, music, and film.

LAH X51T. Jewish Identities in the Americas.
Examine the work of Jewish creative intellectuals from the United States, Latin America, and Canada from a comparative perspective.

LAH X51U. Neglected Middle Class.
Examine how a steady succession of laws and policies (including labor and employment, consumer lending, financial services, housing, and tax) have created enormous income and wealth inequality gaps between the country's richest households and everyone else.

LAH X51V. Health, Health Care, and Humanities.
Examine the intersections of the humanities with health, illness, and health care and shed new light on health and health care inequities, the role of narrative, and other representational forms in the illness experience. Explore the relationships between health, healing, and culture; the history of pandemics; and social constructions of ability and disability.

LAH X51W. Hitler, Nazism, and World War II.

LAH X52C. Germany in the Twentieth Century.
Survey of German political and military institutions, economic development, culture, and society.

LAH X52D. Dedman Scholars Seminar.
Travel abroad to study the history, culture and politics of different regions across the world under the direction of various academic departments of the University.

LAH X52E. Language Truths, Myths, and Mysteries.
Explore an introductory characterization of language and linguistics. Identify long-lasting controversial issues and common viewpoints about language and puzzling real-life language-related phenomena. Analyze these issues through a reasoned, rigorous confrontation of facts and fallacies with the objective of competently articulating defensible conclusions.

LAH X52I. Image of the Cannibal in the Renaissance.

LAH X52J. Global Sustainability and Soil.
Examine soil as a resource from the perspectives of natural and sustainability science, including soil ecology and biodiversity, formation,

fertility for ecosystems and farming systems, soil health, distinguishing characteristics in nature, taxonomy, and soil spatial variability around the globe.

LAH X58Q. Supervised Research.

LAH X64H. The Enlightenment.
Examination of the European Enlightenment, an intellectual movement centered in eighteenth-century France and England that cut across all disciplines and arts and that looked back to the Renaissance and forward to the modern world.

LAH X65P. Honors Seminar in Political Theory.
An in-depth study of selected texts, authors, or themes in the history of political thought from ancient times to the present.

LAH X68H. Literature of the Hispanic World.
An examination of the literature and culture of Spain and Spanish America, from the Middle Ages to the present.

LAH X68T. Honors Tutorial Course I.
Research, read, and write a substantial paper on an interdepartmental subject while supervised.

LAH X69H. Comparative Legal Systems.
A comparison of legal traditions from Europe, English common law, and Asia.

LAH X69T. Honors Tutorial Course II.
Research, read, and write a substantial paper on an interdepartmental subject while supervised.

LAH X70H. The Birth of the Modern World, 1400-1700.
An interdisciplinary course on European culture during the age of the Renaissance and Reformation.

LAH X71H. Classics of Greek Philosophy.
A close reading of major works in the philosophy of Plato and Aristotle, supported by background reading in the history and literature of ancient Greece.

LAH X73H. Literature of the Western World: Continuities.
Tradition and innovation of form and thought in literature from Homer to the twentieth century.

LAH X76H. The Rise of Modern America.
The end of Reconstruction (1877) to the end of the war in Vietnam (1975)--industrialization, urbanization, immigration, nuclear energy, and global reach.

LAH X77H. Ideas of the Twentieth Century.
Central philosophical controversies of the twentieth century: ethics, politics, comparative religions, science and human nature.

LAH X78H. The Natural Sciences in the Liberal Arts Context.
An attempt to understand contemporary developments in science by focusing on the history and philosophy of science.

LAH X79H. Classical Asian Civilizations.
An examination of the contributions of India and China to intellectual history.

Graduate Courses

Professional Courses

LAL - Indigenous Languages of Latin America

Indigenous Languages of Latin America: LAL

Lower-Division Courses

LAL X01C. Topics in Intensive Indigenous Language of Latin America I.
Introduction to an indigenous language of Latin America. Designed to provide students with the basics of grammar and vocabulary; the to ability to engage in simple, colloquial conversation; and basic writing skills as foundation for further study.

LAL X06. First-Year Ancient Mayan I.
Introduction to the grammar and hieroglyphic writing used to record Ancient Mayan as well as key elements of cultural and historical context that are crucial for interpreting texts, including calendrics and political history.

LAL X06K. First-Year K'iche' Maya I.
Introduction to K'iche' sounds, pronunciation, and language.

LAL X07. First-Year Ancient Mayan II.
Explore basic functions of the script and language, how hieroglyphic texts are structured, and how the rich Classic Maya iconographic tradition interacts with and complements the textual tradition.

LAL X07K. First-Year K'iche' Maya II.
Practice and further explore K'iche' sounds, pronunciation, and language.

LAL X11C. Topics in Intensive Indigenous Language of Latin America II.
Continuation in the study of an indigenous language of Latin America. Designed to introduce students to advanced subjects in grammar and vocabulary and develop advanced conversation, reading, and writing skills as a foundation for further study.

LAL X12K. Second-Year Ancient Mayan I.
Analyze problems in grammar and discourse in Ancient Mayan texts. Translate and interpret texts in detail to understand their structure, context, and broader meaning and purpose in their specific cultural and historical contexts. Examine the methods and tools of Maya epigraphy.

LAL X12L. Second-Year Ancient Mayan II.
Analyze calendrics, rhetorical structure, and variation in script and language from the earliest to the latest hieroglyphic inscriptions. Explore the latest advances and current debates in the research and humanistic study of Ancient Mayan language and hieroglyphic writing.

LAL X12M. Second-Year K'iche' Maya I.
Explore complex everyday interactions: questions about people and events, states, and changes of state.

LAL X12N. Second-Year K'iche' Maya II.
Introduction to syntactic parallelism, as a stylistic and poetic resource, and K'iche' dialectology. Explore normal and inherent possession constructions and their cultural meaning in K'iche' society.

LAL X19S. Topics in Indigenous Languages of Latin America.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Institute of Latin American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

LAL X21. Topics in Third-Year Indigenous Language of Latin America I.
Advanced study of an indigenous language of Latin America, with an emphasis on advanced conversation and reading skills. Particular attention is given to cultural issues and discussion in the target language.

LAL X22. Topics in Third-Year Indigenous Language II.

LAL X29S. Topics in Indigenous Languages of Latin America.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Institute of Latin American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAL X30. Topics in Language, Culture, and Linguistics.

Graduate Courses

LAL X85K. Topics in Intensive Graduate Language Instruction I.
Intensive cultural and literacy-focused training in an indigenous language at the beginning level in preparation for research.

LAL X85L. Topics in Intensive Graduate Language Instruction II.
Intensive cultural and literacy-focused training in an indigenous language at the intermediate level in preparation for research.
LAL X85M. Topics in Intensive Graduate Language Instruction III.
Intensive cultural and literacy-focused training in an indigenous language at the intermediate/advanced level in preparation for research.

Professional Courses

LAR - Landscape Architecture

Landscape Architecture: LAR

Lower-Division Courses

LAR X01Q. Topics in Landscape Architecture.
LAR X12R. Topics in Introductory Landscape Studies.
LAR X19S. Topics in Landscape Architecture.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Architecture. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

LAR X20Q. Topics in Landscape Architecture.
LAR X29S. Topics in Landscape Architecture.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Architecture. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
LAR X41R. Topics in Visual Communication.
Explore advanced topics in media and interpretation, such as freehand drawing, measured drawings, aspects of computer graphics, geographic information systems, and photography.
LAR X41R.1. Rendering and Animation for the Built Environment.
Digital visualization techniques used to model three dimensional environments and motion with digital media. Includes lectures, software demonstrations, and projects that focus on the digital translation of spatial experience, as well as the visualization techniques associated with rendering texture, character, and environment.
LAR X42K. History and Theories of Landscape Architecture I.
Overview and chronological series of in-depth studies in the history of major garden cultures and designed landscapes of the Western and Eastern worlds. Introduction to methodological approaches to the formal, social, and cultural history of gardens and landscapes, as well as to relevant theoretical frameworks for interpreting these designed landscapes and for use in conceptualizing landscapes, architecture, and urban projects in studio design.
LAR X42L. History and Theories of Landscape Architecture II.
Continuation of Landscape Architecture 342K (and Architecture 342D) through the modern period to contemporary times. Formal and cultural history of gardens, parks, and public landscapes from 1700 to about 1990. Includes comparative material from the contemporary period, 1980 to 2010.
LAR X42R. Topics in Landscape Architectural History.
LAR X42R.1. Romes Gardens and Landscapes.
LAR X42R.2. Professional Design Practice: Baroque Rome.
Explore an overview of the synthetic act of design and a strong interdisciplinary grounding in one of the key historical periods of design and in advanced research methods.
LAR X42R.4. Hybridity in Landscape and Architecture.
LAR X42R.5. Representing Landscape and Architecture, 1500-Present.
Explore the roles of visual representation in design and professional practice from Leonardo da Vinci to the digital age. Review the history of techniques, media, and conventions of representation in architecture and landscape architecture and in their intersections.
LAR X45R. Topics in Landscape Technology and Site Engineering.
Explore current techniques and issues related to landscape technology and their influence and application in the built environment.
LAR X46R. Topics in Landscape Architectural Theory.
Explore advanced topics in landscape architecture and associated disciplines to encourage critical and theoretical thinking.
LAR X46R.1. Ethics of Care.
LAR X47K. Living Systems Design I.
Examine the interconnections between geological, biological, and social systems of the designed landscape. Explore subjects such as plant ecology, plant communities, soils, and plant identification.
LAR X47L. Living Systems Design II.
Examine the design of living systems for the urban environment including soils, paving, plants and best management practices. Explore subjects such as principles and processes of planting design, ecosystems service optimization, and landscapes on structure.
LAR X47M. Living Systems Design III.
Examine emerging issues and contemporary debates related to the design and construction of living systems in the urban environment, including technical, ecological, and aesthetic considerations.
LAR X47R. Topics in Natural Systems.
Explore aspects of environmental analysis, ecological and systemic methods, landscape resilience, and applied methods particular to design of the built environment.

Graduate Courses

LAR X80C. Foundation Design Studio.
An introduction to the fundamental components of landscape architecture and graphic communication.
LAR X80Q. Topics in Landscape Architecture.
LAR X80V. Topics in Digital Technology and Fabrication.
LAR X80W. Topics in Disaster Recovery.
LAR X81. Visual Communication I.
Explore methods of survey, recording, analysis, interpretation, and representation of landscape architecture.
LAR X81D. Architectural Drawing.
Visual communication in such media as freehand drawing, modeling, photography, and measured drawings.
LAR X81R. Topics in Visual Communication.
Topics in representation and analysis, such as freehand drawing , digital drawing, digital modeling, measured drawings, computer graphics, geographic information systems, and photography.
LAR X81R.1. Rendering and Animation for the Built Environment.
Examine digital visualization techniques for modeling built environment and dynamics. Explore techniques focused on the digital translation of spatial experience, including material, character, and texture through rendering and animation.
LAR X81S. Advanced Topics in Visual Communication.
Explore advanced topics in landscape architectural representation and analysis.
LAR X81S.1. Photography and the Urban Landscape.
LAR X82. Design and Visual Studies in Landscape Architecture I.
Explore initial studies in design thinking; an introduction to design materials and methods; spatial typologies; and investigations in shaping terrain.

LAR X82T. Landscape Architecture Design Studio II.
Design problems engaging principles of site planning combining site research analysis and composition to comprehend, critique, and respond to change of the physical, biological and social context.

LAR X83. Landscape Architecture Design Studio I.
Methods of survey, recording, interpretation, and representation of landscape. An introduction to design through examination of object, space, relationship, movement, the human condition, materiality, and ecology.

LAR X84. Topics in Horticulture and Plants in Design.
Study of habitat, site and technical conditions, and characteristics of plant typologies and their application to landscape practice.

LAR X85. Topics in Natural Systems.
Elective seminars in aspects of environmental analysis, ecological and systemic approaches, sustainable development, and applied methods of geographic information systems.

LAR X85.1. Introduction to Urban Ecology.

LAR X85.2. Environmental Impact Assessment.

LAR X85K. Technology Workshop I.
Introduces the principles, processes, and practices of site manipulation, description, and construction techniques. Includes systems of measurement, grading, earthwork, site circulation, and site drainage, and examines the representation, application, and integration of site-related operations.

LAR X85L. Technology Workshop II.
Materials and methods of landscape construction, advanced site work techniques, and theories for material selection and application within the design process. Examines the representation, application, and integration of detail and design intent.

LAR X85M. Design Methods.
Examines methods of analysis and composition for landscape architecture and urban design. Readings, lectures, and discussions are applied to on-site assignments. Subjects include spatial, social, and ecological factors and their interactions.

LAR X86. Professional Practice.
Ethical, legal, economic, and administrative processes and responsibilities of the landscape architect practitioner.

LAR X87. Landscape Ecology.
Introduction to foundational concepts in landscape ecology, with emphasis on structure, function, and change of ecological systems. Addresses design and planning in relation to biological and cultural resources.

LAR X87K. Living Systems Design I.
Examine the inter-connections between geological, biological, and social systems of the designed landscape. Cover subjects such as plant ecology, plant communities, soils, and plant identification.

LAR X87L. Living Systems Design II.
Examine the design of living systems for the urban environment including soils, paving, plants and best management practices. Explore subjects such as principles and processes of planting design, ecosystems service optimization, and landscapes on structure.

LAR X87M. Living Systems Design III.
Examine emerging issues and contemporary debates related to the design and construction of living systems in the urban environment, including technical, ecological, and aesthetic considerations.

LAR X88. Topics in Landscape Architecture History and Theory.
Seminars on advanced topics in history and theory, including analysis, readings, and critique of significant positions, practice, and discourse.

LAR X88.1. Design Logics: Projection and Proportion in Architecture.

LAR X88.10. Representing Landscape and Architecture, 1500-Present.
Explore the roles of visual representation in design and professional practice from Leonardo da Vinci to the digital age. Review the history of techniques, media, and conventions of representation in architecture and landscape architecture and in their intersections.

LAR X88.2. Futures and Cities.

LAR X88.3. Romes Gardens and Landscapes.

LAR X88.4. Professional Design Practice: Baroque Rome.

LAR X88.5. Ethics of Care.

LAR X88.6. Hybridity in Landscape and Architecture.

LAR X88.7. Building Information Modeling and Representation.

LAR X88.8. Spatial Stories.

LAR X88.9. Twenty-Second-Century Materials.

LAR X88K. History and Theories of Landscape Architecture I.
Landscape architecture in formal, social, and cultural terms in the Western and Eastern worlds. Covers the development of ideas and principles related to context, designer, and text.

LAR X88L. History and Theories of Landscape Architecture II.
Landscape architecture from 1700 to the present, with a focus on design language, theoretical frameworks, and the critical components of contemporary landscape design and thought.

LAR X89. Research in Landscape Architecture.
Investigation of subjects in landscape architecture selected by the student with approval of the Graduate Studies Committee.

LAR X94T. Landscape Architecture Design Studio III.
Design problems that engage issues, theories, and methods central to the planning and design of large landscape architectural projects, including the landscape's role in urban form and city-making.

LAR X95. Landscape Architecture Design Studio IV.
Explore comprehensive synthesis of the core professional courses emphasizing the resolution and implementation of multiple interrelated objectives resulting in the technical resolution of a landscape architectural project.

LAR X95D. Frank Lloyd Wright: Design, Method, Theory.
Comprehensive study of Frank Lloyd Wright's life and work with emphasis on the analyses of his concepts of organic architecture, design methods, and theories.

LAR X95G. The American Home: Identity, Process, and Marketing.
An examination of how American housing is conceived, developed, and marketed, as well as relationships between home buyers and builders.

LAR X95J. Originality Tradition in Baroque Rome: Borromini.
Explores the synthetic act of design and notions of originality and tradition in the arts of Baroque Rome by studying Francesco Borromini and his work through the lenses of professional design practice, the arts, contemporary Galilean science, and papal society.

LAR X96E. Advanced Design Studio.
Explore particular concepts in landscape, often in collaboration with the architecture and community and regional planning disciplines.

LAR X97. Master's Design Study in Landscape Architecture-Preparation.
Investigation of subjects in landscape architecture selected by the student in preparation for Landscape Architecture 697K.

LAR X97K. Master's Design Study in Landscape Architecture.
Produce an independent design project in which investigation, design process, and critical evaluation are formulated. Implement a theoretical and research base, provide a comprehensive exploration of a landscape design topic, and offer insight for advancing the discipline.

LAR X97L. Landscape Architecture Practicum.

Professional Courses

LAS - Latin American Studies

Latin American Studies: LAS

Lower-Division Courses

LAS X01. Key Ideas and Issues in Latin America.
Broad introductory course to acquaint students with the main areas of interest in Latin American studies.

LAS X10. General Topics in Latin American Studies.
Topics that serve as an introduction to Latin America within the framework of different disciplines.

LAS X10.1. Latin American Civilization: The Colonial Experience.
A broad survey of the political, economic, social, and cultural aspects of the Latin American past, stressing both that area's achievements and its enduring problems.

LAS X10.2. Latin American Civilization: The National Experience.
A broad survey of the political, social, and cultural aspects of the Latin American past.

LAS X10.5. Film and History in Latin America: Colonial Period.
Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures.

LAS X10.6. Film and History in Latin America: Modern Period.
Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures.

LAS X10.7. Liberation in the African Diaspora.
Examination of liberation and freedom struggles in the African diaspora, focusing on common intellectual, political, and social currents among the diaspora's various groups. Course focuses on three major themes: abolitionism, Pan-Africanism and national liberation, and hip hop. Particular emphasis will be on the ideas associated with these movements, and the major organizations and intellectual currents in all three.

LAS X10C. Afro-Brazilian Diaspora.

LAS X10D. Early Mesoamerican Religions.
Introduction to the study of indigenous religions in Mesoamerica, a geographic and cultural area spanning north-central Mexico through western Honduras, from approximately 250 BC - AD 1700. Examine the role of religion and ritual in daily life, as well as the lines of evidence available today for understanding them.

LAS X10I. Latinx Digital Worlds.
Explore how Latinx communities (traditionally figured as on the wrong side of the "digital divide") have embraced, mobilized, and sometimes usurped emerging digital tools and spaces to forge community and create new forms of culture, memory, and activism.

LAS X10R. Latin America and the United States.
An exploration of the different social, economic, political, and cultural structures and concerns that came to both divide and unite the western hemisphere (North, Central, and South America, as well as the Caribbean) following independence from Europe.

LAS X15. Introductory Topics in Latin American Social Sciences.

LAS X15.1. Anthropology of Latin America.
Provides a framework for understanding contemporary concerns in Latin America.

LAS X15.2. Introduction to Mesoamerican Archaeology.
Introduction to ancient Mesoamerica from the time of emerging social inequality in the formative period until the Spanish conquest of Mexico-Tenochtitlan in the sixteenth century.

LAS X15.3. Introduction to Jewish Latin America.
Historical and cultural analysis of how Jews constructed lives and communities in predominantly Hispanic, Catholic countries of Latin America.

LAS X16C. Latinx Material Culture.
Discuss utilizing material culture as a method of analysis to highlight histories of oppression, struggles towards liberation, and the politics of everyday Latinx life in the U.S..

LAS X16L. Introduction to Religions of Latin America.
Examine a survey of religious practice across Latin America and the Caribbean.

LAS X19. Geography of Latin America.
Adaptations to population growth and spatial integration in cultural landscapes of great natural and ethnic diversity; problems of frontiers and cities.

LAS X19S. Topics in Latin American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Latin American studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAS X29S. Topics in Latin American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Latin American studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAS X82. Conference Course in Latin American Studies.
Individual study to be arranged with a faculty member.

Upper-Division Courses

LAS X19S. Topics in Latin American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Latin American studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAS X22. Topics in Latin American Studies.
Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars.

LAS X22.10. Minorities and the Media.
Issues concerning minority or nondominant groups within the United States. Survey of minority communication problems: alienation, fragmentation, media and Internet access; criticism and feedback for minority groups based on racial/ethnic background, age, sex, disability, social or economic class, and sexual orientation.

LAS X22.11. Narrative Journalism.

LAS X22.13. Latin American Theatre and Drama.

LAS X22.15. Indigenous Languages of the Americas.
Examines various aspects of languages in the Americas, including their linguistic structures, the cultural domains in which they exist, and their histories of language contact and change.

LAS X22.19. Afro-Caribbean Diasporas.
Analysis of the socio-cultural contexts of the African diaspora in the Americas, with a specific focus on the African diaspora in the islands of the Caribbean. Designed to analyze the cultural, social, and philosophical contributions of these diasporic populations and the ways they build social and cultural agency in their specific national or diasporic contexts.

LAS X22.20. Journalism and Press Freedom in Latin America.
Focus on journalism in Latin America with an emphasis on the struggle for democracy and press freedom in the region through country-by-country survey of historical, political, economic, cultural, ethnic and

geographical aspects. Examination of the evolution of professional journalism in Latin America, including topics such as the legal framework for freedom of expression, ethical principles, concentration of media ownership and the emergence of digital media. Knowledge of Spanish language is recommended, but it is not a requirement.

LAS X22D. Religions of the Caribbean.

Examine the histories and politics of religious practices in the Greater Caribbean, encompassing the islands and Central American coasts as well as the continental diasporas, from Vodou and Rastafari to popular Hinduism.

LAS X22E. Latino Migrations and Asylum.

LAS X22F. Latino Migration and Human Trafficking.

Critically examine the complexity and intersectionality of Latino migration and human trafficking from global, regional, and local perspectives.

LAS X22G. Black Freedom Movement.

LAS X22L. Empires: Aztec and Spanish.

Examine the daily life of people in the Mexica (commonly known as Aztec) empire after the Spanish conquest.

LAS X22M. Colonial Encounters in Mesoamerica.

Study European-indigenous encounters in Mesoamerica, a geographic and cultural area spanning north-central Mexico through western Honduras, between approximately 1450-1750. Examine strategies of contact, accommodation, and resistance that indigenous communities and European colonizers used to communicate with each other and negotiate the conduct of daily life in colonial society.

LAS X22N. African Religion in the New World.

Explore the contributions of scholars and artists who engage African diaspora religions in their work through multiple conceptual approaches.

LAS X22Q. Afro-Latinidades in the United States and Latin America.

LAS X24G. Sexuality in Global Perspective.

Explore the ways in which sexuality intersects with money, intimacy, power, and labor in the context of global economic processes.

LAS X24L. Topics in Latin American Anthropology.

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars.

LAS X24L.10. The Civilization of the Maya.

Maya prehistory and history: the archaeological record, codices and inscriptions, and Spanish conquest writings.

LAS X24L.13. Colonial Latin American Archaeology.

Focuses on the Spanish colonies in Latin America.

LAS X24L.15. Global Indigenous Issues.

Explores contemporary issues of indigenous peoples around the world through films, literature, and social science readings and focuses on how indigenous peoples are actively working to oppose their oppression and create sustainable futures.

LAS X24L.16. Mexican Immigration Cultural History.

Examines the history of Mexican immigration to the United States, and provides an overview of migratory patterns dating back to the late prehistoric period through contemporary times.

LAS X24L.17. Black Women and the State.

Surveys black women's experiences living with and confronting state oppression around the world. Takes an historical, social, and theoretical look at the roots of this oppression and inequality, and how black women have chosen to respond to it locally and globally.

LAS X24L.18. Inca World.

Explores how Inca civilization developed, how the Incas grew from a small highland state into a mighty empire, and how a small number of Spaniards and their allies were able to bring the Inca dynasty to an end. Read accounts of the Incas written in the first years of Spanish colonial rule, and review the latest archaeological discoveries.

LAS X24L.19. Globalization in Latin America.

Critically examine the globalization phenomenon in Latin America, focusing on history and ethnography.

LAS X24L.20. Mexican American Indigenous Heritage.

The prehistory, history, and contemporary racial understanding of Mexican Americans.

LAS X24L.21. Cultures in Contact.

History of the interactions of the indigenous peoples of the Americas with Africans, Asians, and Europeans over the past five hundred years.

LAS X24L.22. Arab Latin Americas.

Examine the ways in which Arab immigrant identities have been negotiated and co-opted socially, but also institutionally, in various countries in the Western Hemisphere.

LAS X24L.23. Global Black Feminisms.

Examine Black feminist theories and practices around the world from a transnational and comparative perspective.

LAS X24L.24. Mesoamerican History and Oral Tradition.

Study Mesoamerican indigenous documents and oral traditions to reconstruct different aspects of the life and culture of the past and present populations of Mesoamerica. Apply a methodological approach to the study of indigenous primary sources from Mesoamerica, written during the Late Postclassic (c. 1200-1524 CE) and the beginning of the Colonial period, including oral tradition. Explore religion, socio-political organization, territory and territoriality, economy, gender roles, and the norms and values of everyday life.

LAS X24L.25. Maya Collapse.

Explore different aspects of Classic Maya daily life, their relationship with the environment, and the factors that influenced the transformation of the Maya civilization at the end of the Classic period.

LAS X24Q. Daily Life in Mesoamerica.

Examine the daily life of people in Mesoamerica, from the earliest inhabitants in the region to the myriad ways that Precolumbian life and archaeology affect the lives of people today.

LAS X24S. Jewish Cuba.

LAS X25. Topics in Latin American Sociology.

LAS X25.2. Social Change in Developing Nations.

Overview of changing social structure in the Third World.

LAS X25.4. Politics and Society in Latin America.

Introduction to present-day Latin American politics and society with a focus on drug-trafficking and urban destitution in Brazil; party politics, protest, and collective violence in Argentina; the current political situation in Venezuela; and migration from Central America and the Caribbean to the United States. Also includes a general overview of revolutions and revolutionary movements in Latin America, and the effects of United States intervention in the region during the twentieth century.

LAS X25.5. Consumption in Latin America.

Study of the role consumption plays in social, economic, and political relations in Latin America, as well as contesting ideas about this role.

LAS X25.6. Latinx Sociology.

Explore how institutions have shaped the gendered, racial, and class-based experiences of Latinxs from a sociological perspective, including historical patterns of Latinx migration to the United States, contestations over racial classifications, and problematic issues surrounding the term Latino. Review more recent studies that show how different institutions shape the Latinx experience and demonstrate how gendered, racial, and classed forces have shaped various Latinx communities. Examine Latinx agency and how Latinx communities have sought to reconfigure and push back on these social forces.

LAS X25E. Geographies of Latin American to United States Migration.

Examine the contemporary complex multi-scalar origins, patterns, and processes of Latin American and Caribbean migration and settlement in the United States. Through a place-specific, spatially contextualized, and historically situated approach, explore the collective and individual experiences of migrants, asylum seekers, and refugees from select nations including: Mexico, Guatemala, Honduras, El Salvador, Puerto Rico, the Dominican Republic, Haiti, and Cuba. Analyze the multi-

layered factors shaping diverse Latin American migratory patterns and processes.

LAS X25S. Statistical Analysis of Social Disparities.
Analysis of racial inequality through social statistics.

LAS X26. Topics in Latin American Music.

LAS X26.2. Music of Latin America.
Consider Latin American music within a broad cultural and historical framework. Latin American musical practices are explored illustrating the many ways that aesthetics and society are embodied in and negotiated through performance. Concepts include diaspora, colonialism, mestizaje, hybridity, migration and globalization.

LAS X26.4. Music of the Andean Countries.
Introduction to the music of Andean countries including Colombia, Ecuador, Peru, Bolivia, and Chile. Explores the role music plays in shaping historical and modern Andean societies, as well as how music comments upon national culture, society, and politics, with particular attention to the ways in which musicians and musical movements continue to influence Andean societies. Subjects include pre-Columbian and colonial music making; music representative of the tripartite indigenous, African, and Iberian heritage of Andean countries; aesthetics, identity, and musical expression; ritual, religion, and the politics of musical performance.

LAS X26C. Music of Brazil and Argentina.
An introduction to Brazilian and Argentine music from samba, capoeira, and forro to tango, cumbia villera, and chacarera; examines such music making within its various historical, social, and political contexts. Uses course readings, lectures, listening assignments, performance attendance, and movie screenings to analyze themes including nationalism and ethnicity, globalization and development, and democracy and social justice.

LAS X26D. The Music of the African Diaspora.
The musical legacy of the African slave trade in the Americas, the social contexts in which black musical forms have developed, and their varied forms. Subjects include the shifting meanings of "black music" in various contexts; the notion of hybridity; the uses of African influenced music as a political or oppositional tool; and African ethnic groups represented prominently in the New World, the traditions they brought with them, and the ways they have been adapted to new ends.

LAS X26M. Music of Mexico and the Caribbean.
Introduction to the history of Mexican and Caribbean traditional and commercial music, with some discussion of classical music as well. Attention will be given to music of indigenous, African, European, and mixed origin. Mexico and the Spanish-speaking Caribbean receive special attention. Class meetings will be divided into lecture/discussion segments, videos, listening, and performance instruction/demonstration.

LAS X27. Topics in Latin American Art History.

LAS X27.1. Chicano Art Histories and Futures.
Mexican American art since the 1960s, with an emphasis on the visual production and exhibition of identity inside and outside the Chicano civil rights movement and the politics of U.S. multiculturalism. An introduction to a broad range of art history written to date--including recent feminist and queer interventions--as a means of envisioning a supposed "post-Chicano" or "post-racial" moment.

LAS X27.10. Architecture and Sculpture in the Maya World.
Explore the ancient world of the Maya through the lens of architecture and sculpture.

LAS X27.11. Aztec Art and Civilization.
An introduction to the art, symbolism, and visual culture of the ancient Aztecs. Subjects include the representations of history and mythology in architecture, stone monuments, and pictorial manuscripts.

LAS X27.2. Modern Art of Mexico.
Mexican visual culture from the late nineteenth century through 1968. Emphasis on the emergence of modernist avant-gardes and popular entertainment, and their ambivalent relationship to state, church, and market. Also explores how self-consciously negotiating the tension between native and international influences, artists, critics, and curators contributes to notions of Lo Mexicano, or "Mexicanness.

LAS X27.3. Mesoamerican Art and Culture.
Mesoamerican art, architecture, and its archaeological context, with emphasis on the social function of art and visual culture in ancient Mesoamerica up to the time of European contact.

LAS X27.5. Maya Art and Architecture.
Introduction to the artistic traditions of the ancient Maya, tracing their development up to the time of European contact. Students will examine various important themes of Maya culture including history, ritual, and cosmology as revealed in sculpture, hieroglyphs, painting, and architectural design.

LAS X27.6. Art and Archaeology of Ancient Peru.
The growth of civilization in South America from the earliest decorated textiles, pottery, and ceremonial buildings to the imperial Inca style.

LAS X27.7. Art Cinemas of the Americas.
Examine art cinemas from the Spanish-speaking Americas from the 1950s to the present.

LAS X27.8. Apertures: Film and Photography Through Greater Mexico.
Exploration of the historical and aesthetic linkages and affinities between filmmakers and photographers working in greater Mexico, including prominent visitors and Americans of Mexican descent. Considers how Mexican culture is represented but also how borders between Mexico and the wider world--as well as among media--were blurred or brought into sharper focus by these exchanges.

LAS X27.9. Contemporary Latin American Art.
Development and sources of art in the Caribbean and Central and South America from the 1960s to the present.

LAS X28. Topics in Latin American Arts, Literature, Film, and Dance.

LAS X28.1. Samba to Hip Hop: Brazilian Popular Music.
Examines the role of popular music in relationships of power with subordination and the impact of music as a form of cultural expression.

LAS X28.10. The United States in Latin American Culture.
Explore how Latin American and Latinx writers and artists have used the United States and globalization tropes, not just to come to terms with politics, popular culture, crime, technology, gender, and race, but also to talk about themselves.

LAS X28.11. Modern Brazil.
Explore modern Brazilian urban culture and the processes and contexts that led to the modernization of Brazil.

LAS X28.12. Jews of the United States, Canada, and Latin America.
Explore the cultural history of Jews in the United States, Latin America, and Canada through a representative sample of short literary texts, film clips, and musical recordings.

LAS X28.13. Latinx Caribbeans: Culture and Diaspora in the United States.
Explore prominent Latinx poets, writers, performers, and media artists connected to several diaspora communities from the Hispano-, Franco-, and Anglophone Caribbean in the United States.

LAS X28.14. Music, Power, and Politics in Latin America.
Analyze how popular music and more sound-related media in Latin America have played central roles in the expression of global citizenship, national and transnational identities, social justice, race, gender, and sexuality.

LAS X28.15. Indigenous Relations.
Explore the multi-layered relations of Indigenous Peoples to the land in the context of late twentieth- and early-twenty-first century Latin America.

LAS X28.16. Cuba in Question.
Explore Cuba's peoples, cultures, ethnicities, and the social and historical processes that go far beyond the common media stereotypes.

LAS X28.17. Queer/Trans Performance.
Explore the ways performance serves as an alternative space of expression and worldmaking, a site of activism and resistance, and a creative outlet for queer and trans people in specific socio-cultural contexts.

LAS X28.2. Global Brazil: Immigration and Diaspora in Brazilian Culture.
Examination of twentieth-century literature, films, and other cultural artifacts that capture the multicultural reality of Brazilian society and challenge the image of Brazil as a unified, harmonious, racially-mixed nation. Subjects include contemporary textual and visual representations of the Brazilian diaspora in the United States and Europe.

LAS X28.3. Afro-Luso-Brazilian Worlds.
Examine the myths and realities in the Afro-Luso-Brazilian worlds and the connections and contrasts between them.

LAS X28.5. Mediascapes: Literature and Media in the Caribbean.
Analyzes the relationship between literature and media technologies in contemporary Caribbean cultures.

LAS X28.6. Race and Visual Culture in Latin America.
Examine race and visuality in several countries of Latin America.

LAS X28.8. Spanish Storytelling.
Explore the Spanish storytelling tradition, with a focus on famous Spanish language authors who have enjoyed a broad reception in the English-speaking world.

LAS X28.9. Spectacular Brazil.
Explore the global, historical, thematic, and performative aspects of Brazilian culture using cultural texts, film, popular music, art, and photography.

LAS X28C. Transnational Latinx Popular Culture.

LAS X29S. Topics in Latin American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Latin American studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAS X30. Topics in Latin American Geography.

LAS X30.2. Landscapes of Mexico and Caribbean America.
The natural regions and cultural landscapes of Mexico, Central America, and the West Indies.

LAS X30.3. South America: Nature, Society and Sustainability.
Field study of environmental and social change in selected landscapes in South America, such as protected areas; places of food production; transportation routes; migrant landscapes; urban areas; sites of cultural and historical importance; and issues of human rights.

LAS X30.4. Mapping Latin America.
Discuss the role of maps in the creation of Latin America as a specific sort of place. As such, allows familiarity with a broad overview of Latin American history from Pre-Columbian civilizations to the modern period.

LAS X30.5. Vulnerability to Natural Hazards.
An interdisciplinary approach, set right at the nexus of both physical and human geography, to studying the types of natural disasters that occur throughout Earth with a focus on tropical areas. Explore a region's susceptibility to natural disasters by studying the physical phenomena that incite specific hazards so that their spatial distribution can be outlined. Utilize theoretical frameworks that can expose the social causes of human vulnerability, the political repercussions of disasters, and how disaster response varies from country to country depending on varying political stances and economic conditions.

LAS X30.6. Sustainable Maya Geographies - Past to Future.
Explore landscapes, conservation, and human-environment dynamics in the Maya region of Central America from more than 10,000 years ago to modern times. Compare sustainable practices from the past with those of indigenous Maya communities today to guide the future.

LAS X31. Water Resources in Latin America and the Caribbean.
Examine the variability of landscapes, climatic regions, and anthropogenic activities found throughout Latin America and the insular Caribbean to explore the complex issues related to water resource accessibility.

LAS X37L. Issues in Third World Development.
Explore important issues in the politics of developing countries.

LAS X37M. Topics in Latin American Politics.
Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars.

LAS X37M.5. Introduction to Latin American Government and Politics.
An introductory survey of Latin American political systems: governmental organization, political processes, and current problems.

LAS X37M.9. The Military in Politics.

LAS X37O. Law and Democracy in Latin America.
Explore many of the challenges to the rule of law across Latin America and how they affect the quality of democracy in the region.

LAS X37P. International Politics of Latin America.
Analyze Latin America's political and economic relations with respect to external actors.

LAS X37Q. Politics, Economy, and Society of Contemporary Brazil.
Examine major economic, political, and sociological developments in Brazil.

LAS X37R. The Politics of Development in Latin America.
Examine the struggle for development in Latin America.

LAS X37S. Latino Politics.
Explore the political experiences of the United States Latino populations.

LAS X37T. The Politics of Mexico.
Explore Mexico's political and economic development.

LAS X55. Topics in Latin American Economics.
Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars.

LAS X55.1. Development Problems and Policies in Latin America.
Analysis of the economies of Latin America. Issues may include the structure and functioning of cities, rural-urban migration, the sectoral composition of GDP and employment, and determinants of growth.

LAS X59H. Honors Seminar.
An interdisciplinary discussion and writing seminar. Lectures and supervised individual research and writing of a substantial paper on a special topic.

LAS X66. Topics in Latin American History.
Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars.

LAS X66.12. Modern Brazil.
The social, economic, political, and cultural forces that have shaped modern Brazil.

LAS X66.13. Revolution in Modern Latin America.
Comparison of the Mexican and Cuban revolutions and of their challenges to inter-American relations.

LAS X66.15. History of Modern Central America.

LAS X66.16. Culture and Identity in Colonial Mexico.

LAS X66.17. The Cuban Revolution and the United States.
The special economic and political relationship between the United States and Cuba from 1898 to 1967; and how the 1959 revolution affected the Cold War relationships between East and West, North and South.

LAS X66.18. History of the Caribbean.
Overview of Caribbean history from 1492 to the present. Topics include contact between European and native cultures, piracy, slavery, colonialism and decolonization, and revolutions.

LAS X66.19. Twentieth-Century Rural Latin America.
Examines causes of some of the unresolved conflicts affecting Latin America today, including the social-agrarian relationships linking landlords and campesinos; the role of the state and the impact of official ideologies involving indigenous people; religion and the Catholic Church; the history of rural institutions; and the success or failure of land reforms.

LAS X66.2. Colonial Latin America.
Basic survey course, designed as an introduction to Latin American history in the colonial period.

LAS X66.20. Colonial Latin America through Objects.
Examines objects, such as paintings, reliquaries, monstrances, and churches from colonial Latin America in order to understand colonial culture. Includes critical reading of original texts.

LAS X66.21. Church and State in Latin America.
History of Church-state relations and religious politics in modern Latin America, with emphasis on the nineteenth to early twentieth-century periods.

LAS X66.22. Reimagining Cuba, 1868-Present.
Explores Cuban-United States relations from the nineteenth century to the present, including issues of empire and transnationalism, and social change engagements between Cuba and the United States before and after the Cuban Revolution.

LAS X66.24. Rethinking the Conquest of Mexico.
Explores the "conquest" of Mexico and the social, cultural, political, and economic processes which were set in motion by the Spanish invasion of Mexico.

LAS X66.27. Cultural Citizenship in the United States and Latin America.
An introduction to the history of relations between the United States and Latin America. Designed to prepare each student for a potential experience in Latin America (or with Latino communities in the United States) such as study abroad, research, and/or community engagement.

LAS X66.28. Argentina: Populism and Insurrection.
An overview of principal trends and issues in Argentine history from independence to the present.

LAS X66.29. Religion, Conquest, and Conversion in Colonial Latin America.
Focuses on the histories of the Catholic Church and religious devotion in colonial Latin America between 1521 and 1821.

LAS X66.3. Modern Latin America.
Continuation of History 346K and Latin American Studies 366 (Topic 2).

LAS X66.31. Afro-Latin America.
Examines the historical experiences of people of African descent in Latin America and the Caribbean beginning in the slavery era, and focuses on the histories of Afro-Latin Americans after emancipation.

LAS X66.32. Latin America in the Nineteenth Century.
Questions the geographical category of Latin America by examining the kinds of trends and forces of the nineteenth century that contributed to its conceptual emergence and to its growing political, economic, and cultural significance on the global stage.

LAS X66.34. The Bible in the Colonial Americas.
Varied perspectives on the central role played by the Old Testament in the construction of colonial cultures in the Americas.

LAS X66.35. When Christ was King.
The history of Catholicism in twentieth-century Mexico, often seen as Latin America's most "Catholic" nation.

LAS X66.36. Urban Slavery in the Americas.
Examines urban slavery in the Americas.

LAS X66.37. Chile: From Revolution to Counterrevolution.
An examination of the key political, social, and economic events that underpin contemporary Chilean society.

LAS X66.38. Latin America in the Sixties.
Explore the impact of the Cuban revolution in Latin American politics, gender roles, and women's participation in public life during the sixties.

LAS X66.39. Life and Politics in Contemporary Mexico.
Examine an overview of life and politics in contemporary Mexico.

LAS X66.40. Politics of Food in Latin America.
Examine food production, food consumption, and socio-cultural identities in Latin America through comparative and multidisciplinary research.

LAS X66.41. Sexuality and Gender in Latin America.
Explore gender as a broad analytical tool to understand key problems concerning social organization, power relations, and inequality in contemporary Latin America.

LAS X66.43. Debt and Colonialism in the Caribbean.
Examine the role that debt has played in the formation of colonial and neocolonial practices in the Caribbean region. Take a broad approach to the concept of debt in order to explore the financial and monetary dynamics of debt, but also the political and cultural implications of debt. Focus in particular on debt as justification in the furtherance of colonialism throughout the Caribbean. Engage in a historical examination of the United States' colonial projects and military interventions in the region throughout the 20th and into the 21st centuries.

LAS X66.44. Race Against Empire: Americas.

LAS X66.45. History of Modern Mexico, 1940-present.
Introduction to the history of modern Mexico from the close of the Mexican Revolution (1940) to the present.

LAS X66.46. The Mexican Revolution, 1910-1940.
Explore the initial decade of the Mexican Revolution, the first of the twentieth-century nationalist social revolutions. Examine the historical antecedents and the political, economic, social, and intellectual elements of the upheaval.

LAS X66.47. Mexican Americans in Texas History.
Introduction to the historical experience of Mexican-American persons in Texas.

LAS X66.7. Resistance, Rebellion, and Revolution in Colonial Spanish America.

LAS X66.9. Revolution in Twentieth-Century Latin America.
An introduction to recent Latin American history, with emphasis on phenomena that explain the apparent social unrest and political instability of the region.

LAS X66C. Nationalisms in the Caribbean.

LAS X66D. Race, Rebellion and Revolution in the Caribbean.

LAS X70P. Topics in Luso-Brazilian Literature, Culture, Civilization, and Linguistics.
Taught in Portuguese.

LAS X70P.10. United States Latino Literatures and Cultures in Context.
Examines the United States Latino literary and cultural production from a multidisciplinary perspective, through literature, film, music, and performance. Analyzes the literatures and experiences of Brazilian American writers and artists in their historical and cultural specificities.

LAS X70P.11. Sociolinguistics.
Explores the interrelationship of language and society with reference to the Portuguese-speaking world. Examines how socio-economic , political, and anthropological factors like race, social class, gender, age, and identity influence linguistics forms.

LAS X70P.2. Introduction to Literatures and Cultures.
Overview of Luso-Brazilian literatures and cultures, including the arts and popular expressions from a multidisciplinary perspective. Among the regions studied are Brazil, Portugal, and related areas in Africa.

LAS X70S. Topics in Hispanic Literature, Culture, Civilization, and Linguistics.
Taught in Spanish.

LAS X70S.23. Violence in Contemporary Mexican Culture.
Studies the representation of violence in contemporary literary and cultural production in Mexico in order to understand social, political, and cultural implications of current violence there. Taught in Spanish.

LAS X70S.24. Gender Issues in Contemporary Latin American Cinema.
Studies Latin American cinema as a device of gender system formation and reinforcement, and as criticism of patriarchal hegemony; discusses questions related to sexuality depicted in Latin American films. Subjects covered include: maternity, prostitution, machismo, children's sexuality, homosexuality, heterosexuality, and gender violence in films from the 1930s to present. Conducted in Spanish.

LAS X70S.27. Introduction to Literatures and Cultures.
Overview of Iberian and/or Latin American literatures and cultures, including the arts and popular expressions, from a multidisciplinary perspective. Among the regions studied are Spain; North, Central, and South America; the Caribbean; and related areas in Africa.

LAS X70S.32. Jewish Voices from Latin America.
Overview of popular Jewish writers from Brazil and Spanish America, with special emphasis on those who portray in their work the situation of the Jewish communities of their respective cities and countries. Conducted in Spanish.

LAS X70S.35. Literature and Exile in the Spanish Caribbean.
Explore literary texts (e.g., poetry, chronicles, narratives, and short stories) that describe exile as a trope. Examine themes, such as literature, culture and colonialism, nationality and belonging (i.e., nation, transnation, and post-nation), nature, the sensorial and subjectivity, identity politics (i.e., race, gender, and sexuality), and the ethics of writing.

LAS X70S.39. Journalism and Human Rights in Latin America.
Explore the traditional definitions of Human Rights and the way those definitions have taken shape in the last two decades in Latin America.

LAS X70S.43. United States Latino Literatures and Cultures in Context.
Examines the United States Latino literary and cultural production from multidisciplinary perspectives, such as literature, film, music, and performance. Analysis of the literatures and experiences of United States Latino writers and artists in their historical and cultural specificities.

LAS X70S.45. Brevity in Spanish-Language Literature and Film.
Explore the work of Spanish and Spanish American filmmakers, prose writers, and poets who have accepted the challenge of expressing themselves in a brief span of time.

LAS X70S.46. Latin American Film and Culture.
Review Latin American cinema from the silent era to present, with an emphasis on the last forty years. Discuss the development of the film industry (particularly in Argentina and Mexico in the 1930s and 1940s), the "New Wave" of Latin American cinema in the 1960s, and contemporary trends.

LAS X70S.47. Latin American Literary and Artistic Environmental Activism.
Explore literary and artistic works that engage in questions of environmental care and justice in the context of twentieth- and twenty-first century Latin America.

LAS X70S.48. Migrations and Exiles in Latin American Literature and the Arts.
Explore how internal and international displacement and migration have been represented in Latin American arts.

LAS X70S.49. The Imagined Andes.
Examine the ways in which the cultural, social, and geographical space of the Andes has been "imagined" through literary texts, visual and audiovisual artworks by writers and artists from Bolivia, Ecuador, Chile and Peru.

LAS X78. Capstone Course in Latin American Studies.

LAS X79. Conference Course in Latin American Studies.
Supervised individual study of selected problems in Latin American studies.

LAS X79H. Honors Tutorial Course.
Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis.

LAS X82. Conference Course in Latin American Studies.
Individual study to be arranged with a faculty member.

Graduate Courses

LAS X19S. Topics in Latin American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Latin American studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAS X29S. Topics in Latin American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Latin American studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAS X81. Topics in Latin American Studies.
A varied selection of topics each semester, taught by different faculty members and visiting professors.

LAS X81.1. International Migration.

LAS X81.11. Information Resources on, and Services for, Hispanic Americans.
Information needs of Hispanic Americans; roles of academic, public, and school libraries in meeting those needs.

LAS X81.12. Information Resources on Latin America.
Historical survey of sources of information on Latin America: bibliographical literature from and about Latin America during the colonial, national, and contemporary periods; various types of book and nonbook sources of information available to contemporary scholars.

LAS X81.14. Introduction to the Sociology of Latin America.

LAS X81.15. Local Economic Development.

LAS X81.16. Maya Hieroglyphic Writing.

LAS X81.19. Political Economics of International Communication.

LAS X81.20. Regional Planning in Latin America.

LAS X81.22. Documentary Tradition of Latin America.
Study of still photographic and video documentary work by Latin Americans about Latin America. Production of photographic essays on Latin American culture.

LAS X81.23. Poverty and Marginality in the Americas.
Review of the past and present ethnographic analyses of the nature and experiences of poverty and marginality in Latin America and in the United States. Examines some of the most controversial issues and debates, and explores emerging research topics north and south of the border.

LAS X81.24. Contemporary Brazilian Art.
Examine art and activism in contemporary Brazil to explore how artists are relating to, reflecting on, and resisting the democratic erosion in the country.

LAS X81.25. Brazilian Cultural Theory.
Explore some of the most influential subjects and theories that have informed contemporary scholarship on the politics of Brazilian literary and cultural production.

LAS X81.26. Cultural Tropicalities.
Examine the centrality of Brazil, and the New World in general, in the context of global controversial meanings, symbology, memory, and knowledge of the inter-tropical cultural and geographic zone.
LAS X81.6. Housing Practices and Public Policy in Latin America.
LAS X81.8. International Business Fellows Seminar.
Multidisciplinary seminar for students in area studies, business administration, law, and public policy. The faculty includes both academics and business leaders.
LAS X81F. Methods for Social Science in Latin America.
LAS X82. Conference Course in Latin American Studies.
Individual study to be arranged with a faculty member.
LAS X83. Invisible Global Market.
LAS X84. Proseminar: Current Issues in Latin America.
LAS X84L. Topics in Latin American Politics.
A varied selection of topics each semester, taught by different faculty members and visiting professors.
LAS X84L.1. Brazilian Public Policies.
LAS X84L.2. Latin American Urban Politics.
LAS X84L.3. Development Policy.
LAS X84L.4. Policy Analysis.
Study of the nature and operation of the national policymaking process.
LAS X84L.5. Politics and Society in the Third World.
LAS X84L.6. Comparative Politics: Latin America.
LAS X86. Topics in Latin American History.
A varied selection of topics each semester, to allow curriculum flexibility for faculty members and visiting scholars.
LAS X88. Topics in Latin American Geography.
LAS X88.1. Regional Geography of Latin America.
Topics include land and life in Central America; culture, environment and development in Latin America; recent trends in Latin American geography.
LAS X88.2. Indigenous Maps, Architecture, and Enculturation of Colonial Mexico.
The encounter of Spanish and indigenous cultures and ecologies; regional diversity of agricultural, urban, and economic development from 1521 to 1810; ethnic transformation and new socioeconomic configurations.
LAS X88.3. Latin American Cultures, Environment, and Development.
Exploration through Latin American examples of issues of cultural identity and territory, adaptive strategies, environmental impact, conservation, cultural survival, parks and people, and sustainable development.
LAS X88.4. Environment and Health in Latin America.
Issues related to health, health care, and development in Latin America and the Caribbean, considered with the recognition that health depends on the interactions of social, economic, and political factors as well as on health care services.
LAS X90K. Proposal Preparation.
Prepare proposal for the doctoral dissertation.
LAS X91. Topics in Latin American Anthropology.
A varied selection of topics each semester, taught by different faculty members and visiting professors.
LAS X91.5. Race and Ethnicity in American Society.
LAS X91K. Topics in Latin American Economics.
A varied selection of topics each semester, taught by different faculty members and visiting professors.
LAS X91K.1. Seminar on the Mexican Economy.
LAS X91K.2. Current Issues in Latin American Economics.
LAS X91K.3. Latin American Economic Models.
LAS X91K.4. Entrepreneurship and Development in Latin America.
LAS X92P. Topics in Luso-Brazilian Literature, Culture, Civilization, and Linguistics.
LAS X92S. Topics in Hispanic Literature, Culture, Civilization, and Linguistics.
LAS X92S.1. Writing on the Edge: Literature and Incarceration.
Explore the critical potential of literature to interrogate mass incarceration and its relationship to systemic inequalities, including access to education, as well as the limits and possibilities of prison writing as a social and restorative endeavor to reimagine society.
LAS X93L. Qualifying Examination.
Prepare for qualifying examinations.
LAS X97R. Secondary Report.
Preparation of a report to be counted toward the requirement for the master's degree under the report option.
LAS X98. Thesis.
LAS X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
LAS X99W. Dissertation.

Professional Courses

LAS X19S. Topics in Latin American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Latin American studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
LAS X29S. Topics in Latin American Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Latin American studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
LAS X82. Conference Course in Latin American Studies.
Individual study to be arranged with a faculty member.

LAT - Latin

Latin: LAT

Lower-Division Courses

LAT X01C. Beginning Latin.
Fundamentals of grammar and reading.
LAT X06. First-Year Latin I.
Fundamentals of grammar and reading.
LAT X07. First-Year Latin II.
Continuation of Latin 506.
LAT X09L. Reading Beginning Latin.
Continue exploring beginning-level Latin reading.
LAT X11. Intermediate Latin I.
Continuation of Latin 601C and 507. Introduction to reading classical authors in their cultural context. Includes grammar review.
LAT X11K. Accelerated Intermediate Latin.
LAT X12K. Intermediate Latin II.
Continuation of Latin 311. Selected readings from classical authors.
LAT X16. Intermediate Latin II: Poetry.
Continuation of Latin 311. Selected readings from classical and medieval poets.

LAT X19S. Topics in Latin.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAT X29S. Topics in Latin.
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Upper-Division Courses

LAT X19S. Topics in Latin.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAT X22. Advanced Latin I.
Reading and analysis of selected classical authors.

LAT X23. Topics in Advanced Latin II.
Reading and interpretation of prose and poetry texts at an early advanced level.

LAT X23.10. Sallust.

LAT X23.11. Battle Scenes in Roman Literature.

LAT X23.12. Vergil's Aeneid.

LAT X23.13. Ovid.

LAT X23.14. Exemplarity in Roman Literature.
Explore aspects of the Roman fascination with exemplarity, using examples from the past to teach lessons and offer role-models for the present.

LAT X23.15. Seneca and Stoicism.

LAT X23.16. Women in Augustan Literature.
Focus on reading, translating, and interpreting Latin literary portrayals of mythological women during the Augustan period.

LAT X23.5. Cicero and Catullus.

LAT X23.6. Elegy.

LAT X23.7. Images of Augustus.

LAT X23.8. Christian Martyrs in the Roman Empire.

LAT X23.9. Horace, Odes, and Satire.

LAT X24. Advanced Latin Grammar and Composition.
Study of syntax, style, and principles of written composition.

LAT X29S. Topics in Latin.
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LAT X65. Topics in Seminar in Latin.
Critical study of authors such as Horace, Livy, Lucretius, and Tacitus.

LAT X65.1. Horace.

LAT X65.10. Seneca.

LAT X65.11. Intertextuality.
Discusses the development, problems, and limitations of intertextuality in Roman Literature through a core group of texts, modern and ancient, which define our approach to and practice of intertextual reading.

LAT X65.12. Epyllion and Epos.
The development of Latin epic from Catullus to Lucan.

LAT X65.13. Vergil's Aeneid: Research and Writing.

LAT X65.14. Livy: Research and Writing.

LAT X65.15. Augustine's Confessions.

LAT X65.16. Portraits of Tyranny: Suetonius.
Examine two of Suetonius's most entertaining "Lives": Caligula and Nero.

LAT X65.17. Roman Historiography.

LAT X65.18. History and Epic.
Read and analyze parallel narratives in epic poetry and historiographical prose.

LAT X65.19. Ovid and Vergil in the Renaissance.

LAT X65.2. Lucretius.

LAT X65.20. Latin Canon in Context.

LAT X65.4. Tacitus.

LAT X65.8. Plautus and Early Latin.

LAT X65.9. Nero.
Introduction to our most important extant sources in Latin for Nero's life and reign: the biographer Suetonius, the historian Tacitus, and the philosopher Seneca.

LAT X70. Advanced Conference Course.
Supervised reading.

Graduate Courses

LAT X19S. Topics in Latin.
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LAT X29S. Topics in Latin.
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LAT X80J. Proseminar in Classical Literature.
Brief survey of the history of classical literature; orientation to the major periods and genres.

LAT X80K. Topics in Proseminar.
An introduction to the research methodology and the ancillary disciplines used in current classical studies, or to certain disciplines such as meter, textual criticism.

LAT X80K.1. Research Methods in Classical Studies.

LAT X83. Topics in Graduate Reading.
Topics given in recent years include Latin literature survey, Latin prose, Seneca, and Augustine's Confessions.

LAT X83K. Current Concepts and Research in Latin.
An overview of important theories, issues, and research in classics.

LAT X85. Topics in Classical Latin Literature.

LAT X85.1. Caesar.

LAT X85.2. Lucretius.

LAT X85.3. Ovid's Metamorphoses.

LAT X85.4. Tacitus.

LAT X85.5. Vergil's Aeneid, Books VII-XII.

LAT X85.6. Catullus.

LAT X85.7. Vergil's Eclogues.

LAT X86L. Conference Course in Latin Language.
Directed reading.

LAT X90. Topics in Seminar in Classical Studies.
Selected topics in Roman studies. Topics given in recent years include Roman comedy, Pliny, and Roman fragmentary historians.

LAT X98R. Master's Report.
Preparation of a research report to fulfill the requirement for the master's degree.

LAT X98T. Supervised Teaching in Latin.
LAT X99W. Dissertation.

Professional Courses

LAT X19S. Topics in Latin.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LAT X29S. Topics in Latin.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LEB - Legal Environment of Business

Legal Environment of Business: LEB

Lower-Division Courses

Upper-Division Courses

LEB X20F. Foundations of Business Law and Ethics.
Introduction to the legal problems confronting businesses in the global environment.

LEB X23. Business Law and Ethics.
An investigation of the role of law in society; introduction to legal reasoning, dispute resolution, judicial process, constitutional law, agency, torts, government regulations; business ethics; study of contracts.

LEB X23H. Business Law and Ethics: Honors.
An investigation of the role of law in society; introduction to legal reasoning, dispute resolution, judicial process, constitutional law, agency, torts, government regulations; business ethics; study of contracts.

LEB X34M. Healthcare Law and Policy.
Introduces the legal and political environment in which the U.S. health care system operates.

LEB X40S. Topics in the Legal Environment of Business.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or by the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Business, Government, and Society. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.

LEB X61. Law of Business Organizations.
Study of basic legal principles of business organizations and operations, including practical comparison and assessment of advantages and disadvantages of different types of organization.

LEB X63. Real Estate Law.
An examination of law pertaining to estates and interests in land, conveyances and mortgages, brokers, easements, contracts, default and foreclosure.

LEB X66. Commercial Transactions.
Applied business transactions, with emphasis on the Uniform Commercial Code; emphasis on bailments, sales of goods, commercial paper, bank-customer relationships, creditor security devices, and bankruptcy.

LEB X72T. Topics in the Legal Environment of Business.
Selected topics on legal constraints affecting managerial decision making and business behavior.

LEB X72T.1. Social and Ethical Responsibility of Business.
Examine ethical aspects of the decision-making processes of managers and employees. Explore the responsibility of firms to society and other constituencies.

LEB X72T.2. Name, Image, and Likeness.

LEB X72T.3. Contracts and Real Property.
Focus on general real property interests, including land, mineral, and riparian interests. Discuss duty of landowners, nonpossessory interest in real property, fixtures, liens, co-ownership of real property, the real estate contract, the broker's listing agreements, deeds, and mortgages.

LEB X72T.4. Oil and Gas Law.
Explore ownership interests in the oil and gas mineral estate. Focus on conveyance and partition of the mineral estate, trespass and third party claims, and oil and gas lease provisions.

LEB X72T.6. Intergenerational Wealth Transfer.
Explore planning and management of wealth and estates through the use of wills, trusts, and gifts; intestacy, guardianships, marital property systems, and prenuptial agreements.

LEB X72T.7. Electricity Systems.

LEB X72T.8. Energy Law and Policy.

LEB X72T.9. Behavioral Economics, Energy, and Sustainability.

LEB X79. Independent Research in the Legal Environment of Business.

Graduate Courses

LEB X80. Topics in the Legal Environment of Business.
Selected topics on legal constraints affecting managerial decision making and business behavior.

LEB X80.10. Law of Wills, Trusts, and Estates.
Planning and management of estates through the use of wills, trusts, and gifts; intestacy, guardianships, marital property systems, and prenuptial agreements.

LEB X80.11. Environmental Dispute Resolution.
Theoretical and practical study of the prevention, management, and resolution of environmental disputes, such as those involving protection of endangered species, wetlands preservation, natural resource conservation, and liability for environmental damage and clean-up.

LEB X80.12. Legal Regulation of Unfair Competition.
Competitive actions that violate state or federal law, such as intentional interference with the contractual relations of others, defamation in business contexts, and misappropriation of trade secrets. Ethical and international dimensions are included where appropriate.

LEB X80.13. Commercial Transactions.
A comprehensive study of the legal framework for business transactions, including bailments, sales of goods, commercial paper, lender liability, bank-customer relationships, secured transactions, creditor rights, and bankruptcy.

LEB X80.14. Intellectual Property.
Legal aspects of protecting intellectual property, including patents, trade secrets, trademarks, and copyrights; the contractual licensing of these property rights and other legal aspects of technology.

LEB X80.16. Legal Aspects of Marketing.
State and federal laws on consumer protection, pricing (including price fixing and price discrimination), packaging, advertising, distribution, dealer control, and related topics. Ethical and international dimensions are included where appropriate.

LEB X80.17. Legal and Ethical Environment of Accounting.
State and federal regulations and tort and contract law principles that constrain accountants and create potential liability. Ethical and international dimensions are included where appropriate.

LEB X80.18. Products Liability.
Public policy, economics, and legal rules regarding liability for the manufacture or sale of defective products. Ethical and international dimensions are included where appropriate.

LEB X80.19. Employment Law.
State and federal laws on hiring, supervising, disciplining, and terminating employees: wrongful discharge law, discrimination law, workers' compensation and employee safety laws, and several related topics. Ethical and international dimensions are included where appropriate.

LEB X80.2. Antitrust Law and Economics.
Legal regulation of anticompetitive market structures and business practices, including political, economic, and historical factors. Monopolies, mergers, horizontal and vertical restraints of trade, and price discrimination.

LEB X80.20. Creating and Enforcing Contracts.
Legal rules and practical policies on creating, monitoring, and enforcing contractual rights in a wide variety of business settings. Ethical and international dimensions are included where appropriate.

LEB X80.21. Environmental Issues in Real Estate Transactions.
Federal and state environmental regulations affecting commercial real estate transactions, including the Comprehensive Environmental Response, Compensation, and Liability ("Superfund") Act, the Clean Water Act, the Endangered Species Act, wetlands regulation, and other related topics. Ethical and international dimensions are included where appropriate.

LEB X80.22. Law of Corporate Finance and Governance.
Legal rules and regulations applicable to a broad range of corporate financial issues, including agency theory, limited liability, valuation, bondholder rights, dividend policy, accountant and investment banker liability, and capital structure and leverage. Ethical and international dimensions are included where appropriate.

LEB X80.23. Law of Corporate Mergers and Takeovers.
Legal rules, policies, and economics of mergers, acquisitions, hostile takeovers, leveraged buyouts, and related topics. Ethical and international dimensions are included where appropriate.

LEB X80.24. Law of Real Estate Finance.
Federal and state regulation of real estate finance. Topics include creation, transfer, and discharge of mortgagor's and mortgagee's interests; mortgage substitutes; foreclosures; priority of liens; bankruptcy; and government intervention in the private mortgage market. Ethical and international dimensions are included where appropriate.

LEB X80.25. Bankruptcy Law and Debtor-Creditor Relations.
The legal framework governing the rights and duties of companies, and their owners, creditors, and other stakeholders, in times of severe financial distress. Includes liquidation and reorganization proceedings in bankruptcy as well as alternatives to bankruptcy. Ethical and international dimensions are included where appropriate.

LEB X80.26. Law for Entrepreneurs.
Legal issues and principles affecting the business entrepreneur, including those related to formation of the appropriate type of business organization, capitalization, protection of personal assets from business liabilities, protection of innovative ideas, hiring key personnel, and related topics. Ethical and international dimensions are included where appropriate.

LEB X80.27. Cyberlaw.
Highly focused coverage of intellectual property law (copyright, trade secret, patent, trademarks, and related topics) as it relates to computer hardware and software; substantial coverage of hardware and software licensing; Internet-related legal issues; antitrust issues in the computer industry; and other topics as time permits, such as encryption, privacy, and computer-system vendor liability.

LEB X80.29. Business and Public Policy.
Study of the nonmarket environment and its considerable effects on business organizations. Review of business strategies for influencing legislatures, the executive branch, court decisions, and the media.

LEB X80.3. Law of Commercial Real Estate Finance and Development.
The legal framework of commercial real estate finance and development, including basic real estate law concepts, legal aspects of financing techniques and instruments, subdivision land-use controls, environmental regulation of real estate development, and other topics.

LEB X80.30. Legal Environment of Business for MPA Students.
Introduction to the legal system, with particular emphasis on its applications to the accounting profession.

LEB X80.32. E-Commerce: Law, Policy, and Strategy.
The responsibilities of the strategist for choosing, developing, and managing an overall e-business firm strategy in uncertain legal, market, technology, and policy environments.

LEB X80.33. The Legal Life Cycle of a Technology Start-up.
Comprehensive coverage of the legal issues faced by a technology start-up firm, including choice of an organizational form, employee compensation issues, negotiating real estate leases, protecting intellectual property, raising capital, and taking the firm public.

LEB X80.37. Financial Crisis and Restructuring.
Studies the business and legal issues of corporate financial crises. Includes crisis simulation, moot court participation, and guest lectures by restructuring and insolvency professionals.

LEB X80.38. Energy Law: Regulating Energy Production.
Examination of the federal, state, and local regulatory regimes governing the production of energy in the United States, including the licensing regimes for electric generation (renewable, nuclear, and fossil-fueled) and the regulation of fossil fuel extraction. Discussion of the statutory regimes regulating coal mining, oil and gas production, fossil-fueled electricity generation, nuclear power plants, hydroelectric plants, and utility-scale wind and solar farms. Covers related issues, including policies aimed at hastening the decarbonization of the electricity sector in an increasing number of states and municipalities, and policy conflicts associated with the growth of hydraulic fracturing to produce oil and gas.

LEB X80.39. Energy Law: Regulating Energy Markets.
Examination of the regulatory regimes governing the sale and delivery of energy in American energy markets, with focus on the economic regulation of electricity, natural gas, and oil markets. Discussion of how federal and state regulatory commissions regulate price and competition in interstate markets under the Federal Power Act and the Natural Gas Act, respectively, and in intrastate markets under analogous state laws. Covers related issues, including the effects of the rapid growth in renewable generation, the move toward increasing competition and market pricing, legal rules governing the siting of natural gas and electric transmission lines, the pricing of transmission services, rules governing the development of LNG terminals, and disputes over the pricing and regulation of distributed energy resources (such as rooftop solar or demand response).

LEB X80.4. Legal and Ethical Environment of Finance.
Covers all aspects of securities regulation, including the legal responsibilities and liabilities of investment bankers, stock analysts, hedge fund managers, auditors, and other securities industry professionals; corporate disclosure requirements; public offering rules; insider trading; mergers and acquisitions; shareholder rights; and relevant ethical and global implications.

LEB X80.5. The Law and the Multinational Corporation.
Study of the legal environment in which the multinational enterprise operates, including negotiation and drafting of international contracts, international dispute resolution, expropriation, international investment regulation, letters of credit, tax havens, and cultural and ethical issues.

LEB X80.6. Intellectual Property and Antitrust.
Relationships and tensions between laws designed to encourage competitive markets (antitrust laws) and those that grant limited monopolies (patents, copyrights, and trademarks).

LEB X80.7. Corporation Law.
Legal framework for the formation and operation of partnerships and corporations, including limited liability partnerships and limited liability corporations; introduction to securities regulation concepts such as insider trading, mergers, and acquisitions.

LEB X80.8. Legal Environment of Business.

LEB X80.9. Law of the Entertainment Business.
Legal aspects of management in the entertainment industry, including contractual and financing arrangements, licensing, and copyright.

LEB X80C. Legal Environment of Business.

LEB X80D. Managing Social and Political Risk.
Examine the sources of social and political risks. Explore how individual firms and groups of firms can work alongside legislators, regulators, courts, social movements, and other stakeholders to gain competitive advantage.

LEB X81. Managing Legal and Regulatory Risk for Executives.
Examine how organizations manage legal and regulatory risks, as well as an organization's responsibilities to society.

LEB X86E. Topics in Legal Environment of Business.

Professional Courses

LIN - Linguistics

Linguistics: LIN

Lower-Division Courses

LIN X06. Introduction to the Study of Language.
Survey of major areas of linguistics: sound systems, grammatical structures, historical development of languages, language families and linguistic universals, dialect differences and their social significance.

LIN X12. Topics in Interdisciplinary Approaches to Language.
An interdisciplinary and multidisciplinary introduction to the manifold aspects of language.

LIN X12C. Culture and Communication.
An introduction to the study of culture through communication and the theory of signs.

LIN X12D. Languages around the World.
Explores the language families of the world. Considers such questions as: what does it mean for languages to be related, and how do we know that they are related in the first place; why are there only a handful of language families in Europe and Africa while there are scores in South America and New Guinea; What can we say about where a language or language family may have originated; and how much living history is being lost as languages become endangered or extinct when people stop speaking them?

LIN X12E. Language of Sign and Gesture.
Explores how language, a faculty that arises in the brain, is expressed by the body, both for spoken languages (via the vocal tract) and for signed languages (via the hands and face). Also includes an examination of how language, a special cognitive faculty unique to humans, intersects and overlaps with other communication systems, with a focus on gesture, the nonlinguistic communicative systems used by humans and some nonhuman species.

LIN X13. Language and Computers.
Examine a conceptual, non-programming overview of how computers learn, understand, and generate human language, including text encoding, machine learning, language modeling, and text generation. Study what makes human language difficult for computers, how these challenges are overcome, and implications for society. Engage in quantitative reasoning; technical background not required.

LIN X15. Speech Science.
Neurophysiological mechanisms underlying the encoding and decoding of speech.

LIN X19S. Topics in Linguistics.
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LIN X29S. Topics in Linguistics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Linguistics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

LIN X19S. Topics in Linguistics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Linguistics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LIN X21L. American English.
An overview of the historical development of English in the Americas. Attention to regional, social, and ethnic differences, and their implications for public education.

LIN X23L. English as a World Language.
An account of the spread of English around the world; national, social, and regional varieties.

LIN X29S. Topics in Linguistics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Linguistics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

LIN X44K. Phonetics: The Production and Perception of Speech Sounds.
Articulation and transcription of speech sounds; distinctive feature systems; physiological and acoustical aspects of phonetics; common phonological processes.

LIN X45. Language Change and Language Variation.
Introduction to the study of how languages change and the principles developed by linguists to account for these changes. Investigation of the various domains in which change occurs, and the social and linguistic motivations for change. Examines the methods linguists use to determine the earlier profile of a language or its parent language, before identified changes occurred.

LIN X46. Exploring Accents.
Explores how different speakers of the same language differ in their pronunciation, according to regional and social groupings. Acoustic analysis of English speakers will provide the basis of an inquiry into how and why accents differ.

LIN X50. Special Topics in the Study of Language.
Nontechnical examination of social, educational, and political problems to which current linguistic knowledge is relevant.

LIN X50.10. How to Describe a Language.
Practical introduction to language documentation and preservation. Subjects include language diversity and practical methods for describing, documenting, and preserving languages, with an emphasis on the phonological and morphological analysis of restricted data sets, as

well as the role of linguists in conjunction with communities of speakers who wish to document or revitalize their languages.

LIN X50.11. Speech Intelligibility.

An overview of the main empirical findings on talker-, listener-, and signal-related factors that shape speech intelligibility, the degree to which spoken language can be comprehended. Explores how signal-related (physical), peripheral (auditory-perceptual), and system-related (mental) factors condition variation in both the production and perception of intelligible speech. Also examines how variation in intelligibility conditions different levels of spoken language processing and different tasks that the listener is performing during spoken language comprehension.

LIN X50.12. Analyzing Text Data: A Statistics Toolkit for Linguists.

Introduction to statistical concepts and analyses via language problems and linguistic data sets.

LIN X50.15. Computational Semantics.

Studies methods for automatically learning and analyzing word meanings and sentence meanings. Encompasses vector space models as well as logic-based semantics.

LIN X50.4. Language and People.

Areas in language and linguistics that most directly impact people, such as language and ethnicity, language and nation-building, and language politics.

LIN X50.6. Indigenous Languages of the Americas.

Examines various aspects of languages in the Americas, including their linguistic structures, the cultural domains in which they exist, and their histories of language contact and change.

LIN X50C. Language and the Brain.

Explore the neuroanatomical and functional operations of the major brain structures that underlie speech/language. Examine hemispheric dominance for language, neurological and language breakdowns in aphasia, and brain imaging methods and studies of language representation.

LIN X50E. Why Chinese Has No Alphabet.

Introduction to the history and evolution of the Chinese writing system and language. No background in Chinese language, culture, or linguistics is required.

LIN X50G. The Politics of Insult.

Examine how linguistic practices of (im)politeness and verbal aggression shape--and are shaped by--social hierarchies, cultural contexts, and political dynamics across different contexts, from liberal to anti-liberal. Analyze how seemingly neutral concepts of "civility" and appropriate speech" often mask power relations while exploring how taboo language, conflict talk, and transgressive communication can both challenge and reinforce existing social orders.

LIN X50S. Word Meaning.

LIN X51. Language and Identity.

Investigate the central importance of language to the formation of people's regional, social class, gender, ethnic, and age identities through psycholinguistics, cognitive psychology, sociophonetics, and popular media sources. Examine how socially driven spoken language variation is created and how it is perceived.

LIN X51C. A Linguistic History of India.

Explore the richly documented linguistic and literary history of languages in the Indian subcontinent, paying attention to linguistic phenomena, contact effects, and language-based movements.

LIN X51D. Language, Culture, and the Texas German Experience.

The evolution of the culture and language of German immigrants to Texas from the 1840s through the present and how they have influenced other ethnic groups in Texas.

LIN X51E. Language and Thought.

Study the relation between language and thought, using a cognitive science approach. Examine the words people use and how people think; whether language structure affects thought; and some cognitive aspects of language.

LIN X51F. Native American Verbal Art.

Examine the verbal artistic traditions such as jokes, story-telling, song, chant, poetry, etc., of Native American peoples.

LIN X51G. Bilingual Language Acquisition.

Examine various aspects of bilingual first language acquisition including phonology, morphology, and syntax, as well as the child's use of his/her languages.

LIN X51I. Linguistics of Writing.

Discuss how language relates to the written word and how linguistic analysis is intertwined with writing. Examine the typology and evolution of writing systems, the psycholinguistics of reading and writing, and the role of writing in contemporary language politics.

LIN X51P. Language, Cognition, and Rhythm.

Explore connections between language and various musical forms, and what the psychological basis for these connections might be.

LIN X53C. Introduction to Computational Linguistics.

Introduction to key representations and algorithms used in computational linguistics and key natural language processing applications.

LIN X53D. Computational Discourse and Natural Language Generation.

Introduction to machine learning models for discourse processing and text generation. Explore open issues in NLG, including evaluation, ethics, and factuality.

LIN X53N. Natural Language Processing.

Introduces theoretical and applied topics relating to natural language processing, including machine translation, search, automatic summarization, and dialog systems.

LIN X53S. English Syntax for Writing.

LIN X55. Sign Languages and Signing Communities.

Examine the grammar of signed languages, their use in signing communities, and the acquisition of signed languages as first languages. No knowledge of American Sign Language is required. Conducted in English.

LIN X57. Undergraduate Research.

Supervised research experience.

LIN X58Q. Supervised Research.

Supervised student-initiated research.

LIN X60K. Introduction to English Grammar.

Introduction to the study of the syntactic structure of modern English from the viewpoint of generative grammar.

LIN X64. Introduction to Psycholinguistics.

LIN X64M. History of the English Language.

Development of sounds, forms, and vocabulary of the English language from its origins to the present.

LIN X65. Bias.

An interdisciplinary introduction to bias from the perspectives of psychology, political science, business, philosophy, and linguistics.

LIN X71. Machine Learning for Text Analysis.

Examine basic machine learning methods, with an emphasis on building applications that intelligently analyze text. Explore supervised learning (e.g., logistic regression, neural networks), unsupervised learning (e.g., clustering), and natural language processing.

LIN X72J. Meaning and Message.

Explore theories of linguistic meaning using logical and mathematical tools. Introduction to key ideas from compositional and lexical semantics.

LIN X72K. Sound Patterns: From Sound to Word.

Methods and principles of analyzing the sound systems of languages.

LIN X72S. Syntax: From Word to Utterance.

Discuss the methods and principles of describing the syntactic systems of languages.

LIN X73C. Child Language.
Examine theory and research concerning the development of language in children.
LIN X73D. African American Language.
Introduction to the history and contemporary form of African American Language (AAL). Through readings, examine the linguistic description of essential features, the use of AAL in the creation of culturally and historically influential texts, and AAL as a subject of public discussion.
LIN X73E. Endangered Languages.
Examine language rights as a tool for defending small-scale and minority language communities against the spread of national and global languages.
LIN X73F. Historical Perspectives on the German Language.
LIN X73I. Building Blocks of Modern German.
LIN X73L. American Indian Languages and Cultures.
Explore the myriad of indigenous languages of North America and how they are intertwined with culture.
LIN X73P. Introduction to Cognitive Science.
LIN X73S. Speech Play and Verbal Art.
Examine speech play and verbal art (from puns to lies to songs to stories to poetry) from ethnographic and linguistic perspectives in a host of contexts and languages.
LIN X74M. Sociolinguistics.
Explore current interests in sociolinguistic research literature. Examine language and gender; social, regional, and ethnic dialects of American English; language use in African American communities; language and identity in a pluralistic society; and language, literacy, and education.
LIN X77. Syntactic Theory.
Introduction to formal syntax, which refers to the use of a mathematically precise formalism to model the syntax of human languages and test theories against the challenge of new data. Hands-on solving of syntax puzzles of increasing complexity.
LIN X79. Conference Course in Linguistics.
Supervised individual study of selected problems in linguistics.
LIN X79H. Honors Tutorial Course.
Supervised individual reading for one semester, followed by research and writing to produce a substantial paper.

Graduate Courses

LIN X19S. Topics in Linguistics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Linguistics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
LIN X29S. Topics in Linguistics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Linguistics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
LIN X80K. Phonology I.
The descriptive techniques of generative phonology.
LIN X80L. Syntax I.
An introduction to the description and analysis of syntax.
LIN X80M. Semantics I.
An introduction to formal semantics and pragmatics, and the logical techniques needed to analyze them.
LIN X80S. Sociolinguistics.
An introduction to sociolinguistic research, with attention to theoretical issues.
LIN X81K. Phonology II.
Readings and problems in current phonological theory.
LIN X81L. Syntax II.
Advanced description and analysis of syntax.
LIN X81M. Phonetics.
Speech production and perception; acoustic phonetics; phonetics and phonology; experimental techniques.
LIN X81S. Semantics II.
Continuation of Linguistics 380M. Descriptive methods and theoretical tools for investigating meaning in human languages; an introduction to propositional content and speech acts.
LIN X82. Historical Linguistics.
The principles of language change, reconstruction of earlier linguistic stages, language contact, and language relatedness.
LIN X83. Topics in Comparative and Diachronic Linguistics.
The comparative method; applications to particular linguistic families.
LIN X83.11. Comparative Semitic Linguistics.
Examine the Semitic languages and review the basic features of their phonology, morphology, and syntax.
LIN X83.3. Introduction to Romance Linguistics.
LIN X83.6. History of the Arabic Language.
LIN X83.8. Introduction to Diachronic Linguistics: Germanic.
LIN X84. Topics in Language Structures.
Languages studied have included Chatino, German, Mayan, Romance languages, and others.
LIN X84.4. German Syntax.
LIN X85. Field Methods in Linguistic Investigation.
Methods of research in phonological and grammatical description; work with speakers of under-described languages.
LIN X86M. Topics in Mathematical and Computational Linguistics.
LIN X86M.2. Computational Linguistics I.
LIN X86M.3. Computational Linguistics II.
LIN X86M.4. Computational Linguistics III: Advanced Parsing.
LIN X87. Linguistics and Language Teaching.
Application of the findings of linguistics to the teaching of languages.
LIN X89C. Research in Computational Linguistics.
LIN X89D. Research in Documentary and Descriptive Linguistics.
LIN X89P. Research in Phonetics and Phonology.
LIN X89S. Research in Syntax and Semantics.
LIN X89V. Research in Signed Languages.
LIN X91. Topics in Descriptive Linguistics.
LIN X91.2. Studies in English Grammar.
LIN X92. Topics in Current Linguistic Research.
A reading course in a selected area of linguistics.
LIN X92.1. Introduction to Cognitive Science.
LIN X92.2. Tools for Linguistic Description.
Basic tools for analyzing and describing a language through linguistic fieldwork, including phonetic transcription, the discovery and presentation of surface phonology, morphophonology, inflectional morphology, derivational morphology, grammatical categories, and syntax.
LIN X92.3. Linguistic Typology.
An introduction to the typological study of language: the investigation into the nature of human language, as informed by systematic cross-linguistic comparison.
LIN X93. Seminar in Linguistic Topics.
LIN X93.10. Metaphor Across Cultures, Genres, and Time.
Explore how and why metaphors vary both across and within cultures, across different genres, and through time.

LIN X93.4. Neurolinguistics.
LIN X93.6. Speech Play and Verbal Art.
LIN X93.8. Linguistics of Signed Languages.
LIN X93.9. Language Contact.
Examine the phenomenon of language contact from both structural and sociocultural angles. Investigate processes and patterns involved in lexical and structural borrowing, formation of new contact varieties such as creoles and mixed languages, role of contact in driving and shaping language change, and dynamics of specific contact zones. Explore the role of discourse strategies and norms, bilingualism, code-switching, and particular sociocultural practices in determining the nature of the contact that takes place and its effects on the languages involved.
LIN X93C. Language Acquisition.
LIN X93P. Topics in Phonology and Phonetics.
LIN X93S. Topics in Syntax and Semantics.
LIN X93S.3. Frame Semantics.
Explore theories and applications frame semantics within linguistics.
LIN X93S.4. Lexical Semantics.
Explore theories of word meaning, including what the basic elements of word meaning are, how those elements are composed into more complex meanings, and what kinds of grammatical processes augment and modify word meanings. Examine the nature of lexical categories, representations of events and individuals, and how a word's meaning is related to its syntactic and morphological properties.
LIN X93S.5. Lexical Semantic Typology.
Examine the way word meanings and their grammatical behavior vary across languages. Examine specific case studies to explore how the same types of word meanings can be represented differently across languages and how the principles that relate word meaning to grammar also vary, focusing on argument realization, morphological processes of word building, and lexical inventories.
LIN X93S.6. Minimalist Program.
Investigate work within the minimalist program, the current instantiation of the principles and parameters approach to the study of the human language faculty. Examine the development of the minimalist program, including a critical overview of its key concepts and the basic properties of its formal framework. Explore several case studies drawn from very recent work within this tradition that are illustrative of the nature of the approach.
LIN X93S.7. Word Meaning and Syntax.
Investigate the interface between word meaning and syntax beginning with an overview of polysemy, vagueness, prototypes, semantic change and the acquisition of word meaning. Explore the mapping from the lexicon to the syntax, focusing on predicate-argument mapping, argument alternations, and lexicalization patterns.
LIN X94K. Philosophy of Language.
LIN X95. Conference Course in Linguistics.
Supervised research.
LIN X96. Topics in Sociolinguistics.
Detailed investigation of an area of current interest in sociolinguistics. Most topics provide an opportunity for field research.
LIN X96.2. Introduction to Graduate Linguistic Anthropology.
LIN X96.3. Ethnography of Speaking.
LIN X96.4. Turkic Cultures and Languages in Central Asia.
LIN X96.7. Grammar of the Arabic Language.
LIN X97. Forum for Doctoral Candidates.
LIN X98. Thesis.
LIN X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
LIN X98T. Supervised Teaching in Linguistics.
Teaching under the close supervision of the course instructor; weekly group meetings with instructor, individual consultations, and reports throughout the teaching period.
LIN X99W. Dissertation.

Professional Courses

LIN X19S. Topics in Linguistics.
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LIN X29S. Topics in Linguistics.
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LTC - Language Teaching and Coordination

Language Teaching and Coordination: LTC

Lower-Division Courses

Upper-Division Courses

Graduate Courses

LTC X84. Technology Applications in Language Teaching.
LTC X85. The Foreign Language Learner.
Reviews the theoretical and empirical research conducted in the field of foreign language acquisition, focusing on the learning process and specifically on the learners themselves.
LTC X86. Intensive Course Design and Instruction.
LTC X88. Topics in Language Teaching and Program Coordination.
LTC X88.1. Second Language Comprehension and Processing.
Explore how second language (L2) learners process language and construct meaning during sentence comprehension. Consider theoretical constructs and research methods as well as the practical applications of sentence processing research.
LTC X89. Language and Culture Instruction: Theory and Practice.
LTC X97P. Practicum in Language Teaching and Coordination.
LTC X98T. Supervised Teaching in Language Teaching and Coordination.

Professional Courses

M - Mathematics

Mathematics: M

Lower-Division Courses

M X01. College Algebra.
Subjects include a brief review of elementary algebra; linear, quadratic, exponential, and logarithmic functions; polynomials; systems of linear equations; applications.
M X02. Introduction to Mathematics.
Intended primarily for general liberal arts students seeking knowledge of the nature of mathematics as well as training in mathematical thinking and problem solving. Topics include number theory and probability; additional topics are chosen by the instructor.
M X03D. Applicable Mathematics.
An entry-level course for the nontechnical student, dealing with some of the techniques that allow mathematics to be applied to a variety

of problems. Topics include linear and quadratic equations, systems of linear equations, matrices, probability, statistics, exponential and logarithmic functions, and mathematics of finance.

M X03F. Mathematics of Investment.
Simple and compound interest, equivalent rates, equivalent values, annuities, amortization, sinking funds, bonds, depreciation.

M X03K. Calculus I for Business and Economics.
Differential and integral calculus of algebraic, logarithmic, and exponential functions with applications.

M X03L. Calculus II for Business and Economics.
Differential and integral calculus of functions of several variables with applications, infinite series, improper integrals; introductions to probability, differential equations, matrices, systems of linear equations, and linear programming.

M X05E. Analytic Geometry.
Combines development of methods (including adequate treatment of theory) and acquisition of skills with applications.

M X05G. Preparation for Calculus.
Study of advanced functions and their graphs and applications, including exponential, logarithmic, and trigonometric functions. Introduction to rates, slopes, and derivatives.

M X08C. Differential and Integral Calculus.
Introduction to the theory and applications of differential and integral calculus of functions of one variable; topics include limits, continuity, differentiation, the mean value theorem and its applications, integration, the fundamental theorem of calculus, and transcendental functions.

M X08D. Sequences, Series, and Multivariable Calculus.
This is the second semester of the accelerated calculus sequence. The theory and applications of sequences and infinite series, including those involving functions of one variable, and an introduction to the theory and applications of differential and integral calculus of functions of several variables; subjects include methods of integration, parametric equations, sequences, infinite series, power series, functions of several variables, partial derivatives, and multiple integrals.

M X08K. Differential Calculus.
Introduction to the theory and applications of differential calculus of functions of one variable; topics include limits, continuity, differentiation, and the mean value theorem and its applications.

M X08L. Integral Calculus.
Introduction to the theory and applications of integral calculus of functions of one variable; topics include integration, the fundamental theorem of calculus, transcendental functions, sequences, and infinite series.

M X08M. Multivariable Calculus.
Introduction to the theory and applications of differential and integral calculus of functions of several variables. Includes parametric equations, polar coordinates, vectors, vector calculus, functions of several variables, partial derivatives, gradients, and multiple integrals.

M X08N. Differential Calculus for Science.
Introduction to the theory of differential calculus of functions of one variable, and its application to the natural sciences. Subjects may include limits and differentiation, with applications to rates of change, extremes, graphing, and exponential growth and decay.

M X08Q. Differential and Integral Calculus for Business.
Focus on the key concepts of calculus. These include: using successive approximations to solve problems that cannot be solved directly (Euler's Method), tracking the rate at which quantities are changing (derivatives) using rates of change to find optimal solutions to real-world problems (max/min), computing bulk quantities by adding up the pieces (integration), and understanding functions of several variables by studying one variable at a time. Designed for business students.

M X08R. Differential and Integral Calculus for the Sciences.
A calculus course for students in the life sciences. Emphasizes representations and analysis of data. Subjects include functions, rates, and derivatives and their applications to problems in biology; differential equations; Riemann integrals; the Euler method; and fundamental theorems of calculus.

M X08S. Integral Calculus for Science.
Introduction to the theory of integral calculus of functions of one variable, and its applications to the natural sciences. Subjects may include integration and its application to area and volume, and transcendental functions, sequences, and series and their application to numerical methods.

M X10C. Conference Course.

M X10E. Emerging Scholars Seminar.
Supplemental problem-solving laboratory for precalculus, calculus, or advanced calculus courses for students in the Emerging Scholars Program.

M X10P. Modern Mathematics: Plan II.
Significant developments in modern mathematics. Topics may include fractals, the fourth dimension, statistics and society, and techniques for thinking about quantitative problems.

M X15C. Foundations, Functions, and Regression Models.
In-depth study of topics from secondary school mathematics. Emphasizes the development of the concept of function, exploring function patterns in data sets, and the connections between the main topics of mathematics associated with a secondary school curriculum. Use of appropriate technology is explored.

M X16K. Foundations of Arithmetic.
An analysis, from an advanced perspective, of the concepts and algorithms of arithmetic, including sets; numbers; numeration systems; definitions, properties, and algorithms of arithmetic operations; and percents, ratios, and proportions. Problem solving is stressed.

M X16L. Foundations of Geometry, Statistics, and Probability.
An analysis, from an advanced perspective, of the basic concepts and methods of geometry, statistics, and probability, including representation and analysis of data; discrete probability, random events, and conditional probability; measurement; and geometry as approached through similarity and congruence, through coordinates, and through transformations. Problem solving is stressed.

M X19S. Topics in Mathematics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mathematics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

M X29S. Topics in Mathematics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mathematics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

M X75. Conference Course.
Supervised study in mathematics, with hours to be arranged.

M X80D. Algebra.
Continuation of Mathematics 380C.

M X82C. Algebraic Topology.
Surfaces, covering spaces, fundamental group, and homology.

M X82D. Differential Topology.
Continuation of Mathematics 382C. Manifolds and maps, differential forms, transversality, and intersection theory.

Upper-Division Courses

M X19S. Topics in Mathematics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study

Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mathematics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

M X21M. History of Mathematics.
Survey major mathematical developments beginning with the ancient Greeks and tracing those developments through Hindu-Indian mathematics, Arabic mathematics, and European mathematics up to the nineteenth century.

M X25K. Discrete Mathematics.
Provides a transition from the problem-solving approach of Mathematics 408C and 408D to the rigorous approach of advanced courses. Subjects include logic, set theory, relations and functions, combinatorics, and graph theory and graph algorithms.

M X26K. Foundations of Number Systems.
Study of number-related topics in middle-grade and secondary school mathematics. Topics include place value; meanings of arithmetic operations; analysis of computation methods; historical development of number concepts and notation; and rational, irrational, algebraic, transcendental, and complex numbers. Emphasis is on communicating mathematics, developing pedagogical understanding of concepts and notation, and using both informal reasoning and proof.

M X27J. Differential Equations with Linear Algebra.
Ordinary differential equations, introduction to vector spaces, linear operators and eigenvalues, systems of linear differential equations, introduction to partial differential equations and Fourier series.

M X27K. Advanced Calculus for Applications I.
Ordinary and partial differential equations and Fourier series.

M X27L. Advanced Calculus for Applications II.
Matrices, elements of vector analysis and calculus of functions of several variables, including gradient, divergence, and curl of a vector field, multiple integrals and chain rules, length and area, line and surface integrals, Green's theorems in the plane and space, and, if time permits, complex analysis.

M X28K. Introduction to Number Theory.
Provides a transition from the problem-solving approach of Mathematics 408C and 408D to the rigorous approach of advanced courses. Properties of the integers, divisibility, linear and quadratic forms, prime numbers, congruences and residues, quadratic reciprocity, number theoretic functions.

M X29F. Theory of Interest.
Measurement of interest, present and accumulated value, amortization, sinking funds, bonds, duration, and immunization. Covers the interest-theory portion of an exam of the Society of Actuaries and the Casualty Actuarial Society.

M X29S. Topics in Mathematics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mathematics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

M X29W. Cooperative Mathematics.
This course covers the work period of mathematics students in the Cooperative Education program, which provides supervised work experience by arrangement with the employer and the supervising instructor.

M X33L. Structure of Modern Geometry.
Axiom systems, transformational geometry, introduction to non-Euclidean geometries, and other topics in geometry; use of these ideas in teaching geometry.

M X39C. Actuarial Case Studies.
Introduces aspects of basic ratemaking, reserving, catastrophe modeling, and rate classification in a property & casualty actuarial context. Explores loss & premium trending, loss triangles, loss development, loss ratios, on-level premium, and accident year vs. calendar year vs. policy year data.

M X39D. Introduction to Financial Mathematics for Actuaries.
Covers the financial derivative subjects on the Society of Actuary FM/2 exam: general derivatives, options, hedging, investment strategies, forwards, futures, and swaps. Covers option pricing techniques in the MFE/3F exam: binomial option pricing, Monte Carlo Valuation using risk neutral probabilities, and Black-Scholes.

M X39G. Predictive Analytics.
Designed for students in mathematics and actuarial science. Explore an introduction to predictive modeling that starts with least squares as a foundation and takes a modern approach applicable to classification and prediction in the presence of large datasets.

M X39S. Seminar on Actuarial Practice.
Presentations by working actuaries on current issues in actuarial practice.

M X39U. Actuarial Contingent Payments I.
Intermediate actuarial models for life insurance, property insurance, and annuities.

M X39V. Actuarial Contingent Payments II.
Advanced actuarial models for life insurance, property insurance, and annuities.

M X40L. Matrices and Matrix Calculations.
Techniques of matrix calculations and applications of linear algebra.

M X41. Linear Algebra and Matrix Theory.
Vector spaces, linear transformations, matrices, linear equations, determinants. Some emphasis on rigor and proofs.

M X43K. Introduction to Algebraic Structures.
Elementary properties of groups and rings, including symmetric groups, properties of the integers, polynomial rings, elementary field theory.

M X43L. Applied Number Theory.
Basic properties of integers, including properties of prime numbers, congruences, and primitive roots. Introduction to finite fields and their vector spaces with applications to encryption systems and coding theory.

M X43M. Error-Correcting Codes.
Introduction to applications of algebra and number theory to error-correcting codes, including finite fields, error-correcting codes, vector spaces over finite fields, Hamming norm, coding, and decoding.

M X44K. Intermediate Symbolic Logic.
A second-semester course in symbolic logic: formal syntax and semantics, basic metatheory (soundness, completeness, compactness, and Loewenheim-Skolem theorems), and further topics in logic.

M X46. Applied Linear Algebra.
Emphasis on diagonalization of linear operators and applications to dynamical systems and ordinary differential equations. Other subjects include inner products and orthogonality, normal mode expansions, vibrating strings and the wave equation, and Fourier series.

M X48. Scientific Computation in Numerical Analysis.
Introduction to mathematical properties of numerical methods and their applications in computational science and engineering. Introduction to object-oriented programming in an advanced language. Study and use of numerical methods for solutions of linear systems of equations; nonlinear least-squares data fitting; numerical integration; and solutions of multidimensional nonlinear equations and systems of initial value ordinary differential equations.

M X49R. Applied Regression and Time Series.
Introduction to simple and multiple linear regression and to elementary time-series models, including auto-regressive and moving-average models. Emphasizes fitting models to data, evaluating models, and interpreting results.

M X49S. Actuarial Modeling and Simulation.
Apply Bayesian modeling and Markov-chain Monte Carlo simulations to Actuarial applications. Use R to carry out computations, simulations, and statistical analysis.

M X49T. Time Series and Survival-Model Estimation.
Introduction to the probabilistic and statistical properties of time series; parameter estimation and hypothesis testing for survival models. Covers 30 percent of the syllabus for exam #4 of the Society of Actuaries and the Casualty Actuarial Society.

M X58K. Applied Statistics.
Exploratory data analysis, correlation and regression, data collection, sampling distributions, confidence intervals, and hypothesis testing.

M X60M. Mathematics as Problem Solving.
Discussion of heuristics, strategies, and methods of evaluating problem solving, and extensive practice in both group and individual problem solving. Communicating mathematics, reasoning, and connections among topics in mathematics are emphasized.

M X61. Theory of Functions of a Complex Variable.
Elementary theory and applications of analytic functions, series, contour integration, and conformal mappings.

M X61K. Introduction to Real Analysis.
A rigorous treatment of the real number system, of real sequences, and of limits, continuity, derivatives, and integrals of real-valued functions of one real variable.

M X62K. Probability I.
An introduction to the mathematical theory of probability, fundamental to further work in probability and statistics, includes basic probability properties, conditional probability and independence, various discrete and continuous random variables, expectation and variance, central limit theorem, and joint probability distributions.

M X62M. Introduction to Stochastic Processes.
Introduction to Markov chains, birth and death processes, and other topics.

M X64K. Vector and Tensor Analysis I.
Invariance, vector algebra and calculus, integral theorems, general coordinates, introductory differential geometry and tensor analysis, applications.

M X64L. Vector and Tensor Analysis II.
Continuation of Mathematics 364K, with emphasis on tensor and extensor analysis. Riemannian geometry and invariance.

M X65C. Real Analysis I.
A rigorous treatment of the real number system, Euclidean spaces, metric spaces, continuity of functions in metric spaces, differentiation and Riemann integration of real-valued functions of one real variable, and uniform convergence of sequences and series of functions.

M X65D. Real Analysis II.
A rigorous treatment of selected topics in real analysis, such as Lebesgue integration, or multivariate integration and differential forms.

M X65G. Curves and Surfaces.
Calculus applied to curves and surfaces in three dimensions: curvature and torsion of space curves, Gauss map and curvature of surfaces, Gauss theorem, geodesics, and the Gauss-Bonnet theorem.

M X67K. Topology I.
An introduction to topology, including sets, functions, cardinal numbers, and the topology of metric spaces.

M X67L. Topology II.
Various topics in topology, primarily of a geometric nature.

M X68K. Numerical Methods for Applications.
Continuation of Mathematics 348. Topics include splines, orthogonal polynomials and smoothing of data, iterative solution of systems of linear equations, approximation of eigenvalues, two-point-boundary value problems, numerical approximation of partial differential equations, signal processing, optimization, and Monte Carlo methods.

M X71E. Learning Assistant Experience in Mathematics.
Students assist instructors and TAs in mathematics courses. This is a hands-on experience in what it is like to teach and support students in the learning of mathematics in undergraduate courses. Students must attend classroom training and discussions and work in Calculus discussion sections or undergraduate classrooms where mathematics is being taught.

M X72. Fourier Series and Boundary Value Problems.
Discussion of differential equations of mathematical physics and representation of solutions by Green's functions and eigenfunction expansions.

M X72K. Partial Differential Equations and Applications.
Partial differential equations as basic models of flows, diffusion, dispersion, and vibrations. Topics include first- and second-order partial differential equations and classification (particularly the wave, diffusion, and potential equations), and their origins in applications and properties of solutions. Includes the study of characteristics, maximum principles, Green's functions, eigenvalue problems, and Fourier expansion methods.

M X73K. Algebraic Structures I.
A study of groups, rings, and fields, including structure theory of finite groups, isomorphism theorems, polynomial rings, and principal ideal domains.

M X73L. Algebraic Structures II.
Topics from vector spaces and modules, including direct sum decompositions, dual spaces, canonical forms, and multilinear algebra.

M X74. Fourier and Laplace Transforms.
Operational properties and application of Laplace transforms; some properties of Fourier transforms.

M X74G. Linear Regression Analysis.
Fitting of linear models to data by the method of least squares, choosing best subsets of predictors, and related materials.

M X74K. Fourier and Laplace Transforms.
Continuation of Mathematics 374. Introduction to other integral transforms, such as Hankel, Laguerre, Mellin, Z.

M X74M. Mathematical Modeling in Science and Engineering.
Tools for studying differential equations and optimization problems that arise in the engineering and physical sciences. Includes dimensional analysis and scaling, regular and singular perturbation methods, optimization and calculus of variations, and stability.

M X75. Conference Course.
Supervised study in mathematics, with hours to be arranged.

M X75C. Topics in Conference Course: Computer-Assisted.
Supervised study in mathematics on material requiring use of computing resources, with hours to be arranged.

M X75D. Discovery: An Introduction to Advanced Study in Mathematics.
Capstone course designed primarily for UTeach pre-service mathematics majors considering discovery teaching methodology and/or graduate work in mathematics or mathematics education. Ties together foundational topics in the primary strands of mathematics present in a typical graduate mathematics program; included are selected topics from analysis, algebra, number theory, and topology.

M X75S. Seminar in Instruction of Mathematics.
An exploration of subjects in mathematics instruction as taught at the secondary educational level. Practice learning and teaching through use of proofs, explorations, and connections. Subjects include foundational mathematics concepts, numbers, constructibility, and development of key mathematics topics.

M X75T. Topics in Mathematics.

M X76C. Topics in Methods of Applied Mathematics.
Variational methods and related concepts from classical and modern applied mathematics. Models of conduction and vibration that lead to systems of linear equations and ordinary differential equations, eigenvalue problems, initial and boundary value problems for partial differential equations. Topics may include a selection

from diagonalization of matrices, eigenfunctions and minimization, asymptotics of eigenvalues, separation of variables, generalized solutions, and approximation methods.

M X78K. Introduction to Mathematical Statistics.
Sampling distributions of statistics, estimation of parameters (confidence intervals, method of moments, maximum likelihood, comparison of estimators using mean square error and efficiency, sufficient statistics), hypothesis tests (p-values, power, likelihood ratio tests), and other topics.

M X78N. Generalized Linear Models.
Extensions to ordinary least-squares regression, including Poisson regression, the lasso, mixed models, and ridge regression.

M X78P. Decision Analytics.
Examine decision theory with utility functions, including the use of probability, optimization, constrained optimization, and linear algebra.

M X79H. Honors Tutorial Course.
Directed reading, research, and/or projects, under the supervision of a faculty member, leading to an honors thesis.

M X80D. Algebra.
Continuation of Mathematics 380C.

M X82C. Algebraic Topology.
Surfaces, covering spaces, fundamental group, and homology.

M X82D. Differential Topology.
Continuation of Mathematics 382C. Manifolds and maps, differential forms, transversality, and intersection theory.

Graduate Courses

M X19S. Topics in Mathematics.
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M X75. Conference Course.
Supervised study in mathematics, with hours to be arranged.

M X80C. Algebra.
A survey of algebraic structures, including groups, fields, rings, and modules.

M X80D. Algebra.
Continuation of Mathematics 380C.

M X81C. Real Analysis.
Measure and integration over abstract spaces; Lebesgue's theory of integration and differentiation on the real line.

M X81D. Complex Analysis.
Introduction to complex analysis.

M X81E. Functional Analysis.
Introduction to functional analysis.

M X82C. Algebraic Topology.
Surfaces, covering spaces, fundamental group, and homology.

M X82D. Differential Topology.
Continuation of Mathematics 382C. Manifolds and maps, differential forms, transversality, and intersection theory.

M X82E. Advanced Algebraic Topology.
Continuation of Mathematics 382C.

M X82F. Algebraic Topology.
Continuation of Mathematics 382E.

M X82G. Differential Geometry.
Continuation of Mathematics 382D.

M X83C. Methods of Applied Mathematics.
Topics include basic normed linear space theory; fixed-point theorems and applications to differential and integral equations; Hilbert spaces and the spectral theorem; applications to Sturm-Liouville problems; approximation and computational methods such as the Galerkin, Rayleigh-Ritz, and Newton procedures.

M X83D. Methods of Applied Mathematics.
Topics include distributions, fundamental solutions of partial differential equations, the Schwartz space and tempered distributions, Fourier transform, Plancherel theorem, Green's functions, Sobolev spaces, weak solutions, differential calculus in normed spaces, implicit function theorems, applications to nonlinear equations, smooth variational problems, applications to classical mechanics, constrained variational problems.

M X83E. Numerical Analysis: Linear Algebra.
Survey of numerical methods in linear algebra: floating-point computation, solution of linear equations, least squares problems, algebraic eigenvalue problems.

M X83F. Numerical Analysis: Interpolation, Approximation, Quadrature, and Differential Equations.
Survey of numerical methods for interpolation, functional approximation, integration, and solution of differential equations.

M X84C. Mathematical Statistics I.
The general theory of mathematical statistics. Includes distributions of functions of random variables, properties of a random sample, principles of data reduction, an overview of hierarchical models, decision theory, Bayesian statistics, and theoretical results relevant to point estimation, interval estimation, and hypothesis testing.

M X84D. Mathematical Statistics II.
Continuation of Computational Science, Engineering, and Mathematics 384R and Mathematics 384C.

M X84E. Design and Analysis of Experiments.
Design and analysis of experiments, including one-way and two-way layouts; components of variance; factorial experiments; balanced incomplete block designs; crossed and nested classifications; fixed, random, and mixed models; and split plot designs.

M X84F. Design of Experiments.
Design of experiments, including 2n and 3n factorial experiments, confounding, fractional factorials, sequential experimentation, orthogonal arrays, D-optimal experiments, and response surface methodology.

M X84G. Regression Analysis.
Simple and multiple linear regression, inference in regression, prediction of new observations, diagnosis and remedial measures, transformations, and model building. Emphasis on both understanding the theory and applying theory to analyze data.

M X84H. Multivariate Statistical Analysis.
Introduction to the general multivariate linear model; a selection of techniques, such as principle component, factor, and discriminant analysis.

M X85C. Theory of Probability.

M X85D. Theory of Probability.
Continuation of Computational Science, Engineering, and Mathematics 384K and Mathematics 385C.

M X87C. Numerical Analysis: Algebra and Approximation.
Advanced introduction to scientific computing, theory and application of numerical linear algebra, solution of nonlinear equations, and numerical approximation of functions.

M X87D. Numerical Analysis: Differential Equations.
Advanced introduction to the theory and practice of commonly used numerical algorithms for the solution of ordinary differential equations, and elliptic, parabolic, and hyperbolic partial differential equations.

M X89C. Actuarial Case Studies.
Explores aspects of basic ratemaking, reserving, catastrophe modeling, and rate classification in a property & casualty actuarial context. Covers loss & premium trending, loss triangles, loss development, loss ratios, on-level premium, accident year vs. calendar year vs. policy year data.

M X89D. Introduction to Financial Mathematics for Actuaries.
Covers the financial derivative topics on the Society of Actuary FM/2 exam: general derivatives, options, hedging, investment strategies, forwards, futures, and swaps. Covers option pricing techniques in the MFE/3F exam: binomial option pricing, Monte Carlo Valuation using risk neutral probabilities, and Black-Scholes.

M X89F. Theory of Interest.
Measurement of interest, present and accumulated value, amortization, sinking funds, bonds, duration, and immunization. Covers the interest theory portion of an exam of the Society of Actuaries and the Casualty Actuarial Society.

M X89G. Predictive Analytics.
Designed for students in mathematics and actuarial science. Explore an introduction to predictive modeling that starts with least squares as a foundation and takes a modern approach applicable to classification and prediction in the presence of large datasets.

M X89J. Probability Models with Actuarial Applications.
Introductory actuarial models for life insurance, property insurance, and annuities. With Mathematics 389P, covers the syllabus for the professional actuarial exam on model construction.

M X89P. Actuarial Statistical Estimates.
Statistical estimation procedures for random variables and related quantities in actuarial models. With Mathematics 389J, covers the syllabus for the professional actuarial exam on model construction.

M X89S. Seminar on Actuarial Practice.
Presentations by working actuaries on current issues in actuarial practice.

M X89T. Time Series and Survival-Model Estimation.
Introduction to the probabilistic and statistical properties of time series; parameter estimation and hypothesis testing for survival models. Covers 30 percent of the syllabus for exam #4 of the Society of Actuaries and the Casualty Actuarial Society.

M X89U. Actuarial Contingent Payments I.
Intermediate actuarial models for life insurance, property insurance, and annuities.

M X89V. Actuarial Contingent Payments II.
Advanced actuarial models for life insurance, property insurance, and annuities.

M X89W. Financial Mathematics for Actuarial Applications.
Subjects include pricing, stock price, and interest rate models for actuarial applications. Tools include lognormal distribution, Brownian motion, Black-Scholes, and delta hedging.

M X90C. Topics in Algebra.
Recent topics have included algebraic geometry, number theory, algebraic curves, algebraic number theory, algebraic functions, rational curves on varieties, homological algebra.

M X91C. Topics in Analysis.
Recent topics have included measure and integration, real variables, complex analysis, functional analysis, ordinary differential equations, partial differential equations, integral transforms, operator theory, approximation theory, abstract harmonic analysis.

M X92C. Topics in Topology.
Recent topics have included algebraic topology, differential topology, geometric topology, Lie groups.

M X93C. Topics in Applied Mathematics.
Recent topics have included quantum mechanics, statistical physics, ergodic theory, group representations, statistical mechanics, quantum field theory, introductory partial differential equations, monotone operators and partial differential equations, Hilbert space methods for partial differential equations, Hamiltonian dynamics, nonlinear functional analysis, Euler and Navier-Stokes equations, microlocal calculus and spectral asymptotics, calculus of variations.

M X93C.1. Neural Dynamics, Information Theory, and Machine Learning.

M X93N. Numerical Solution of Elliptic Partial Differential Equations.
The numerical solution of large systems of linear algebraic equations arising in the solution of elliptic partial differential equations by discretization methods.

M X94C. Topics in Probability and Statistics.
Recent topics have included nonparametric statistics, advanced probability.

M X95C. Topics in Logic and Foundations.
Recent topics have included set theory, model theory, proof theory, axiomatic theorem proving, automatic theorem proving, foundations of mathematics, recursion theory.

M X96C. Topics in Mathematics.
Recent topics have included set theory, history of mathematics.

M X96D. Conference Course.
Supervised study in mathematics.

M X97C. Topics in Numerical Analysis.
Recent developments and advanced topics in the field of numerical analysis.

M X97S. Topics in Mathematics: Seminar.

M X98. Thesis.

M X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

M X98T. Supervised Teaching in Mathematics.

M X99W. Dissertation.

Professional Courses

M X19S. Topics in Mathematics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mathematics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

M X29S. Topics in Mathematics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mathematics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

M X75. Conference Course.
Supervised study in mathematics, with hours to be arranged.

M X80D. Algebra.
Continuation of Mathematics 380C.

M X82C. Algebraic Topology.
Surfaces, covering spaces, fundamental group, and homology.

M X82D. Differential Topology.
Continuation of Mathematics 382C. Manifolds and maps, differential forms, transversality, and intersection theory.

M E - Mechanical Engineering

Mechanical Engineering: M E

Lower-Division Courses

M E X02. Introduction to Engineering Design and Graphics.
Introduction to mechanical engineering education and practice through lectures and laboratory experiences. Graphics and modeling fundamentals for engineering design: freehand sketching, computer

modeling of solid geometry, and generation of engineering drawings. Introduction to reverse engineering, computer-aided design, rapid prototyping, and manufacturing. Application of the design process and problem solving through individual and team projects.

M E X03. Studies in Engineering Design Graphics.
Computer laboratory work in engineering design graphics for students with transfer credit for Mechanical Engineering 210 who need additional work.

M E X05. Introduction to Computers and Programming.
Introduction to computer hardware and software systems; programming using a high-level language; mathematical software programming; and introduction to machine language. Includes significant hands-on programming opportunities.

M E X09M. Topics in Mechanical Engineering.

M E X10. Engineering Design Graphics.
Graphics and modeling fundamentals for engineering design: freehand sketching, computer modeling of solid geometry, and generation of engineering drawings. Introduction to reverse engineering, computer-aided design, rapid prototyping, and manufacturing. Application of the design process to problem solving. Individual and team design projects.

M E X10H. Engineering Design Graphics: Honors.
Graphics and modeling fundamentals for engineering design: freehand sketching, computer modeling of solid geometry, and generation of engineering drawings. Introduction to reverse engineering, computer-aided design, rapid prototyping, and manufacturing. Application of the design process to problem solving. Individual and team design projects.

M E X10T. Applied Thermodynamics.
First and second laws of thermodynamics; thermodynamics processes, cycles, and heat transfer.

M E X11. Materials Engineering.
An exploration of fundamental aspects of the structure, properties, and behavior of engineering materials.

M E X11L. Materials Engineering Laboratory.
Hands-on experiments in materials science and engineering topics and microstructure-property relationships discussed in Mechanical Engineering 311.

M E X14D. Dynamics.
Analysis of motions, forces, momenta, and energies in mechanical systems.

M E X16T. Thermodynamics.
Properties, heat and work, first and second laws, thermodynamic processes, introduction to ideal power cycles.

M E X18. Engineering Computational Methods.
Applied numerical analysis, programming of computational algorithms using mathematical software, and applications of computational methods to the solution of mechanical engineering problems.

M E X18M. Programming and Engineering Computational Methods.
An investigation of applied numerical analysis, programming of computational algorithms using mathematical software, and applications of computational methods to the solution of mechanical engineering problems.

M E X19S. Topics in Mechanical Engineering.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mechanical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

M E X80M. Research.

M E X97P. Projects in Mechanical Engineering.
Independent project carried out under the supervision of a mechanical engineering faculty member.

Upper-Division Courses

M E X20. Applied Thermodynamics.
First and second laws of thermodynamics; thermodynamic processes, cycles, and heat transfer.

M E X20C. Humanitarian Engineering Seminar.

M E X24. Dynamics.
Analysis of motions, forces, momenta, and energies in mechanical systems.

M E X26. Thermodynamics.
Properties, heat and work, first and second laws, thermodynamic processes, introduction to ideal power cycles.

M E X26H. Thermodynamics: Honors.
Properties, heat and work, first and second laws, thermodynamic processes, introduction to ideal power cycles.

M E X29S. Topics in Mechanical Engineering.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mechanical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

M E X30. Fluid Mechanics.
Fluid properties, statics, conservation laws, inviscid and viscous incompressible flow, flow in confined streams and around objects.

M E X30L. Experimental Fluid Mechanics.
Experimental design concepts, uncertainty analysis, and systems analysis as applied to thermodynamics, fluid mechanics, and heat transfer systems.

M E X33H. Engineering Communication: Honors.
Professional communication skills for engineers, with emphasis on research, writing, editing, and oral presentation on topics of social and technical significance in engineering. Students collaborate to publish an online journal.

M E X33T. Engineering Communication.
Professional communication skills for engineers, with emphasis on research, writing, and oral presentation on topics of social and technical significance in engineering.

M E X34. Materials Engineering.
Fundamental aspects of the structure, properties, and behavior of engineering materials.

M E X34L. Materials Engineering Laboratory.
Hands-on experiments in materials science and engineering topics and microstructure-property relationships discussed in Mechanical Engineering 334.

M E X35. Engineering Statistics.
Fundamentals of probability, distribution theory, data analysis and statistics, interval estimation, hypothesis testing, and statistical quality control.

M E X36. Materials Processing.
Effects of processing on materials properties; materials selection.

M E X36L. Materials Processing Laboratory.
Hands-on study of selected materials processing procedures and processing-microstructure-property relationships discussed in Mechanical Engineering 336.

M E X36P. Concepts in Nuclear and Radiation Engineering.
Explore different aspects and applications of nuclear and radiation engineering/physics. Examine the history of nuclear development, basic concepts of radiation and radioactivity, radioactive waste management, global warming and the impact of nuclear power plants, industrial applications, health physics, nuclear medicine, job opportunities at power plants, non-proliferation, and nuclear security.

M E X37C. Introduction to Nuclear Power Systems.
Explore radioactivity, nuclear interactions: fission and fusion, fission reactors, nuclear power systems, nuclear power safety.

M E X37F. Nuclear Environmental Protection.
Explore ionizing radiation and its interactions with matter and living tissues; radioactive decay kinetics; external and internal dose measurement; transportation through the environment; managing radioactive waste streams; and safeguards.

M E X37G. Nuclear Safety and Security.
Explore policy and technical aspects related to nuclear safety and security. Evaluate the proliferation of risk from facilities within the nuclear fuel cycle. Examine the criticality conditions for a nuclear assembly and derive parent/daughter decay equations.

M E X38. Machine Elements.
Analysis for the design and manufacture of basic mechanical elements, and their role in the design of machines; application of finite element modeling.

M E X39. Heat Transfer.
Steady and transient heat conduction; forced and natural convection; radiation; introduction to heat exchangers and applications.

M E X39L. Experimental Heat Transfer.
Experimental design concepts, uncertainty analysis, and systems analysis as applied to thermodynamics, fluid mechanics, and heat transfer systems.

M E X40. Mechatronics.
Theory and application of electrical circuits, electronics, and electromechanical devices; concepts in electrical power transmission; instrumentation; feedback; integration of electronics and instrumentation with mechanical engineering systems (mechatronics).

M E X40L. Mechatronics Laboratory.
Hands-on laboratory using hand-held and bench-top electronic test and prototyping equipment for circuits and mechatronics applications; computer-aided instrumentation and data acquisition; laboratory study in design, prototyping, and testing with electrical and electronics components and electromechanical devices.

M E X43. Thermal-Fluid Systems.
Analysis and design of integrated systems involving simultaneous application of thermodynamics, heat transfer, and fluid mechanics. Applications to power generation, vehicle engineering, materials processing, environmental control, and manufacturing.

M E X44. Dynamic Systems and Controls.
Lumped physical system models; electrical, fluid, mechanical, and thermal system analysis; linear system transient, steady-state behavior; introduction to feedback control.

M E X44L. Dynamic Systems and Controls Laboratory.
Modeling of engineering systems, digital simulation, and assessment of results with experimental study; methods for analysis of first- and second-order systems, system identification, frequency response and feedback control principles; hands-on experimentation with mechanical, fluid, electrical, and magnetic systems; data acquisition and analysis using oscilloscopes and microcomputer-based analog-to-digital and digital-to-analog conversion; theoretical and practical principles governing the design and use of various sensors and transducers.

M E X47. Topics in Processing of Materials.
Analysis of forces in processing operations; effects of friction and their control; metalworking efficiencies.

M E X47.1. Powder Processing.
Powder particle characterization and size/shape/distribution, powder synthesis, compaction, sintering theory, sintering maps, full-density processing, powder-processed part microstructure and properties.

M E X47.2. Deformation Processing.
Analysis of forces in processing operations; effects of friction and their control; slab method; upper-bound force theory; slip-line field theory; metalworking efficiencies.

M E X48E. Advanced Mechatronics I.
Integrated use of mechanical, electrical, and computer systems for information processing and control of machines and devices. System modeling, electromechanics, sensors and actuators, basic electronics design, signal processing and conditioning, noise and its abatement, grounding and shielding, filters, and system interfacing techniques.

M E X48F. Advanced Mechatronics II.
Interfacing microcomputers with sensors and actuators; hybrid (analog/digital) design; digital logic and analog circuitry; data acquisition and control; microcomputer architecture, assembly language programming; signal conditioning, filters, analog-to-digital and digital-to-analog conversion.

M E X49. Corrosion Engineering.
Corrosion principles; electrochemical, environmental, and metallurgical effects; types of corrosion; corrosion testing and prevention; modern theories: principles and applications.

M E X50. Machine Tool Operations for Engineers.
Hands-on manual and computer-numerical-controlled machine tool operation. Part design and tool selection for production.

M E X50D. Design and Control of Robots for Rehabilitation.
Explore the roles of sensors, actuators, and neural circuits for biological movement control from an engineering perspective. Examine current approaches to robotic and mechatronic devices that support and enhance human movement in health and following neurologic injuries like stroke and spinal cord injury are discussed. Study the latest literature in neuromuscular controls, neuromotor recovery, and design and control of rehabilitation robots.

M E X50R. Robot Mechanism Design.
Studies the analysis and synthesis of motions of mechanisms in order to design robotic systems. Examines motion properties of mechanisms including degrees of freedom, velocity, and acceleration. Explores ideas and motion analysis for robotic systems for a wide range of applications including spatial, industrial and medical robotics.

M E X52K. Engineering Computer Graphics.
Introduction to interactive computer graphics as a tool in computer-aided design. Use of graphics software packages.

M E X53. Engineering Finance.
Evaluating the financial impact of engineering decisions. Comparing alternatives with cash flow analysis considering rate of return, inflation, and taxes, with emphasis on analyzing risk. Managing complex projects with activity scheduling and resource allocation considering cash flows. Methods include probabilistic analysis and simulation.

M E X54. Introduction to Biomechanical Engineering.
The application of mechanical engineering principles to problems in the life sciences; transport phenomena of physiological solids and fluids; biosignal analysis and instrumentation; biomaterials design and compatibility; principles of medical imaging, diagnostics, and therapeutics; rehabilitation engineering.

M E X54M. Biomechanics of Human Movement.
Modeling and simulation of human movement; neuromuscular control; computer applications; introduction to experimental techniques.

M E X55K. Engineering Vibrations.
Time-domain and frequency-domain analysis of vibrating systems; matrix methods, instrumentation, and vibration control; numerical methods.

M E X59. Materials Selection.
Description of commercial metals, polymers, ceramics, concrete, and wood for use in mechanical engineering applications. Applications include strength, toughness, stiffness, fatigue, creep, corrosion, casting, forming, machining, and welding.

M E X60. Vehicle System Dynamics and Controls.
Fundamentals of ground vehicle dynamics, tire-road mechanics, vehicle control systems, vehicle stability, and simulation of vehicle systems.

M E X60C. Cyber Vehicle Systems.
Study of the engineering principles of autonomous mobile robots. Subjects include understanding the dynamics of vehicle systems, and the principles and practical implementation of sensing, actuation, and control. Emphasis on providing practical laboratory study of these subjects using mobile robot platforms, and the use of the

commercial software package LabVIEW for programming of real-time data acquisition and control targets. Simulation studies may also be conducted in LabVIEW and/or the Matlab environment, so some proficiency in use of both of these software packages is expected.

M E X60D. Propulsion Systems and Controls.
Study principles, modeling, analysis, system integration, control, and diagnosis of diverse ground vehicle propulsion and driveline systems.

M E X60E. Advanced Vehicle Powertrain Systems and Control.
Explore the basic concept of vehicle powertrain systems and controller design, and discuss state of the art vehicle powertrain development. Examine modeling skills to capture the system dynamics and modern control strategies to achieve the desired system performance.

M E X60K. Metallurgy of Engineering Alloys.
Microstructure and property relationships of metals and alloys; steel alloys; aluminum alloys; titanium alloys; magnesium alloys; solidification and casting; thermomechanical processing; heat treating and solid-state phase transformations.

M E X60L. Turbomachinery and Compressible Flow.
Positive displacement and dynamic rotating machinery; pumps, compressors, and turbines; performance characteristics and scaling laws. One-dimensional compressible flow with area change, friction, or heat addition. Normal and oblique shock waves; Prandtl-Meyer expansion.

M E X60N. Intermediate Heat Transfer.
Multidimensional and transient diffusion; laminar and turbulent convection; radiation exchange; special topics.

M E X60S. Advanced Packaging and Thermal Management.

M E X61E. Nuclear Reactor Operations and Engineering.
Explore fission and chain reactions; neutron diffusion and moderation; reactor equations; Fermi Age theory; and multigroup and multiregional analysis.

M E X61F. Radiation and Radiation Protection Laboratory.
Introduction to the application of radiation and radiation protection instrumentation. Lecture and laboratory topics include personnel monitoring, radiation detection systems, gamma-ray spectroscopy, determination of environmental radiation, counting statistics, gamma and neutron shielding, and air sampling.

M E X61M. Materials Thermodynamics.
First and second laws; heat of combustion; heat engine cycles; chemical equilibria and/or phase equilibria; point defects in crystals.

M E X62K. Readings in Engineering.
A study of the interrelated problems of society, technology, and energy.

M E X62S. Development of a Solar-Powered Vehicle.
Analysis, design, and construction of a solar-powered car for national competitions involving other universities. Study of electrical, mechanical, and aerodynamic systems.

M E X63L. Energy Systems Laboratory.
Experimental analysis of thermal energy systems, including heat transfer equipment, engines, the University chilling station and the University power plant. Use of a variety of industrial instrumentation for assessment of system and component performance and of experimental uncertainty. Written and oral technical communication of experimental results.

M E X63M. Energy Technology and Policy.
An overview of energy technologies, fuels, environmental impacts and public policies. Subjects are interdisciplinary and include an introduction to quantitative concepts in energy, including the differences among fuels and energy technologies, energy policy levers, and the societal aspects of energy, such as culture, economics, war, and international affairs. Includes brief snippets of energy history, use of real-world examples, and looks forward into the future. Interactive and lecture-oriented around current events related to energy.

M E X64D. Intermediate Dynamics.
Focuses on efficient formulation and solution of equations of motion for complex 3D multi-body mechanical systems. Emphasizes the formulation of the dynamical equations of motion using Kane's method and will use symbolic and numerical simulation techniques (MATLAB(R) and MotionGenesis) to solve these equations. Preparation for advanced research and professional work analyzing the dynamics of complex multi-body mechanical systems.

M E X64L. Automatic Control System Design.
Feedback principles; control components; industrial compensators; Routh, Nyquist, Bode, and root locus methods; controller design; continuous and discrete time control.

M E X65D. Data Science for Engineers.
Learn data analysis and programming skills. Explore essential data science techniques, including regression, decision trees, classification, and neural networks.

M E X65E. Engineering Entrepreneurship.
Focus on developing a basic understanding for the assessment of emerging technologies including the analysis of the status and future development issues, establish a comprehension of what 'market' means in terms of potential technology applications, and of how that market is identified and characterized. Create new knowledge about the potential match of an emerging technology with a defined market as a member of a multidisciplinary team, establish a basic understanding of IP rights, assessment and strategy related to emerging technology, and assess the course and participate in discussions about how it can be evolved for future offerings. Exploration the innovation and technology commercialization process especially as it relates to individual expertise and career goals.

M E X65K. Finite Element Method.
Introduction and application of the finite element method in engineering analysis and design problems; demonstration of techniques using commercial codes.

M E X65L. Industrial Design for Production.
Current techniques for making transitions from theoretical concepts to cost effective designs suitable for manufacturing.

M E X66E. Mechanical Engineering Capstone Design.
Examine creative design, analysis, selection, development, and fabrication of engineering components and systems.

M E X66J. Mechanical Engineering Design Methodology.
An examination of structured methodologies for designing mechanical systems; reverse engineering/redesign projects and conceptual design projects.

M E X66L. Operations Research Models.
Formulation and solution-interpretation for operations research models requiring, for example, optimization, simulation, or analysis of Markov chains or queues. Applications include manufacturing design and control, routing and scheduling, plant location, inventory analysis, and management of queueing systems.

M E X66Q. Deterministic Methods for Operations Research.
Theory and algorithms for deterministic operations research methods. Algorithms for solving linear, integer, and nonlinear optimization models.

M E X66R. Stochastic Methods for Operations Research.
Theory and algorithms for stochastic operations research methods. Algorithms related to stochastic processes: Markov chain analysis; queueing theory; stochastic inventory theory and decision analysis.

M E X66T. Biomems and Bionems.
Micro/Nano technology has been used to create many new materials and devices with a vast range of applications in materials science, electronics and photonics, and biomedical applications. BioMEMS and BioNEMS is the application of micro/nano technology in the fields of biomedical and health sciences by offering advantages of small size (from submicron to a few mm), low cost, high throughput, and importantly requiring much less sample/reagent.

M E X67S. Simulation Modeling.
Basic concepts of discrete-event simulation. Statistical input and output analysis. Application of simulation software. Modeling of systems under uncertainty.

M E X68C. Additive Manufacturing.
Additive manufacturing (AM) is the use of layer-based processes for producing parts directly from computer (CAD) models, without part-specific tooling. Students learn about a variety of additive manufacturing (AM) AM technologies, their potential to support rapid prototyping and manufacturing, and some of of the important research challenges associated with AM.

M E X68J. Computer-Aided Design.
Application of computers to design problems and simulation of mechanical systems; creation of interactive special applications programs.

M E X69L. Introduction to Computational Fluid Dynamics.
Applied numerical analysis, including solution of linear algebraic equations and ordinary and partial differential equations; modeling of physical processes, including fluid flow and heat and mass transfer; use of general purpose computer codes, including commercial computational fluid dynamics software packages.

M E X69M. Computational Methods in Thermal/Fluid Systems.
Use of basic tools of computational mathematics to set up numerical simulations for a variety of problems in thermo fluids. Explicit versus implicit time-stepping schemes, the issues of numerical stability and numerical errors, the issue of computational costs, difficulties with boundary and initial conditions, basic decision paths in the choice of numerical methods depending on the target system, and design of diagnostic steps.

M E X69P. Application Programming for Engineers.
Designed for students who have some experience in programming and are interested in the sharing and development of open source software applications. Provides an introduction to the Python Programming language, an open source, flexible, and intuitive debug programming language, with an emphasis on system modeling, simulation, data analysis, and software/data management. Students will create mini projects in Python that demonstrate software design and organization, debugging, open source practices, and data visualization.

M E X71D. Medical Device Design and Manufacturing.
Explores how to solve medical device design problems using systematic design thinking and practices. Interpret clinical needs and define an open engineering medical device design problem, including formulating engineering requirements/specifications to address a marketable need, generate concepts in a way that promotes both creativity and usefulness, make well-informed, well-justified design decisions in the early and later stages of design, design and analyze experiments, follow statistical best practices in Design of Experiments(DoE), embody solutions with "Design for X" considerations, and communicate intermediate and final designs clearly and effectively in written and oral formats.

M E X71K. Legal Aspects of Engineering Practice.
Legal considerations in the practice of engineering; specifications and contracts for equipment and engineering services.

M E X72C. Theory and Design for Mechanical Sensing and Measurements.
Explore basic concepts of mechanical measurements: sensing, signal processing, experimental methods, uncertainty analysis, detection, and estimation.

M E X72J. Robotics and Automation.
Component technologies for precision machines based on dynamic modeling and motion programming: cams, linkages, planar robot manipulators and open architecture vehicles. Homework includes 15 simulations.

M E X72M. Mechanism Design.
Design of planar mechanisms for applications that require rigid body guidance, function generation, and path generation. Graphical and analytical techniques. Computer-aided design projects.

M E X72N. Design of Smart Mechanisms.
Design of reprogrammable multiple-degree-of-freedom architectures. The course addresses various mechanical configurations and stresses the integrated design approach to sensing/actuation/control architecture and control software.

M E X74C. Combustion Engine Processes.
Principles of internal combustion engines, fuels, carburetion, combustion, exhaust emissions, knock, fuel injection, and factors affecting performance.

M E X74D. Automotive Engineering Laboratory.
Engines and emissions. Students use commercial engine-modeling software to explore effects of valve timing and intake tuning and conduct experiments with vehicle emissions, ignition timing, engine mechanisms, engine controls, and emissions control.

M E X74E. Race Car Engineering and Project Management.
Explores designing a Formula SAE race car, a hot rod (UT's 1937 Chevy project), and a Formula SAE Electric race car. Divided into four major sections: Project Management, including tools for project organization and management, Powertrain, including engine basics, calibration, intake and exhaust design, cooling and oiling systems, fuel economy and emissions, transmission/differential, vehicle performance modeling, Brake systems, longitudinal weight transfer, longitudinal force requirements of the tires for both braking and acceleration, tires and tire models, and Vehicle dynamics (suspension systems, anti-roll bars, lateral weight transfer, tires and tire models).

M E X74F. Fire Science.
Analysis of the dynamics and consequences of fire in structures. Topics include combustion thermochemistry, premixed and diffusion flames, fluid mechanics of fire, human tenability in burning structures, and computer modeling of fires.

M E X74L. Design of Thermal Systems.
Methodology and approach to design of thermal energy systems; component and system modeling; optimization, including economic considerations.

M E X74R. Design of Air Conditioning Systems.
Load calculations, design of thermal distribution systems, component selection and control.

M E X74S. Solar Energy Systems Design.
Insolation characteristics and measurement, component design, solar energy system modeling, introduction to photovoltaic systems, cost analysis, and case studies.

M E X74T. Renewable Energy Technology.
Cultivates an enhanced level of theoretical and conceptual understanding of thermodynamics, fluid mechanics and heat transfer, and of how these disciplines apply to the design and analysis of complex thermal-fluid systems. Enhances skills in designing, programming and debugging software tools for systems analysis, working in teams, and communicating engineering results in a professional manner.

M E X76N. High Throughput Nanopatterning.
Introduction to the basic tools and materials involved in the patterning processes needed to create nano-scale structures and functional materials and discusses the relevance of these processes to applications in the electronics, display, and energy industries. Includes take-home portable nano-labs which allow hands-on experience in nano-scale fabrication processes and relevant nanometrology techniques. Explores industry and research roadmaps that provide relevant metrics and timelines for fabrication, materials, nano-enabled components and devices. Exposure to relevant computational modeling and simulation tools allows exploration of novel nano-enabled components and devices.

M E X77K. Projects in Mechanical Engineering.
Independent project carried out under the supervision of a faculty member in mechanical engineering. Student prepares a project proposal and a final report, each of which is evaluated by the faculty committee on individual projects.

M E X78C. Electroceramics.
Bonding; crystal structures; defects; phase diagrams; glass ceramics; electrical, dielectric, magnetic, and optical ceramics.

M E X78D. Failure Analysis.
Introduction to methodology of analyzing failures of engineering parts and devices. Explores a broad range of analysis, but the focus is on understanding fractography and relating this back to material and mechanics relevant to failure to determine the likely root cause(s). Lectures are primarily based on case studies and are supplemented by two hands-on class projects, one performed individually and the other larger project performed as a team project.

M E X78E. Nanotechnology for Sustainable Energy.
Demonstrates the role of nanoscale materials in solving one of the most critical socio-economic issues of our time, affordable and sustainable energy. An overview of emerging nanotechnology, and how people can critically impact many energy technologies (from energy harvesting, conversion, to storage). Explores various types of energy devices, including solar cell, solar fuel, piezoelectrics, thermoelectrics, battery, supercapacitor, and fuel cell as well as basic device principles, current technology status and new opportunities of nanotechnology for energy device applications. Content is at the intersection of nanoscale science and engineering, and energy science and technology.

M E X78F. Enhancing Sustainability Through Tribology.
Explore the principles of macro-scale tribology and discuss the potential impact of tribology in enhancing sustainable development. Discuss physical properties of lubricants; lubricants and their composition; contact mechanics; hydrodynamic lubrication; hydrostatic lubrication; elastohydrodynamic lubrication; boundary lubrication; solid lubrication and surface treatments; wear of materials; nanotribolgy; and green tribology.

M E X78K. Mechanical Behavior of Materials.
Elastic deformation; viscoelasticity; yielding, plastic flow, plastic instability, strengthening mechanisms; fracture, fatigue, creep; significance of mechanical properties tests.

M E X78P. Properties and Applications of Polymers.
Introduction to polymers as structural materials: polymerization, polymer structure, physical and mechanical properties, processing and fabrication.

M E X78Q. Polymer Nanocomposites.
Fundamentals, properties, and applications of polymer nanocomposites.

M E X78S. Structural Ceramics.
Powder processing, powder characterization, forming techniques, densification, and development of microstructure; emphasis on understanding materials, selection, and microstructure-mechanical property relationships.

M E X79H. Undergraduate Honors Thesis.
Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis.

M E X79M. Topics in Mechanical Engineering.

M E X79M.1. Design of Machines and Systems.
Introduction to techniques for analyzing and designing machine components (linkages, cams, springs, gears, etc.) within the context of reverse engineering and redesigning existing products. Covers the application of structure methods for engineering design and prototyping.

M E X79M.7. Technology Needs of Refugee Communities.
Examine the refugee crisis with an emphasis on refugee flows into Greece.

M E X79N. Engineering Acoustics.
Principles of acoustics, with applications drawn from audio engineering, biomedical ultrasound, industrial acoustics, noise control, room acoustics, and underwater sound.

M E X79Q. Musical Acoustics.
Designed to help students develop the intuition and vocabulary for understanding the basic physical principles relevant to musical instruments and sound (e.g., mechanics, vibrations, acoustics, harmonics, acoustic-electronic conversions, speakers, hearing, perception, room acoustics) in order to be able to read basic articles on the subject of musical acoustics. Material is kept relevant to musical principles (e.g., performance techniques, scales/harmony) throughout.

M E X80M. Research.

M E X97P. Projects in Mechanical Engineering.
Independent project carried out under the supervision of a mechanical engineering faculty member.

Graduate Courses

M E X80E. Special Topics in Mechanical Engineering.

M E X80M. Research.

M E X80Q. Topics in Mathematical Methods in Engineering.
Applications of mathematical analysis and numerical concepts to typical engineering problems.

M E X80Q.1. Engineering Analysis: Analytical Methods.
Analytical solutions for linear ordinary differential equations; numerical integration of ordinary differential equations; Fourier series and integrals; the Laplace transform; the solution of partial differential equations; vector analysis and linear transformations.

M E X80Q.2. Engineering Analysis: Advanced Analytical Methods.
Classification and solution of partial differential equations; includes linear superposition, separation of variables, Fourier and Laplace transform methods, Green's functions, similarity solution, and spectral methods; introduction to solution of nonlinear partial differential equations, including both exact and approximate techniques, with a strong emphasis on physical systems.

M E X80Q.3. Perturbation Methods.
Introduction to perturbation theory; regular expansions and sources of nonuniformities; method of strained coordinates and multiple scales; method of matched asymptotic and composite expansions. Places strong emphasis on the relationship between the physical and the mathematical basis and on the crucial role of nondimensionalization in problem solving.

M E X80Q.4. Numerical Methods for Differential Equations.
Numerical solution of ordinary differential equations, both initial and boundary value equations; includes quasilinearization, shooting methods, and method of adjoints; classification and solution of partial differential equations by the finite difference method; stability and convergence criteria for various schemes; special attention to nonlinear equations with a strong emphasis on the Navier-Stokes equations.

M E X80R. Robot Mechanism Design.
Examines analysis and synthesis of motions of mechanisms in order to design robotic systems. Motion properties of mechanisms including degrees of freedom, velocity, and acceleration will be studied. Discusses design ideas and motion analysis for robotic systems for a wide range of applications including spatial, industrial and medical robotics. Simulates and analyzes motions of multi-link mechanisms in the MATLAB programming environment. Design and build robots with interesting mechanisms and mechatronics elements as part of group projects. Studies machining, assembly, mechatronics and programming through the projects.

M E X81M. Statistical Methods for Process Control Manufacturing.
Covers fundamental methods for statistical monitoring of processes, including Shewhart control charts, control charts for individual measurements, CUSUM charts and attribute control charts. Explores

the design of experiments, including the statistical evaluation of main and interaction effects, as well as intelligent experimentation through reduced factorial experimental design. Outlines DOE-based search techniques for surface response based design optimization. Offers advanced research in model based and active process control in highly flexible and sophisticated manufacturing systems, such as semiconductor manufacturing lithography of flexible automotive assembly lines.

M E X81P. Topics in Dynamics of Fluids.
Detailed study of fluid dynamics, boundary layer phenomena, and incompressible flows.

M E X81P.1. Fundamentals of Incompressible Flow.
Fundamentals. Kinematic and dynamic equations for compressible viscous flow, incompressible flow criteria, viscous flow patterns, and solution methods.

M E X81P.2. Compressible Flow and Turbomachinery.
Two-dimensional flow at subsonic and supersonic Mach numbers, method of characteristics, shock tubes, oblique shocks, wave interactions.

M E X81P.3. Dynamics of Turbulent Flow.
Fundamentals of turbulence, including scaling, transport, and kinetic energy of turbulence; wakes, jets; wall-bounded flows; spectrum of turbulence.

M E X81P.4. Multiscale Flow and Transport Phenomena.
Fundamentals of flow and transport phenomena in multiscale systems, including momentum, energy, and mass transport phenomena at the microscale; surface tension (capillarity); electrokinetics; micro-scale transport in porous media; multi-phase flow; rheology; and complex fluids.

M E X81P.5. Applications of Incompressible Flow.
Dynamics of vorticity, inviscid flow; boundary layer theory and computational techniques, linear stability theory for parallel flow, flow at moderate Reynolds number.

M E X81Q. Topics in Thermodynamics.

M E X81Q.1. Advanced Thermodynamics.
Development of macroscopic thermodynamics from basic physical relationships; introduction to the thermodynamics of mixtures.

M E X81Q.4. Molecular Gas Dynamics.
Kinetic theory, chemical thermodynamics, statistical mechanics. Applications: equilibrium gas properties, chemical kinetics, interaction of matter with radiation, rarefied gas dynamics.

M E X81R. Topics in Heat Transfer and Rate Processes.

M E X81R.1. Advanced Conductive Heat Transfer.
Modeling approaches for composite systems; phase change in conduction-dominant heat transfer systems; analysis of complex source terms in conduction systems; conduction physics at material interfaces; coupled thermo-mechanical response in conduction systems; and solution techniques for multidimensional, unsteady conduction phenomena.

M E X81R.2. Advanced Convective Heat and Mass Transfer.
Fundamental study of momentum, energy, and mass transport in convective systems in laminar and turbulent regimes, and several flow configurations.

M E X81R.3. Radiation Heat Transfer.
Thermal radiation, blackbody properties, surface properties, radiant exchange, absorbing and emitting media, combined modes.

M E X81R.4. Fundamentals of Heat and Mass Transfer.
Fundamentals of conduction, convective heat transfer, diffusive and convective mass transfer, thermal radiative exchange.

M E X81R.5. Radiation in Participating Media.
Methods for treating thermal radiation in absorbing, transmitting, and scattering media.

M E X81R.6. Multiphase Flow and Heat Transfer.
Heat, mass, and momentum transfer in multi-phase flow systems: flows with particles, drops and bubbles, boiling, condensation, and absorption.

M E X81R.7. Nanoscale Energy Transport and Conversion.
Nanoscale transport phenomena and energy conversion processes. Parallel theoretical treatment of transport and conversion processes of electrons, phonons, photons, and molecules in various applications including photovoltaic and thermoelectric energy conversions, microelectronics, nanomaterials, and laser materials processing.

M E X81R.8. Microelectronics Packaging and Thermal Management.
Explore basics of semiconductor fabrication, microelectronics packaging techniques, thermomechanical issues in packaging, reliability-related aspects in packaging, thermal management conditions, Conduction-based cooling, air and liquid cooling, phase change-based cooling, role of packaging materials. Discuss challenges and solutions at multiple length scales, from transistors (nanometers) to data centers (10's of meters).

M E X82N. Topics in Computational Fluid Dynamics.
Numerical analysis applied to fluid flow and heat transfer problems.

M E X82N.1. Introduction to Computational Fluid Dynamics.
Applied numerical analysis, including solution of linear algebraic equations and ordinary and partial differential equations; modeling of physical processes, including fluid flow and heat and mass transfer; use of general-purpose computer codes, including commercial computational fluid dynamics software.

M E X82N.2. Computational Methods for Thermal Fluid Systems.
Introduction to the use of computational tools in the analysis of thermal-fluid systems, with particular emphasis on verification of results and error analysis. Included are interpolation, differentiation, quadrature, solution of linear and non-linear equations, optimization, differential equations and statistics.

M E X82P. Topics in Experimental Thermal/Fluid Systems.
Use of modern experimental techniques and instrumentation in the thermal/fluid sciences.

M E X82P.1. Advanced Experimental Methods for Thermal/Fluid Systems.
Design of experiments; fundamentals of electronic signal processing and optics; advanced experimental techniques, including flow measurements with laser-Doppler velocimetry, particle image velocimetry, and hot-wire anemometry; and thermal measurements with infrared cameras and thermocouples.

M E X82P.2. Optics and Lasers.
Fundamentals of geometric and physical optics; interaction of light with matter; spectroscopy; and laser and electro-optics applications.

M E X82Q. Topics in Design of Thermal and Fluid Systems.

M E X82Q.2. Solar Energy System Design.
Solar radiation, solar collectors, storage, and system analysis and design. Application to both thermal and photovoltaic systems.

M E X82Q.3. Advanced Thermo-Fluid Systems.
Project-based course addressing the design and analysis of systems in which thermal and fluid processes are central to function and performance. Advanced topics including transient system analysis, multicomponent nonreacting and reacting gas mixtures, phase change phenomena, and design principles based on entropy generation minimization are covered in the context of specific thermal-fluid applications.

M E X82Q.4. Energy Technology and Policy.
Multidisciplinary overview of energy technologies, fuels, environmental impacts, and public policies. Quantitative engineering analysis in energy, including the differences among fuels and energy technologies, the electricity sector, liquid fuels, conventional fuels, renewable fuels, impacts on the environment, basics of atmospheric chemistry, and water use for power plant cooling. Energy policy and the societal aspects of energy, such as culture, economics, war, and international affairs, are covered.

M E X82R. Topics in Combustion.
Fundamentals of combustion science, technology, and engineering.

M E X82R.1. Fundamentals of Combustion.
Combustion phenomena are examined from a fundamental perspective. Topics include equilibrium phenomena, chemical kinetics, explosions, detonations, and premixed and diffusion flames.

M E X82R.2. Chemical Kinetics.
The theory of combustion chemistry. Issues include physics of molecular interactions, the explosion peninsula, elementary reaction schemes, reduced reaction schemes, and global chemistry.

M E X82R.5. Advanced Combustion.
Presentation and analysis of multi-component and reacting conservation equations; examination of the theory of laminar flames (premixed and nonpremixed) using asymptotic methods; detailing of ignition and extinction phenomena; discussion of flame response to transport and flow modifications; and approaches to analyzing turbulent premixed and nonpremixed flames.

M E X82R.6. Combustion Engine Processes.
Principles of internal combustion engines, fuels, carburetion, combustion, exhaust emissions, knock, fuel injection, and factors affecting performance.

M E X82T. Fire Science.
Analysis of dynamics and consequences of fire in structures. Topics include combustion thermochemistry, premixed and diffusion flames, fluid mechanics of fire, human tenability in burning structures, computer modeling of fires.

M E X83D. Theory and Design for Mechanical Sensing and Measurements.
Explore fundamental aspects of measurement systems: sensing, signal processing, experimental methods, uncertainty analysis, detection, and estimation.

M E X83M. Heat Transfer in Industrial Systems.
Provides understanding of heat transfer physics and the tools to analyze a wide range of industrially relevant heat transfer problems. Analyzes heat transfer systems associated with a diversity of industrial applications, as well as how to use order of magnitude analysis to simplify complex problems and solution techniques for the three modes of heat transfer.

M E X83Q. Topics in Analysis of Mechanical Systems.
Detailed studies in the characteristics of mechanical systems.

M E X83Q.1. Vibrations.
Formulation of discrete and continuous models for mechanical systems in vibration; modal analysis; analytical solution methods for constant property linear systems; numerical solution methods.

M E X83Q.10. Modeling and Simulations of Multienergy Systems.
Methods for modeling and simulation of multienergy systems. Detailed study of applications in electromechanical systems, fluid power, chemical and biological processes, optimal control, and other areas of interest to the class.

M E X83Q.2. Dynamics of Mechanical Systems.
Advanced dynamics, including Newton-Euler, Lagrange, and Hamilton's principles; gyroscopic effects in mechanical systems; analysis of stability of systems; continuous bodies; introduction to Hamilton-Jacobi.

M E X83Q.4. Modeling of Physical Systems.
Development of models for mechanical, electrical, fluid, thermal, and chemical systems; circuit techniques; bond graphs; energy and variational methods; hardware examples.

M E X83Q.5. Wave Propagation.
Fundamentals of wave propagation; transverse waves on strings and membranes; compressional, torsional, and flexural waves in rods and plates; longitudinal, shear, and surface waves in elastic media; tube waves; and water waves.

M E X83Q.6. Fourier and Spectral Analysis in Dynamic Systems.
Fourier transformations (series, integrals, fast Fourier transforms) and their relationships. Sampling, aliasing, convolution, correlation, leakage, windowing, power spectra, frequency response functions, and coherence functions in one-dimensional digital signal processing. Cepstrum analysis, Hilbert transforms. Experimental techniques and applications include modal analysis, mechanical signature analysis, and path identification.

M E X83Q.8. Digital Signal Processing.
Sampling and quantizing processes; analog/digital and digital/analog conversion; digital Fourier analysis, including fast Fourier transform; z transform; design of finite impulse response and infinite impulse response digital filters.

M E X83Q.9. Applied Intelligence for Engineers.
Fundamental concepts of artificial neural systems; architecture, paradigms, topology, and learning algorithms. Introduction to the most popular networks and to their selection for engineering applications.

M E X83S. Topics in Lubrication, Wear, and Bearing Technology.
Theory of friction and wear; design of bearing systems, including hydrodynamic, rheodynamic, and direct contact devices.

M E X83S.1. Friction and Wear of Materials.
Theories of friction, theories of wear (adhesion, delamination), pitting, spalling, fretting, and galvanic corrosion.

M E X84D. Intermediate Dynamics.
Focus on efficient formulation and solution of equations of motion for complex 3D multi-body mechanical systems. Explore the formulation of the dynamical equations of motion using Kane's Method and use of symbolic and numerical simulation techniques to solve these equations.

M E X84E. Topics in Electromechanics.

M E X84M. Fluid Mechanics in Industrial Processes.
Offers practicing engineers and technology managers a comprehensive treatment of various fluid mechanics topics. Explores fluid flow and related phenomena in multiple application spaces. Benefit the design and analyses of various fluid-based systems.

M E X84N. Topics in Acoustics.

M E X84N.1. Acoustics I.
Plane waves in fluids; transient and steady-state reflection and transmission; lumped elements; refraction; strings, membranes, and rooms; horns; ray acoustics; absorption and dispersion.

M E X84N.2. Acoustics II.
Spherical and cylindrical waves, radiation and scattering, multipole expansions, Green's functions, waveguides, sound beams, Fourier acoustics, Kirchhoff theory of diffraction, and arrays.

M E X84N.3. Electromechanical Transducers.
Modeling, analysis, and design of transducers for reception and transmission of acoustic and vibration signals; dynamics of coupled electrical, mechanical, and acoustical systems; and the effects of transducer characteristics on fidelity and efficiency of transduction.

M E X84N.4. Nonlinear Acoustics.
Waveform distortion and shock formation, harmonic generation and spectral interactions, effects of absorption and dispersion, parametric arrays, Rankine-Hugoniot relations, weak shock theory, numerical modeling, radiation pressure, and acoustic streaming.

M E X84N.5. Underwater Acoustics.
Acoustic properties of the ocean; acoustic propagation, reflection, reverberation, scattering and target strength; ocean noise; introduction to array and signal processing; basics of sonar design.

M E X84N.6. Architectural Acoustics.
Human perception of sound, principles of room acoustics, sound-absorptive materials, transmission between rooms, and acoustical design of enclosed spaces.

M E X84N.7. Ultrasonics.
Acoustic wave propagation in fluids, elastic solids, and tissue; transducers, arrays, and beamforming; nondestructive evaluation; and acoustical imaging.

M E X84N.8. Wave Phenomena.
Fourier acoustics and angular spectra; nearfield acoustical holography; Fraunhofer, Fresnel, and parabolic approximations; sound beams; Green's functions; Born approximation; propagation and scattering in moving, periodic, and random media.

M E X84N.9. Acoustic Metamaterials.
Examine wave propagation in heterogeneous media displaying nonclassical effective properties. Introduction to effective medium theories including fundamental limits on effective properties, transmission and scattering matrices, waves in periodic media, localized resonance, and transformation acoustics.

M E X84Q. Topics in Design of Control Systems.

M E X84Q.1. Introduction to Modern Control.
State variable methods, eigenvalues, and response modes; controllability, observability, and stability; calculus of variations; optimal control; Pontryagin maximum principle; control of regulator and tracking servomechanisms; Hamilton-Jacobi, dynamic programming; deterministic observers, Kalman filter; discrete and continuous time.

M E X84Q.10. Real-Time Control System Labs.
Conduct design, implementation, hands-on experiments, and analysis of real-time estimation and control algorithms for physical systems.

M E X84Q.11. Estimation and Control of Ground Vehicle Systems.
Examine advanced control and estimation systems for ground vehicle propulsion, chassis, and automation systems. Discuss combinations of physical insight into ground vehicle systems with control and estimation methods.

M E X84Q.12. Digital Control.
Explore the concepts of sampling and discrete-time signals/systems; analysis of discrete-time systems; design of discrete-time controllers, including input/output approaches, polynomial methods, state space techniques, and linear quadratic optimal control design. Examine understanding of computer controlled systems, construction of discrete-time models, analysis of the open loop and closed-loop behavior, and design of digital control algorithms.

M E X84Q.2. Nonlinear Control Systems.
State space formulation; stability criteria; Liapunov functions; describing functions; signal stabilization; Popov and circle criteria for design.

M E X84Q.3. Time-Series Modeling, Analysis, and Control.
Methods for analytical modeling, analysis, prediction, and control of linear, stationary time series. Includes examples of advanced research in nonstationary time-series modeling and applications in manufacturing, financial engineering, geosciences, and other areas. Students complete a project on a topic of their choice.

M E X84Q.4. Automatic Control System Design.
Examine feedback principles; control components; industrial compensators; Routh, Nyquist, Bode, and root locus methods; controller design; continuous and discrete time control.

M E X84Q.7. Stochastic Systems, Estimation, and Control.
Probability and random variables; filtering theory; stochastic calculus; stochastic control; engineering applications; linear and nonlinear systems; spectral techniques.

M E X84Q.8. Propulsion Systems and Controls.
Study principles, modeling, analysis, system integration, control, and diagnosis of diverse ground vehicle propulsion and driveline systems.

M E X84Q.9. Advanced Vehicle Powertrain Systems and Control.
Explore the basic concept of vehicle powertrain systems and controller design, and discuss state of the art vehicle powertrain development. Examine modeling of system dynamics, and applying modern control strategies to achieve the desired system performance.

M E X84R. Topics in Robotics.

M E X84R.1. Robotics and Automation.
Component technologies for precision machines based on dynamic modeling and motion programming: cams, linkages, planar manipulators.

M E X84R.2. Design of Smart Mechanisms.
Design of reprogrammable multiple-degree-of-freedom architectures. The course addresses various mechanical configurations and stresses the integrated design approach to sensing/actuation/control architecture and control software. Includes design project.

M E X84R.3. Advanced Dynamics of Robotic Systems.
Treatment in depth of the dynamics of robotic systems. Discussion of modeling, analysis, and control of conventional serial robots, in-parallel manipulators, dual arms, and legged locomotion systems.

M E X84R.4. Geometry of Mechanisms and Robots.
Advanced topics in theoretical kinematics geometry: applications of screw system theory to the study of motion and force fields in spatial mechanisms and robotic systems; analytical and numerical schemes associated with kinematics geometry.

M E X84R.5. Planar Mechanism Synthesis.
Design of planar mechanisms for applications that require rigid body guidance, function generation, and path generation. Graphical and analytical techniques. Computer-aided design projects.

M E X84R.7. Brain, Body, and Robotics.
Examine computational models of brain control of human movement. Explore the roles of sensors, actuators, and neural circuits for biological movement control from an engineering perspective. Study current approaches to robotic and mechatronic devices that support and enhance human movements. Develop and test prototypes for robot modules that interact with the human body while studying the latest literature in neuromuscular controls, neuromotor recovery, and design and control of rehabilitation robots.

M E X84R.8. Algorithms for Sensor-Based Robotics.
Use advanced mathematical concepts in linear algebra and optimization to develop applied algorithms for robotic systems utilizing various imaging modalities and sensors. Explore all phases of kinematics/dynamics modeling, preparation, motion planning, and execution. Examine examples of such algorithms in various areas including, but not limited to, robotic surgery, mobile robotics, manipulation, and human-machine interaction systems.

M E X84R.9. Haptics and Teleoperated Systems.
Examine theory, analysis, and application of a variety of haptic and teleoperated systems, particularly in robotics and consumer electronics.

M E X85J. Topics in Biomedical Engineering.

M E X85J.1. Cell and Tissue Anatomy and Physiology for Engineers.
An overview of cellular biology, including functional cellular anatomy, DNA replication and the cell cycle, protein synthesis, membrane structure and function, energy metabolism, cellular homeostasis, and cell repair and death; and functional anatomy and physiology of the basic tissues.

M E X85J.10. Biomedical Application of Transport Phenomena.
Investigates radioisotopic methods for biological transport, including theory and experiments. Investigates artificial organ systems with clinical laboratory experiments to augment theory presented in lectures.

M E X85J.11. Biomedical Engineering Hospital Interfaces.
Students gain firsthand knowledge of the instrumentation, procedures, and organization of a modern hospital. Class sessions are held in the different clinical services and laboratories of the hospital.

M E X85J.12. Biomedical Heat Transfer.
Heat transfer in biological tissue; determination of thermodynamic and transport properties of tissue; thermal effects of blood perfusion; cryobiology; numerical modeling methods; clinical applications.

M E X85J.13. Molecular Recognition in Biology and Biotechnology.

M E X85J.15. Biosignal Analysis.
Theory and classification of biological signals such as EEG, EKG, and EMG. Data acquisition and analysis procedures for biological signals, including computer applications.

M E X85J.16. Laser-Tissue Interaction: Optical.
The optical behavior of random media such as tissue in interaction with laser irradiation. Approximate transport equation methods to predict the absorption and scattering parameters of laser light inside tissue. Port-wine stain treatment; cancer treatment by photochemotherapy; and cardiovascular applications.

M E X85J.17. Biomedical Instrumentation II: Real-Time Computer-Based Systems.
Design, testing, patient safety, electrical noise, biomedical measurement transducers, therapeutics, instrumentation electronics, and microcomputer interfaces. Several case studies are presented.

M E X85J.18. Biomedical Image Processing.
Physical principles and signal processing techniques used in thermographic, ultrasonic, and radiographic imaging, including image reconstruction from projections such as CT scanning, MRI, and millimeter wave determination of temperature profiles.

M E X85J.2. Organ System Anatomy, Physiology, and Pathology for Engineers.
The functional anatomy and physiology of the major human organ systems; representative pathologic disorders associated with these organs. An overview of general pathologic processes, with emphasis on the influences of normal and abnormal organ anatomy, physiology, and disease on the definition and solution of biomedical engineering problems.

M E X85J.20. Network Thermodynamics in Biophysics.
Modeling and simulation methods for nonlinear biological processes, including coupling across multienergy domains; practical implementation by bond graph techniques.

M E X85J.23. Optical Spectroscopy.
Measurement and interpretation of spectra: steady-state and time-resolved absorption, fluorescence, phosphorescence, and Raman spectroscopy in the ultraviolet, visible, and infrared portions of the spectrum.

M E X85J.24. Rehabilitation Engineering.
Explores use of robotic devices in physical therapy for neuromuscular injury. Clinicians lecture each week on a specific malady, followed by critical review of the literature of that malady from the perspective of rehabilitation engineering. Shadows therapists and develops a prototype of a device for therapy, assistance or diagnosis of patients, or conducts an experiment to test a hypothesis in the field using a device.

M E X85J.26. Therapeutic Heating.
Engineering aspects of electromagnetic fields that have therapeutic applications: diathermy (short wave, microwave, and ultrasound), electrosurgery (thermal damage processes), stimulation of excitable tissue, and electrical safety.

M E X85J.27. The Biotechnology Revolution and Engineering Ethics.
The history and status of genetic engineering; potential applications in medicine, agriculture, and industry; ethical and social issues surrounding the engineering of biological organisms; ethics in engineering practice in physical and biological realms.

M E X85J.28. Noninvasive Optical Tomography.
Basic principles of optical tomographic imaging of biological materials for diagnostic or therapeutic applications. Optical-based tomographic imaging techniques including photothermal, photoacoustic, and coherent methodologies.

M E X85J.29. Transport Processes in Biological Systems.
Introduction to engineering analysis of transport phenomena in living systems, including fluid flow, heat transfer, pharmacokinetics, and membrane fluxes with clinical applications.

M E X85J.3. Bioelectric Phenomena.
Examines the physiological bases of bioelectricity and the techniques required to record bioelectric phenomena both intracellularly and extracellularly; the representation of bioelectric activity by equivalent dipoles and the volume conductor fields produced.

M E X85J.30. Introduction to Biomechanics.
Modeling and simulation of human movement; neuromuscular control; computer applications; introduction to experimental techniques.

M E X85J.31. Biomedical Instrumentation I.
Application of electrical engineering techniques to analysis and instrumentation in biological sciences: pressure, flow, temperature measurement; bioelectrical signals; pacemakers; ultrasonics; electrical safety; electrotherapeutics.

M E X85J.32. Projects in Biomedical Engineering.
An in-depth examination of selected topics, such as optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; noninvasive cardiovascular measurements.

M E X85J.33. Neurophysiology/Prosthesis Design.
The structure and function of the human brain. Discussion of selected neurological diseases in conjunction with normal neurophysiology. Study of neuroprosthesis treatments and design philosophy, functional neural stimulation, and functional muscular stimulation.

M E X85J.34. Biopolymers and Drug/Gene Delivery.
Introduction to different classes of biopolymers. Biodegradability and biocompatibility. Interaction of cells and tissues with polymers and polymeric implants; immunology of biomaterials. Applications of polymers in medicine and biology. Gene therapy and generic immunization. The use of biopolymers and drug/gene delivery in organ regeneration and tissue engineering.

M E X85J.35. Rehabilitation Robotics and Engineering.
Explores the use of robotic devices to support the strength of patients and therapists, quantitatively diagnose impairment, and augment function. Critically review the literature in rehabilitation engineering from both robotics and scientific perspectives. Students also shadow therapists and develop a prototype of a device for therapy, assistance or diagnosis of patients, or conduct an experiment to test a hypothesis in the field using a device.

M E X85J.36. Modeling and Simulation of Human Movement.
Examine a synthesis of neuromusculoskeletal properties and interactions with the environment to construct detailed musculoskeletal models and computer simulations that allow for the investigation of various aspects of human movement. Explore a review of rigid-body dynamics, inverse and forward dynamic analyses, muscle physiology and models, musculoskeletal anthropometrics, muscle induced acceleration and segment power analyses, contact models, optimal control, muscle force distribution solutions, and simulation applications.

M E X85J.5. Cardiovascular Dynamics.
Anatomy, physiology, pathophysiology, and dynamics of the cardiovascular system, with emphasis on the design and application of electrical and mechanical devices for cardiac intervention.

M E X85J.9. Laser-Tissue Interaction: Thermal.
The thermal response of random media in interaction with laser irradiation. Calculation of the rate of heat production caused by direct absorption of the laser light, thermal damage, and ablation.

M E X85M. Applied Thermodynamics.
Addresses the design and analysis of systems in which thermodynamic processes are central to function and performance. Reviews fundamental thermodynamic concepts, such as enthalpy, entropy, exergy, 1st & 2nd law, psychrometrics and combustion. Discusses practical topics, such as system-level thermodynamic processes for automotive engines, power plants, renewable energy production and HVAC systems. Gives real-world examples to cultivate skills of solving problems with basic knowledge of thermodynamics.

M E X86M. Modeling, Simulation, and Control of Physical Systems.
Reviews principles used to understand and model physical systems and introduces methods for building mathematical and simulation models of engineering systems. Emphasis on the development of

dynamic system models for predicting the behavior or performance of systems, models for efficient data reduction or test development, models for design, and the role of models in control development. Bond graph methods are introduced especially for analysis of systems having combinations of mechanical, electrical, magnetic, electromechanical, fluid, and thermodynamic effects. Covers the role and application of physical models in development and design of feedback controllers and estimation methods.

M E X86P. Topics in Materials Science: Fundamentals.

M E X86P.1. Introduction to Phase Transformations.
Basics of crystal structures and phase diagrams; diffusion; solidification; solid-state phase transformations.

M E X86P.2. Mechanical Behavior of Materials.
Elastic deformation; viscoelasticity; yielding, plastic flow, plastic instability; strengthening mechanisms; fracture, fatigue, creep; significance of mechanical properties tests. Microstructural mechanisms and macroscopic behavior of metals, polymers, ceramics, and composites.

M E X86P.3. Introduction to Thermodynamics of Materials.
Thermodynamic properties; reactions and chemical equilibrium in gases; solutions, phase equilibria, phase diagrams, reaction equilibria; surfaces and interfaces; point defects in crystals.

M E X86P.4. Introduction to Solid-State Properties of Materials.
Introduction to the electronic, magnetic, and optical properties of materials. Solid-state properties of metals, semiconductors, and ceramics; fundamental concepts needed for the description of these properties, using an introductory-level description of the electronic structure of solids.

M E X86P.5. Structure of Materials.
Essential crystallography of lattices and structures; symmetry; elements of diffraction and reciprocal lattices; point, line, and surface defects in crystals; crystalline interfaces; noncrystalline materials; polymers; glasses.

M E X86P.6. Kinetic Processes in Materials.
Review of irreversible thermodynamics and rate of entropy production to define the equilibrium state of a system; derivation of mathematical expressions to describe relaxation from a constrained state to equilibrium; diffusional processes in materials; calculation of diffusion coefficients from solid-state properties; dislocations and interfaces; kinetics of phase transformations.

M E X86Q. Topics in Materials Science: Structure and Properties.

M E X86Q.1. Theory of Materials.
Periodic behavior and the periodic table; historical approach to the principles of crystal structure; complex alloy phases; some aspects of phase stability.

M E X86Q.10. High-Temperature Materials.
Theory and practice in use of materials for high-temperature structural applications; case-study considerations of actual problems and requirements; interactive process-microstructure-property relationships in materials development and applications of superalloys, intermetallics, composites, and ceramics; prospective trends.

M E X86Q.11. Electroceramics.
Bonding; crystal structures; defects; phase diagrams; glass ceramics; electrical, dielectric, magnetic, and optical ceramics.

M E X86Q.14. Electrochemical Energy Materials.
Electrochemical cells; principles of electrochemical power sources; materials for rechargeable and nonrechargeable batteries, fuel cells, and electrochemical capacitors.

M E X86Q.15. Computational Materials Science and Engineering.
Examine theory and a hands-on tutorial for atomistic modeling of materials.

M E X86Q.16. Application Perspectives of Nanotechnology.
Subjects include standard top-down and the state-of-the-art bottom-up nanofabrication, manipulation, and assembling techniques, commonly used characterization instruments; applications of nanomaterials in biochemical sensing based on electric, optical, magnetic and mechanical effects; flexible nanoelectronics; nanomanipulation and nanorobotics, applications of nanomaterials in Nanoelectromechanical System (NEMS) devices, bioMEMS, and microfluidics. Emphasis on oral and written scientific communication skills.

M E X86Q.17. Failure Analysis.
Introduction to methodology of analyzing failures of engineering parts and devices. Explores a broad range of analysis, but the focus is on understanding fractography and relating this back to material and mechanics relevant to failure to determine the likely root cause(s). Lectures are primarily based on case studies and are supplemented by two hands-on class projects, one performed individually and the other larger project performed as a team project.

M E X86Q.18. Advanced Numerical Methods: Theory and Practice.
Apply the theory behind numerical simulation, optimization of electrochemical engineering, and other engineering models described by nonlinear differential, differential-algebraic, and partial differential equations. Explore a self-contained, fundamental and practical approach to the theory, algorithm development, and implementation relevant to engineering systems, in particular for electrochemical systems, and batteries.

M E X86Q.19. Nanotechnology for Sustainable Energy.
Explore an overview of emerging nanotechnology and how nanoscience can critically impact many energy technologies (from energy harvesting, conversion, to storage). Examine various types of energy devices covered, including solar cell, solar fuel, piezoelectrics, thermoelectrics, battery, supercapacitor, and fuel cell. Discuss basic device principles, current technology status, and new opportunities of nanotechnology for energy-related applications.

M E X86Q.2. Phase Diagrams.
Phase equilibria in materials systems; systematic treatment of unary, binary, and ternary phase diagrams.

M E X86Q.20. Polymer Nanocomposites.
Explore an overview of key technologies and processes in polymer nanocomposites. Examine a different property (structural, mechanical, thermal, flammability, ablation, and electrical) and relevant commercial and industrial applications. Discuss examples for a wide variety of usage for spacecraft and defense vehicles, medical and dental implants, flame-retardant and conductive polymers for additive manufacturing, and fire-resistant woven and nonwoven fabrics.

M E X86Q.23. Structural Ceramics.
Explore microstructure-mechanical property relationships in ceramics; principles of fracture mechanics, and static and dynamic fracture; static and cyclic fatigue; high-temperature behavior; strengthening and toughening mechanisms in monolithic ceramics; and particulate and fibrous ceramic composites.

M E X86Q.3. Fracture of Structural Materials.
Microscopic and macroscopic aspects of ductile and brittle fracture; fracture mechanisms and fracture prevention.

M E X86Q.4. Physical Metallurgy of Steels.
The iron-carbon system; transformations and structures of steels; properties of pearlite, bainite, and martensite; tempering; hardenability and the effect of alloying elements.

M E X86Q.7. Composite Materials.
The theory of structural composite materials, their physical and mechanical properties; processing associated with metal-ceramic-polymer composites.

M E X86Q.9. Crystalline and Composite Anisotropy.
Mathematical analysis of anisotropic materials, including single crystals, laminate composites, and deformation-hardened metals. Topics include

thermal and electrical conductivity, diffusivity, thermal expansion, elasticity, and yielding.

M E X86R. Topics in Materials Science: Physical and Electronic Properties.

M E X86R.1. Localized versus Itinerant Electrons in Solids.
Description of electrons, from free atoms to crystals; band theory contrasted with crystal-field theory; evolution of electronic properties on passing from magnetic insulators to normal metals, from ionic to covalent solids, from single-valent compounds to mixed-valent systems; electron-lattice interactions and phase transitions; many examples.

M E X86R.2. Localized-Electron Phenomena.
Analysis of the variation in physical properties versus chemical composition of several groups of isostructural transition-metal compounds.

M E X86R.3. Transport Properties of Transition-Metal Oxides.
Electronic and ionic transport in transition-metal oxides as they relate to battery cathodes, solid oxide cells, spin electronics, thermistors, and high-temperature superconductors.

M E X86R.4. Nanophotonics and Machine Learning.
Explore recent trend of applying artificial intelligence (AI) techniques, especially machine learning, to specific tasks which has revolutionized many research subjects in different fields. Examine the fundamentals of the most important concepts from both sides, such as deep neural networks that has been used to design and decode nanophotonic devices, and metasurfaces and photonic circuits that can perform optical computing.

M E X86S. Topics in Materials Science: Microelectronics and Thin Films.

M E X86S.1. Thin Films and Interfaces.
Application of thin films and interfaces in microelectronics; basic properties, deposition techniques, microstructures and defects, diffusion characteristics; materials reaction in thin films and at interfaces.

M E X86S.2. Metallization and Packaging.
Technology requirements and trends, impact of device scaling, multilayered interconnect structures, Schottky and ohmic contacts, contact reactions, silicide properties and applications, electromigration, thermal/mechanical properties, reliability.

M E X86S.3. Materials for Semiconductor Packaging and Heterogeneous Integration.
Explore the process of integrating separately manufactured components into a higher-level assembly. Examine how materials play a critical role in protecting the chips, ensuring reliable operation, efficient thermal management, and for the development of smaller, lighter, and more powerful devices. Focus on materials for package substrates, thermal interface materials, materials for interconnects and for encapsulation, and materials for thermal management and immersion cooling, as well as novel materials that are currently under development.

M E X86T. Topics in Materials Science: The Design of Technical Materials.
The process of designing a material for a specific engineering function as illustrated for various materials.

M E X86T.1. Ionic Conductors.

M E X86T.2. High-Temperature Superconductors.

M E X86T.3. Catalytic Electrodes.

M E X86T.4. Magnetic Materials.

M E X86T.5. Battery Systems Engineering.
Explore the development of models and algorithms to analyze, optimize, and improve the performance of batteries. Discuss the mathematical formulation for predicting the performance of batteries using physics-based models. Examine a self-contained, fundamental approach to modeling, analysis, operation, and control of batteries.

M E X87M. Applied Dynamics and Feedback Control.
Provides advanced tools for describing and controlling the motion of dynamical systems. Studies how to apply Newton's Second Law as well as Lagrange's equations to find equations of motion. Emphasis on rigid body dynamics as well as motion constraints arising in complex systems. Examines fundamental concepts in both the time and frequency domains to develop feedback controllers and thus advance from open loop simulation of dynamic systems to closed loop control. Introduces common control strategies and tools for designing and testing control systems. Uses MATLAB extensively throughout the course, and emphasizes applications to realistic systems, simulations and numerical solutions.

M E X87Q. Topics in Materials Science: Thermodynamics and Kinetics.

M E X87Q.1. Diffusion in Solids.
Atomic mechanisms and phenomenological basis for transport by diffusion.

M E X87Q.2. Kinetics and Phase Transformations.
Nucleation and growth, spinodal decomposition, transformations in alloy systems.

M E X87Q.3. Solidification.
Liquid to solid transformations in pure materials, alloys and eutectics; applications such as zone refining, composites, and castings.

M E X87Q.4. Corrosion.
Electrode kinetics and the theory of polarization, passivity, galvanic coupling, and high temperature oxidation.

M E X87Q.5. Thermodynamics of Materials.
First and second laws, fugacity, activity, chemical equilibrium, phase diagrams, and introductory statistical concepts.

M E X87Q.6. Statistical Thermodynamics of Materials.
Quantum mechanics applied to partition functions of condensed and gaseous phases; chemical equilibria; phase transitions; and lattice statistics including the Ising model.

M E X87Q.7. Group Theory and Phase Transformations.
Symmetry principles and the associated mathematics applied to the description of condensed phases and their transformations.

M E X87R. Topics in Materials Science: Experimental Techniques.

M E X87R.1. Nondestructive Testing.
Acoustic emission, ultrasonic, eddy current, dye penetrant, and magnetic methods.

M E X87R.3. Electron Diffraction and Microscopy.
Transmission electron microscopy, kinematic electron diffraction theory, reciprocal lattice, defect analyses, scanning electron microscopy.

M E X87R.4. Advanced Electron Microscopy Theory and Techniques.
Scanning transmission electron microscopy, microanalysis techniques, dynamical diffraction theory, convergent beam diffraction.

M E X87R.5. Materials Characterization Techniques.
Classification and selection of characterization techniques: principles and applications of diffraction, spectroscopic, quantitative chemical analysis, thermal analysis, and transport and magnetic measurement techniques.

M E X87R.6. High-Resolution Transmission Electron Microscopy Techniques.
Theory and practice of high-resolution phase contrast electron microscopy. Computer simulation of images and diffraction patterns.

M E X87R.7. Scanning Electron Microscopy.
Theory and practice of scanning electron microscopy; image formation, elemental analysis, sample preparation, and electron-sample interactions.

M E X87R.8. Practical Electron Microscopy.
Principles, operation, and techniques of transmission electron microscopy; acquiring and interpreting imaging, diffraction, and spectroscopy information; and hands-on experience with a transmission electron microscope.

M E X87R.9. Advanced Methods for Surface Analysis.
Examine the principles and operation of X-ray photoelectron spectroscopy (XPS) and atomic force microscopy (AFM). Explore

state-of-the-art methods for acquiring, processing and interpreting the analytical results. Perform hands-on experiments on XPS and AFM followed by data evaluation and interpretation.

M E X87S. Topics in Materials Processing.

M E X87S.2. Processing of Materials.

Principles, advantages, and problems of solid, liquid, and vapor materials processes; considerations of structural alloys, ceramics, engineering polymers, and composites.

M E X87S.3. Powder Processing.

Synthesis of powders, powder characterization, powder stabilization, consolidation of powders, sintering, densification, and grain growth.

M E X88C. Nuclear Power Engineering.

Fundamental principles of the design and analysis of nuclear systems; introduction to the physics of nuclear reactions, chain reactions, and nuclear energy generation; heat generation and conduction within nuclear systems; heat transfer and fluid flow in nuclear systems; the thermodynamics of nuclear power; the nuclear fuel cycle; and issues related to the materials aspect of reactor engineering.

M E X88D. Nuclear Reactor Theory I.

Principle concepts in the physics of nuclear systems, including radiation, radioactive decay, and the buildup and depletion of isotopes in nuclear systems; neutron-nucleus interactions and nuclear cross sections; transport or radiation using one-group and two-group diffusion theory; and concepts of criticality and time dependent reactors.

M E X88E. Nuclear Reactor Theory II.

Neutron-nucleus interactions and nuclear cross section calculations; transport of radiation using neutron transport theory and multigroup diffusion theory; heterogeneous reactor calculations; the kinetics of nuclear systems; perturbation theory; and the nuclear fuel cycle.

M E X88F. Computational Methods in Radiation Transport.

Transport equation, Monte Carlo method, energy and time discretization, discrete ordinates, integral methods, and even-parity methods.

M E X88G. Nuclear Radiation Shielding.

Radiation fields/sources; techniques in neutron and photon attenuation; transport description of radiation penetration.

M E X88H. Nuclear Safety and Security.

Examine probabilistic risk assessment models and nuclear arms nonproliferation, including failure classifications; failure mode, effects, and criticality analysis (FMECA); fault and event trees; and reliability block diagrams. Discuss specific areas from the Code of Federal Regulations.

M E X88J. Neutron Interactions and Their Applications in Nuclear Science and Engineering.

The fundamental principles of neutron interactions with matter and how these interactions are used in a variety of science and engineering research areas. Includes the history of neutron research, fundamental principles, dosimetry, depth profile, radiography, activation analysis, detection, homeland security, and scattering, with a significant emphasis placed on experimental design of these neutron techniques.

M E X88M. Mathematical Methods for Nuclear and Radiation Engineering.

Fundamental mathematics used in graduate studies in nuclear and radiation engineering. Topics include statistics, experimental data, propagation of error, detection limits, and differential and partial differential equations.

M E X88N. Design of Nuclear Systems.

Integration of fluid mechanics, heat transfer, thermomechanics, and thermodynamics with reactor theory for core design.

M E X88P. Applied Nuclear Physics.

Properties of the nucleus and its structure; binding energy and nuclear stability, and the liquid drop model of the nucleus; the shell model of the nucleus; deuteron bound-state wave function and energy, n-p scattering cross section, transition probability per unit time, and barrier transmission probability; nuclear conservation laws; the energetics and general cross section behavior in nuclear reactions; interactions of charged particles, neutrons, and gamma rays with matter; and alpha, beta, and gamma decay.

M E X88S. Modern Trends in Nuclear and Radiation Engineering.

Facilitates presentations on research topics in nuclear and radiation engineering outside any research with techniques in proposal writing; or specialized laboratory courses.

M E X89C. Nuclear Environmental Protection.

Ionizing radiation and its interactions with matter and living tissues; radioactive decay kinetics; external and internal dose measurement; transportation through the environment; managing radioactive waste streams; and safeguards.

M E X89F. The Nuclear Fuel Cycle.

A survey of the nuclear fuel cycle, including resource acquisition, fuel enrichment and fabrication, spent fuel reprocessing and repository disposal. Nuclear fuel management and reactor physics are addressed in the context of fuel burn-up calculations. Uses cross-disciplinary tools such as cost-benefit and environmental impact analyses. Includes fuel cycles currently in use, advanced fuel cycle concepts currently being presented in the technical literature, and a group project designed to research, analyze, and document the technical, economic, and/or environmental ramifications of one of these advanced fuel cycles.

M E X89M. Materials Processing.

Explores the principles, advantages, and problems of solid, liquid, and vapor materials processes. Studies the considerations of structural alloys, ceramics, engineering polymers, and composites.

M E X89Q. Topics in Nuclear and Radiation Engineering: Design of Systems.

Synthesis of engineering concepts, materials specifications, and economics in the design of nuclear systems.

M E X90. Vehicle System Dynamics and Controls.

Fundamentals of ground vehicle dynamics, tire-road mechanics, vehicle control systems, vehicle stability, and simulation of vehicle systems.

M E X90C. Cyber Vehicle Systems.

Study of the engineering principles of autonomous mobile robots. Subjects include understanding the dynamics of vehicle systems, and the principles and practical implementation of sensing, actuation, and control. Emphasis will be given to providing practical laboratory study of these subjects using mobile robot platforms, and the use of the commercial software package LabVIEW for programming of real-time data acquisition and control targets. Simulation studies may also be conducted in LabVIEW and/or the Matlab environment; some proficiency in use of both of these software packages is expected.

M E X90E. Nuclear Security System Design.

Explore the science and engineering associated with the design, evaluation, and implementation of systems to secure nuclear and radiological materials. Examine methods for planning and evaluating nuclear security activities at the state and facility level. Study the characterization of the adversary, categorization of targets and the consequences associated with failure to protect those targets, detection and delay technologies, on-site and off-site response as well as different response strategies, evaluation of insider threats, mathematical methods for evaluating risk due to the threat and the security system design, and methods for risk minimization and system optimization will also be studied.

M E X90F. Nuclear Analysis Techniques.

Thermal and fast neutron activation, scintillation and solid-state detectors, beta and gamma spectrometry, coincidence techniques.

M E X90G. Nuclear Engineering Laboratory.

Experiments using the TRIGA reactor and a subcritical assembly; measurement of reactor characteristics and operational parameters.

M E X90M. The Enterprise of Technology.

Uses early stage technologies to create new and original commercialization plans which include the best first market, establishing technology features in that market, and estimated benefits and costs

to deliver a future product to a customer. Includes in-person market research, a written semester journal, and engagement with multiple projects. Reviews later stages of technology entrepreneurship; includes forming a new company, building a business plan, building a team, getting funding, and scale up to manufacturing. Emphasis on gaining proficient knowledge on intellectual property protection and strategy, and the steps and processes necessary to the successful design and manufacture of a product or service.

M E X90N. Health Physics Laboratory.
The application of radiation and radiation protection instrumentation. Includes personnel monitoring; radiation detection systems; gamma-ray spectroscopy; determination of environmental radiation; counting statistics; and gamma and neutron shielding.

M E X90T. Nuclear and Radiochemistry.
Theory and application of nuclear and radiochemistry, including alpha, beta, and gamma ray processes; fission products; statistics; solvent extraction; absorption and teaching techniques; various counting methods; and radiation protection.

M E X90V. Advanced Nuclear Engineering.
Study radioactivity, fission reactors, nuclear power systems, nuclear power safety, and nuclear interactions: fission and fusion.

M E X90W. Proposal Writing.
Learn to write a full proposal on current research in any science or engineering discipline.

M E X91M. Introduction to Manufacturing Systems.
With an emphasis on continuous flow manufacturing, provides the knowledge and skill set to analyze and design production systems to decrease manufacturing costs, decrease defects, and shorten delivery time by reducing process cycle times.

M E X91R. Artificial Intelligence Programming for Engineers.
Provides a working knowledge of LISP and compares it with PROLOG; use of the Texas Instruments Explorer, and artificial intelligence techniques applied to engineering problems.

M E X92C. Design Optimization and Automation.
Optimization in mechanical design, including monotonicity analysis, gradient-based constrained optimization, tree-searching, and stochastic approaches.

M E X92G. Topics in Computer Graphics and Computer-Aided Design.
Studies in computer graphics and its application to design.

M E X92G.1. Introduction to Computer Graphics.
Two- and three-dimensional transformations, projections, and the graphics pipeline; fundamental algorithms for wire frame and hidden surface image generation; interactive techniques, geometric modeling, and realistic rendering using a standard graphics library.

M E X92G.2. Computer-Aided Geometric Design.
Introduction to techniques for representing geometry for computer-aided engineering design. Two- and three-dimensional curve formulations, techniques from algebraic and vector geometry, implicit versus parametric definitions; and free-form surface formulation and solid modeling.

M E X92G.3. Advanced Computer-Aided Design Applications.
Hardware and software for computer-aided design systems. Display devices, multidimensional graphics, optimization, use of artificial intelligence.

M E X92G.4. Advanced Topics in Computer-Aided Design.
Detailed execution of an independent computer-aided design project. Projects require significant development and emphasize application of techniques from computer-aided engineering and interactive computer graphics. Lectures deal with the subject matter of the projects.

M E X92M. Topics in Advanced Mechanical Design.

M E X92M.1. Analytical Techniques in Mechanical Design.
Analytical techniques and some computational techniques for the advanced stress and strength analysis of machine components and mechanical structures.

M E X92M.10. Computational Methods for Engineering Design.
Examine several categories of computational methods that are useful for engineering design applications. Implement the methods on example engineering design problems.

M E X92M.11. Data-Driven Design and Decision-Making in Complex Systems.
Explore state-of-the-art approaches for data-informed decision-making and modeling in complex systems design. Apply various data-driven and theory-driven models to model, estimate, analyze, and predict decision-making behaviors of stakeholders in representative complex engineered systems, such as air transportation networks, power grids, and market systems.

M E X92M.3. Advanced Design of Machine Elements.
Review of basic machine elements, properties, and stresses; fluid couplings and torque converters; thermal stresses, relaxation, and beneficial residual stressing; shells and rotors; plasticity.

M E X92M.6. Engineering Design Theory and Mathematical Techniques.
Design history and philosophy. Survey of current research areas in design theory, methodology, and manufacturing. Tools for solving engineering system design and synthesis problems. Reverse engineering design project.

M E X92M.7. Product Design, Development, and Prototyping.
Methodology and tools for the product development process. Functional designs based on real product needs. Product design project.

M E X92M.8. Medical Device Design and Manufacturing.
Explore how to solve medical device design problems using systematic design thinking and practices. Interpret clinical needs, define an open engineering medical device design problem, including formulating engineering requirements/specifications to address a marketable need. Generate concepts in a way that promotes both creativity and usefulness, make well-informed, well-justified design decisions in the early and later stages of design. Design and analyze experiments, follow statistical best practices in Design of Experiments(DoE), embody solutions with "Design for X" considerations, and communicate intermediate and final designs clearly and effectively in written and oral formats.

M E X92M.9. Precision Machine Design.
Discuss modeling, design, integration and best practices for use of machine elements such as bearings, springs, gears, cams and mechanisms. Model and analyze these elements based upon extensive application of physics, mathematics, and core mechanical engineering principles (solid mechanics, fluid mechanics, manufacturing, estimation, computer simulation, etc.).

M E X92Q. Topics in Manufacturing.
Topics that cut across departmental concentrations (mechanical systems and design, metallurgy and materials engineering, operations research and industrial engineering), including design for manufacturing, manufacturing machines and manufacturing processing, and production systems.

M E X92Q.1. Introduction to Manufacturing Systems.
Analysis and design of production systems to decrease manufacturing costs, decrease defects, and shorten delivery time by reducing process cycle times. Emphasis is on continuous flow manufacturing.

M E X92Q.10. Statistical Methods in Manufacturing.
Statistical monitoring of manufacturing processes; methods and applications of various control charts; formal design of experiments (DOE), including the statistical evaluation of main and interaction effects, as well as intelligent experimentation through reduced factorial experimental design; Taguchi's design philosophy as applied to response surface methods and gradient-based search techniques; and advanced issues in quality control and design of manufacturing systems.

M E X92Q.11. High Throughput Nanopatterning.
Introduction to the basic tools and materials involved in the patterning processes needed to create nano-scale structures and functional materials and discusses the relevance of these processes to applications in the electronics, display, and energy industries. Examine industry and research roadmaps that provide relevant metrics and timelines for fabrication, materials, nano-enabled components and devices. Explore novel nano-enabled components and devices using relevant computational modeling and simulation tools.

M E X92Q.12. Additive Manufacturing.
Explore, compare, and contrast the major categories of additive manufacturing processes and examine their impact on the design of engineered parts.

M E X92Q.13. Analytics and Control in Semiconductor Manufacturing.
Learn key data analytics and process control methods for turning metrology and sensing data into useful information and decisions in semiconductor manufacturing. Explore applications of statistical models for statistical process control, as well as applications of dynamic models for virtual metrology and run-to-run control in semiconductor manufacturing systems.

M E X92Q.14. Bioinspired Micro and Nanostructures.
Explore the unique properties, operating principles, and applications of micro/nanostructures that are found in nature. Examine naturally occurring organisms that have unique microscopic features, giving rise to novel behavior not observed in traditional bulk materials. Discuss the design and manufacturing of these bioinspired micro/nanostructures for engineered materials, highlighting applications in renewable energy, aerospace, and next-generation electronics and display.

M E X92Q.15. Optical Engineering.
Explore optics, with a focus on engineering applications. Review geometrical optics: ray-tracing, reflection, refraction, lens design, imaging optical systems, as well as subjects in wave optics: basic electrodynamics, scalar wave theory, interference, Fresnel and Fraunhofer diffraction, image formation, Fourier optics, and 4F systems. Examine optical systems and metrology instruments, such as the human eye, microscopes/telescopes, and interferometers. Discuss the role of optics in advanced nano/microscale manufacturing, as well as applications in more efficient solar energy systems, engineered materials, and nanotechnology.

M E X92Q.2. Computer Fundamentals for Manufacturing Systems.
Computer graphics, computer-aided design, direct numerical control, relationship between computer-aided design and manufacturing.

M E X92Q.4. Automation and Integration of Manufacturing Systems.
Integration of automated manufacturing components into a cohesive manufacturing system. Selection of automation strategy, communication and interaction between system components, economics and reliability of the resulting systems.

M E X92Q.5. Manufacturing Processing: Unit Processes.
Important unit processing operations in manufacturing: cutting, drilling, and grinding metals, ceramics, composites, and polymers. Deformation processes: forming and rolling. Laser machining.

M E X92Q.6. Mechatronics I.
Integrated use of mechanical, electrical, and computer systems for information processing and control of machines and devices. System modeling, electromechanics, sensors and actuators, basic electronics design, signal processing and conditioning, noise and its abatement, grounding and shielding, filters, and system interfacing techniques.

M E X92Q.7. Microcomputer Programming and Interfacing.
Microcomputer architecture and programming; microcomputer system analysis; interfacing and digital control.

M E X92Q.9. Mechatronics II.
Interfacing microcomputers with sensors and actuators; hybrid (analog/digital) design; digital logic and analog circuitry; data acquisition and control; microcomputer architecture, assembly language programming; signal conditioning, filters, analog-to-digital and digital-to-analog conversion.

M E X93M. Engineering Design Innovation.
Focuses on design methodology that includes a survey of current research in areas in design theory and methodology. Studies the tools used for solving engineering system designs and synthesis problems for application in a reverse engineering and redesign project.

M E X94M. Topics in Mechanical Engineering.
Topics in Engineering.

M E X95. The Enterprise of Technology.
Studies the basis for assessing emerging technologies. Describes the process of technology commercialization, including identifying marketable technologies, defining products, and matching products to markets. Also studies intellectual property protection and strategy, and the steps and processes necessary to the successful design and manufacture of a product or service.

M E X95M. Engineering Design and Innovation with Product Design.
Focuses on design methodology that includes a survey of current research in areas in design theory and methodology. Designed to help students acquire tools for solving engineering system designs and synthesis problems which they can apply in a reverse engineering and redesign project.

M E X96D. Decision and Control of Human-Centered Robots.
Geared toward students who would like to use Python for their engineering careers with a focus on sharing and development of open source software applications. Emphasis on the important areas of system modeling, simulation, data analysis, and software/data management. Students create mini-projects in Python where they apply basic knowledge on software design and organization, debugging, open source practices, and data visualization. It is expected that students have some experience in programming and would like to advance to the next level.

M E X96M. Materials Science and Engineering.
An exploration of the fundamental aspects of the relationships between processing, structure, properties and performance of engineering materials. Exploration of metals, ceramics, polymers, and composites.

M E X96P. Application Programming for Engineers.
Designed for students who have some experience in programming and are interested in the sharing and development of open source software applications. Provides an introduction to the Python programming language, an open source, flexible, and intuitive debug programming language, with an emphasis on system modeling, simulation, data analysis, and software/data management. Students create mini projects in Python that demonstrate software design and organization, debugging, open source practices, and data visualization.

M E X97. Topics in Current Engineering Studies.

M E X97.8. Energy and the Environment.

M E X97K. Topics in Graduate Seminar.

M E X97K.1. Acoustics Seminar.

M E X97K.2. Advanced Thermal/Fluid Seminar.

M E X97K.3. Materials Engineering.

M E X97K.4. Mechanical Systems and Design.

M E X97K.5. Nuclear Engineering.

M E X97K.6. Introductory Thermal/Fluid Seminar.

M E X97M. Graduate Research Internship.
Research associated with enrollment in the Graduate Research Internship Program (GRIP).

M E X97P. Projects in Mechanical Engineering.
Independent project carried out under the supervision of a mechanical engineering faculty member.

M E X97S. Introduction to Graduate Studies.
Introduction to graduate studies is a first year seminar course for new graduate students that cover topics such as finding a research advisor, how to apply for fellowships, how to select a research topic, how to conduct a literature review, research methods, and research ethics.
M E X98. Thesis.
M E X98C. Engineering Teaching Practicum.
M E X98M. Introduction to Automatic Control.
Gain a basic intuition for and understanding of linear feedback systems and develop the mathematical tools to understand the basics of design and analysis of single-input single-output feedback control systems. Builds on the system modeling skills developed in previous courses in order to better understand how to control a system's behavior.
M E X98P. Topics in Engineering Teaching Practicum.
Mentored teaching experience completed by arrangement with the instructor of record for an undergraduate engineering course. May be completed in the same semester as a Teaching Assistant or Assistant Instructor assignment with additional responsibilities.
M E X98Q. Topics in Teaching Portfolio Preparation.
Project course for students completing the Graduate Certificate in Engineering Education Program to prepare a portfolio highlighting their teaching qualifications and experiences. Not recommended for students with limited teaching experience or students who are within a few years of applying for full-time employment.
M E X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
M E X98S. Assessment and Curriculum Design in Engineering.
Develop curriculum design skills in preparation for engineering faculty positions, including writing learning outcomes, assessing student learning and aligning expectations to activities and outcomes. Assessment is framed as an integrated part of course design, considers the strengths and weaknesses of a variety of quantitative and qualitative assessment strategies. Practice engineering course design and learn important considerations in coordinating department or college resources in preparation for an ABET engineering accreditation review.
M E X98T. Supervised Teaching in Mechanical Engineering.
Application of learning and motivation theories to learning in engineering contexts. Practice teaching in nontraditional formats. Preparation of a teaching philosophy. Teaching under close supervision, group meetings or individual consultations, and reports as required.
M E X99W. Dissertation.

Professional Courses

M E X80M. Research.
M E X97P. Projects in Mechanical Engineering.
Independent project carried out under the supervision of a mechanical engineering faculty member.

M S - Military Science

Military Science: M S

Lower-Division Courses

M S X00. Leadership Laboratory.
Leadership responsibilities for planning, coordination, execution, and evaluation of training and other activities. Self-confidence and team-building leadership skills that can be applied throughout life.
M S X04. American Military History: 1775 to Present.
Covers development of American Profession of Arms from a "dual military tradition" evaluating military leadership at the tactical, operational, and strategic levels of war. Explores ways in which Industrial Revolution transformed the United States and other societies organized armed violence.
M S X09. Basic Military Science I-A.
M S X09K. Basic Military Science I-B.
M S X19. Basic Military Science II-A.
M S X19K. Basic Military Science II-B.
M S X19S. Topics in Military Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Military Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

M S X29. Advanced Military Science III-A.
M S X29K. Advanced Military Science III-B.
M S X29S. Topics in Military Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Military Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
M S X39. Advanced Military Science IV-A.
M S X39K. Advanced Military Science IV-B.
M S X79. Advanced Military Science V-A.
Advanced study of planning, executing, and assessing complex operations. Composed primarily of independent study, cadets are given opportunities to plan and execute events, assess risk, make ethical decisions, and lead fellow ROTC cadets.
M S X79K. Advanced Military Science V-B.
Advanced study of planning, executing, and assessing complex operations. Composed primarily of independent study, cadets are given opportunities to plan and execute events, assess risk, make ethical decisions, and lead fellow ROTC cadets.

Graduate Courses

Professional Courses

MAL - Malayalam

Malayalam: MAL

Lower-Division Courses

MAL X06. First-Year Malayalam I.
Standard Malayalam of Kerala.
MAL X07. First-Year Malayalam II.
MAL X12K. Second-Year Malayalam I.
MAL X12L. Second-Year Malayalam II.
MAL X19S. Topics in Malayalam.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
MAL X29S. Topics in Malayalam.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser for the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

MAL X19S. Topics in Malayalam.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MAL X29S. Topics in Malayalam.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser for the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MAL X30. Topics in Malayalam Language and Literature.

MAL X30E. Modern Malayalam Drama.
Focus on 20th-century drama and plays in Malayalam. Examine both the text of the play and its status as socially relevant art, to develop an overview of theatre movements in Malayalam literature and Kerala society. Engage through speaking, listening, reading, and writing.

MAL X30F. Short Novels of Basheer.
Read and discuss two short novels by Vaikkom Muhammad Basheer, celebrated author and activist for Indian independence. Engage through speaking, listening, reading, and writing.

MAL X30G. Contemporary Malayalam Short Stories.
Focus on reading short story collections from mainstream and women writers from modern Malayalam literature dealing with social, political, and economic life context.

MAL X30J. Malayalam Cinema and Screenplays.
Focus on reading Malayalam screenplays to improve speaking and listening proficiency in conversational and colloquial Malayalam. Acquire a general knowledge of proverbs and sayings which are very commonly use in Malayali social life.

MAL X30K. Stories from Aithihyamaala.
Explore selected stories from Aithihyamala (Garland of Legends) written by Kottarathil Sankunni. Examine the history behind the famous persons and events in Kerala, including feudal rulers, Kalaripayattu martial art and Ayurveda in Kerala.

MAL X30L. Reform Movements in Kerala.
Focus on the foundations of social changes in Kerala in the nineteenth to twentieth centuries. Explore selected Malayalam articles related to Kerala history to acquire a general knowledge of prominent leaders of Kerala reformation and a brief history of revolts and movements in Kerala.

MAL X60. Conference Course in Malayalam Language and Literature.
Supervised individual study of selected problems in Malayalam language or literature.

Graduate Courses

MAL X19S. Topics in Malayalam.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MAL X29S. Topics in Malayalam.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser for the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MAL X81. Conference Course in Malayalam Language and Culture.
Supervised individual study in Malayalam language or culture.

MAL X84. Topics in Malayalam Language and Culture.
Study of various aspects and periods of Malayalam language and culture.

MAL X84.1. Contemporary Malayalam Short Stories.
Focus on Malayalam short stories from mainstream writers in modern Malayalam to explore contemporary Malayalam literature. Engage through speaking, listening, reading, and writing.

MAL X84.2. Malayalam Cinema and Screenplays.
Focus on reading Malayalam screenplays to develop speaking and listening proficiency with conversational Malayalam. Explore commonly-used proverbs and idioms. Engage through speaking, listening, reading, and writing.

MAL X84.3. Modern Malayalam Drama.
Focus on 20th-century drama and plays in Malayalam. Examine both the text of the play and its status as socially relevant art, to develop an overview of theatre movements in Malayalam literature and Kerala society. Engage through speaking, listening, reading, and writing.

MAL X84.4. Short Novels of Basheer.
Consider two short novels by Vaikom Muhammad Basheer, a beloved author and Indian independence activist. Explore how Basheer's works and unique style are foundational in the field of Malayalam language and literature. Engage through speaking, listening, reading, and writing.

MAL X84.5. Reform Movements in Kerala.
Focus on social change movements in Kerala in the nineteenth and twentieth centuries, through the examination of primary and secondary sources in Malayalam. Explore prose style as well as reform movements in Kerala. Engage through speaking, listening, reading, and writing.

MAL X84.6. Stories from Aithihyamaala.
Examine selected stories from Aithihyamala (Garland of Legends) by Kottarathil Sankunni, a collection of tales and legends from Kerala, to develop vocabulary and language proficiency as well as an understanding of the traditional views, practices, and traditions of Kerala. Engage through speaking, listening, reading, and writing.

Professional Courses

MAL X19S. Topics in Malayalam.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MAL X29S. Topics in Malayalam.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser for the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MAN - Management

Management: MAN

Lower-Division Courses

MAN X01H. Leadership Challenges and Innovation: Honors.
Introduction to key factors in organizational success, including the roles of leadership and culture, the value of a diverse workforce and an inclusive environment, and the importance of creativity and innovation.

MAN X01S. Leadership Challenges and Innovation.
Introduction to key factors in organizational success, including the roles of leadership and culture, the value of a diverse workforce and an inclusive environment, and the importance of creativity and innovation.

MAN X01T. Leadership Challenges and Innovation.
Introduction to key factors in organizational success, including the roles of leadership and culture, the value of a diverse workforce and an inclusive environment, and the importance of creativity and innovation.

MAN X19S. Topics in Management.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

MAN X20F. Foundations of Management and Organizational Behavior.
An introduction to the management of organizations. Issues are addressed from the perspectives of strategy and planning, organizational behavior, and operations management.

MAN X25. Strategic Human Resources Management.
Overview of the personnel function, covering recruitment, compensation, equal employment, job analysis, training, benefits, employee discipline, collective bargaining, safety, and health.

MAN X27. Innovation and Entrepreneurship.
Explores the theoretical foundations and research evidence underlying innovation and entrepreneurship. Subjects include discovering and creating new sources of value, recognizing and evaluating opportunities, generating business models, engaging stakeholders, shaping markets, and competing against larger competitors and entrenched institutions.

MAN X27E. New Venture Mechanics.
Starting up a new venture involves a wide range of decisions, activities, and processes such as those involved in identifying the potential of an idea, developing and protecting an idea, building a new venture team, creating a business plan, obtaining resources, and establishing a business entity. Covers the basic analytical tools and processes involved in all these aspects of founding a new business.

MAN X27H. Innovation and Entrepreneurship: Honors.
Examines the knowledge and skills used to discover and create new sources of value, develop ideas into viable businesses, recognize and shape opportunities, generate new business models, engage with the ecosystem of new ventures, launch new businesses, and manage an innovation portfolio. Draws on various theoretical foundations, research evidence, and business cases to develop an understanding of effectiveness in entrepreneurship and innovation.

MAN X28. Consulting and Change Management.
Designed to develop the fundamental change knowledge and consulting skills of students who plan to work with organizations as change agents, whether internally as managerial employees or externally as outside consultants.

MAN X29S. Topics in Management.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MAN X32F. Topics in Foundations of Management.

MAN X34M. Healthcare System Management.
Introduction to the business ecosystem of the U.S. healthcare industry using a multi-disciplinary approach to investigate business structures, processes, and outcomes of health services in America. Explores the functionality of various healthcare components.

MAN X36. Organizational Behavior.
The process of managing organizations and the behavior of individuals and groups within the organizational setting.

MAN X36H. Organizational Behavior: Honors.
An exploration of the process of managing organizations and the behavior of individuals and groups within the organizational setting.

MAN X38. Lean Startup Essentials.
Focus on the entrepreneurial process including problem identification, innovation, business plans, fund raising, legal aspects, launching, and management.

MAN X40. Leadership and Urban Engagement.
Explore leadership skills and goals in the urban context. Read and discuss leadership challenges that arise when stakeholders come together to plan, make decisions, and take action in organizational and community settings.

MAN X40S. Topics in Management.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.

MAN X47C. Texas Startup Accelerator.
Support startups in an experiential leadership practicum through projects designed to accelerate the venture's development.

MAN X47I. Texas Startup Incubator.
Build and grow a new venture through an experiential leadership practicum, with advice and assistance on the entrepreneurial process.

MAN X47P. Entrepreneurship Practicum.
Application of entrepreneurship skills and focus on additional project management skills through individual or group assignments conducted in an entrepreneurial setting, focusing on new business development either within existing companies (corporate entrepreneurship) or as stand-alone ventures (entrepreneurship).

MAN X66P. Management Practicum: Social Entrepreneurship I.
Focuses on developing business plans through a semester-long project. Explores non-profit, for-profit, and hybrid organizations and how they deal with corporate social responsibility.

MAN X67P. Social Entrepreneurship II.
Apply skills and focus on readying chosen projects to increase awareness and understanding of business and economics issues, and prepare presentation teams for regional and national competitions based on criteria set by the international Enactus organization.

MAN X69P. Social Innovation Practicum.
Explores a broad overview of the field of social innovation, and examines concepts and tools that support the creation of social ventures. Includes creating a social venture, articulating its vision, creating a business plan, choosing an organizational form, and assessing the venture's financial and social impact.

MAN X71T. Topics in Management.

MAN X72T. Topics in Management.

MAN X72T.1. Intercultural Management.
Examine a conceptual framework and specific tools for interacting successfully in international teams, negotiations, and partnerships. Discuss cultural patterns characteristic of world regions and particular countries in terms of their implications for corporate management.

MAN X72T.10. Women in Entrepreneurship.

MAN X72T.11. Leading a Multicultural Workforce.
Discuss the complexity of diversity within a national and global framework and to explore the relationship of diversity in organizational change and development. Focus on developing the cross-cultural competence needed to lead effectively in the modern collaboration-

powered global marketplace and provide evidence-based insights, as well as proven individual, interpersonal, enterprise-level strategies to successfully harness the power of diversity and inclusion in teams, organizations, markets, and societies.

MAN X72T.18. People Analytics.
Explore the use of analytics in the creation and management of human capital. Examine recruiting, selecting, deploying, developing, and managing performance of employees.

MAN X72T.2. Interdisciplinary Entrepreneurship.
Focus on skill development and mentoring in start-up formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Discuss intellectual property, social issues in design, and ethical and safety considerations.

MAN X72T.20. Entrepreneurial Management.
Evaluate the life cycle of an entrepreneurial business, including the attractiveness of an idea, launching and growing the business, and harvesting the profits.

MAN X72T.21. The Art and Science of Negotiation.
Develop a broad array of negotiation skills in useful analytical frameworks with emphasis placed on simulations, role-playing, and cases.

MAN X72T.22. Women in Management.

MAN X72T.3. Developing and Pitching Ideas.

MAN X72T.4. Leading for Impact.
Explore leadership and personal development by engaging in personal assessments, action planning, peer discussion, and self-reflection in an interactive format.

MAN X72T.5. Technology Transfer and Entrepreneurship.
Explore creating wealth from scientific discovery, which is the core of any business enterprise. Design a business model grounded in the entrepreneurial process for wealth creation around a scientific patent, which includes business models, eco-systems, funding the enterprise, and business plans.

MAN X72T.6. Performance and Sports Analytics.
Examine the state of sports analytics in American sports.

MAN X72T.7. Entrepreneurial Leadership For Women.

MAN X72T.8. Energy Strategy.

MAN X72T.9. Leadership Issues.

MAN X74. General Management and Strategy.
Designed to enable students to analyze business situations from the point of view of the practicing general manager. Addresses key tasks involved in general management, including strategic decisions that ensure the long-term health of the entire firm or a major division.

MAN X74H. General Management and Strategy: Honors.
Designed to enable students to analyze business situations from the point of view of the practicing general manager. Addresses key tasks involved in general management, including strategic decisions that ensure the long-term health of the entire firm or a major division.

MAN X79C. Independent Research in Management.

Graduate Courses

MAN X83. Current Topics in Organization Science.

MAN X83.16. Leading People and Organizations.
Designed to increase the student's effectiveness as a manager through discussion of organizational behavior and design, and guidelines for applying these concepts.

MAN X83.17. Organizational Behavior for Executives.
Explore organizational behavior frameworks and concepts that leaders can use to get things done in their teams and organizations. Examine how leaders can design effective organizations and teams, engage employees, improve decision making, manage interpersonal and team dynamics, exercise influence, and adapt to changing internal and external contexts.

MAN X83.20. Art and Science of Negotiation.

MAN X83.23. People Analytics.
Covers issues related to making human resource decisions in a more effective manner. Uses a strategic perspective, with particular emphasis on the links between human resource decisions and a firm's competitive position.

MAN X83.24. Managing Human Capital.
Explore issues related to talent management processes, including how companies hire, socialize, appraise, reward, and retain talent. Use a strategic perspective of the impact of organizational context on how companies manage human capital and the practices and analytical frameworks that help managers leverage human capital.

MAN X83.25. Strategic Human Capital for Executives.
Examine a set of analytical approaches to leveraging data that exist within an organization to make strategic human capital decisions. Explore how leading companies are applying analytics within their people organizations, as well as how these approaches are driving important organizational outcomes.

MAN X83.26. Leading in High Stakes Environments.
Examine the art and science of securing an agreement between two or more interdependent parties who are seeking to maximize their outcomes. Explore research and theory that help improve understanding of the behavior of individuals, groups, and organizations in the context of competitive situations.

MAN X83.27. Advocacy for Executives.
Focus on how leaders, especially senior leaders, can better advocate for their ideas. Examine how executives can effectively and persuasively communicate their ideas to diverse audiences, enhance their reputations as innovative leaders, build partnerships around their ideas, and successfully influence others to adopt their innovative notions.

MAN X83.31. Organizational Change and Strategic Renewal.

MAN X85. Current Topics in Strategic Management.

MAN X85.1. Action Skills for Managers: Implementing Strategy.

MAN X85.10. Managing Corporate Restructuring.
Examine turnaround business situations, strategic and financial issues, and the operating manager's perspective.

MAN X85.13. Corporate Strategy for Executives.
Study the formulation and implementation of strategies specifically related to firm growth. Explore vertical integration, horizontal integration, diversification, acquisition, growth in platform ecosystems, technology-driven growth, and international growth.

MAN X85.18. New Venture Creation for Executives.
Examine what advantages start-ups have over existing organizations when it comes to identifying new opportunities and developing innovative solutions to address pain points and create value.

MAN X85.19. Management Sustainability Practicum.

MAN X85.2. The Art of Leadership.

MAN X85.20. Advanced Venture Development.

MAN X85.22. New Venture Creation.
Examine what advantages start-ups have over existing organizations when it comes to identifying new opportunities and developing innovative solutions to address pain points and create value.

MAN X85.23. Introduction to Entrepreneurship.

MAN X85.24. Entrepreneurial Growth.

MAN X85.25. Social and Economic Aspects of Entrepreneurship.

MAN X85.26. Managing Corporate Turnarounds, Restructuring, and Bankruptcy.
Examine turnaround business situations, i.e., established firms experiencing operational, financial and managerial difficulties. Consider strategy issues as well as financial ones with an emphasis on the operating manager's perspective.

MAN X85.27. Leading Innovation and Change.

MAN X85.33. Managing and Marketing in the Global Arena.

MAN X85.36. Power and Politics.

Covers skills and techniques to gain power and influence in organizations as political entities. Includes cases, business press, and theoretical articles.

MAN X85.38. Managing Diverse Workforce.

Develop skills to effectively manage and capitalize on diversity within today's global organizations. Examine multiple dimensions of diversity--including, but not limited to, race, gender, generational differences, neurodiversity, remote/hybrid work arrangements, and cross-cultural dynamics--while developing practical competencies through case studies and experiential learning. Discuss the strategic value of diversity, offering frameworks for cultivating inclusive environments, driving innovation, and implementing metrics to sustain impactful diversity initiatives.

MAN X85.39. Assessing Technologies and Innovations.

Explore integrated approaches for transitioning recent University of Texas research innovations from laboratory settings to market environments by bridging the dichotomy between technology push and market pull methodologies. Analyze the advancement of inventions developed by university inventors toward commercial viability, particularly where established demand is uncertain. Emphasize interactive engagement with inventors and extensive fieldwork involving industry experts, partners, and potential customers to investigate, evaluate, and test real-world opportunities and challenges in technology commercialization.

MAN X85.49. Strategic Management.

Designed to help students develop a general management orientation. Subjects include the role of the general manager, formulating business and corporate-level strategy, managing strategic change, strategy implementation, and developing general managers.

MAN X85.51. Global Management.

MAN X85.56. Healthcare Business Ecosystem.

Explore the dynamics of the health care environment and health care reform. Analyze and discuss how health care strategy, delivery, and payment differ with value-based competition.

MAN X85.6. Management Planning and Control in Complex Systems.

MAN X85.61. Perspectives on Public Policy.

Designed to prepare MBA students, both as individuals and in their professional careers as managers and leaders, for active and effective participation in the democratic process.

MAN X85.62. Corporate Governance.

Examines the roles and responsibilities of organizational leadership in a variety of settings, including large and small companies, startups and established companies, global, single-country, and single-region companies, and nonprofit entities.

MAN X85.63. Economics of Competitive Strategy.

Develops and uses concepts from microeconomics, game theory, and the economics of industrial organization and applies these concepts to competitive decision making, using a combination of case analyses and lectures.

MAN X85.64. Enterprise of Technology: From Mind to Market.

Focuses on moving an idea from the mind of the researcher to the marketplace by examining the activities involved in commercializing a technology from conception to profitable enterprise.

MAN X85.65. Management Consulting Practicum.

Students work in supervised teams and develop recommendations to solve a real business problem for a client firm.

MAN X85.67. Nutrition Entrepreneurship.

MAN X85.68. Performance and Sports Analytics.

Leverage sports analytics to address business complexities, demystify pathways to thriving in the sports business sector, and foster the creation of innovative analytical tools through the fusion of computer science, mathematics, and statistics. Explore sports as a business, including crucial lessons in leadership and ethics with universal applicability.

MAN X85.69. Social Innovation Practicum.

Overview of the field of social innovation, including concepts and tools that support the creation of social ventures. Hands-on application to develop a social venture, articulate its vision, create a business plan, choose an organizational form for the venture, and assess the venture's financial and social impact.

MAN X85.70. Strategic Innovation and Entrepreneurship.

Explore how existing and new firms can innovate strategically to discover and create new sources of value. Examine dynamic views of strategy that enable the creation of new markets, new business models, and growth opportunities.

MAN X85.71. Persuasive Communications.

Explore the best practices for persuasive communication. Examine and practice the fundamentals of strong communication in business settings.

MAN X85.73. Opportunity Identity and Analysis.

MAN X85.74. Technology Strategy.

MAN X85.75. Energy Technology and Policy.

Discuss energy technologies, fuels, environmental impacts, and public policies with an interdisciplinary framework. Explore quantitative and qualitative concepts in energy, such as fuels and energy technologies, energy policy levers, societal aspects of energy, culture, economics, war, and international affairs. Utilize historical examples, current events, and future looking predictions related to all aspects of the energy system.

MAN X85.76. Business of Healthcare.

MAN X85.77. Startup Consulting Practicum.

Develop skills to research the viability of a business idea, analyze results, and deliver strategic recommendations in a compelling stakeholder presentation. Gain real-world experience with early-stage startups while collaborating cross-functionally and learning strategic frameworks.

MAN X85.8. Managing Corporate Diversification and Renewal.

MAN X85.9. Strategic Analysis for High-Tech Industries.

MAN X85D. Global Practicum for Executives.

Examine the history, culture, politics, and economics of a region through direct experience with a study tour or global management seminar in the respective regional area.

MAN X85E. Directed Studies in Global Management and Business Practices.

Study global business practices through lectures on campus and trips to international partner schools.

MAN X85F. Leading for Impact.

Analysis and application of contemporary concepts and theories of principled leadership for work teams and organizations.

MAN X85G. Strategic Innovation and Entrepreneurship.

MAN X85H. Innovation in the New Economy: Entrepreneurial Mindset.

Examine approaches that executives can use for identifying and creating new business opportunities, and for designing organizations and processes to foster employee creativity and innovation.

MAN X85L. Leading for Impact for Executives.

Explore leadership and how to apply concepts in ways that have impact on the world and local community.

MAN X85S. Leading For Impact Capstone.

Explore leadership development and provide opportunities to practice leadership abilities through projects for real organizations.

MAN X85T. Leading for Impact I.

Analyze and apply contemporary concepts and theories of principled leadership for work teams and organizations.

MAN X85U. Leading for Impact II.

Explore leadership development and provide opportunities to practice leadership abilities through projects for real organizations.

MAN X90. Topics in Seminar: Organization Science.
Intensive analysis of organizational science issues.
MAN X90.1. Research in Organizational Science.
MAN X90.11. Management of Knowledge Workers.
The study of knowledge workers at four levels of analysis: as individuals, as team members, as organizational resources, and as national resources. Strong emphasis on theory building.
MAN X90.12. Longitudinal Analysis.
Conduct rigorous analyses of organizational and other phenomena that evolve and change across time.
MAN X90.2. Introduction to Research Methods in Management.
MAN X90.3. Research Methods in Management.
MAN X90.4. Seminar in Organizational Behavior.
MAN X90.5. Seminar in Organization Theory.
MAN X90.6. Organizational Decision Making.
MAN X90.9. Behavioral Decision Theory.
MAN X91S. Independent Study.
MAN X93. Topics in Seminar: Strategic Management.
Intensive analysis of strategic management issues.
MAN X93.1. Foundations of Strategic Management.
MAN X93.2. Contemporary Issues in Strategic Management.
MAN X93.3. Research in Strategic Management.
MAN X93.5. Executive Leadership.
MAN X93.6. Management of Diversification.
MAN X98. Thesis.
MAN X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
MAN X99W. Dissertation.

Professional Courses

MAS - Mexican American Studies

Mexican American Studies: MAS

Lower-Division Courses

MAS X01. Introduction to Mexican American and Latina/o Studies.
Introduction to the theoretical and substantive issues covered under the interdisciplinary rubric of ethnic studies. Explore the Mexican American and Latina/o experience through the methodological approaches of historical analysis, cultural critique, and social production.
MAS X07. Introduction to Mexican American Cultural Studies.
An introduction to the theoretical and substantive issues covered under the interdisciplinary rubric of cultural studies. Explores the Mexican American cultural experience through the methodological approaches of historical analysis, cultural critique, and literary production.
MAS X07C. Mexican American and Latina/o Folkore Across the United States.
MAS X08. Introduction to Mexican American Policy Studies.
Introduction to the basics of policy analysis, employing demographic and empirical information on the Mexican American and Latino populations in the United States. Explore current policy issues, such as bilingual education, affirmative action, the English-only movement, immigration, Latino consumers, Latino entrepreneurship, and Latino political participation.
MAS X08E. Police, Prisons, and Inequality.
Explore the ethical issues related to inequality and the United States criminal legal system. Examine the experiences of the poor, Indigenous people, immigrants, racial minorities, women, sexual minorities, and gender-nonconforming people.
MAS X11. Ethnicity and Gender: La Chicana.
MAS X14. Mexican American Literature and Culture.
Representative Chicano writers and genres, such as poetry, prose fiction, and theatre.
MAS X15. Latina Performance: From Celia to Selena.
MAS X16. History of Mexican Americans in the United States.
Examines the origin and growth of the Mexican American community in the United States.
MAS X16C. Immigration and Ethnicity.
Examine the changing population of the United States from colonial times to present.
MAS X16D. Latinas and Latinos and Segregation in the United States.
MAS X16E. The Places of Mexican American History.
Examine Mexican American history from the point of view of three distinct places: Los Angeles, the mountains of northern New Mexico, and the far southern tip of Texas.
MAS X16R. North American Borderlands.
Explore the formation of political borders in nineteenth- and twentieth-century North America, their contestation, and the multiple meanings attached to them.
MAS X18. Mexican American Culture.
Mexican American cultural distinctiveness in the areas of social organization, child rearing, food culture, folklore, language, and religion.
MAS X18C. Latina and Latino Media and Popular Culture.
Explore Latina/o media and popular culture from 1950 to the present.
MAS X18D. Introduction to Latinx Body Art.
Examine the social, historical, economic, and commercial contexts influencing the production, display, and circulation of Latinx body art.
MAS X18E. Latinx Digital Worlds.
Explore how Latinx communities (traditionally figured as on the wrong side of the "digital divide") have embraced, mobilized, and sometimes usurped emerging digital tools and spaces to forge community and create new forms of culture, memory, and activism.
MAS X18F. Black and Latinx Intersections.
Examine the complex relationships between and among Black and Latinx communities and the political and structural forces and contexts that shape their interactions. Explore Black identity within the Latinx population, racial politics, coalitions of Black American and Latinx groups, race among Latinxs, racial inequality, and the politics of immigration.
MAS X18G. The New Latinas/os/xs.
Explore the trajectories of various communities many have called the new Latinas/os/xs by identifying how race, gender, sexuality, class, indigeneity, language, migration, and geography influence the lives, identities, and sociopolitical incorporation of new Latinas/os/xs.
MAS X18J. Latinx Material Culture.
Discuss utilizing material culture as a method of analysis to highlight histories of oppression, struggles towards liberation, and the politics of everyday Latinx life in the U.S..
MAS X18P. Fighting for Latino Power.
Examine issues that affect Latino political representation in the United States, specifically three aspects that are critical to political power in this country: the decennial Census, voting rights and the legal system, and electoral politics and political campaigns.
MAS X19. Special Topics.
MAS X19.2. The Chicano Movement.
Analyzes the history and legacy of the Chicano Movement in order to understand its origins, strategies, challenges, and successes.
MAS X19.3. Latinx Histories.
Explore the cultures, politics, and policies that shape the many Latinx histories in the United States.
MAS X19.4. Mexican American Women, 1910-Present.
Examines the history of Mexican and Mexican American women in the United States from the twentieth century to the present.
MAS X19.5. Chicano Literature and Popular Culture.
Explores the ways in which Chicana/o creative writers have addressed their experiences in the United States.

MAS X19.6. Comparative Latina/o Immigration to the United States.

MAS X19S. Topics in Mexican American Studies.

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Upper-Division Courses

MAS X20C. Power and Place: Making Texas History.

MAS X20E. Texas before 1900.

Focus on the basic history of Texas from roughly 1450 to 1900. Investigate major events such as the Texas Revolution and Civil War with an emphasis on how and why Texas, its culture, and its groups of people changed or did not change over time.

MAS X20F. Texas, 1900 to the Present.

Examine the steady dissociation of Texas from its Old South status to a transitional state and a power in national politics.

MAS X20G. Native American Women's History.

Investigate the histories of Native American women to reaffirm and reclaim their place and role in the histories of Native Americans, indigenous peoples, women, Chican@/xs, Greater Mexico, and the United States. Contemplate how many understandings that center colonization, settler colonialism, genocide, race, and environmentalism are essential to examining Native American women's history. Explore the stories, struggles, and ideas of community-building, sovereignty, and liberation as integral to their genders and sexualities as Native American, Indian, First Nations, indigenous, and red and brown women.

MAS X20I. Mexican American Studies at UT.

Trace the origins and development of Mexican American Studies at the national, regional, and local levels. Collaborate to help preserve and recognize the significance of Mexican American Studies at the University in historical and contemporary contexts.

MAS X20J. Mexican Americans in Texas History.

Introduction to the historical experience of Mexican-American persons in Texas.

MAS X20T. Texas History's History.

Explore evolving ideas and meanings concerning the most significant events, personages, and social processes in Texas' history.

MAS X23C. Black Art, Brown Art.

MAS X23D. Contemporary Latinx Visual and Performance Art.

Explore contemporary visual and performance art by Latinx artists working since the 1970's to the present. Examine artists who began to engage with and in civil rights discourse to intervene through their art-making practices; and to align with contemporary trends in the art world that began to expand in the 1970's, such as performance art, installation art, video art, and, later, digital art.

MAS X23E. Latinidades: Art and Performance.

Contextualize and analyze diverse forms of Latina/o/x artistic expression, including visual art, music, dance, theatre, and film, or Latinidades".

MAS X29S. Topics in Mexican American Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

MAS X35M. Queer Migrations.

MAS X37C. Chicana Feminisms.

MAS X37D. Russian and Mexican Men in Popular Culture.

Study representations of masculinity in products of Mexican and Russian popular culture at the end of the twentieth and the beginning of the twenty-first centuries.

MAS X37F. Latina Feminism and Health.

MAS X37G. Disability, Race, and Sexuality in Literature and Culture.

MAS X37I. Tejana Cultural Studies.

Investigate the history of Tejanas to reaffirm and reclaim their place and role in the histories of Native Americans, women, Chican@/Chicanxs, Greater Mexico, and the United States. Explore how transborderism and transregionalism complicate this history. Contemplate how Tejanas' stories are fundamental to illuminating the struggles, resistance, and liberation of Chicanas, mestizas, and afromexicanas from precontact to decolonization.

MAS X37J. Latinx Sexualities.

Examine Latinx sexualities from a historical perspective to comprehend the social, cultural, political, and economic factors, which have shaped these experiences.

MAS X40S. Latina and Latino Spirituality.

MAS X45C. Julia Alvarez and Sandra Cisneros.

MAS X45D. Life and Literature of the US-Mexico Borderlands.

Examine the literature of the US-Mexico borderlands experience, with an emphasis on the historical and social conditions that characterize this unique region. Explore this in the context of prose fiction, as well as drama, film, and poetry.

MAS X45E. Latinx Short Story.

MAS X45F. Latinx Legend Tripping.

Explore narrative folklore from diverse traditions across the United States based Latinx diaspora. Focus on supernatural legends and the creation of the female "monster".

MAS X45G. Contemporary United States Latina/o Literature and Culture.

MAS X45I. Latinx Young Adult Literatures.

MAS X45J. 21st Century Latinx Literature.

Explore Latinx literature from the past two decades including both literary form and political engagement, with an emphasis on Latina, queer, and nonbinary writers.

MAS X47C. Transnational Latinx Popular Culture.

MAS X50C. Social Science Methods and Latina/o/x Communities.

Learn the methods and tools that social scientists use to make sense of the world, specifically as it pertains to understanding the Latina/o/x experience in the United States.

MAS X50F. Latino Urbanism in the United States City.

MAS X50L. Latinx Sociology.

Explore how institutions have shaped the gendered, racial, and class-based experiences of Latinxs from a sociological perspective, including historical patterns of Latinx migration to the United States, contestations over racial classifications, and problematic issues surrounding the term Latino. Review more recent studies that show how different institutions shape the Latinx experience and demonstrate how gendered, racial, and classed forces have shaped various Latinx communities. Examine Latinx agency and how Latinx communities have sought to reconfigure and push back on these social forces.

MAS X54. Latinx Austin.

Explore the city of Austin, the city's importance for Latino communities, and the importance of Latinos for the city.

MAS X61. Mexican American Cultural Studies Seminar.

Explores cultural studies literature as read through the experience of the Mexican-origin community in the United States. Discussions include race, class, and feminism. Students write a research paper and deliver a scholarly presentation.

MAS X62. Mexican American Policy Studies Seminar.
Profiles the current economic status of Mexican Americans in the United States. Examines two dimensions of public policy: historical trends and comparisons with other ethnic groups. Students write a policy report and deliver a professional presentation.

MAS X63. Sociolinguistics in Mexican American and Latina/o Studies.
Examines the presence and use of language in the United States with focus on aspects affecting Latina/o communities.

MAS X63R. Bad Language: Race, Class, and Gender.

MAS X64. History of the United States-Mexico Borderland.
Introduction to the history of the United States and Mexico border region.

MAS X64C. The Civil Rights Movement from a Comparative Perspective.
Focuses on African American and Mexican American struggles for civil rights. Asian American and Native American movements will also be addressed. Using a comparative approach the student will consider the distinctiveness of each of these struggles while also viewing them in relation to each other.

MAS X64D. Latino Migrations and Asylum.

MAS X64E. Policing Latinidad.

MAS X64F. Mexican Immigration Cultural History.
Examines the history of Mexican immigration to the United States, and provides an overview of migratory patterns dating back to the late prehistoric period through contemporary times.

MAS X64G. Latino Migration and Human Trafficking.
Critically examine the complexity and intersectionality of Latino migration and human trafficking from global, regional, and local perspectives.

MAS X64I. Mexican American Political Thought.
Critically explore the multiple complementary and contradictory intellectual expressions of Mexican American political thought. Pay particular attention to Texas from the mid-nineteenth century through the period of the Chicano Movement in the latter part of the twentieth century.

MAS X64J. Migration Crisis.

MAS X64K. Afro-Latinidades in the United States and Latin America.

MAS X64L. La Causa, The Farmworker Movement.
Examine the twentieth-century expansion of commercial agriculture and concomitant labor organizing struggles waged by agricultural workers in the United States, including Arkansas, California, Hawai'i, Puerto Rico, and Texas. Explore the role of the United Farm Workers of America.

MAS X64M. Latina/o/x Citizenship.
Explore the concepts of membership, belonging, immigration and citizenship in the Latina/o/x experience. Examine how historically, politically, socially and culturally, Latinas/os/xs have been construed as belonging or not belonging members of the United States society.

MAS X64N. Politics of Latino Identity.
Explore the creation of the pan-ethnic Latino group identity, differences between national origin groups from Latin America, and how Latino group and national origin identities influence political participation.

MAS X64O. Central Americans in the United States.
Examine the extensive and diverse histories, cultures, social and political movements of Central Americans in the United States, particularly through a Black, Indigenous, and Ethnic Studies framework.

MAS X64P. Puerto Rico In Crisis.

MAS X64Q. Race and Ethnicity Politics.
Explore racial and ethnic politics throughout the United States with a focus on Black and Latino politics. Examine group identity, racial inequality, policy making, activism, criminal justice system, and immigration.

MAS X64R. Race Politics and Caribbeans.
Examine racial and political themes among Spanish-speaking Caribbeans on the islands and in the United States. Explore racial politics in the three countries and compares notions of identity, experiences with racism and anti-racist protest with the United States

MAS X64S. Land in America.
Explore how the history of land helps explain the society we live in today and ideas about the human-nature relationship.

MAS X64U. United States Immigration Policy and Stories of Migration.
Explore the history of immigration policy to the United States with memoirs of migration, immigration policy, and incorporation to provide a fuller picture of how immigrants are affected by these policies in the United States.

MAS X64V. Rhetoric of Ethnic Studies.
Study the histories of ethnic (and gender) studies in both higher education and K-12 institutions, and the rhetoric of attacks on, and defenses of, ethnic and gender studies through an examination of primary and secondary source materials.

MAS X70D. Latinx Media, Arts, and Activism.
Investigate the ways in which Latinx activists have used mainstream, alternative, legacy, and new media (as well as other visual and performing arts), to affect social and political change in the United States.

MAS X70E. Chicana/o Cinema.

MAS X70F. Latina Filmmakers in the United States.

MAS X73. Independent Research.

MAS X74. Special Topics.

MAS X74.15. Latino Politics.
Explore the political experiences of the United States Latino populations.

MAS X74.22. Minorities and the Media.
Issues concerning minority or nondominant groups within the United States. Survey of minority communication problems: alienation, fragmentation, media and Internet access; criticism and feedback for minority groups based on racial/ethnic background, age, sex, disability, social or economic class, and sexual orientation.

MAS X74.23. Mexican American Indigenous Heritage.
The prehistory, history, and contemporary racial understanding of Mexican Americans.

MAS X74.32. Radical Latinos.
Examines the social positioning and history of Latinas/os in the United States. Analyzes the histories of Latinas/os who have gone against mainstream expectations, or who have challenged or critiqued the status quo in provocative and unexpected ways.

MAS X74.33. United States Latino and Latina Ethnographies.
Explores past and present anthropological representations of Latinos and Latinas in the United States.

MAS X74.34. Writing Border Narratives.
Examines the United States and Mexico border through the use of the personal essay in its various forms. Students write personal essays that focus on their relationships to the border.

MAS X74.37. United States Catholic History.
Examine how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latino/as.

MAS X74.38. Feminist Interventions in Borderlands History.
Provides an in-depth understanding of the social, economic, and spatial transformations of the United States/Mexico borderlands in the nineteenth and early twentieth centuries.

MAS X74.40. Gender, Class, and Ethnicity American Literature and Film.
Examines the ways in which authors and filmmakers construct gender, class, and identity in each of their texts.

MAS X74.41. Border Control and Deaths.
Focus on enactment of border control policies, policy implementation and death patterns at the United States-Mexico border, patterns of unauthorized border crossings through dangerous border terrain, grassroots movements to support migrants and lessen deaths, and the ethics of coercive border control. Surveys the public sentiments

and attitudes that support new border control policies, the patterns of migrant deaths in deserts and in the Rio Grande River associated with border control strategies, movements and community efforts to support migrants in the Arizona border area, and legal and ethical arguments and concepts that frame discussions of migrant deaths at the United States-Mexico border.

MAS X74.42. United States Immigration.
Utilizes a sociological perspective to gain an understanding of what social forces drive migration to the United States, how migrants organize their migration, and how immigration affects United States' society.

MAS X75. Internship.
Participate in a nonpartisan, direct-service capacity in a community, civic, or government organization or program that facilitates the economic, political, and social development of the Mexican American community. Write a report based on the internship project under the supervision of a faculty member.

MAS X77. Mellon Mays Program Seminar.
Seminar designed as an interdisciplinary primer to the exploration of research, writing, and professionalization in preparation for doctoral study.

MAS X78. Capstone Seminar.
Pursue in depth the research interests and methodological skills developed in other Mexican American and Latina/o Studies classes.

MAS X79H. Honors Tutorial Course.
Supervised research, readings, and writing of a substantial paper on a Mexican American and Latina/o Studies topic.

Graduate Courses

MAS X82. Conference Course in Mexican American Studies.

MAS X90. Introduction to Mexican American and Latina/o Studies.
Examine an overview of Mexican American and Latina/o studies for graduate research.

MAS X92. Topics in Mexican American and Latina/o Studies.

MAS X95C. Theories in Mexican American and Latina/o Studies.
Examines the major theoretical foundations in Mexican American and Latina/o Studies.

MAS X95M. Interpretive Methods.
Examine interpretive methods used in Mexican American and Latina/o Studies.

MAS X96Q. Qualifying Exam Prep.
Prepare for qualifying examinations.

MAS X98. Thesis.

MAS X98F. Doctoral Forum.
Develop and present a course project, such as research papers, grant proposals, and dissertation chapters in a workshop environment.

MAS X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

MAS X98T. Supervised Teaching in Mexican American and Latina/o Studies.
Methods of interdisciplinary teaching and professional work in Mexican American and Latina/o Studies.

MAS X99W. Dissertation.

Professional Courses

MBS - Molecular Biosciences

Molecular Biosciences: MBS

Lower-Division Courses

MBS X19L. Introduction to Biochemical Laboratory Practices and Skills.
Explore basic skills used by biochemists and an introduction to future career options. Examine basic biochemical concepts and laboratory, computational, and professional skills.

MBS X19S. Topics in Molecular Biosciences.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Biology Instructional Office. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

MBS X20. Cell Biology.
Explore principles of eukaryotic cell structure and function. Examine macromolecules, membranes, organelles, cytoskeleton, signaling, cell division, differentiation, motility, and experimental methodologies.

MBS X20L. Cell Biology Laboratory.
Explore the complex structures and functions of cells through direct observation and experimentation. Discuss regulation of gene transcription and translation, protein sorting, organelles and membrane trafficking, cytoskeletal dynamics, and cell division. Use a combination of modern molecular biology, biochemistry, and microscopy techniques, with a strong emphasis placed on hypothesis-driven approaches, proper experimental design, and clear scientific writing and presentation.

MBS X25T. Human Genetics.
Examine genomics, cancer genetics, identification and analysis of human disease genes, and monogenic and multifactorial traits in humans.

MBS X26L. General Microbiology Laboratory.
Introduction to microbiology laboratory techniques and experimental demonstration of principles of microbiology.

MBS X26M. Introductory Medical Microbiology and Immunology.
Designed primarily for nursing and pre-pharmacy students. Explore an overview of the structure, function, and genetics of bacteria, viruses, and fungi, with emphasis on the interactions between micro-organisms and the human host. Examine principles of microbial pathogenesis, the host's innate and adaptive immune responses to infection, epidemiology, laboratory diagnosis, and antimicrobial chemotherapy and vaccines.

MBS X26R. General Microbiology.
Examine an overview of the major areas of microbiological study, including cell structure and function, genetics, host-microbe interactions, physiology, ecology, diversity, and virology.

MBS X27D. Emerging Infectious Diseases.
Examine genomic and proteomic tools used to understand the causes of human infectious diseases. Discuss genome sequencing, community sequencing, proteomics, microarrays, and human polymorphism analysis; and how these technologies have been applied to the study of important human viral diseases. Explore extensive coverage of the molecular and clinical biology of these diseases.

MBS X27G. Genomics.
Examine genome structure, organization, and function of model organisms; theory and methodology of genetic and physical mapping; sequencing analysis and annotation; genome duplication and evolution; and ethics for biotechnology and cloning.

MBS X28. Introductory Plant Physiology.
Examine general principles of the mineral nutrition, water relations, metabolic activities, growth, and development of green plants.

MBS X28D. Discovery Laboratory in Plant Biology.
Discuss methods of experimental design, data gathering, data interpretation, and data presentation, including original experiments relating to questions of current interest in plant physiology.

MBS X28L. Laboratory Experiments in Plant Physiology.
Introduction to experimental techniques used in the study of the mineral nutrition, water relations, metabolic activities, growth, and development of green plants.

MBS X29S. Topics in Molecular Biosciences.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study

Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Biology Instructional Office. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MBS X30. Molecular Biology of Animal Viruses.
Examine mechanisms by which viruses replicate and kill or transform cells.

MBS X30L. Virology Laboratory.
Examine basic experimental techniques applied to selected bacteriophages and animal viruses.

MBS X31L. Laboratory Studies in Molecular Biology.
Explore molecular biology methods, experimental design, and analyses applicable to both research and fields such as healthcare, biotechnology, and genetic analyses. Conduct experiments in a research project format.

MBS X36. Tumor Biology.
Discuss core aspects of cancer pathology, treatment, epidemiology, the discovery of oncogenes and tumor suppressors, and the molecular genetics underlying the characteristic features of malignant tumors (including metastatic behavior, genomic instability, angiogenesis, cell cycle regulation, and apoptosis). Examine the biochemical functions of cancer-related proteins and enzymes and therapeutic approaches based on our understanding of these proteins. Explore important experimental approaches that have influenced our current understanding of cancer.

MBS X37. Topics in Biology.
Examine recent developments and research methods in the biological sciences.

MBS X39M. Bacterial Behavior and Signaling Mechanisms.
Examine molecular, cellular, organismal, ecological, and evolutionary biology of bacteria. Focus on a large number of bacteria, both Gram-positive and Gram-negative from four major phyla, that live and survive both as free-living microbes, in groups, and in both beneficial and pathogenic associations with eukaryotic hosts. Explore evolution of organelles and behaviors, including receiving and transducing signals that produce a variety of outcomes such as chemotaxis and motility, morphogenesis and development, secretion and virulence, quorum sensing and biofilms, bacterial warfare, and antibiotic production and tolerance.

MBS X43. Advanced Cell Biology.
Explore current research in eukaryotic cell biology including vesicle trafficking, cytoskeletal dynamics, cell movement and organization within tissues, and cellular signal transduction and information processing. Focus on experimental reasoning, quantitative methods for studying cells, and reading primary literature.

MBS X44. Molecular Biology.
Examine molecular basis of cellular processes: gene structure and function, DNA replication, RNA and protein synthesis, viruses, molecular aspects of immunology and cancer, and recombinant DNA.

MBS X49L. Experiments in Developmental Biology.
Discuss methods and principles of developmental biology in a laboratory context, with emphasis on animal embryology using molecular techniques and microscopy.

MBS X50. Developmental, Stem Cell, and Regenerative Biology.
Explore the principles and mechanisms of embryonic development and the processes guiding stem cell differentiation and tissue repair.

MBS X50M. Plant Molecular Biology.
Discuss the fundamentals of plant molecular biology, including structure and expression of the chloroplast and mitochondrial genomes.

MBS X55. Microbial Biochemistry.
Study the function of bacterial proteins and their complexes, including their role in inter-bacterial interactions that shape multi-species communities.

MBS X56E. Epigenetics and Epitranscriptomics.
Explore epigenetic mechanisms that involve covalent modifications of the three major biomolecules: DNA, RNA, or proteins in the context of gene expression and genome stability. Examine how environmental and intrinsic factors regulate these mechanisms to impact normal and diseased cell functions, particularly as they relate to human health, aging, and behavior.

MBS X60K. Immunology.
Discuss the basic concepts of humoral and cell-associated immune phenomena, including innate immunity; the molecular basis of T cell and B cell antigen recognition; hematopoiesis and the development of lymphocytes; cellular and humoral immune responses; and the basics of immunodeficiency, autoimmunity, immunotherapy, and vaccination.

MBS X60L. Immunology Laboratory.
Examine current techniques in experimental cellular and humoral immunology.

MBS X61. Human Infectious Diseases.
Examine etiology, pathogenesis, diagnosis, and immunobiology of the major microbial diseases, with emphasis on their prevention.

MBS X61L. Clinical Bacteriology Laboratory.
Discuss techniques required for independent work in diagnostic and epidemiological bacteriology.

MBS X66. Microbial Genetics.
Examine molecular biology of nucleic acids. Explore biosynthesis of macromolecules, transfer of genetic material from cell to cell, recombination, mutagenesis, and regulatory mechanisms.

MBS X66R. Molecular Genetics and Medicine.
Discuss the implementation of molecular genetics techniques in medicine. Explore the application of diagnostic and therapeutic techniques for several genetic disorders and infectious diseases.

MBS X67C. Cellular and Molecular Bases of Neural Development.
Introduction to the principles by which the neural tube (brain and spinal cord) forms during embryonic development. Discuss the cellular and molecular mechanisms underlying the formation of a three-dimensional neural tube and its division into forebrain, midbrain, hindbrain, and spinal cord.

MBS X68C. Supervised Literature Review.
Conduct supervised literature review and written capstone thesis on a selected subject in biology by individual arrangement with the instructor.

MBS X68R. Supervised Capstone Research.
Conduct supervised independent research and written capstone thesis on a selected subject in Biology by individual arrangement with the instructor.

MBS X75C. Capstone Seminar.
Document and reflect on the capstone experience, present capstone work in a professional venue, and discuss plans for transitioning to post-graduation careers.

MBS X77. Undergraduate Research.
Perform laboratory or field research in the various fields of biological science under the supervision of one or more faculty members.

MBS X79H. Honors Tutorial Course.
Conduct an original laboratory or field research project under the direction of a faculty mentor, leading to a thesis or research presentation for students in the honors program in biology.

Graduate Courses
Professional Courses

MDV - Medieval Studies

Medieval Studies: MDV

Lower-Division Courses

Upper-Division Courses

Graduate Courses

MDV X92L. Topics in Readings in Medieval Latin.

MDV X92M. Topics in Seminar in Medieval Culture.

Major medieval historical developments and monuments of culture in thought, literature, art, architecture, and music.

MDV X92M.1. The Islamic City.

Explore the morphology, sociology, and historiography of cities in the Islamic world over time, from the medieval period to the present.

MDV X99W. Dissertation.

Professional Courses

MEL - Middle Eastern Languages and Cultures

Middle Eastern Languages and Cultures: MEL

Lower-Division Courses

Upper-Division Courses

Graduate Courses

MEL X80. Topics in Middle Eastern Cultures.

MEL X80.1. Gender, Clothing, and Identity in Muslim Societies.

MEL X80.2. Introduction to Islamic Studies.

Introduction to the academic field of Islamic Studies.

MEL X80C. Topics in Middle Eastern Languages.

Advanced studies in Middle Eastern languages.

MEL X80C.1. Targumic Aramaic.

Examines Aramaic translations of the Hebrew bible that contain many exegetical deviations from the Hebrew text, and provide a glimpse of Jewish theology at the time of their composition.

MEL X80C.2. Syriac.

Study of the eastern Aramaic dialect that was spoken in the ancient Near East until the Muslim occupation. Examines the use of the dialect as a vehicle for Christianity in the East; its use in poetry, science, and philosophy; and its influence on Arabic. Covers the essentials of Syriac grammar for the purpose of reading Syriac texts.

MEL X80C.3. Classical Ethiopic.

Study of the fourth-century language of the Semitic people who lived in what is now Ethiopia and Eritrea. Covers the alphabet and grammar needed for reading translations of the Bible and other texts.

MEL X80C.4. Ugaritic.

Study of the West Semitic languages from the city of Ugarit in what is now Syria, which was spoken from the fourteenth through twelfth century BC. Covers the essentials of grammar needed for reading Ugaritic texts.

MEL X80C.6. Akkadian I.

Introduction to the study of Akkadian, the principal language used in ancient Assyria, Babylonia, and their environs. Explore Old Babylonian grammar and the cuneiform writing system.

MEL X80C.7. Akkadian II.

Continue the study of Akkadian and Old Babylonian grammar, syntax, and signs.

MEL X80C.8. Akkadian III.

Read Akkadian texts from a variety of genres and time periods, including Assyrian and Babylonian letters and royal inscriptions.

MEL X80C.9. Akkadian IV.

Read Akkadian texts from a variety of genres and time periods, including Standard Babylonian literary texts.

MEL X81. Topics in Middle Eastern Literatures.

MEL X82. Topics in Middle Eastern Linguistics.

MEL X82.1. Teaching Middle Eastern Languages.

MEL X82.2. Introduction to the Structure of Semitic Languages.

Covers the grammatical structure of a number of ancient and modern Semitic languages (such as Akkadian, Biblical Hebrew, Ethiopic, and Modern Aramaic) and of the family of languages as a whole.

MEL X83. Topics in the Ancient Near East.

MEL X83.10. Critical Problems in New Testament.

Study foundational and emergent scholarly works and critical approaches in the study of Christian origins and the books of the New Testament in their ancient Jewish and Greco-Roman contexts.

MEL X83.6. Comparative Semitic Linguistics.

Examine the Semitic languages and review the basic features of their phonology, morphology, and syntax.

MEL X83.7. Art, Gender, and Religion in Late Antiquity.

Examine the gendered experience of religion in Late Antiquity using the evidence of artistic record, with a primary focus on the Mediterranean world.

MEL X83.8. Critical Problems in Second Temple Judaism.

Examine the literature and material culture of Second Temple Judaism (circa 520 BCE to circa 135 CE) in dialogue with recent scholarship on Jews and Judaism in Persian, Hellenistic, and early Roman contexts.

MEL X83.9. Critical Problems in Judaism in Late Antiquity.

Examine the literature and history of Judaism from the destruction of the Second Jewish Temple in 70 CE to the early Middle Ages, with a primary focus on classical Rabbinic Judaism as well as mystical and other writings beyond the canon.

MEL X83C. Current Issues in Hebrew Bible.

Examines the issues that are current in one major area of Hebrew Bible scholarship.

MEL X83D. Exegetical Seminar in Hebrew Bible.

Examines a biblical book (e.g. Song of Songs) or subject (e.g. Jubilee) applying history, philology, literary theory, poetics, history of interpretation, and linguistics.

MEL X89. Conference Course in Middle Eastern Languages and Cultures.

Supervised individual study of selected problems in Middle Eastern languages and cultures.

MEL X93. Comprehensive Examination Preparation.

MEL X94. Professional Development in Middle Eastern Languages and Cultures.

MEL X98. Thesis.

MEL X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

MEL X98T. Supervised Teaching in Middle Eastern Languages and Cultures.

Teaching under the close supervision of a faculty member; weekly group meetings with the instructor, individual consultation, and reports throughout the teaching period.

MEL X99W. Dissertation.

Professional Courses

MES - Middle Eastern Studies

Middle Eastern Studies: MES

Lower-Division Courses

MES X01C. Gateway to the Middle East.

MES X01J. The Ancient Middle East.

Survey the history of the Middle East from the beginning of the Neolithic period (9000 BCE) through the invasion of the region by Alexander the Great in 332 BCE and into the pre-Islamic era.

MES X01K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations.
A survey of the history and civilization of the Middle East from the sixth to the fourteenth century.

MES X01L. Introduction to the Middle East: Adjustment and Change in Modern Times.
The responses of the societies of the Middle East and North Africa (Turkey, Iran, Afghanistan, Israel, and the Arab world) to Western cultural and political challenges, primarily since about 1800.

MES X04M. Ancient Cities.
Introduction to the urban centers of the ancient Mediterranean world.

MES X10. Topics in Middle Eastern Studies.
Studies of areas and issues in the Middle East and North Africa.

MES X10.4. Social Transformation of Love and Relationships.
Examination of the social, psychological, and spiritual perspectives toward the ideas of love and intimacy; how love and intimacy interact with rapid social, economic, and cultural change; and how the subsequent change transformed the social world and the meaning of love. Subjects include the aspects of self and identity; differentiation in the context of love in the modern age; the family and the individual; the impact of industrialization on private lives and the public order; gender, communication, love; intercultural love and intimacy; and personal choice and arranged marriages.

MES X10.5. Introduction to Music in World Cultures.
Exploration of practices, beliefs, and issues through the study of various musical genres in the regions of Asia, the Middle East, Africa, the Pacific, Europe, and the Americas.

MES X10.6. Jewish Civilization: Beginnings to 1492.
Introduction to the history, culture, and religion of the Jewish people from around 1000 BC to the end of the medieval period. Subjects may include ancient Israel, late Second Temple sectarianism, the rise of Christianity, rabbinic Judaism, medieval Jewish philosophy, Jewish mysticism, and Hebrew poetry.

MES X10.8. Introduction to Jewish Studies.

MES X10C. Introduction to the Old Testament.
Introduction to the many interpretations of the Hebrew Bible (the Old Testament) and its meaning in the context of its historical and cultural setting in the ancient Near East.

MES X10D. Introduction to Islam.
The beliefs, theology, history, and main social and legal institutions of Islam, including the concept of God and society, the role of women, and Islamic government and movements.

MES X10N. Introduction to Modern North Africa.
Introduction to the major themes of North African history from the sixteenth century to the present.

MES X10P. Revolution and Decolonization in North Africa.
Examine the history of anti-colonial struggles in North Africa and the victory over European colonial powers.

MES X10R. Introduction to Middle East Religions.
Introduction to the religious landscape of the Middle East including the various expressions of Eastern Christianity, Islam, and Judaism as well as Zoroastrianism.

MES X11. The History of Israel.
An introduction to the history of Israel, from the emergence of the modern Zionist movement beginning in 1881 to the present.

MES X11C. Judaism, Christianity, and Islam: An Introduction.
Examines the intertwined historical developments of the religions of Judaism, Christianity, and Islam, and explores the principal beliefs and practices of Jews, Christians, and Muslims.

MES X19S. Topics in Middle Eastern Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded to work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MES X29S. Topics in Middle Eastern Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

MES X19S. Topics in Middle Eastern Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded to work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MES X23C. Engaging the Middle East.

MES X27. Middle Eastern Cultural Exchange.
Provides an opportunity for students to interact with peer groups in Middle Eastern countries in which Arabic, Hebrew, Persian, and Turkish are spoken. Students engage in a variety of cultural activities and correspond with peer groups via blogs and Internet discussion forums.

MES X28D. Material Cultures of Coexistence.
Dicuss Muslims living in regions where non-Islamic socio-political systems and infrastructures predominate, exploring the material cultures produced in places where Islam did not originate as, or is not, the dominant authority.

MES X29S. Topics in Middle Eastern Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MES X31C. History of the Ottoman Empire.
A survey of Ottoman society and culture and of the empire's place on the world scene.

MES X31O. Twentieth-Century Arab World.
Introduction to 20th-century Arab world history, primarily focusing on the Eastern Mediterranean, including Lebanon, Syria, Iraq, Jordan, Palestine, and Egypt. Explore the transformation of this region from a single cultural and political entity under imperial Ottoman rule, through colonial rule to the age of the nation-state and its struggles. Discuss key themes including colonial rule and relation to Europe and the US, Arab nationalism, revolutionary modernism, the impact of Zionism and Israel, the Palestinian revolution, the emergence of political Islam, civil wars, and the oil revolution. Examine internal and external forces and pivotal processes that have shaped the region over the past century through political, social, intellectual, and economic factors.

MES X34C. Music Cultures of the Middle East, Past and Present.
A historical and ethnomusicological survey of the Arab, Turkish, and Persian music cultures.

MES X41. Topics in the Middle East: Social Science.

MES X41.10. Cultural Geographies of Israel.
Examines critical spatial theory, landscape phenomenology, histories of Zionist architecture and urban planning as applied to Israel from the Yishuv period to the present.

MES X41.11. Rule of Law in the Middle East.
MES X41.12. Muslim Women in Politics.
MES X41.13. Sex and Sexuality in the Muslim World.
MES X41.18. Contemporary Jerusalem.
Explore what life is like in today's contested, rapidly growing, and increasingly diverse Jerusalem.
MES X41.19. Ottoman State and Society.
Explore the social and economic life, religion, law, government, ideology, arts, and sciences of the Ottomans. Examine the Ottoman political governance and the course of its development through a socio-historical lens.
MES X41.20. The Politics and Art of Iran's Woman, Life, Freedom Uprising.
Analyze the politics and art of Iran's 2022 Woman, Life, Freedom Uprising movement. Develop a digital humanities resource on the movement through collaboration.
MES X41.22. Veiling in the Muslim World.
MES X41.3. The Cities of the Middle East.
Anthropological and sociological analysis of space, with a special emphasis on urban theory and culture in the Middle East.
MES X41.5. Arab-Israeli Politics.
In-depth study of domestic, regional, and international factors involved in politics in the Middle East, including simulation of diplomatic interaction in the Arab-Israeli conflict.
MES X41.6. Negotiating Urbanization: Case Studies in Turkey.
Examines local and transnational forces that have driven and continue to drive contemporary urbanization in Turkey. Focuses on key issues that emerge in rapidly growing cities of the developing world, such as growing income inequality and socioeconomic exclusion, environmental challenges, and rising violence.
MES X41.7. Gender Politics in the Islamic World.
Study of the Islamic world and major sociological concepts such as gender, social organizations, culture, and politics. Examines how culture is mediated by politics, resulting in diverse interpretations of Islam and in different policies with respect to women's rights.
MES X41.8. Multicultural Israel.
Examines the complex social fabric that comprises contemporary Israeli society, and that shapes Israeli identity, practice and politics.
MES X41.9. Islam and Politics.
An introduction to Islamic political thought.
MES X42. Topics in the Middle East: Arts and Humanities.
MES X42.1. Introduction to Arabic Literature.
General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era.
MES X42.10. Persian Literature, Past and Present.
MES X42.11. Iranian Women Writers.
MES X42.13. Iranian Literature in Exile.
MES X42.14. Iranian Film and Fiction.
MES X42.16. The Qur'an.
Explore the history, language, style, and themes of the Qur'an.
MES X42.19. Self-Revelation in Women's Writing.
MES X42.2. Loyalty and Rebellion in Arabic Literature.
MES X42.20. Autobiography: A Modern Literary Species.
MES X42.22. Biblical Archaeology.
MES X42.23. The Dead Sea Scrolls.
MES X42.25. Politics of Court Literature.
MES X42.26. Arab Women Poets.
MES X42.27. Islamic Law.
Designed to give students a foundation in the substantive teachings of the shariah, which comprises not only what we normally think of as law, but also ethics and etiquette.
MES X42.28. Gender in North and West Africa.
Examines gender discourses through North African and West African literary works by looking at the role(s) played by Islam and Christianity in the creation of the identities of African men and women. Includes discussion of the question of what gender is, and whether it is socially constructed.
MES X42.3. Memory and Identity in Ancient Arabia.
MES X42.31. Palestine and the Palestinians: A Journey Through Time.
MES X42.32. Women Filmmakers in the Middle East.
MES X42.33. Love in the East and West.
MES X42.35. Islamic Theology.
MES X42.36. Rumi and the Persian Sufi Tradition.
MES X42.37. Biblical Prophecy.
An introduction to the diversity of prophetic literature in the Old Testament, its historical development, social context, and Near Eastern parallels.
MES X42.38. Comparative Jewish Literature: Israel, France, and the United States.
MES X42.4. The Arabian Nights.
MES X42.40. Gender and Art in the Muslim World.
MES X42.42. Archaeology of Greek Prehistory.
Explore the development of complex societies in ancient Greece by studying its prehistory through archaeology.
MES X42.44. Graffiti and Poster Art in the Islamic World.
MES X42.45. Lost Languages and Decipherment.
MES X42.5. Israel Through Its Literature.
MES X42.51. Daily Life in Ancient Egypt.
Delve into all areas of Egyptian daily life from the dawn of the dynasties to the age of Cleopatra.
MES X42.52. Abraham and Abrahamic Religions.
Examines the figure of Abraham as portrayed in the Bible and the reception of that portrayal in Judaism, Christianity, and Islam.
MES X42.53. Angels, Demons, and Magic in Early Christianity.
Examine angelology, demonology and magic influence on the lives of early Christians and Christianity.
MES X42.54. Hermits, Monks, and Saints in Early Christianity.
Examine individual and communal forms of Christian monasticism from the first through fifth centuries CE. Explore the social, economic and religious factors that may have made a life of self-denial attractive to many early Christians and the role of authority in these movements.
MES X42.55. Ancient Egypt.
Discussion of Egypt's culture, language, and history from the prehistorical period (13,000 BC) to the New Kingdom (1069 BC).
MES X42.56. Israel and Palestine: A Cultural Perspective.
MES X42.57. Divine Persuasion in Biblical Times and Place.
Explore the use of persuasive strategies in an ancient and non-Western culture, that of the Hebrew Bible. Using rhetorical techniques, analyze three types of texts: narratives of interactions between ordinary people and God; interactions between people, God, and authorized prophets; and prayers in prose and poetry.
MES X42.58. Islamic Ethics.
MES X42.59. Classic Lyric Poems.
MES X42.6. Love and the State in Contemporary Israeli Literature.
MES X42.60. The Persian Epic and Popular Culture.
MES X42.61. Forugh Farrokhzad and Her Poetry.
MES X42.62. Iranian and Iranian-American Identity.
MES X42.63. Twentieth-Century Persian Literature.
MES X42.64. Youth and Violence in the Middle East and Eurasia.
MES X42.65. Debating Genesis.
MES X42.66. Law and Justice in the Bible.
Examine the legal traditions of the Torah (Pentateuch) and what they reveal about the practice of law and justice in ancient Israel and the wider biblical world.

MES X42.67. The Book of Job.

MES X42.68. The Five Books of Moses.

Study the socio-historical circumstances that gave shape to the first five books of the Bible: Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. Examine how these five books achieved the status of sacred literature.

MES X42.69. Cultural Translation.

Examine theoretical readings and concrete examples of how translation politics, translation-induced reconstruction of literary systems, censorship, manipulation, and market dynamics affect the production, distribution, and reception of translated products in the realm of arts and entertainment, news media and politics, and various academic disciplines in the Middle East, United States, and beyond.

MES X42.7. Postmodernist Israeli Literature.

Study of the first decades of Israeli literature. Themes include the establishment of a new state in the aftermath of the Holocaust, conflict between Israel and Arab nations, and conflict between Israelis and Palestinians.

MES X42.70. Soundtrack of Revolutions.

Examine the significance of music in the social and political uprisings of countries across the Middle East.

MES X42.71. Humor and Hardship in Arabic Literature.

Examine Arabic literary works (ninth through twentieth centuries) that display humor and its unspoken counterpart, hardship. Consult modern theories of humor and premodern Arabic-Islamic ideas of the jocular.

MES X42.72. Major Islamic Texts.

Introduction to key religious, philosophical, and political ideas from part of the Islamicate world through sustained readings of core texts.

MES X42.73. Contemporary Middle Eastern Cinema.

Introduction to some of the most pertinent social and political themes in celebrated films across Arab countries, Turkey, Iran, and Israel and Palestine.

MES X42.74. Global Cult Cinema.

Explore the relationship between movies and fans within a global perspective. Examine case studies from and through the Middle East to understand the resonance of cult media texts around the world.

MES X42.75. Envisioning Muslims: The Middle Ages and Today.

Examine representations of Muslims in the dominant cultural media of the European Middle Ages, and in cultural media of the twentieth- and twenty-first centuries. Explore how Europeans envisioned Muslims, and how Muslims envisioned themselves.

MES X42.76. Childrearing in Israel.

Examine the coalescence of educational theories and national aspirations in the process of shaping child-rearing practices within the Jewish population of Palestine under the Ottoman Empire and the British Mandate and into the first two decades of the State of Israel.

MES X42.77. The Shock of Modernity in the Middle East.

Explore cross cultural contacts between the East and the West during the modern period. Analyze Islamic civilization in the Middle East of the modern era by addressing the development of religion, law, government, and morality during and after the colonial period.

MES X42.78. Modern Egypt in Film and Fiction.

Explore the history and culture of modern Egypt through selected readings in twentieth-century film and fiction.

MES X42.79. Culture in Turkey: Myths and Realities.

Explore how Turkish culture is neither static nor monolithic but is continuously contested and redefined. Investigate tensions between secularism and Islam, Orientalist and Occidentalist fantasies, and imperialist and nationalist desires to better understand the sociopolitical dynamics that define Turkish society today.

MES X42.8. The Sacred and the Secular in Contemporary Jewish Literature.

MES X42.80. Cultures of Revolution in the Middle East.

Examine the cultural production that surrounds key moments of political and social change in the Middle East.

MES X42.81. Gender and Translation in the Arab World.

Examine complex politics and poetics behind the translation and marketing of Arab women's writing in the West.

MES X42.82. Arab Francophonie.

Explore French-language cultural production by authors of Arab origin in France and across France's former colonial and mandate territories. Examine the fraught relationship many of these authors have with French language, literature, and culture, in dialogue with postcolonial theory.

MES X42.83. Media and the Middle East.

Addresses the role of media in the Middle East, considering communication texts, processes and industries in political, social, economic, and cultural contexts.

MES X42.85. Myths and Legends of the Ancient Near East.

Explore myths and legends contained in a variety of ancient sources, including texts from Israel, Greece, Egypt, and Mesopotamia.

MES X42.86. Minorities in the Middle East.

Explore the diversity of ethnic and religious minorities found in the Middle East through their history, languages, beliefs, and cultures.

MES X42.88. Multiculturalism in Jordan.

Explore how past, present, local, and regional events inform current Jordanian culture and identity.

MES X42.89. Introduction to the Music of the Middle East.

MES X42.9. Mizrahi Writing in Israel.

MES X42C. Art and Architecture of Late Antiquity.

Examination of early Christian and late Roman art and architecture, including related traditions, such as Jewish, Coptic, Armenian, Georgian, Persian,and Syriac.

MES X42M. Ancient Mediterranean Religion and Astrology.

Explore the role of astrology in ancient Mediterranean religious life.

MES X42S. Sufism: Islamic Thought and Spirituality.

Explore Sufism and other Islamic mystical traditions that color cultural milieus spanning four continents and fourteen centuries. Focus on the historical developments in the Islamic theosophical tradition, as well as the relationship between Sufism and poetics, colonialism, and post-colonial resistance movements.

MES X43. Topics in the Middle East: History.

MES X43.1. Modern Egypt: A History.

Critically examines the social, political, and intellectual dynamics that shaped the different forms of political community, economic organization, and public culture over the past century. Covers colonialism, liberalism, Arab socialism, authoritarian capitalism, and Islamic republicanism.

MES X43.10. Origins of Monotheism.

MES X43.11. Medieval Middle East History in One Hundred Objects.

Survey the history of the medieval Middle East, from the period of Late Antiquity (in the seventh century) to the rise of early modern empires of the Safavids, Ottomans, and Mughals (in the seventeenth century), through close examination of the meaning and significance of 100 objects.

MES X43.12. Modern Middle East History in One Hundred Objects.

Survey the history of the medieval Middle East, from 1500 to the present, through close examination of the meaning and significance of 100 objects.

MES X43.13. Arabs and Vikings: Art and Culture.

Explore the art and culture of the global Middle Ages through close examination of recent films, popular and academic publications, and

works of art and architecture that reveal the interconnection between the European and the Islamic worlds.

MES X43.15. Africa and Rome.
Explore the history of Roman Africa with emphasis on what is now Tunisia and northern Algeria.

MES X43.16. Jews: Nation or People.

MES X43.17. Restitution and Restorative Justice after the Holocaust.
Examine attempts to find a measure of justice after the Holocaust. Explore themes of human rights and international law.

MES X43.2. Re-forming the Arab East, 1914-Present.
Introduction to the history of the Middle East in the twentieth century. Examines forces that transformed the area from a relatively peaceful region to a radicalized environment. Explores colonialism, nationalism, secular modernism, impact of Zionism, rise of political Islam, status of women, and the oil revolution.

MES X43.20. Islam in the Early Modern World: Religion and Culture.
Examine a history of the religious and cultural development across the Islamic world between the thirteenth and eighteenth centuries, stemming from the rise of the Mongols and the end of the caliphate. Explore the early modern Muslim empires of the Ottomans, Safavids, and the Mughals.

MES X43.21. Transnational Asia: From the Middle East to the Far East.
Examine how various groups of people understood, experienced, and imagined concepts such as "the East" and "Asia" with a primary focus on the nineteenth and twentieth centuries.

MES X43.22. French Empire: The West and Islam.
The development of regions within the Mediterranean, variously called the West and East or Europe and Islam, with an emphasis on the role of modern France and France's Mediterranean empire.

MES X43.23. Muslim Travelers and Traders.
Introduction to modern Middle Eastern and Islamic history in the broader context of globalization, with a primary focus on the nineteenth century to the present.

MES X43.24. Arab Citizens of Israel.
Examine the historical, social, and political processes of change experienced by the Palestinian-Arab community in Israel, including the fundamental aspects pertaining to the founding of Israel as "a Jewish and democratic state" and the relations between the Arab minority and the Jewish majority.

MES X43.25. The Arab-Israeli Conflict.
Examine the elements of the Arab-Israeli conflict, including the main figures involved, events, and turning-points in its history.

MES X43.26. The Levant: From Colonialism to Coexistence.
Examine the history of the Levant, a region that includes Syria, Israel, Palestine, and Jordan.

MES X43.27. Middle East Outlaws and Lawmen.
Explore the evolution of crime and law enforcement in the modern Middle East.

MES X43.28. Food History of Asia and the Middle East.
Explore the history of food and beverages in the Middle East and Asia, including Palestine/Israel, Egypt, Iran, India, China, and Japan. Investigate themes of identity, capitalism, and globalization to reflect on the role of food consumers in an interconnected world.

MES X43.29. History of Sephardi Jews.
Examine the early-modern networks established by the Sephardi Jews (Sephardim) across the Mediterranean and Atlantic, the rich Ladino Judeo-Spanish culture that thrived in the Ottoman Empire, and Sephardi encounters with the modern world.

MES X43.3. History of Iran to 1800.
A survey of the social, economic, and religious components unique to Iran from the pre-Islamic empire of the Achaemenids through the development of Iran as a medieval and premodern Islamic state.

MES X43.30. Archaeology of Jesus's World.
Explore archaeological methods in examining texts and artifacts from first century CE.

MES X43.31. Religions in the Ottoman Empire.
Examine Jewish, Christian, and Muslim communities in the Ottoman Empire (fourteenth to twentieth centuries), with a focus on dynamics both within and between the communities.

MES X43.4. Islamic Spain and North Africa to 1492.
An introduction to the impact of Islam on Spain and North Africa, with emphasis on social, economic, and cultural development.

MES X43.6. Modern Iran.
Explore the development of modern Iran; special attention is given to the impact of the West, the constitutional movement, nationalism, the oil crisis, and the Islamic Revolution of 1979.

MES X43.7. History of the Pilgrimage to Mecca, Hajj.
Survey of the Hajj, Islam's major pilgrimage to Mecca and the nearby Holy Places. It will examine the Islamic pilgrimage from its beginnings in the seventh century C.E. through today.

MES X43.8. Prophet of Islam: His Life and Times.
A detailed study of the prophet Muhammad's life and message, and of the means by which his life was recorded and popularized.

MES X51. Mediterranean Crossroads Seminar.
Reading and discussion about the lands, cultures, and societies of the eastern Mediterranean from a variety of disciplinary perspectives. Students prepare to study in the Middle East (in Middle Eastern Studies 352) and begin work on their individual research projects.

MES X52. Mediterranean Crossroads Study Abroad Seminar.
Students study and conduct research in the Middle East.

MES X53. Mediterranean Crossroads Conference Course.
Under supervision of a faculty member, students complete their research projects following participation in Middle Eastern Studies 352.

MES X60. Conference Course.
Supervised individual research, discussion, and writing of papers about various general and specialized Middle Eastern subjects.

MES X70. Practicum: Internships in Applied Middle Eastern Studies.
Research and staff experience working in an appropriate agency or business.

MES X79H. Honors Tutorial Course.
Supervised individual reading for one semester, followed by research and writing to produce a substantial paper on a special topic in middle eastern studies, to be completed during the second semester.

Graduate Courses

MES X19S. Topics in Middle Eastern Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded to work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MES X29S. Topics in Middle Eastern Studies.
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MES X80. International Business Fellows Seminar.
Multidisciplinary seminar for students in area studies, business administration, law, and public policy. The faculty includes both academics and business leaders.

MES X81. Topics in Seminar in Middle Eastern Civilizations and Cultures.
Advanced studies of various aspects of the civilizations and cultures of the Middle East and North Africa.

MES X81.11. Regional Geography of the Middle East and North Africa.
Topics include developmental activity and spatial change in the Middle East, comparative regional studies.

MES X81.22. Politics of the Middle East and North Africa.
Readings and research on the political systems of the Arab world, Israel, Turkey, Iran, and Afghanistan. Precise topics vary.

MES X81.26. Turkic Cultures and Languages in Central Asia.

MES X81.29. Environment and Development in the Middle East.

MES X81.30. Language and Politics in Language Planning.

MES X81.33. Translation: Theory, History, and Practice.

MES X81.37. Intellectual History of Indo-Iranian Islam.

MES X81.38. Music Cultures of the Middle East: Past and Present.

MES X81.39. Translating Arabic Texts.

MES X81.41. Gender, Clothing, and Identity in Muslim Society.

MES X83. Internships in Applied Middle Eastern Studies.
Students conduct research and participate in other work in an appropriate agency or business.

MES X84. Topics in the Middle East: Social Science.
Advanced studies of various aspects of social sciences in the Middle East.

MES X84.10. The Military in Politics.

MES X84.11. Nationalism and Gender.

MES X84.12. Comparative Middle Eastern Law.
Exploration of legal structures of the modern Middle East from a comparative approach.

MES X84.3. Law and Religion in the Modern Middle East.
Examine the laws that govern religion and religious expression in Middle Eastern national constitutions, with a special focus on both the free exercise and establishment clause of Islam as the religion of the state.

MES X84.6. Cities and Citizenship.

MES X84.7. Culture, History, and Power.

MES X84.8. Gender and Development.

MES X85. Topics in the Middle East: History.
Advanced studies of various aspects of history in the Middle East.

MES X85.1. Middle East Police and Criminals.
Examine scholarship on crime and criminals, as well as police and law enforcement across the Middle East. Discover how crime and law enforcement have evolved over the past two centuries in the Modern Middle East.

MES X85.10. Modern Arab Renaissance: An Inquiry.

MES X85.11. State and Society in the Middle East.

MES X85.12. European Imperialism: British Empire.
Study of the British empire in the Middle East, Asia and Africa.

MES X85.13. The Ideas of the East.
Examine the significance of the transnational movement of people, ideas, and goods in the process of constructing geocultural categories such as the West, the East, and Asia; and their subcategories such as the Middle East, Southeast Asia, and East Asia.

MES X85.14. Global Iran.
Examine modern Iranian history from the nineteenth century to the present, with an emphasis on a body of scholarship that critiques methodological nationalism.

MES X85.2. Nationalisms in the Middle East.
Examine theories, methods and debates associated with nationalism in the Modern Middle East, including the histories of national and translational manifestations of nationalism, as well as the nationalisms of minorities in the region, and thematic topics such as race and ethnicity, gender, historiography, and religion.

MES X85.3. Islamic Historiography.

MES X85.4. Islamic Revolution of Iran.

MES X85.5. Modern Iranian History and Historiography.

MES X85.6. Shi'ite Religious and Political Ideologues.

MES X85.7. Women in Islamic Societies.

MES X85.9. Method and Theory in Middle Eastern Studies.

MES X86. Topics in the Middle East: Arts and Humanities.
Advanced studies of various aspects of the arts and humanities in the Middle East.

MES X86.1. The Arabic Humanities.
Explore the traditions formed in pre-modern Islamic humanities.

MES X86.11. Islamic Ornament.

MES X86.12. Islamic Studies: Disciplinary Introduction.

MES X86.14. Mizrahi Writing in Israel.

MES X86.15. Post-Zionist Perspectives in Israeli Literature.

MES X86.16. Readings in Contemporary Persian Political Writings.

MES X86.18. Seminar in Music, Gender, and Sexuality.

MES X86.19. Women in Scripture.

MES X86.2. Iranian Film and Fiction.

MES X86.21. Middle Eastern Modernities.
Explore how Arabic literature and thought changed over the course of the nineteenth and twentieth centuries through extended studies of poetry and prose written in Arabic. Examine the relationship of modernity to modernist literature in order to define what modernism means in an Arab/ic context.

MES X86.22. Reading the Maghreb.
Examine Maghrebi literature and film of both French and Arabic expression, along with works of psychoanalytic and postcolonial theory.

MES X86.23. Late Ottoman State and Society.
Study of state and society in the late Ottoman Empire (c. 1700-1922), focusing on social and economic life, religion, law, government, ideology, arts, and sciences.

MES X86.24. Islamic Feminism.
Exploration of the idea, history, figures, and writings of Islamic feminism, covering the 20th and 21st century.

MES X86.25. Gender, Clothing, and Identity in Muslim Societies.

MES X86.26. The New Middle East: A Critical Approach.
Examine new analytical approaches to understanding the Middle East, including its social and political dynamics, utilizing an interdisciplinary approach.

MES X86.27. Gender, Islam and Representation in the Modern Middle East.
Examine representations of women across majority Muslim countries and explore how women producers and consumers navigate within the framework of regulations set by religious and governmental bodies.

MES X86.28. The Qur'an and Its Interpretations.

MES X86.3. Reading Arabic Literature.
Examine the canons of Arabic literature through readings in translation.

MES X86.30. Space and Place in Literature.
Examine how the representation of space and place in literature contributes to understanding the global, social, and cultural dynamics since the nineteenth century. Explore the poetics of space as expressed in literature from the Middle East, Europe, and the United States.

MES X86.5. Theory and Practice in Literary Translation.

MES X86.6. Modern Arabic Poetry.
Explore Arabic poetic production.

MES X86.7. Arab Women Poets.

MES X86.9. Classical Arabic Ahkbar.

MES X89. Conference Course.
Supervised individual study of selected problems in Middle Eastern Studies.

MES X90M. Applied Methods and Practice in Middle Eastern Studies.

MES X94. Professional Development in Middle Eastern Studies.

MES X97. Proseminar.

Introduces the incoming Master of Arts student cohort to the Center of Middle Eastern Studies' faculty and their research.

MES X98. Thesis.

MES X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

MES X98T. Supervised Teaching in Middle Eastern Studies.

Teaching under the close supervision of a faculty member; weekly group meetings with the instructor, individual consultation, and reports throughout the teaching period.

Professional Courses

MES X19S. Topics in Middle Eastern Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded to work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

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MFG - Manufacturing Systems Engineering

Manufacturing Systems Engineering: MFG

Lower-Division Courses

MFG X97. Research Problems.

Problem selected by the student with approval of the graduate adviser.

Upper-Division Courses

MFG X97. Research Problems.

Problem selected by the student with approval of the graduate adviser.

Graduate Courses

MFG X97. Research Problems.

Problem selected by the student with approval of the graduate adviser.

MFG X97K. Topics in Advanced Manufacturing Systems Engineering.

Selection of topics based on needs of an adequate number of students.

MFG X97K.1. Advanced Packaging Materials.

MFG X97K.2. Signal Integrity in High-Speed Digital Systems.

MFG X97K.3. Thermal Management in Packaging.

MFG X97M. Graduate Research Internship.

Research associated with enrollment in the Graduate Research Internship Program (GRIP).

MFG X97S. Topics in Technical Communication: Graduate Seminar.

The master's degree program in manufacturing systems engineering includes three semester hours in this course. Practice and application of technical communication skills in engineering.

MFG X97S.1. Graduate Seminar in Technical Communication I.

MFG X97S.2. Graduate Seminar in Technical Communication II.

MFG X97S.3. Individual Instruction in Technical Communication.

MFG X98. Thesis.

MFG X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

Professional Courses

MFG X97. Research Problems.

Problem selected by the student with approval of the graduate adviser.

MIC - Microbiology

Microbiology: MIC

Lower-Division Courses

Upper-Division Courses

Graduate Courses

MIC X83K. Topics in Advanced Microbiology.

Examine microbiology topics in-depth.

MIC X86. Topics in Problems and Methods in the Life Sciences.

Examine the questions addressed in modern life sciences research and the experimental methods used. Focus on experimental reasoning and on the application of different techniques to solve problems.

MIC X90C. Topics in Microbiology.

Discuss current topics in microbiology

MIC X92. Research Problems.

MIC X94M. Bacterial Behavior and Signaling Mechanisms.

Examine molecular, cellular, organismal, ecological, and evolutionary biology of bacteria. Focus on a large number of bacteria, both Gram-positive and Gram-negative from four major phyla, that live and survive both as free-living microbes, in groups, and in both beneficial and pathogenic associations with eukaryotic hosts. Explore evolution of organelles and behaviors, including receiving and transducing signals that produce a variety of outcomes such as chemotaxis and motility, morphogenesis and development, secretion and virulence, quorum sensing and biofilms, bacterial warfare, and antibiotic production and tolerance.

MIC X95G. Structure and Function of Proteins and Membranes.

Explore advanced biochemistry concepts and the scientific process. Examine a detailed consideration of the structure and function of proteins, carbohydrates, lipids and nucleic acids, as well as discussion of enzyme mechanisms and kinetics.

MIC X95H. Cell Biology.

Examine mechanisms of growth control, cell cycle regulation, mitosis, cell signaling, protein targeting, and the integration of these processes.

MIC X95J. Genes, Genomes, and Gene Expression.

Examine prokaryotic and eukaryotic mechanisms of DNA replication and transcription; posttranscriptional processing of transcription products; and mechanism and regulation of the translation of messenger RNAs.

MIC X95M. Advanced Microbiology.

Explore technical and conceptual aspects of microbiology. Focus on experimental methods and design. Discuss career opportunities and development with industry professionals.

MIC X98. Thesis.

MIC X98R. Master's Report.

Prepare a report to fulfill the requirement for the master's degree under the report option.

MIC X99W. Dissertation.

Professional Courses

MIS - Management Information Systems

Management Information Systems: MIS

Lower-Division Courses

MIS X01. Introduction to Information Technology Management.
Explores how information technology helps to achieve competitive advantage and improve decision making, business processes, operations, and organizational design. Uses a cross-functional perspective to recognize the role of technology across business activities of management, finance, marketing, human resources, and operations.

MIS X01H. Introduction to Information Technology Management: Honors.
Explores how information technology helps to achieve competitive advantage and improve decision making, business processes, operations, and organizational design. Uses a cross-functional perspective to recognize the role of technology across business activities of management, finance, marketing, human resources, and operations.

MIS X02F. Foundations of Information Technology Management.
Explores how information technology helps to achieve competitive advantage and improve decision making, business processes, operations, and organizational design. Uses a cross-functional perspective to recognize the role of technology across business activities of management, finance, marketing, human resources, and operations.

MIS X04. Introduction to Problem Solving and Programming.
Programming skills for creating easy-to-maintain systems for business applications. Object-oriented and structured methodologies with Python.

MIS X10. Introduction to Management Information Systems.
Basic computer terminology, hardware and software, communications technology, graphics, systems analysis and design, and issues arising out of the rapidly evolving field of information systems. Students are expected to achieve a working knowledge of personal computer software, including operating system software and environments, as well as spreadsheets, analytical graphics, databases, and presentation software. Hands-on experience with the Internet and use of electronic mail.

MIS X19S. Topics in Management Information Systems.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

MIS X25. Database Management.
Beginning and intermediate topics in data modeling for relational database management systems.

MIS X29S. Topics in Management Information Systems.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MIS X32F. Topics in Foundations of Management Information Systems.

MIS X33K. Web Application Development.
Concepts and practices of information systems. Advanced programming techniques used to generate menu-driven applications.

MIS X40S. Topics in Management Information Systems.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.

MIS X66P. Management Information Systems Practicum.
Students apply skills in their major area and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise.

MIS X71T. Topics in Management Information Systems.

MIS X72T. Topics in Management Information Systems.

MIS X72T.1. Open Innovation.

MIS X72T.11. Advanced Analytics Programming.
Focus on data analysis using the Python programming language. Explore machine learning tasks such as classification and clustering.

MIS X72T.12. Information Technology for Supply Chains.
Learn how information technology is used to coordinate supply chain activities across different industries.

MIS X72T.17. Health Care Analytics.
Explore key management challenges and how data may be leveraged to guide decisions and improve operations, with the unifying theme of providing health care services in a manner that leads to lower cost and higher quality.

MIS X72T.2. IT Audit and Security.

MIS X72T.22. Predictive Analytics and Data Mining.
Introduction to data mining problems and tools to enhance managerial decision making at all levels of the organization. Discuss scenarios, including the use of data mining to support customer relationship management (CRM) decisions, decisions in the entertainment industry, financial trading, and even professional sports teams.

MIS X72T.23. Social Media Analytics.
Introduction to social network analysis for business value using statistical optimization and decision theory. Analyze online search and conversation data for market sensing, sentiments, product quality, reputation, recommendations, and brand awareness.

MIS X72T.24. Data-Driven Revenue Management.
Use data-driven tactics and strategies to predict consumer demand and optimize price and capacity/inventory availability to maximize revenue or profit. Explore demand analytics and revenue management techniques, produce rigorous and practical insights, and develop data analysis and optimization skills, based on business cases, datasets, and exercises. Examine diverse contexts and industries, such as conventional retailing, e-commerce, airline/hotel, and contemporary platform and cloud services (e.g., Uber, Dropbox, Netflix, AWS), by utilizing software (Excel, R, or Python) to build models, conduct optimization, and develop insights for a variety of revenue management examples.

MIS X72T.25. User Generated Content Analytics.
Focus on a gamut of questions ranging from strategic to operational matters pertaining to a firm's social media initiatives, metrics to capture relevant outcomes, and predictive analysis to link social media chatter to business performance.

MIS X72T.3. Fundamentals of Health IT.

MIS X72T.4. Mobile Apps and Web Services.
Explore mobile and web services technology models and architectures.

MIS X72T.9. Enterprise Computing.

MIS X74. Business System Development.

Provides foundation in business system analysis, project management, planning, design, and implementation using basic business knowledge and computer skills.

MIS X75. Strategic Information Technology Management.

Designed to develop an understanding and appreciation for the role of information technology in the context of a firm's strategy. Explores the impact of information technology on the economy and business performance, the emergence of electronic business applications and organizational and market transformation, and the nature of technology-driven business models and strategies.

MIS X79. Independent Research in Management Information Systems.

Graduate Courses

MIS X80. Topics in Seminar in Organizational Communication.

Selected topics in organizational communication, written and oral.

MIS X80.1. Research Methodology in Business and Organizational Communication.

MIS X80.2. Projects, Proposals, and Presentations.

Communicating effectively in business using advanced writing and presentation concepts and techniques to increase individual and team effectiveness.

MIS X80.3. Advanced Report Writing, Professional Reports, and Other Scholarly Papers.

MIS X80D. Database Management.

Explore designing, building, and implementing a relational database to improve company operations and reporting. Examine how databases affect analytics and app development.

MIS X80N. Topics in Information Management.

MIS X80N.2. Managing Information.

Understanding, designing, and controlling the information processing activities of an organization. Complements Business Administration 380C by focusing on information systems rather than information technology. Includes business intelligence, knowledge management, data modeling, group decision support systems, and electronic commerce.

MIS X80N.3. Business Process Excellence.

Emerging technology, data and process modeling (flow focus for integrated applications), reengineering, and change management.

MIS X80N.4. Digital Economy and Commerce.

MIS X80P. Problem Solving and Programming.

Explore programming skills for creating easy-to-maintain systems for business applications. Examine object-oriented and structured methodologies with Python.

MIS X81N. Topics in Information Systems.

Selected topics in information technology and management of information systems development.

MIS X81N.1. Introduction to Data Management.

MIS X81N.10. Change Management Practicum II.

Project-oriented course focusing on implementation of organizational change.

MIS X81N.11. Research in Information Technology.

MIS X81N.12. Advanced Information Systems Readings.

MIS X81N.13. Advanced Data Communications.

MIS X81N.14. Global Information Technology Management.

MIS X81N.15. Introduction to Electronic Commerce.

MIS X81N.16. Information Systems Projects.

MIS X81N.17. Client/Server Development.

MIS X81N.18. Innovation, Technology, and Commercialization.

MIS X81N.19. Technology Transfer: Theory and Practice.

MIS X81N.2. Research in Information Systems: Organizational and Behavioral Perspectives.

MIS X81N.20. Cross-Cultural Issues in Information Systems.

MIS X81N.21. Seminar in Multimedia Systems.

MIS X81N.22. Information Technology Strategy and Services.

MIS X81N.23. E-Business: Strategy and Policy.

The responsibilities of the strategist for choosing, developing, and managing an overall e-business firm strategy in uncertain market, technology, and policy environments.

MIS X81N.24. Global E-Business: Theory and Cases.

Analysis of case studies, incorporating Oracle and other Web-based distributed computing solutions.

MIS X81N.25. E-Security and E-Forensic Frameworks.

Discussion and hands-on use of current Web and distributed computing security software and e-forensic solutions.

MIS X81N.26. Research Methods in Information Systems.

Overview of research methods used to study information systems problems. Fundamental concepts and criteria for use with and evaluation of quantitative and qualitative, positivist and interpretive research methods. Current state-of-the-art applications.

MIS X81N.27. Strategies for Networked Economy.

Analyzes the competitive dynamics of platform-mediated networks; explores innovations like cloud computing in supporting network-based competition, the implications of information technology-enabled global sourcing, and business intelligence for business value and competitive advantage; and discusses the role of information technology in business transformation and making a case for information technology investments.

MIS X81N.28. Data Management.

Explore general database concepts such as E-R modeling, relational database design, and advanced SQL. Design and develop mission-critical web-based business applications using databases. Explore data warehouse design and advanced analytics functions within SQL.

MIS X81N.29. Digital Strategies for Enterprise Transformation.

Analyze the competitive dynamics of platform-mediated business models; explore innovations such as cloud computing and Internet of things in supporting platform-based competition; study the implications of information technology-enabled disruption; understand applications of artificial intelligence and machine learning to develop competitive advantage; and discuss the role of information technology in business transformation.

MIS X81N.3. Strategic Analysis for High-Tech Industries.

MIS X81N.30. Privacy Preserving Analytics.

MIS X81N.31. Artificial Intelligence and Machine Learning for Managers.

Discuss artificial intelligence (AI) and machine learning (ML) through a review of AI and ML concepts, tools, and the complete AI/ML lifecycle in the context of tackling business and organizational challenges.

MIS X81N.32. Artificial Intelligence Strategies for Digital Transformation.
MIS X81N.33. Artificial Intelligence in Business and Society.
MIS X81N.34. Artificial Intelligence in Healthcare.
MIS X81N.35. Modern Data Management.
Explore modern data management practices, with a strong focus on design and implementation of scalable, cloud-native data systems. Learn to manage diverse data types--structured, semi-structured, and unstructured--across their full lifecycle. Examine the role of cloud infrastructure in enabling agile, secure, and scalable data solutions.
MIS X81N.4. Decision Support Systems.
MIS X81N.5. Information Systems Design and Implementation.
MIS X81N.6. Research Seminar.
MIS X81N.7. Information and Knowledge Management.
MIS X81N.8. Managing Disruptive Innovations.
Focuses on the management of disruptive technologies, including analyzing whether an emerging technology is sustaining or disruptive, identifying new markets for disruptive technologies, justifying investments in disruptive technologies, implementing disruptive technologies, and appropriating value from them.
MIS X81N.9. Change Management Practicum I.
Project-oriented course focusing on design of organizational change.
MIS X82N. Topics in Information Management.
MIS X82N.1. Managing Financial Information.
Data modeling and information management for investment analysis and financial systems.
MIS X82N.10. Data Mining for Marketing.
MIS X82N.11. Business Intelligence Capstone.
Explores foundations of business analytics related to database management, data analysis techniques, and business decision making to solve a business problem of a client.
MIS X82N.12. Social Media Analytics.
An introduction to social network analysis for business value using statistical optimization and decision theory, including the foundation for analyzing online search and conversation data for market sensing, sentiments, product quality, reputation, recommendations, and brand awareness.
MIS X82N.13. Predictive Analytics and Data Mining.
MIS X82N.14. Business Data Science.
An introduction to basic concepts, methodology, algorithms, and technology used in business analytics and decision making. Explore concepts from probabilistic modeling, analysis and experimental design. Examine the basics of modern regression and classification, clustering, visualization, dimensionality reduction, A/B Testing and an introduction to deep learning.
MIS X82N.15. Business Analytics Capstone.
MIS X82N.16. Fundamentals of Neural Networks and Machine Learning.
Explore an introduction to fundamental concepts, methodology, algorithms, and technology used in business analytics and decision making covering the most powerful concepts and algorithms from probabilistic modeling, analysis and machine learning.
MIS X82N.18. Digital Health Innovation.
Focus on digital innovation in the healthcare industry that is driven by advances in information technology and artificial intelligence. Learn about different types of IT-enabled innovations that are revolutionizing healthcare delivery, develop technology-enabled strategies to enhance innovation, and evaluate how new types of AI-enabled innovations create value for patients and other stakeholders.
MIS X82N.2. E-Business Change.
MIS X82N.3. E-Business Application Development.
MIS X82N.4. Cross-Functional Systems Integration.
MIS X82N.5. Managing Complexity.
MIS X82N.6. Computer Auditing and Systems Security.
MIS X82N.7. Project Management in Fast-Cycle Environments.
MIS X82N.8. Balanced Scoreboard: An Information Systems Perspective.
Theory and tools that support the design and implementation of balanced scoreboard evaluation systems.
MIS X83M. Supply Chain Management for Executives.
Examine frameworks for understanding how to transform supply chain strategy in the face of pressures from technological, social, and political disruption.
MIS X83N. Topics in Information-Intensive Business Processes.
Topics in management of information in specific industries or application areas.
MIS X83N.1. Health Care Management.
MIS X83N.10. Practicum in Multimedia Systems Development.
MIS X83N.12. E-Business Innovation.
MIS X83N.13. Managing Innovation in a Global Company.
Examines innovation-based business strategies that rely on internal and external sources, processes in different organization forms, and market structures.
MIS X83N.2. Health Services Seminar.
MIS X83N.3. Customer Insights.
MIS X83N.4. Supply Chain Management.
MIS X83N.5. Computer Tools for Investment Science.
MIS X83N.6. Trading-Floor Technology.
MIS X84N. Topics in Business Analytics.
Selected topics in business analytics.
MIS X85. Management Information Systems.
Overview of hardware and software life cycles; in-depth considerations of program design, including experience programming for large-scale computer systems in COBOL, FORTRAN, and/or BASIC.
MIS X85G. Machine Learning and Artificial Intelligence for Executives.
Introduction to artificial intelligence (AI) and machine learning (ML) through a review of AI and ML concepts, tools, and the complete AI/ML lifecycle in the context of tackling business and organizational challenges.
MIS X85N. Topics in Information Technology and Management.
Selected topics in information technology and management.
MIS X85N.1. Big Data and Distributed Programming.
Explore a range of subjects required for developing modern applications that operate over vast data sets that are potentially distributed in nature. Consider alternative technologies and architectures for working with big data, examining the pros and cons of the different approaches.
MIS X85N.10. User Generated Content Analytics.
Generate business and social insights from user-generated content (e.g., text, images, video, etc.) through the use of text analytics, sentiment analysis, visualization techniques, etc.
MIS X85N.11. Advanced Data Mining and Web Analytics.
Examine a variety of data mining and machine learning techniques for descriptive, predictive and prescriptive analytics. Explore approaches to analyzing different types of information from the Web (web structure, content, usage).
MIS X85N.12. Healthcare IT and Analytics.
Design new healthcare solutions using emerging information technologies such as Internet of Things, cognitive computing, artificial intelligence, the cloud, mobile, and 3D and 4D printing.

MIS X85N.13. Emerging Technologies II.
Build a strong business and technical foundation for blockchain. Discuss business inefficiencies that can be addressed by blockchain technology. Examine cryptology and distributed computing that blockchain systems rely on, including an overview of Bitcoin. Explore current research problems, perform programming assignments, lead discussions, and hear presentations from industry and academic researchers.

MIS X85N.14. Programming Blockchain.
Cover the development of the bitcoin protocol from scratch. Explore basic libraries to build the protocol using a step-by-step approach. Examine the primary and secondary aspects of scaling, mining and operating a bitcoin protocol based system.

MIS X85N.15. Unstructured Data Analytics.
Generate business and social insights from user generated content (e.g., text, images, video, etc.) through the use of text analytics, sentiment analysis, visualization techniques, etc.

MIS X85N.16. Math Foundations of Artificial Intelligence.
Explore the mathematical foundations of AI including probability theory and linear algebra, concepts necessary as foundational knowledge for other AI related courses in program.

MIS X85N.17. Advanced Programming and Application Development II.
Learn fundamentals of modern cloud native applications, including how to design, develop, and operate them, as well as distributed programming fundamentals. Examine machine learning design patterns for big data and distributed programming concepts.

MIS X85N.18. Problem Solving Unstructured Data Generative Artificial Intelligence.
Explore how modern enterprises can harness the combined power of GenAI and traditional unstructured data analytics to unlock business value. Learn a broad range of business questions and analytics driven use cases, spanning decision-making, process optimization, and innovation.

MIS X85N.19. Strategic Information Technology and Digital Transformation.
Examine information technology-enabled digital transformation and explore how digitalization impacts firm competition and enables industry transformation. Learn the role of digital business models, how firms can compete in disruptive ecosystems, to think critically about the benefit and challenge of strategic AI implementations and change management in real-world applications.

MIS X85N.2. Emerging Technologies I.
Explore all aspects of the Internet of Things (IoT) product life-cycle. Interface with the devices (sensors/actuators) that collect data and affect the environment. Explore network protocols for communication with these constrained devices. Examine programming of the back-end services that host, manipulate and disseminate the collected data. Study the development of apps that facilitate human interaction with these devices and the analysis of the data they produce. Examine security, privacy and performance considerations specific to IoT.

MIS X85N.20. Risk Governance Artificial Intelligence and Intelligent Automation.
Explore how to govern and control the complex cybersecurity, privacy, and IT risk organizations face in an era increasingly shaped by artificial intelligence (AI) and intelligent automation technologies. Discuss privacy-enhancing technology and ethical decision-making framework that help address the novel challenge posed by intelligent systems.

MIS X85N.21. Artificial Intelligence in the Enterprise.
Explore how to design and deploy artificial-intelligence (AI) capability across the enterprise, including mapping AI solutions to specific business requirements and align them with strategic goals. Learn how to identify, assess, and prepare high-quality data essential for AI success and how to select and scale a suitable model and integrate with existing systems and processes. Examine governance and continuous-improvement practices that keep AI initiative reliable and effective over the long term.

MIS X85N.22. Generative Artificial Intelligence I.
Explore a basic working knowledge of the latest algorithms, business applications and limitations of what data science and AI can accomplish. Learn about attention mechanism and the transformer, image and language embeddings, large language models, multi-modal models, and the important latest idea in reasoning, as well as some of the key emerging issues in security and reliability.

MIS X85N.23. Generative Artificial Intelligence II.
Learn about state-of-art Generative AI (GenAI) models for image, video and language generation and how they are used in a business setting. Explore their architecture and mathematical foundation. Learn about machine learning models for decision-making.

MIS X85N.24. Managing Data Production For Artificial Intelligence.
Explore the emerging discipline of managing data products designed to power GenAI applications. Learn how to curate, package, and deliver reusable datasets and APIs optimized for retrieval-augmented generation, synthetic data generation, and LLM prompt engineering. Examine fitness for use, economic value, and continuous improvement of data assets.

MIS X85N.25. Data Governance and Responsible Artificial Intelligence.
Apply data governance framework to ensure the integrity, transparency, and fairness of GenAI system. Learn how to embed observability into AI workflows–tracking provenance, bias, quality metrics, and access rights across the AI lifecycle. Connect the socio-technical principles of data governance with the operational reality of GenAI to implement trust-by-design practices within enterprise AI programs.

MIS X85N.26. Human Dimensions Of Cybersecurity.
Examine emerging security and privacy vulnerability in AI systems, with a focus on human manipulation vectors: prompt injection, phishing via AI-generated content, identity spoofing, and malicious feedback loops. Learn how adversaries exploit both model behavior and user trust, and how to counteract the risk through red teaming, user training, behavior-aware safeguards, and ethical AI design. Evaluate human-AI interaction security and apply layered defense that reinforce public trust in AI systems.

MIS X85N.27. Technical Foundation Artificial Intelligence Driven Cybersecurity.
Investigate the technical foundation of cybersecurity, with a particular focus on an emerging threat and challenge at the intersection of cybersecurity and artificial intelligence (AI). Explore how AI functions both as an enabler of a cyberattack and as a vulnerable target, requiring robust security defenses.

MIS X85N.28. Advanced Program and Application Development I.
Learn advanced programming and foundational software engineering concepts essential for developing robust, scalable web applications through practical, hands-on exploration using a traditional approach. Emphasis is on mastering the most popular full-stack framework, while reinforcing critical topics such as source code management, agile methodology, the software development life cycle (SDLC), and common design patterns.

MIS X85N.3. IT Security, Policy, and Compliance.
Explore the prevention and mitigation of data security and privacy risks in newly designed digital artifacts through IT governance, risk, and control frameworks as well as relevant laws, regulations, and industry standards.

MIS X85N.4. IT Capstone.
Develop real-life business and social solutions using emerging information technologies. Engage with industry partners to explore business context for IT Capstone projects.

MIS X85N.5. Cognitive Computing.
An overview of convolutional neural networks, recurrent neural networks and generative adversarial networks. Explore deep learning and artificial neural networks. Applications include computer vision, image and time series modeling as well as computational aspects of deep learning over big datasets. Utilize Python and Tensorflow, among other tools.
MIS X85N.6. Strategic IT and Change Management.
Explore the strategic management of new IT-embedded product and service innovations and their incorporation into the digital business ecosystems of organizations.
MIS X85N.7. IT and Supply Chain Management.
Examine the role of Information Technology in managing Supply Chains. Explore the IT capabilities needed by firms to coordinate their operations, collaborate with business partners and manage uncertainty. Illustrate the role of technologies and tools like ERP platform, ABAP programming, XML, web services, distributed computing and machine learning to improve the performance of supply chains.
MIS X85N.8. Design Methods.
Utilize design tools and methods to understand user needs, frame business opportunities, and design solutions. Examine design from both organizational and technical perspectives. Conduct research with end users, synthesize data, prototype solution ideas, and communicate compelling stories. Undertake design challenges that focus on emerging information technologies, including the internet of things (IoT), cognitive computing, AI, cloud, mobile, and 3D/4D printing.
MIS X85N.9. Advanced Programming and App Development.
Explore various approaches to modern app development, including required advanced programming and software engineering concepts. Explore approaches to app development ranging from native platform programming through programming frameworks that allow cross-platform development, to high-level approaches based on web frameworks.
MIS X91S. Independent Study.
MIS X98. Thesis.
MIS X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
MIS X99W. Dissertation.

Professional Courses

MKT - Marketing

Marketing: MKT

Lower-Division Courses

MKT X19S. Topics in Marketing.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Marketing. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

MKT X20F. Foundations of Marketing.
Introduction to basic concepts and terminology in marketing: the process of developing marketing strategy, the role of marketing activities within the firm, external influences that affect the development of marketing strategy, and basic analytical tools appropriate to marketing decision making.
MKT X29S. Topics in Marketing.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Marketing. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
MKT X32F. Topics in Foundations of Marketing.
MKT X37. Principles of Marketing.
Designed to expand understanding of the marketing system and basic marketing activities and to provide a framework for marketing strategy development and implementation of marketing tools and tactics.
MKT X37H. Principles of Marketing: Honors.
Designed to expand understanding of the marketing system and basic marketing activities and to provide a framework for marketing strategy development and implementation of marketing tools and tactics.
MKT X37N. Introduction to Marketing in New York.
Experience a globally connected city. Study in New York City, home to major industries including arts and entertainment, travel and hospitality, technology, and financial services, as well as major marketing firms and agencies. Consider the marketing strategies of New York industries and develop an understanding of the marketing system and basic marketing frameworks for marketing strategy creation, and implementation of marketing tools and tactics.
MKT X38. Promotional Policies.
Analysis of the use of promotional methods in marketing: advertising, personal selling, sales promotion, and indirect promotion; their social and economic consequences; their coordination and relationship to other business functions.
MKT X40S. Topics in Marketing.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Marketing. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.
MKT X54. Topics in Professional Sales and Business Development.
MKT X54.1. Building Sales Relationships.
Explore the theoretical and practical role of communication in the development of long-term client relationships. Examine the consultative sales process, including prospecting, assessing needs, handling objections, presenting, closing, and following up with clients. Investigate on how technology can help or hinder communication.
MKT X54.11. Strategy Consulting.
Introduction to the science and art of marketing strategy consulting. Explore the consulting industry and the key concepts of successful consulting. Execute a complete consulting engagement with an actual client.
MKT X54.2. Sales Strategy and Steering.
MKT X54.26. Data Analytics for Marketing.
Introduction to making more effective marketing decisions through the use of data. Examine sources, collecting and cleansing methods, conducting analyses, and presenting of data. Use real-world data and applications from a variety of industries.
MKT X54.3. Analytical Tools for Sales.
MKT X54.4. Marketing Channels.
Explore the critically important "fourth P" of marketing: how and where to make the value proposition available to customers. Discuss analysis of a direct channel versus the use of intermediaries, the decision to sell online and/or in brick and mortar locations, and many other current marketing channel topics.
MKT X54.5. Sales Management and Strategy.
MKT X54.6. Consumer Behavior.
MKT X54.7. Consumer Behavior in a Digital World.
Examine the core psychological processes underlying consumer decision-making and behavior, and the impact of recent technological advancements on consumer behavior in on and offline environments.

MKT X54.8. Integrated Marketing Communications.
Explore basic message development and dissemination across ever evolving media types; focusing on the brain and emotions, as well as an intense examination of persuasion and core belief formation.

MKT X54.9. Business to Business Marketing.
Focus on business to business marketing skills including: organizational buying and selling models; launching business to business products and services; pricing a product line; sales management and support; managing distribution partners; and social media for business to business promotion.

MKT X60. Information and Analysis.
The development and analysis of information for marketing management sources.

MKT X63. Professional Selling and Sales Management.
Policies, operation, coordination, and control of personal selling activities in marketing organizations.

MKT X66P. Marketing Practicum.
Students apply skills in their major area and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise.

MKT X70. Marketing Policies.
A capstone course focusing on case studies of advanced marketing problems, including analysis of markets, promotional planning, pricing, and distribution coordination. Designed to help the student develop a comprehensive understanding of marketing policy and strategy formulation.

MKT X70K. Retail Merchandising.
Designed to familiarize the student with all the activities associated with the sale of goods and services for final consumption and to provide an overview of the decisions involved in merchandising and management, including factors that influence and determine those decisions.

MKT X71T. Topics in Marketing.

MKT X72T. Topics in Marketing.

MKT X72T.1. Corporate Political Strategy.
Study how the political and regulatory environment enables and constrains business activity and how individual firms and groups of firms can ethically yet effectively lobby legislatures, negotiate with regulators, create industry associations, make campaign contributions, and engage in other political activity to gain competitive advantage.

MKT X72T.11. Brand Management.
Assess the strategic importance of building, leveraging, and defending strong brands through various branding, concepts, frameworks, and strategies. Explore current opportunities and challenges in a variety of industries and markets, including consumer packaged goods, business-to-business, services, technology, online, and global.

MKT X72T.13. Data Driven Marketing.
Explore marketing research analytics using various types of data analytics and statistical learning modes.

MKT X72T.14. Global Marketing.

MKT X72T.19. Pricing and Channels.
Explore the concept, theory, and latest thinking that bares on key issues in pricing and channels; taking the perspective of the marketing manager. Apply concepts and theory, through extensive case analyses, to solve pricing and channel problems in realistic business settings.

MKT X72T.21. Strategic Product Management.
Explore the principles of product management, including identifying new growth opportunities, assessing the health and profitability of a product portfolio, developing new products, and positioning and repositioning of current products. Utilize analytical tools, case discussions, and real-world derived projects.

MKT X72T.22. Predictive Analytics and Data Mining.
Introduction to data mining problems and tools to enhance managerial decision making at all levels of the organization. Discuss scenarios, including the use of data mining to support customer relationship management (CRM) decisions, decisions in the entertainment industry, financial trading, and even professional sports teams.

MKT X72T.24. Digital Marketing.
Explore online marketing strategies; navigate online advertising, search, social media, and online privacy; and design and implement an experiment to evaluate the effectiveness of online business decisions.

MKT X72T.25. Digital Marketing Strategy and Growth.
Analyze strategic frameworks that support effective digital marketing decision-making in fast-changing, AI-driven marketplaces. Examine customer value models, including Customer Lifetime Value and the "Jobs To Be Done" framework. Apply principles of entrepreneurial marketing, category design, and brand building using limited resources. Develop full digital marketing programs using proprietary tools to evaluate, implement, and optimize strategies across SEO, SEM, content, email, and social media channels.

MKT X72T.26. Corporate Governance.
Learn about serving as advisors to Boards of Directors or on Boards of Directors of business for profit and non-profit organizations.

MKT X72T.27. Reputational Risk and Crisis Management.
Explore what risk is, crisis management techniques, market communications, and reputational preservation.

MKT X72T.28. Science of Good Business.
Examine theory, data, insights, and empirical evidence from behavioral sciences to learn how individuals and organizations can achieve "good in a business context. Identify actionable, practical applications, based on design thinking principles, that can be implemented in the workplace.

MKT X72T.4. Small Business and Entrepreneurial Marketing.
Conduct market analysis aimed to unlock customer motivations, willingness to pay, and value creation; monetization/business models that entrepreneurial ventures can use; building a marketing plan for a start-up venture, including product, price, promotion, and channel considerations; and use data-driven analytics and metrics to drive entrepreneurial marketing decision making.

MKT X72T.5. Design Thinking for Business Innovation.
Focus on theoretical understanding of design thinking, which includes customer-focus, cross-functional collaboration, and an iterative process for refining products and services.

MKT X72T.8. Creativity and Leadership.

MKT X78. Marketing Micro-topics.
Focuses on contemporary, in-demand marketing topics to help develop the foundational knowledge, hands-on experience, and skills for today's marketing ecosystem.

MKT X78.1. Data Storytelling and Visualization.
Investigate data-driven marketing, identifying stories in data and utilizing visualizations to share that story. Explore Tableau, data literacy, visualization principles, and communicating effectively using data.

MKT X78.2. Negotiating Sales Solutions.

MKT X78.3. International Selling.

MKT X78.4. Sales Technology and Artificial Intelligence.

MKT X78.5. Selling in High Technology Industries.

MKT X78.6. Predictive Modeling in Sales.

MKT X78.7. Professional Purchasing and Procurement.
Explore the role of purchasing and procurement in a business. Examine goals and techniques of purchasing professionals; common structures of purchasing functions in a business; management of suppliers and vendors to achieve goals; cost, resource, and purchase timing management; bid proposal, negotiations, and other strategic purchasing decisions and associated marketing activities.

MKT X79C. Independent Research in Marketing.

Graduate Courses

MKT X82. Topics in Analysis of Markets.
Introduction to the data and tools used to analyze the business environment and enable marketing decision making. Uses real world data and problems to evaluate strategic market opportunities and assess the impact of marketing decisions in the marketplace.

Discusses analytical and empirical tools that address strategic issues of market sizing, market selection, and competitive analysis, as well as product management, customer management, and marketing function management decisions.

MKT X82.11. Quality and Competitiveness.
The globalization of competition, the challenge to the United States position in the world economy, and the total quality management movement as a competitive response.

MKT X82.12. Customer Strategy.
External resources for competitiveness, such as customer relationships that can help deliver superior quality and drive down costs. The course brings together experienced managers and students who have interned with them to explore issues underlying total quality in marketing.

MKT X82.13. Pricing and Distribution Channel Strategies.
Analysis of distribution and pricing decisions, factors that influence these decisions, and the role of pricing and distribution in the formulation of marketing strategy. Lecture/discussions, cases, and group projects.

MKT X82.14. Marketing of Services.
Organizations that market services rather than goods; differences between tangible goods and services; unique service-marketing problems and opportunities.

MKT X82.15. Marketing High-Tech Products.
The forces driving competition in industrial markets, with emphasis on technological products. This course focuses on honing students' analytical skills for leveraging marketing decision making.

MKT X82.16. Project Management in Fast-Cycle Environments.

MKT X82.18. Leveraging Marketing Metrics.
Examines the link between marketing decisions and financial performance.

MKT X82.19. Clients, Consulting, and Communication.

MKT X82.2. Analytical Methods in Marketing.
Basic analytical techniques that are used to improve market-oriented decisions: brand-switching, linear programming applications in advertising, competitive bidding, distribution and location models, conjoint measurement, and multivariate data analysis for strategy formulation. The course stresses the use of the models to deal with marketing variables and problems and the acquisition of relevant data. Case analyses and projects.

MKT X82.20. Human Insights.

MKT X82.21. Brand and Growth Strategy.
Examine the basic building blocks of growing and managing a brand while integrating it seamlessly into the overall marketing activities of the firm. Assess the health and profitability of a product portfolio, develop go-to-market strategies for new products, and discuss positioning and repositioning of current products.

MKT X82.22. Marketing Analytics.

MKT X82.23. Advanced Data Analytics in Marketing.

MKT X82.24. Consumer Well Being.

MKT X82.25. Data Visualization and Storytelling.

MKT X82.26. Predictive Analytics and Data Mining.

MKT X82.27. Behavioral Economics.

MKT X82.28. Connecting with Customers in a Digital World.

MKT X82.29. Consumer Behavior in a Digital World.

MKT X82.3. Business and Public Policy.
Provides a historical framework in which to study key issues in contemporary government and business relations in the United States and, to a limited extent, in other countries. Settings range from the Depression and the New Deal to more recent periods of social regulation of business; topics range from the role of the international oil companies to the deregulation of the airlines.

MKT X82.30. Brand and Growth Strategy.
Explore the principles of product management including assessing the health and profitability of a product portfolio, developing go-to-market strategies for new products, and positioning and repositioning of current products. Examine the basic building blocks

MKT X82.31. Corporate Governance.

MKT X82.32. Creativity and Leadership.

MKT X82.33. Design Thinking for Business Innovation.
Explore the overall design process, along with specific research tools and evaluation methodologies to build empathy and define key customer problems to solve. Discuss best practices for idea generation, prototyping potential solutions, and testing through iterative cycles.

MKT X82.34. Invisible Global Market.

MKT X82.35. Marketing for Nonmarketers.

MKT X82.36. Pricing and Channels.

MKT X82.37. Strategic Branding.

MKT X82.38. Science of Good Business.
Explore what good business means in multiple ways: doing well; being good; and feeling good. Examine theory, data, insights, and empirical evidence from behavioral sciences to learn how individuals and organizations can achieve "good" in a business context. Identify actionable practical applications, based on design thinking principles, that can actually be implemented in the workplace.

MKT X82.39. Experimental Design.

MKT X82.4. Strategic Marketing.
Strategic marketing decisions made at the corporate and business-unit levels, and organizational issues that affect the formulation and implementation of marketing strategy; an experiential course, taught primarily through the case method and a marketing strategy computer simulation game.

MKT X82.40. Data Analysis.

MKT X82.41. Advanced Marketing Management.

MKT X82.42. Digital Marketing and Measure.

MKT X82.43. Marketing Intelligence Capstone.

MKT X82.44. Digital Marketing.
Examine the strategies, frameworks, and platforms driving digital marketing success. Analyze how brands use data-informed insights, paid and organic channels, and evolving consumer behaviors to create measurable impact. Explore frameworks for digital strategy, content development, and performance optimization.

MKT X82.45. Influence of Marketing on Society.

MKT X82.46. Artificial Intelligence for Business Leaders.

MKT X82.49. Sales Management and Strategy.

MKT X82.5. Current Topics in Consumer Marketing.
Reasons for the shift in allocation from advertising to promotion, and implications of this shift for the structure of packaged-goods marketing.

MKT X82.51. Analysis of Markets.

MKT X82.52. Marketing Analytics and Information.

MKT X82.53. Analytical Tools for Marketing.

MKT X82.54. Data Driven Marketing.

MKT X82.55. Data Analytics and Dynamic Pricing.
Discuss nonlinear pricing, price customization, revenue management, bundling and versioning, channel pricing and auction designs in dynamic settings. Using real data sets and detailed exercises, apply these tools and concepts to diverse contexts and industries ranging from search engines to airlines, hotels and casinos to entertainment, and online retailing, utilities, social media, and self-improvement products. Explore analytical skills that can be applied in diverse settings ranging from business to policy issues and major global issues that confront an informed citizenry.

MKT X82.56. Marketing Analytics.
Explore an introduction to a variety of approaches to analyzing firm marketing actions. Discuss preference measurement, market segmentation and targeting, customer economics, product and brand policies, pricing, advertising, and digital marketing.

MKT X82.58. Product Management.

MKT X82.6. Buyer Behavior in Global Markets.

The application of marketing strategy and buyer behavior principles in the global environment.

MKT X82.7. Industrial Marketing.

Concepts, theories, and models from industrial marketing strategy provide the foundation for case analyses of a variety of technology-intensive firms, primarily in electronics, data processing, and pharmaceuticals.

MKT X82.71. CCIMS Marketing Fellows Practicum.

MKT X82.72. Marketing and Customer Insights Practicum.

MKT X82.8. Product Policy and Tactics.

Tactical and strategic product decisions, with emphasis on the former. Consumer goods, with some attention to the marketing needs of industrial products and service industries; decisions about a firm's product portfolio. Uses case analyses and personal computer-oriented analytical exercises.

MKT X82.9. Marketing Strategy for Small Business.

Basics of marketing strategy and marketing plan development; students develop such a plan for a beginning business.

MKT X82C. Product Management for Executives.

Explore product management with a focus on contemporary, in-demand marketing areas that provide the foundational knowledge, hands-on experience, and skills for today's marketing ecosystem.

MKT X82E. Strategic Marketing for Executives.

Explore how to think strategically about marketing issues; how to analyze a business situation; and how to formulate, implement, and monitor a marketing plan through a blend of lectures, case studies, and experiential simulations.

MKT X83. Acquisition, Consumption, and Disposition Behavior.

The acquisition, consumption, and disposition of goods, services, time, and ideas by individuals, families, and organizations, examined from a managerial viewpoint.

MKT X84. Marketing Research Methodology.

An applied approach to advanced marketing research, covering both the design and execution of marketing research projects and the management of the marketing research function.

MKT X86. Advanced Marketing Management.

Major marketing concepts and variables, their interrelationships, and their implications for policymaking, problem solving, and strategy formulation.

MKT X88. Marketing Micro-topics.

Focuses on contemporary, in-demand marketing topics to help develop the foundational knowledge, hands-on experience, and skills for today's marketing ecosystem.

MKT X88.1. Business Development Marketing Sales Leadership.

MKT X88.2. Data Storytelling and Visualization.

MKT X88.3. Leveraging New Media Channels.

Analyze the most important trends shaping media worldwide, ranging from the emergence of content creators to how people consume content to why generative search engines have an important place next to search engine optimization, such as GEO and SEO. Examine media models that are utilized by the public and private sector and explore how the current marketing offering will evolve in the next three to five years.

MKT X88.4. SQL for Business and Marketing.

MKT X91S. Independent Study.

MKT X97. Seminar: Current Topics in Marketing.

Survey and analysis of current marketing problems; their significance, evaluation, and probable outcome.

MKT X97.10. Marketing Models II.

Introduces state-of-the-art theoretical and empirical marketing models using deductive mathematical analysis and inductive statistical reasoning. Create novel quantitative marketing models and estimation methods and critically evaluate the models in the literature of quantitative marketing.

MKT X97.11. Causal Inference.

Examine empirical methods for causal inference with observational data.

MKT X97.2. Marketing Management and Strategy.

Examination from the marketing perspective of the process of strategy development and implementation at various levels of the organization: corporate, strategic business unit, and product line/brand.

MKT X97.3. Buyer Behavior.

Theoretical examination of the acquisition and consumption of goods, services, time, and ideas by individuals and groups.

MKT X97.4. Marketing Research Methods.

Advanced statistical procedures and analytical methods for data analysis; reliability and validity of data.

MKT X97.5. Research Topics in Marketing.

Current research issues, methods, and models in marketing; focus on both theory and methodology.

MKT X97.6. Advanced Research Methods in Marketing.

New methodological developments and research procedures; selected topics.

MKT X97.7. Marketing Models.

Analytical techniques and models developed by management scientists to aid marketing-oriented decisions in contexts such as marketing mix management, new product development, and product adoptions.

MKT X97.9. Behavioral Decision Research.

MKT X98. Thesis.

MKT X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

MKT X99W. Dissertation.

Professional Courses

MLS - Medical Laboratory Science

Medical Laboratory Science: MLS

Lower-Division Courses

MLS X01D. Practicum in Medical Laboratory Science.

Students participate in a twelve- to sixteen-month off-campus education program.

MLS X19S. Topics in Medical Laboratory Science.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Molecular Biosciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

MLS X29S. Topics in Medical Laboratory Science.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Molecular Biosciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MLS X55M. Topics in Medical Laboratory Science.

MLS X56M. Medical Laboratory Science Clinical Education Practicum.

Graduate Courses

Professional Courses

MNS - Marine Science

Marine Science: MNS

Lower-Division Courses

MNS X01. Seminar in Marine Science.
Overview of the depth and breadth of marine and freshwater science. Introduction to research opportunities at the university.

MNS X07. Introduction to Oceanography.
Introduction to the sciences of oceanography: geological, physical, and biological.

MNS X08. Humans and a Changing Ocean.
The consequences of human-induced alteration of the marine environment including the impact on fisheries, marine mammals, food-web changes, and changes in species composition and ecological function will be explored. Designed for non-science majors.

MNS X09. Topics in Marine Science.
Selected topics in marine science, including marine biology, marine chemistry, and physical oceanography.

MNS X10. Fundamentals of Marine Science.
Designed for students pursuing a degree option in Marine and Freshwater Science. In-depth introduction to physical, chemical, geological, and biological processes in marine systems.

MNS X19S. Topics in Marine Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Marine Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MNS X80. Research in Marine Science.

MNS X88. Marine Research Training Cruise.
Shipboard training in marine research through participation in research projects and completion of report.

Upper-Division Courses

MNS X20. Marine Ecology.
Study of ecological processes at different levels of integration in marine ecosystems.

MNS X20L. Laboratory Studies in Marine Ecology.
A laboratory course with two weekend field trips to the Marine Science Institute at Port Aransas to perform ecological studies in the Texas coastal zone.

MNS X29S. Topics in Marine Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Marine Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MNS X40. Limnology and Oceanography.
An introduction to the study of the interactions between aquatic organisms and their environments.

MNS X44K. Marine Mining and Minerals.
Overview of seafloor mineral deposits, their exploration, and mining.

MNS X48. Topics in Training Cruise(s).

MNS X48.1. Training Cruise(s): Research in Biological Oceanography.
One or more cruises of one to several days each to collect physical, chemical, oceanographic, and biological data relevant to biological processes in the sea. Preparatory instruction and post-cruise sample processing and analysis.

MNS X48.2. Marine Geology and Geophysics Field Course.
Hands-on, team-based instruction in the collection and processing of marine geological and geophysical data along the Gulf of Mexico coast.

MNS X52. Topics in Principles of Marine Science.
Lectures, laboratory, and fieldwork.

MNS X52.12. Adaptive Physiology of Marine Organisms.
Selected topics in the comparative physiology of marine organisms and their environmental adaptations.

MNS X52.13. Microclimatology.
Physical and thermal characteristics of the atmospheric surface layer, with particular reference to coastal environments.

MNS X52.16. Ocean Engineering.
Description of ocean waves and tides, methods of wave forecasting, classroom and field exercises.

MNS X52.18. Marine Atmospheric Chemistry.
Atmospheric particle chemistry; sea-surface films, atmospheric organic matter; air-sea chemical fractionation; carbon, nitrogen, sulfur cycles.

MNS X52.20. General Marine Phycology.
Survey of benthic algae and phytoplankton of the Texas coast; systematics, morphology, life history and culturing techniques.

MNS X52.21. Ecology of Marine Fungi.
Biology of the fungi with emphasis on ecological, morphological, and developmental aspects and culturing techniques.

MNS X52.22. Oceanography.
Consideration of current understanding of the chemistry and biology of the oceans.

MNS X52.9. Endocrinology.
Endocrinology, with special reference to lower vertebrates and evolution of control systems.

MNS X52C. Estuarine Ecology.
Explores general ecological principles of estuarine environments in Texas including physiography, hydrography, and plant and animal community structure and productivity.

MNS X52D. Marine Botany.
Exploration of the marine algae and seagrasses of the south Texas coast, with emphasis on their taxonomy, physiology, and ecology; may include field trips to representative coastal habitats.

MNS X52E. Marine Conservation Biology.
Explores how human activities influence the natural functioning and diversity of marine ecosystems and examines conservation efforts aimed to promote the sustainability of coastal habitats; may include several field excursions to local/regional marine ecosystems including sensitive coastal marshes and seagrass communities. Encourages the development of creative and critical thinking skills through numerous classroom activities focused on developing holistic understandings of marine ecosystems and the complexities of conservation science.

MNS X52L. Topics in Principles of Marine Science: Laboratory Studies.
A laboratory course with one-day field trips (which may include weekends) to local estuarine and coastal habitats. Includes pre- and post-field trip laboratory hours.

MNS X52M. Marine Community Ecology.
Explore the assembly and functioning of marine communities. Examine both traditional and newly-emerging techniques to study marine communities, from visual censuses to molecular approaches.

MNS X52R. Marine Science Research and Reporting.
Reviews the planning, conduct, and communication of marine science research, including hypothesis generation, experimental design, data analysis, and scientific writing and presentation.

MNS X52S. Topics in Principles of Marine Science: Undergraduate Seminar.
Guest lectures by local and visiting research scientists on a variety of topics in marine and environmental science. Each seminar is followed by a separate one-hour discussion to give students an opportunity to meet directly with the scientist.

MNS X52T. Principles of Marine Science: Special Topics.
Advanced research topics in marine science relevant to critical habitats, organisms, or processes.

MNS X53. Topics in Marine Science.

MNS X53.14. Marine Isotope Geochemistry.
The use of isotopes (stable, radiogenic, uranium series, and anthropogenic) in the study of marine science.

MNS X53.15. Interdisciplinary Classroom Field Methods.
Uses the interdisciplinary nature of marine science to focus on inquiry-based instruction, constructivist-oriented teaching strategies, and field explorations.

MNS X53.17. Marine Fish Physiology.
Physiology of major organ systems of marine fishes, with emphasis on adaptations to marine environments. Includes osmoregulation, nutrition, circulation, excretion, reproduction, sensory physiology, and endocrine control.

MNS X53.2. Fish Adaptations to Coastal Ecosystems.
Quantitative ecological comparisons of zoogeographical abundance and distribution with population, metabolic, and growth parameters.

MNS X53.4. Current Research.
Research instruction/participation in marine science. Laboratory and field activity with emphasis on faculty contact.

MNS X53.5. Seafloor Mining.
Study of seafloor mineral resources, including problems and policies related to exploration, mining, environmental concerns, assessment, and industrial development.

MNS X53.6. Marine Ecology.
Independent study in marine ecology, literature research, and comprehensive writing. Report required.

MNS X53.7. Marine Sedimentology.
Selected topics and problems concerning the depositional processes, controls, and distribution of marine sediments.

MNS X53.8. Marine Chemistry.
Study of the processes controlling the chemistry of natural waters, the oceans as a chemical system, and the impact of human activities on these systems.

MNS X54. Marine Invertebrates.
Study of invertebrate taxonomy, structure, behavior, and ecology; may include field sampling and laboratory studies of invertebrate habitats of the Texas coast.

MNS X54C. Biology of Fishes.
Anatomy, physiology, behavior, life history, taxonomy, and distribution of fishes; may include field sampling and laboratory studies of the coastal biota.

MNS X54E. Aquatic Microbiology.
Ecology, physiology, distribution, and growth of heterotrophic and autotrophic bacteria and fungi in waters and sediments.

MNS X54F. Marine Geology.
Survey of the origin, structure, stratigraphy, and sedimentology of marine basins and continental margins.

MNS X54J. Marine Chemistry.
Introduction to marine and environmental chemistry, including the distribution of elements in seawater, the geochemical and oceanographic processes controlling and affected by these distributions, and the effects of human activities on marine chemical processes.

MNS X54Q. Marine Environmental Science.
Application of the principles of marine science to the study of environmental issues: toxicology, biogeochemical cycles, and the biological and ecological impacts of zenobiotic materials in the coastal zone.

MNS X54T. Biological Oceanography.
Introduction to the organisms in the sea, their adaptations to the environment, and the factors that control their distribution and abundance; may include laboratory and field work with organisms found in the coastal waters of Texas.

MNS X54U. Biology of Sharks, Skates, and Rays.
Ecology, anatomy, and physiology of elasmobranch fishes.

MNS X55. Microplastics in Coastal Environments.
Examine microplastics in coastal environments. Discuss plastics, including composition and production of plastic polymers and additives, as well as environmental processes that affect the fate of plastics in waters, such as biodegradation and photooxidation.

MNS X55C. Physiology of Fishes.
Physiology of major organ systems of both marine and freshwater fishes.

MNS X55E. Marine Fisheries Ecology.
Explore a broad understanding of fish and fisheries science. Examine fundamental information on fish biology and ecology pertaining to diet, growth, and reproduction with fisheries' specific information that includes historical perspectives, methodology, and overall management strategies.

MNS X56. Ecosystem Oceanography.
An exploration of interconnections within and among marine ecosystems, as well as their linkages to climate, human activity, and adjacent freshwater and terrestrial environments. Emphasis will be placed on Gulf of Mexico ecosystems; may include hands-on field and laboratory activities.

MNS X57. Marine Phytoplankton Diversity.
The taxonomy of the major phytoplankton groups, their physiology, and their role in marine ecosystem; may include field and/or laboratory hours.

MNS X58. Marine Geoecology.
Discuss how life has become a primary driver of conditions in the Earth's geosphere, hydrosphere, and atmosphere, and explore the biological inventions with the most revolutionary impact on the planet as we know it today. Examine concepts from the fields of geology, chemistry, microbiology, and macroecology.

MNS X67K. Human Exploration and Exploitation of the Sea.
Review of the history of ocean exploration including major oceanographic expeditions. Discussion of current topics in ocean exploration and exploitation of marine resources, the impact of resource exploitation on biological systems, and the development of marine policy. An oral presentation is required.

MNS X70. Special Studies in Marine Science.
Supervised individual instruction and research in marine science field and laboratory techniques.

MNS X80. Research in Marine Science.

MNS X88. Marine Research Training Cruise.
Shipboard training in marine research through participation in research projects and completion of report.

Graduate Courses

MNS X80. Research in Marine Science.

MNS X81C. Marine Ecosystem Dynamics.
Interactions between organisms and the physical processes that regulate productivity and distribution of marine life in oceanic and coastal ecosystems.

MNS X82. Topics in Principles of Marine Science.

MNS X82.14. Biology of Seagrasses.
Analyses of plant and animal characteristics of seagrass ecosystems, including biomass, reciprocal salinity transplants, productivity.

MNS X82.6. Marine Ichthyology.
Systematics of fishes, including major classifications, comparative anatomy, embryology, and general distribution.

MNS X82.9. Endocrinology.
Endocrinology, with special reference to lower vertebrates and the evolution of control systems.

MNS X82C. Marine Biogeochemistry.
Study of chemical, biological, geological, and physical processes that influence cycling of bioactive elements in marine waters and sediments.

MNS X83C. Adaptations to the Marine Environment.
The physiological basis for organismal and population-level responses to marine environments.

MNS X84C. Benthic Ecology.
Interactions among organisms, sediments, and physical processes of estuarine and oceanic bottoms.

MNS X84E. Marine Microbial Ecology.
Metabolism of photosynthetic and chemosynthetic microorganisms in the sea.

MNS X84F. Marine Geology.
Development of ocean basins; marine and coastal depositional environments, processes, and sedimentary parameters; marine field techniques.

MNS X84J. Marine Ecology.

MNS X84K. Ecology of Fishes.
Organismal, population, and community ecology of marine and freshwater fishes.

MNS X84L. Marine Chemistry.
Chemical processes in the sea.

MNS X84T. Biological Oceanographic Processes.
An advanced course in biological processes in oceanic and coastal waters, with emphasis on empirical and theoretical concepts of marine ecosystem dynamics, primary and secondary production, and detrital cycling.

MNS X84U. Reproductive Physiology of Fishes.
Endocrine and environmental control of reproductive cycles in teleost fishes.

MNS X85E. Marine Macrophytes.
A lecture, laboratory, and field course that examines the systematics, ecology, and productivity of marine macroalgae and seagrasses, strategies and seasonal patterns of growth, photosynthesis, and carbon metabolism in relation to in situ light environments.

MNS X85F. Environmental Modeling.
Introductory course in modeling, with emphasis on the models used in ecology, oceanography, and earth sciences.

MNS X86. Phytoplankton Ecology.
The interactions of physiology, morphology, and behavior of microalgae with physical, chemical, and biological features of the environment as related to the distribution of marine phytoplankton.

MNS X87. Pelagic Ecosystems.
Advanced study of processes affecting the distribution and abundance of marine planktonic and nektonic organisms, primary and secondary production in marine pelagic environments, and food web interactions in the pelagia.

MNS X88. Marine Research Training Cruise.
Shipboard training in marine research through participation in research projects and completion of report.

MNS X91. Topics in Marine Science: Seminar.
Recent advances in the marine sciences, discussed by students, faculty and staff members, and guest lecturers. Topics to be announced.

MNS X93. Topics in Marine Science.
Lecture, laboratory, and fieldwork.

MNS X93.1. Biogeochemistry of Carbon.
Production, distribution, composition, and preservation of organic matter in the sea.

MNS X93.10. Zooplankton Ecology.
Advanced study of the morphological, physiological, and behavioral adaptations of zooplankton to their environment.

MNS X93.11. Coastal Watersheds.
Covers water use, land use and land cover change, and climate change as they relate to biological, physical, and geochemical processes in watersheds. Includes the impact of changing watershed export on coastal ocean ecosystems. Emphasizes case studies on different regions of the United States.

MNS X93.2. Isotope Ecology.
Consideration of the stable hydrogen, carbon, nitrogen, and sulfur stable isotope ratio variations in ecological settings, including chemical fundamentals; current literature on food-webs and source studies.

MNS X93.3. Benthic Plants and Animals.
Interactions among organisms, sediments, and physical processes of estuarine systems, including the factors that regulate primary and secondary productivity.

MNS X93.4. Methods in Marine Science.
Introduction through laboratory and field work to the methods of marine science and oceanographic research. Topics include small boat handling and safety; field collection of physical, chemical, and biological data; and laboratory analysis of seawater chemistry and marine organisms.

MNS X93.5. Global Change.
Study of natural and anthropogenically mediated changes in the earth's climate and biogeochemical cycles.

MNS X93.6. Larval Fish Ecology.
The ecology of marine fish larvae in relation to fisheries oceanography and aquaculture.

MNS X93.7. Marine Botany.
Introduction through lectures and field work to the diversity and importance of marine vegetation of the South Texas coast. Includes the evolution, taxonomy, ecology, physiology, and trophic importance of marine vegetation.

MNS X93.8. Marine Isotope Geochemistry.
The use of isotopes (stable, radiogenic, uranium series, and anthropogenic) in the study of marine science.

MNS X93.9. Molecular Methods in Marine Science.
Introduction to the principles and methods of molecular biology and the application of molecular techniques to research in marine science.

MNS X98. Thesis.

MNS X98T. Supervised Teaching in Marine Science.

MNS X99W. Dissertation.

Professional Courses

MNS X80. Research in Marine Science.

MNS X88. Marine Research Training Cruise.
Shipboard training in marine research through participation in research projects and completion of report.

MOL - Molecular Biology

Molecular Biology: MOL

Lower-Division Courses

MOL X92. Research Problems.

Upper-Division Courses

MOL X92. Research Problems.

Graduate Courses

MOL X80. Advanced Readings in Molecular Biology.
Individual instruction in the literature of molecular biology.

MOL X80M. Dual MD/PhD Program with UT Medical Branch.
Preclinical medical study at the University of Texas Medical Branch at Galveston.

MOL X81K. Cellular and Molecular Bases of Neural Development.
Introduction to the principles by which the neural tube (brain and spinal cord) forms during embryonic development. Discuss the cellular and molecular mechanisms underlying the formation of a three-dimensional neural tube and its division into forebrain, midbrain, hindbrain, and spinal cord.

MOL X82E. Epigenetics.
Examine how epigenetic modifications are covalent modifications of DNA or histones that cause changes in gene expression and how epigenetic modifications appear to be a method through which nurture or the environment can influence nature. Focus on how experience

or environmental factors epigenetically modify health or behavior of animals.

MOL X83K. Developmental, Stem Cell, and Regenerative Biology.
Explore the principles and mechanisms of embryonic development and the processes guiding stem cell differentiation and tissue repair.

MOL X84K. Topics in Advanced Molecular Biology.
Examine molecular biology topics in-depth.

MOL X84K.1. Integrative Omics in the Evolution of Development and Behavior.
Discuss the conceptual foundations and historical roots of research programs in evo-devo and evolutionary neuroscience including recent discoveries and limitations in these fields. Explore how -omics approaches and comparative methods enable novel insights into the diversification, convergence, and constraint of complex traits.

MOL X86. Topics in Problems and Methods in the Life Sciences.
Examine the questions addressed in modern life sciences research and the experimental methods used. Focus on experimental reasoning and on the application of different techniques to solve problems.

MOL X88M. Plant Molecular Biology.
Examine the fundamentals of plant molecular biology, including structure and expression of the chloroplast and mitochondrial genomes.

MOL X90C. Topics in Molecular Biology: Seminar.
Lectures and discussions on current topics in molecular biology.

MOL X90C.1. Seminar in Molecular Biology I.
Students read, present, and discuss current research papers based on speakers for the Institute for Cellular and Molecular Biology weekly seminar series. Students also will present short talks on their the research from one of their laboratory rotations.

MOL X90C.2. Seminar in Molecular Biology II.
Students write a mock grant proposal with their principle investigator and present a practice part one preliminary exam talk based on the proposal.

MOL X90C.3. Seminar in Molecular Biology III.
Students present a detailed seminar on their thesis research.

MOL X91. Grant Writing and Presentation Skills.
Designed for second-year doctoral students. Prepare a detailed proposal of the dissertation research goals of each student with a presentation in the form of a short talk. Focus on critical evaluation of research aims, methodology, and communication skills.

MOL X91P. Advanced Virology.
Explore the replication of and transformation by DNA and RNA animal viruses.

MOL X92. Research Problems.

MOL X94L. Immunology.
Introduction to the immune system for graduate students without prior coursework in immunology. Discuss innate immunity, the molecular basis of T cell and B cell antigen recognition, hematopoiesis and the development of lymphocytes, and cellular and humoral immune responses. Touch on immunodeficiency, autoimmunity, immunotherapy and vaccination. Explore current primary literature on select immunological topics in greater depth.

MOL X94M. Genomics.
Examine genome structure, organization, and function of model organisms; theory and methodology of genetic and physical mapping; sequencing analysis and annotation; genome duplication and evolution; and ethics for biotechnology and cloning.

MOL X95. Molecular Biology Conference Course.

MOL X95F. Genetics.
Basic principles of Mendelian and molecular genetics, and an exploration of the genetic toolbox using examples of analytic methods and modern manipulations. Focus on the genetic analysis of model organisms. Use of genetic tools in dissecting complex biological pathways, developmental processes, and regulatory systems.

MOL X95G. Structure and Function of Proteins and Membranes.
Explore advanced biochemistry concepts and the scientific process. Examine a detailed consideration of the structure and function of proteins, carbohydrates, lipids and nucleic acids, as well as discussion of enzyme mechanisms and kinetics.

MOL X95H. Cell Biology.
Detailed consideration of mechanisms of growth control, cell cycle regulation, mitosis, cell signaling, protein targeting, and the integration of these processes.

MOL X95I. Advanced Biochemistry.
Explore advanced biochemistry concepts and the scientific process. Consider the structure and function of proteins, carbohydrates, lipids and nucleic acids, and discuss enzyme mechanisms and kinetics.

MOL X95J. Genes, Genomes, and Gene Expression.
Detailed consideration of prokaryotic and eukaryotic mechanisms of DNA replication and transcription; posttranscriptional processing of transcription products; and mechanism and regulation of the translation of messenger RNAs.

MOL X95L. Laboratory Studies in Molecular Biology.
Explore modern molecular biology with a research project focus in a laboratory setting. Use methods such as eukaryotic RNA purification, quantitative PCR, CRISPR or site-directed mutagenesis cloning, cell fractionation, protein purification and Western blotting detection toward experimental goals.

MOL X98. Thesis.

MOL X98T. Supervised Teaching in Molecular Biology.
Teaching under close supervision of the instructor; weekly laboratory instruction of undergraduates, group meetings with the instructor, individual consultations, and reports throughout the teaching period.

MOL X99W. Dissertation.

Professional Courses

MOL X92. Research Problems.

MSE - Materials Science and Engineering

Materials Science and Engineering: MSE

Lower-Division Courses

MSE X97R. Research.

Upper-Division Courses

MSE X60M. Experiments in Materials Science and Engineering.
Hands-on lab-based course designed to teach practical techniques in the synthesis and characterization of materials and their properties, and to use experiments to explore fundamental and potentially abstract materials concepts.

MSE X97R. Research.

Graduate Courses

MSE X86P. Topics in Materials Science: Fundamentals.

MSE X86P.1. Introduction to Phase Transformations.
Basics of crystal structures and phase diagrams; diffusion; solidification; solid-state phase transformations.

MSE X86P.2. Mechanical Behavior of Materials.
Elastic deformation; viscoelasticity; yielding, plastic flow, plastic instability; strengthening mechanisms; fracture, fatigue, creep; significance of mechanical properties tests. Microstructural mechanisms and macroscopic behavior of metals, polymers, ceramics, and composites.

MSE X86P.3. Introduction to Thermodynamics of Materials.
Thermodynamic properties; reactions and chemical equilibrium in gases; solutions, phase equilibria, phase diagrams, reaction equilibria; surfaces and interfaces; point defects in crystals.

MSE X86P.4. Introduction to Solid-State Properties of Materials.
Introduction to the electronic, magnetic, and optical properties of materials. Solid-state properties of metals, semiconductors, and ceramics; fundamental concepts needed for the description of these properties, using an introductory-level description of the electronic structure of solids.
MSE X86P.5. Structure of Materials.
Essential crystallography of lattices and structures; symmetry; elements of diffraction and reciprocal lattices; point, line, and surface defects in crystals; crystalline interfaces; noncrystalline materials; polymers; glasses.
MSE X89. Topics in Materials Science and Engineering.
MSE X97. Graduate Seminar.
Presentation of research topics by invited speakers, faculty, and students.
MSE X97R. Research.
MSE X98. Thesis.
MSE X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
MSE X99W. Dissertation.
Research leading to the Doctor of Philosophy in materials science and engineering.

Professional Courses

MSE X97R. Research.

MUS - Music

Music: MUS

Lower-Division Courses

MUS X01F. PIANO FOR TEACHERS.
MUS X01J. Beginning Class Piano for Nonmusic Majors.
MUS X01K. Second-Semester Class Piano for Nonmusic Majors.
MUS X01M. Beginning Music Performance: Class Piano.
MUS X01N. Beginning Music Performance: Second-Semester Class Piano.
Continuation of Music 201M.
MUS X01Q. Beginning Guitar Class.
Class instruction in beginning guitar performance for non-music majors or music majors studying a secondary instrument.
MUS X01S. Beginning Music Performance: Class Harp.
MUS X01T. Beginning Music Performance: Second-Semester Class Harp.
MUS X01V. Beginning Violin Class.
Class instruction in beginning violin performance for non-music majors or music majors studying a secondary instrument.
MUS X02L. An Introduction to Western Music.
Introduction to musical styles in the Euro-American art music tradition between the Middle Ages and the present day. Designed to foster critical listening and thinking about music, and deepen understanding of the vital role that music has played and continues to play in society and in individual lives.
MUS X02P. Introductory Topics in Western Music.
MUS X03C. Fundamentals of Music: Classroom Instruments.
Explores how music intelligently combines reading, analysis, discussion, composition, and active involvement in music making. Through analysis, performance, and practice of the pedagogy of music for children, explores the roles of music in human culture and examine music's contributions to human communication, creative expression, and well-being.
MUS X03D. Fundamentals of Music: Guitar.
Explores how music intelligently combines reading, analysis, discussion, composition, and active involvement in music making. Through analysis, performance, and discussion of the guitar in the folk and popular music of Western and non-Western cultures, explores music's contributions to human communication, creative expression, and well-being.
MUS X03E. Fundamentals of Music: Piano.
Explores how music intelligently combines reading, analysis, discussion, composition, and active involvement in music making. Through analysis, performance, and discussion of the piano in the folk and popular music of Western and non-Western cultures, explores music's contributions to human communication, creative expression, and well-being.
MUS X03M. Introduction to Music in World Cultures.
Exploration of practices, beliefs, and issues through the study of various musical genres in the regions of Asia, the Middle East, Africa, the Pacific, Europe, and the Americas.
MUS X03N. Introduction to Popular Music in World Cultures.
Exploration of practices, beliefs, and issues through the study of various mass-mediated and commercial musical genres in the regions of Asia, the Middle East, Africa, the Pacific, Europe, and the Americas.
MUS X03P. Topics in Music of World Cultures.
MUS X05. Musicianship.
Study of the fundamentals of music for music majors through tonal harmony, ear training, sight-singing, keyboard drill, analysis, and composition of music.
MUS X06M. Elements of Music.
Fundamentals of music including the study of notation and the elements of rhythm, melody, and harmony; development of elementary aural skills; and writing of simple compositions.
MUS X07. Topics in Popular Music.
Studies of the popular music of a selected culture or geographical area.
MUS X07.1. Music of African Americans.
Introduction to the variety of modes of expression of African American culture in music and other related genres.
MUS X07.2. History of Rock Music.
MUS X07.3. Jazz Appreciation.
MUS X07P. String Education: Teaching and Learning.
Discussion of curriculum planning, lesson observation, and program management topics, as well as guest pedagogues and master teacher presentations.
MUS X10C. Introduction to Music Education.
Introduction to the practice of music teaching and learning.
MUS X10J. Beginning Instruction in Music Performance: Third-Semester Class Piano.
Continuation of Music 201N.
MUS X10K. Beginning Instruction in Music Performance: Fourth-Semester Class Piano.
Continuation of Music 210J.
MUS X11. Ear Training and Sight-Singing.
Material drawn from all musical styles.
MUS X11E. English Diction and Phonetic Translation.
Study of English diction and phonetic translation specifically for musicians. Emphasis on the International Phonetic Alphabet.
MUS X11F. French for Musicians.
French language and diction specifically for musicians.
MUS X11G. German for Musicians.
German language and diction specifically for musicians.
MUS X11J. Italian for Musicians.
Italian language and diction specifically for musicians.
MUS X12. Structure of Tonal Music.
Elements of tonal harmony and form; tonal analysis.
MUS X12C. Music and Culture.
Issues in the performance, transmission, and reception of music in Western Europe and North America in global and comparative social and political contexts.
MUS X13M. History of Music I.
The history of music from the beginning of notation to the eighteenth century.

MUS X13N. History of Music II.
The history of music from the eighteenth century to the early twentieth century.

MUS X14C. Beginning Composition.
Introduction to contemporary composition through the analysis and writing of short studies and through supervised original projects.

MUS X15D. String Instrument Fundamentals.
Beginning instruction in string instrument performance and pedagogy. This course is offered in the following instruments: double bass, viola, violin, and violoncello.

MUS X15E. Brass Instrument Fundamentals.
Beginning instruction in brass instrument performance and pedagogy. This course is offered in the following instruments: euphonium, French horn, trombone, trumpet, and tuba.

MUS X15F. Woodwind Instrument Fundamentals.
Beginning instruction in woodwind instrument performance and pedagogy. This course is offered in the following instruments: bassoon, clarinet, flute, oboe, and saxophone.

MUS X15G. Guitar Fundamentals.
Beginning instruction in guitar performance and pedagogy.

MUS X15T. Lower-Division Reed Making.

MUS X18J. Beginning Jazz Improvisation.
Study of basic jazz improvisational skills through performance of standard literature.

MUS X19D. Foundations of Digital Sound and Music.
Introduction to the practice of creating music with computer technologies and the basic techniques of recording, editing and producing digital audio tracks, including introduction to musical acoustics and psychoacoustics, fundamentals of audio recording, editing, mixing, and processing, MIDI, digital audio workstations, and syncing sound to video.

MUS X19S. Topics in Music.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Music. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

MUS X64L. Advanced Ear Training.
Further development of techniques taught in Music 411, with emphasis on aural recognition of larger musical forms and of music of contemporary style.

MUS X76C. Special Topics in Music Performance.

MUS X76G. Special Topics in Music Literature.

MUS X76M. Special Topics in Music Studies.

MUS X94. Directed Reading.
Readings in the literature of music.

Upper-Division Courses

MUS X20J. Junior Jazz Recital.
Preparation and performance of a public recital in the major jazz instrument.

MUS X20P. Practicum in a World Music Tradition.
Advanced training on a non-Western musical instrument such as Javanese gender barung, Indian sitar, Arabic qanun, or Korean kayakeum, or advanced training in a non-Western vocal style, and other approved musical practices.

MUS X20R. Junior Recital.
Preparation and performance of a public recital in the major instrument.

MUS X21J. Twentieth-Century Musical Analysis.
Introduction to the theory and practice of music since 1900. Includes various analytical approaches to the wide range of musical styles developed over the course of the twentieth- and twenty-first centuries, as well as the music of mainstream twentieth century composers and living composers. Both analytical and aural skills are emphasized.

MUS X22J. Instrumental Conducting.
Includes rudimentary use of baton, regular and irregular beat patterns, subdivisions and beat pattern variations as applied to simple instrumental literature, and practical experience in conducting instrumental groups.

MUS X22K. Instrumental Conducting.
Continuation of Music 222J. Further technical study in irregular meters, polyrhythmic and polymetrical patterns and scores; emphasis on expressive gestures, phrasal and compound beat conducting.

MUS X23. Jazz Improvisation I.
Study and practice jazz improvisation and the harmonic, rhythmic, melodic and aural skills associated with the art form.

MUS X23J. Choral Conducting.
Includes regular and irregular beat patterns, subdivisions and beat pattern variations as applied to simple choral literature, and practical experience in conducting vocal groups.

MUS X23K. Choral Conducting.
Continuation of Music 223J. Further technical study in irregular meters, polyrhythmic and polymetrical patterns and scores; emphasis on expressive gestures, phrasal and compound beat conducting.

MUS X24. Jazz Improvisation II.
Examine advanced harmonic, rhythmic, melodic, and aural concepts.

MUS X24G. Intermediate Composition.

MUS X24L. Advanced Composition.

MUS X25L. Counterpoint.
Development of contrapuntal skill in sixteenth-century style and in related late-twentieth-century styles; the teaching of counterpoint, including Fuxian species.

MUS X25M. Counterpoint.
Analysis of eighteenth-century inventions, fugues, and passacaglias; development of contrapuntal skills in twentieth-century styles that draw on these historical models; the teaching of counterpoint.

MUS X26G. Orchestration and Arranging.
Techniques of instrumentation, arranging, and orchestration for band, orchestra, and chamber ensembles.

MUS X26J. Orchestration and Instrumentation.
Study of the characteristics of individual instruments; writing for various combinations; study of scores of different periods; listening to recordings and live performances.

MUS X26K. Orchestration and Instrumentation.
Continuation of Music 226J.

MUS X26N. Choral Arranging.
Techniques of voicing and arranging for choirs, vocal ensembles, and vocal chamber groups.

MUS X28C. Jazz Harmony in Practice I.
Study the harmonic language standardized in jazz and popular American music.

MUS X28D. Jazz Harmony in Practice II.
Explore the harmonic motion of jazz, ear training, and harmonic embellishment.

MUS X28P. Jazz Composition.
Experience the creative process of composition, involving the melodic, harmonic, and rhythmic components of various jazz styles.

MUS X29E. Introduction to Electronic Media.
Introduction to the fundamentals of recording, tape editing, and electronic music synthesis.

MUS X29F. Projects in Electronic Media.
Continuation of Music 329E for nontheory and noncomposition majors.

MUS X29G. Intermediate Electronic Composition.
Continuation of Music 329E for music theory or composition majors.

MUS X29J. Introduction to Computer Music.
An introduction to the basic concepts of digital music synthesis and signal processing.

MUS X29M. Intermediate Computer Music.
Continuation of Music 329J.

MUS X30L. History of Music III.
The history of music from the early twentieth century to the present.
MUS X31J. Advanced Topics in Music Theory.
MUS X34. Topics in The Music of the Americas.
Studies of both indigenous and borrowed traditions in the popular, folk, and art music of the Americas from the colonial period to the present.
MUS X34.1. Music of Mexico and the Caribbean.
Introduction to the history of Mexican and Caribbean traditional and commercial music, with some discussion of classical music as well. Attention will be given to music of indigenous, African, European, and mixed origin. Mexico and the Spanish-speaking Caribbean receive special attention. Class meetings will be divided into lecture/discussion segments, videos, listening, and performance instruction/demonstration.
MUS X34.2. Music of Latin America.
Consider Latin American music within a broad cultural and historical framework. Latin American musical practices are explored illustrating the many ways that aesthetics and society are embodied in and negotiated through performance. Concepts include diaspora, colonialism, mestizaje, hybridity, migration and globalization.
MUS X34.3. Music of Brazil and Argentina.
An introduction to Brazilian and Argentine music from samba, capoeira, and forro to tango, cumbia villera, and chacarera; examines such music making within its various historical, social, and political contexts. Uses course readings, lectures, listening assignments, performance attendance, and movie screenings to analyze themes including nationalism and ethnicity, globalization and development, and democracy and social justice.
MUS X34.4. Music of the Andean Countries.
Introduction to the music of Andean countries including Colombia, Ecuador, Peru, Bolivia, and Chile. Explores the role music plays in shaping historical and modern Andean societies, as well as how music comments upon national culture, society, and politics, with particular attention to the ways in which musicians and musical movements continue to influence Andean societies. Subjects include pre-Columbian and colonial music making; music representative of the tripartite indigenous, African, and Iberian heritage of Andean countries; aesthetics, identity, and musical expression; ritual, religion, and the politics of musical performance.
MUS X34.5. The Music of the African Diaspora.
The musical legacy of the African slave trade in the Americas, the social contexts in which black musical forms have developed, and their varied forms. Subjects include the shifting meanings of "black music" in various contexts; the notion of hybridity; the uses of African influenced music as a political or oppositional tool; and African ethnic groups represented prominently in the New World, the traditions they brought with them, and the ways they have been adapted to new ends.
MUS X34.6. History of Mariachi Music.
Explore historically, culturally and stylistically the chronological development of the modern mariachi, with close attention to historical and socio-cultural influences from indigenous, European and African people; nationalism and mass media; crossing borders and changing performance practices.
MUS X34.7. Music of Mexico and Borderlands.
Explore historically, culturally and stylistically the various regional styles of Mexican music and Mexican American music as it has developed along the southern border of the United States, with close attention to historical and socio-cultural influences from indigenous, European and African people; nationalism and mass media; stylistic change and mainstream acceptance.
MUS X34.8. Mexican Soundscapes.
Examine culturally and historically the music and sound cultures that exist in Mexico and in Mexican American communities in the United States. Explore the social, cultural, religious, and political currents that have impacted the development of the musical and aural cultures in Mexico and on the US-Mexico border, and how these currents have shaped conceptions of identity and cultural nationalism, using the concept of soundscape as the dominant framework. Engage with readings in popular culture, popular media (cinema and television), cultural theory, history and musicology.
MUS X37. Music and Film Sound.
History of music and the soundtrack; analysis of interactions between image and sound; and aesthetics and issues of production and postproduction.
MUS X38. Topics in Masterpieces of Music.
Study of the works of specific composers or of specific genres in the Western musical tradition.
MUS X42. Topics in Ethnomusicology Areas.
Studies of the musical traditions of selected cultures or geographical areas.
MUS X42.10. Romani Music and Representation.
MUS X42.11. Music of the Philippines.
MUS X42.3. Musics of India.
Explore the musical traditions of India, with emphasis on Hindustani and Carnatic musical styles, but including examination of other traditions.
MUS X42.5. Black Perspectives in Jazz.
Explores the social, cultural, political, and artistic relationships between jazz and the black experience, both within the African American context and throughout the diaspora.
MUS X42.6. Musics of East and Southeast Asia.
MUS X42.7. Introduction to the Music of the Middle East.
MUS X42.8. Music and Gender.
MUS X42.9. Introduction to Music of the Balkans.
MUS X43J. History of Jazz.
Survey of the history of jazz from its origins to the present.
MUS X46. Jazz Piano Techniques I.
Study basic skills in chord notation, chord interpretation and voicing, voice leading, and jazz piano styles.
MUS X46R. Music and Religious Identities in the US.
Examine religious music in Christianity and Judaism in relation to communities in religious context of Europe and the United States.
MUS X47. Jazz Piano Techniques II.
MUS X48. Studio Arranging I.
Study arranging for a variety of small group configurations, applying fundamental techniques, and scoring for large jazz ensemble.
MUS X49. Studio Arranging II.
Explore extended arrangements for large jazz ensemble and study of masterworks of the genre.
MUS X50S. Creating Music and Sound for Film, Video, and Games.
Designed to introduce students to concepts of music and sound for a variety of media with a primary focus on creating original music and/or soundtracks. Subjects include music structures, production and editing, film and video synchronization, game audio, and other sound for film related topics.
MUS X54. Musical Development of Children.
The processes of musical development in young children. Topics include music in multicultural contexts, music in the cognitive and social development of young children, and special issues concerning music and exceptional children.
MUS X54C. Children's Music Literature and Performance I.
Literature, materials, and music performance activities appropriate for young children.
MUS X54D. Children's Music Literature and Performance II.
Continuation of Music 354C.
MUS X54F. Music Performance, Listening, and Appreciation.
Techniques and materials for the development of skill in composition, arranging, performance, and aural discrimination; problems related to the adolescent voice.

MUS X54S. Game Development Capstone: Two-Dimensional Games.
Participation in an interdisciplinary team to gain a thorough understanding of the two-dimensional game development process, through modeling of the environment and practices that are used in game studios.

MUS X54T. Game Development Capstone: Three-Dimensional Games.
Participation in interdisciplinary teams to gain a thorough understanding of the three-dimensional game development process, through modeling of the environment and practices that are used in game studios.

MUS X55C. Techniques of Percussion Performance.
Percussion performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures.

MUS X55D. Techniques of String Performance.
String instrument performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures.

MUS X55E. Techniques of Brass Performance.
Brass instrument performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures.

MUS X55F. Techniques of Woodwind Performance.
Woodwind instrument performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures.

MUS X55M. Marching Band Techniques.
Literature, materials, and techniques of the marching band.

MUS X55S. Vocal Techniques For Instrumentalists.
Explore vocal techniques for individual and instructional settings. Examine appropriate literature and rehearsal procedures.

MUS X55V. Techniques of Vocal Performance.
Technique of individual and ensemble singing practiced through the study of vocal literature.

MUS X56G. Choral Ensemble Literature and Performance.
Choral music literature; rehearsal and performance techniques for choirs and small ensembles.

MUS X56J. Instrumental Ensemble Literature and Performance.
Study of the literature and of performance and rehearsal techniques for heterogeneous instrumental ensembles.

MUS X59C. Chamber Music: Brass.

MUS X59E. Chamber Music: Percussion.

MUS X59J. Harp Repertoire.
Study and performance of the harp repertoire.

MUS X59L. Vocal Repertoire Coaching.

MUS X59N. Chamber Music: Strings and Piano.

MUS X59R. Chamber Music: Saxophone.

MUS X59T. Topics in Instrumental Technology.

MUS X59U. Chamber Music: Repertoire Before 1800.

MUS X59V. Chamber Music: Vocal.

MUS X59W. Chamber Music: Woodwinds.

MUS X60C. Senior Composition Recital.
Preparation and performance of a public recital of the student's original compositions.

MUS X60J. Senior Jazz Recital.
Preparation and performance of a public recital in the major jazz instrument.

MUS X60R. Senior Recital.
Preparation and performance of a public recital in the major instrument.

MUS X62C. Intermediate Instrumental Conducting.
Problems and interpretation of larger band and orchestral works; analytical study of musical form as it relates to conducting; a synthesis of musical understanding and expansion of comprehensive musicianship through conducting problems.

MUS X64L. Advanced Ear Training.
Further development of techniques taught in Music 411, with emphasis on aural recognition of larger musical forms and of music of contemporary style.

MUS X66P. Senior Piano Pedagogy Project.
Students complete a research paper on a piano pedagogy topic, such as methodology, skills development, or repertoire.

MUS X68L. Review of Music Theory.
An intensive review of the skills and concepts required for the study of music theory at the graduate level.

MUS X71P. Topics in Pedagogy.
Designed primarily for students planning teaching careers. Offered in piano, voice, and orchestral instruments. Methods include individual and class instruction through the use of music literature and the teaching repertoire. Practice teaching and laboratory for diagnostic and corrective methods are required.

MUS X71P.1. Pedagogy: Piano I.
Work with students in the Butler School of Music's Piano Project.

MUS X71P.2. Pedagogy: Piano II.
Work with students in the Butler School of Music's Piano Project.

MUS X71P.3. Pedagogy: Voice I.

MUS X71P.4. Pedagogy: Voice II.

MUS X71P.5. Pedagogy: Orchestral Instruments I.

MUS X71P.6. Pedagogy: Orchestral Instruments II.

MUS X75J. Twentieth-Century Music Techniques.
Review of techniques and methods for analyzing twentieth-century music.

MUS X75T. Teaching and Learning in Music.

MUS X76C. Special Topics in Music Performance.

MUS X76G. Special Topics in Music Literature.

MUS X76J. Special Topics in Music Theory.

MUS X76J.2. Performance, Analysis, and Interpretation.
Undergraduate music theory seminar applying theoretical and historical insights to performance and interpretation.

MUS X76M. Special Topics in Music Studies.

MUS X76R. Guitar Repertory.

MUS X76S. Bassoon Literature.

MUS X76T. Flute Literature.

MUS X76U. French Horn Literature.

MUS X76V. Oboe Literature.

MUS X78C. Independent Study: Music Performance.
Individual projects to be completed under faculty supervision.

MUS X78G. Independent Study: Music Literature.
Individual projects to be completed under faculty supervision.

MUS X78J. Independent Study: Music Theory.
Individual projects to be completed under faculty supervision.

MUS X78M. Independent Study: Music Studies.
Individual projects to be completed under faculty supervision.

MUS X79G. Capstone in Music.
Drawing from the chosen concentration for the Bachelor of Arts in Music, generate scholarly or creative work to enhance preparation for a post-baccalaureate education or career.

MUS X79K. Advanced Topics in Music Literature.
MUS X79K.1. Topics in Keyboard Literature.
MUS X79K.10. Topics in Mass and Motet.
MUS X79K.11. Topics in Choral Music.
MUS X79K.12. Topics in Cantata and Oratorio.
MUS X79K.13. Topics in Modern Music.
MUS X79K.14. Special Topics in the Western Musical Tradition.
MUS X79K.17. Band Literature.
MUS X79K.19. Sacred Chants.
MUS X79K.2. Piano Literature, Eighteenth Century to the Present.
MUS X79K.20. Historical Performance Practice Traditions.
MUS X79K.21. Global Music Cultures, 700-1400.
MUS X79K.22. Global Music Cultures, 1400-1650.
MUS X79K.24. Musicking and Disability.
MUS X79K.25. Popular Music.
MUS X79K.26. Afro-Modernisms in Black Popular Music.
MUS X79K.5. Topics in Instrumental Chamber Music.
MUS X79K.6. Topics in Symphonic Tradition.
MUS X79K.7. Topics in Instrumental Concerto.
MUS X79K.8. Topics in the Art Song.
MUS X79K.9. Topics in Opera and Music Drama.
MUS X79Q. Musical Acoustics.
Designed to help students develop the intuition and vocabulary for understanding the basic physical principles relevant to musical instruments and sound (e.g., mechanics, vibrations, acoustics, harmonics, acoustic-electronic conversions, speakers, hearing, perception, room acoustics) in order to be able to read basic articles on the subject of musical acoustics. Material is kept relevant to musical principles (e.g., performance techniques, scales/harmony) throughout.
MUS X94. Directed Reading.
Readings in the literature of music.

Graduate Courses

MUS X64L. Advanced Ear Training.
Further development of techniques taught in Music 411, with emphasis on aural recognition of larger musical forms and of music of contemporary style.
MUS X76C. Special Topics in Music Performance.
MUS X76G. Special Topics in Music Literature.
MUS X76M. Special Topics in Music Studies.
MUS X80. Advanced Topics in the History and Culture of Music.
Historical and cultural studies of the music of various periods or places.
MUS X80.1. Medieval.
MUS X80.11. Music of Mexico and the Caribbean.
Introduction to the history of Mexican and Caribbean traditional and commercial music, with some discussion of classical music as well. Explore music of indigenous, African, European, and mixed origin.
MUS X80.12. Music of Latin America.
Consider Latin American music within a broad cultural and historical framework. Latin American musical practices are explored illustrating the many ways that aesthetics and society are embodied in and negotiated through performance. Concepts include diaspora, colonialism, mestizaje, hybridity, migration and globalization.
MUS X80.13. Music of Brazil and Argentina.
An introduction to Brazilian and Argentinian music from samba, capoeira, and forro to tango, cumbia villera, and chacarera; examines such music making within its various historical, social, and political contexts.
MUS X80.14. Music of the Andean Countries.
Introduction to the music of Andean countries including Colombia, Ecuador, Peru, Bolivia, and Chile. Explore the role music plays in shaping historical and modern Andean societies, as well as how music comments upon national culture, society, and politics, with particular attention to the ways in which musicians and musical movements continue to influence Andean societies. Subjects include pre-Columbian and colonial music making; music representative of the tripartite indigenous, African, and Iberian heritage of Andean countries; aesthetics, identity, and musical expression; ritual, religion, and the politics of musical performance.
MUS X80.15. The Music of the African Diaspora.
Investigate the musical legacy of the African slave trade in the Americas, the social contexts in which black musical forms have developed, and their varied forms. Includes the shifting meanings of black music" in various contexts; the notion of hybridity; the uses of African influenced music as a political or oppositional tool; and African ethnic groups represented prominently in the New World, the traditions they brought with them, and the ways they have been adapted to new ends.
MUS X80.2. Renaissance.
MUS X80.3. Baroque.
MUS X80.4. Eighteenth Century.
MUS X80.5. Nineteenth Century.
MUS X80.6. Twentieth Century.
MUS X80D. Topics in Diction and Translation.
Advanced study in English, Italian, French, and German diction and translation.
MUS X80D.1. English Diction and Translation.
Study English diction and phonetic translation specifically for musicians. Discuss the International Phonetic Alphabet.
MUS X80D.2. French Diction and Translation.
Study French diction and phonetic translation specifically for musicians. Discuss the International Phonetic Alphabet.
MUS X80D.3. German Diction and Translation.
Study German diction and phonetic translation specifically for musicians. Discuss the International Phonetic Alphabet.
MUS X80D.4. Italian Diction and Translation.
Study Italian diction and phonetic translation specifically for musicians. Discuss the International Phonetic Alphabet.
MUS X80D.5. Russian Diction and Translation.
Study Russian diction and phonetic translation specifically for musicians. Discuss the International Phonetic Alphabet.
MUS X80G. Improvisation (Non-Jazz).
MUS X80M. Group Piano Pedagogy.
The development of skills in teaching group piano; examination and evaluation of methods and materials used in keyboard instruction; learning styles; research.
MUS X80N. Technology in Voice Study.
The integration of computer technology and audiovisual equipment into applied voice instruction.
MUS X80R. Vocal Repertoire Coaching.
MUS X80S. Contemporary Commercial Vocal Pedagogy.
MUS X80T. Accompanying.
MUS X80V. Collaborative Piano: Vocal and Instrumental.
MUS X81. Reference and Research Materials in Music.
MUS X81C. Chamber Music: Brass.
MUS X81D. Chamber Music: Artist Diploma.
MUS X81E. Chamber Music: Percussion.
MUS X81J. Topics in Introduction to Musicology and Ethnomusicology.
MUS X81J.1. Foundations of Musicology.
MUS X81J.2. Foundations of Ethnomusicology.
MUS X81J.3. Proseminar in Musicological Research.
MUS X81J.4. Analytical and Ethnographic Methods in Ethnomusicology.
MUS X81K. Chamber Music: Piano.
MUS X81M. Chamber Music: Masters Quartet.
MUS X81P. Topics in Graduate Pedagogy.
Intensive study of the principles and methods of teaching various instruments at the college level.

MUS X81P.1. Graduate Pedagogy: Piano I.
MUS X81P.2. Graduate Pedagogy: Piano II.
MUS X81P.3. Graduate Pedagogy: Voice I.
MUS X81P.4. Graduate Pedagogy: Voice II.
MUS X81P.5. Graduate Pedagogy: Orchestral Instruments I.
MUS X81P.6. Graduate Pedagogy: Orchestral Instruments II.
MUS X81R. Chamber Music: Saxophone.
MUS X81S. Chamber Music: Strings.
MUS X81V. Chamber Music: Vocal.
MUS X81W. Chamber Music: Woodwinds.
MUS X82J. Instrumental Conducting.
Designed for those who have had no experience in conducting. Explore rudimentary use of baton, regular and irregular beat patterns, subdivisions and beat pattern variations as applied to simple instrumental literature. Develop practical experience in conducting instrumental groups.
MUS X83L. Topics in Seminar in Music Education.
Individual and group studies of advanced topics.
MUS X84J. Advanced Topics in Music Education.
Review and criticism of research, acoustics, and psychology.
MUS X84J.1. History and Philosophy.
MUS X84J.3. Current Trends in Music Education.
MUS X84J.4. Research in Music Education I.
MUS X84J.5. Tests and Measurements in Music.
MUS X84J.8. Research in Music Education II.
MUS X84J.9. Music Learning and Behavior.
MUS X84P. Practicum in a World Music Tradition.
Advanced training on a non-Western musical instrument such as Javanese gender barung, Indian sitar, Arabic qanun, or Korean kayakeum, or advanced training in a non-Western vocal style, and other approved musical practices.
MUS X85. Special Topics in Musicology.
Research in depth on various topics.
MUS X85.1. History of Music Theory to 1750.
MUS X85.2. History of Music Theory.
MUS X85.3. Notational Systems before 1400.
MUS X85.4. Notational Systems since 1400.
MUS X85.5. Studies in Organology.
MUS X85J. Topics in Seminars: Musicology and Ethnomusicology.
Intensive studies of special problems and/or issues in music, broadly defined.
MUS X85R. Directed Research in Musicology.
MUS X86J. Topics in the History of Sacred Music.
Introduction to a significant body of choral works, from the thirteenth century to the present age, composed especially for religious occasions and venues.
MUS X86S. Topics in Music in Worship: Service Planning and Service Playing.
The art and practice of preparing, rehearsing, and performing specific works of sacred music for religious occasions.
MUS X87L. Advanced Topics in Music Literature.
Analytical and historical studies of a particular repertoire.
MUS X87L.1. Topics in the Solo Song.
MUS X87L.10. Topics in Jazz.
MUS X87L.11. Topics in Music Literature.
MUS X87L.12. Topics in Collaborative Piano Literature.
MUS X87L.13. Topics in Chamber Music.
MUS X87L.2. Topics in Music for Keyboard Instruments.
MUS X87L.20. Jazz Ensemble Literature.
Explore a selection of acclaimed albums of modern jazz, which by general consensus form a body of essential listening knowledge - the foundation of a recorded jazz canon.
MUS X87L.21. Jazz Perspectives.
Investigative chronological study of jazz history, aimed at gaining a better sense of jazz's ever-evolving "state of the art," through the experiences of its musicians within their own time.
MUS X87L.4. Topics in Music for String Instruments.
MUS X87L.5. Band Literature.
MUS X87L.6. Topics in Choral Music.
MUS X87L.7. Topics in Orchestral Music.
MUS X87L.8. Topics in Band Music.
MUS X87L.9. Topics in Opera.
MUS X88C. Composition.
MUS X88E. Electronic Composition.
MUS X88F. Film and Scoring Media.
MUS X88G. Graduate Media Project.
MUS X88J. Improvisation Styles and Techniques.
The study and analysis of jazz improvisation.
MUS X88K. Project in Jazz Composition.
MUS X88L. Advanced Studies in Choral Literature.
MUS X88M. Topics in Music Theory.
MUS X88M.1. Foundations of Music Theory.
MUS X88M.2. Form Theory.
MUS X88M.3. Contemporary Styles and Techniques.
MUS X88M.4. Current Trends in Music Theory.
MUS X88M.5. Heinrich Schenker's Theory of Tonal Music.
MUS X88M.6. Music and Meaning.
MUS X88M.7. Analysis of Popular Music.
MUS X88P. Jazz Pedagogy.
Research and study of the methods and materials essential to teaching and planning a comprehensive curriculum in jazz studies.
MUS X88R. Directed Research in Music Theory.
MUS X88S. Topics in Seminar in Music Theory.
MUS X88T. Analytical Techniques.
MUS X88V. Score Reading.
MUS X91. Foundations of Music Education.
Introduction to graduate study, history, philosophy, and basic concepts in music education.
MUS X92. Psychology of Music.
Psychological aspects of music, emphasizing perception, experimental aesthetics, music function, and the nature of musical ability.
MUS X93. Topics in Special Problems in Music Education.
MUS X93.1. General Music.
MUS X93.10. Computer Applications in Music Education.
MUS X93.11. Group Teaching: Materials and Methods.
MUS X93.12. Studio Piano: Goals and Procedures.
MUS X93.14. Music in Therapy and Special Education.
MUS X93.2. Elementary School Music.
MUS X93.3. Choral Technique.
MUS X93.5. Directed Research.
MUS X93.7. Music in Higher Education.
MUS X93.8. Music and Exceptional Children.
MUS X93.9. Instrumental Music.
MUS X94. Directed Reading.
Readings in the literature of music.
MUS X95W. Writing about Music.
Designed to develop and improve writing skills through required readings and through writing concert reviews, opinion pieces, essays, and articles about music.
MUS X98. Thesis.
MUS X98D. Artist Recital.
Preparation for and performance of a recital.
MUS X98M. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

MUS X98R. Master's Recital.

MUS X98T. Supervised Teaching in Music.

Supervised teaching for graduate students in music; two semesters under supervision; weekly meetings with instructor, consultations, reports throughout the teaching period.

MUS X99. Treatise.

Author a substantial research paper of a scholarly nature and perform associated post-candidacy doctoral recitals.

MUS X99N. Nontreatise Lecture Recital Document.

Author a research paper of a scholarly nature and perform associated post-candidacy doctoral recitals.

MUS X99W. Dissertation.

Professional Courses

MUS X64L. Advanced Ear Training.

Further development of techniques taught in Music 411, with emphasis on aural recognition of larger musical forms and of music of contemporary style.

MUS X76C. Special Topics in Music Performance.

MUS X76G. Special Topics in Music Literature.

MUS X76M. Special Topics in Music Studies.

MUS X94. Directed Reading.

Readings in the literature of music.

N - Nursing

Nursing: N

Lower-Division Courses

N X07. Topics in Nursing.

N X07R. Women's Reproductive Health for Nonscience Majors.

Overview of contemporary women's reproductive health issues, with emphasis on historical, physiological, psychosocial, and cultural influences that affect the reproductive health of women during adolescence, the childbearing years, and midlife.

N X09. Global Health.

Overview of global health, with emphasis on the determinants of health, health indicators, human rights, globalization, current socioeconomic factors, health care systems, and public health systems.

N X10. Communication in Health Care Settings.

Introduction to theories and models of communication in relation to health care; basic factors affecting interpersonal communication in health care settings.

N X17H. Introduction to Nursing Scholarship: Honors Seminar.

Introduction to the nature of nursing scholarship, along with related research and clinical and educational career opportunities. Topics include leadership, research, and ethics as they relate to nursing.

N X19. Topics in International Learning Seminars.

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.

N X19S. Topics in Nursing.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Nursing. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

N X84C. Professional Nursing Foundations.

Introduction to fundamental nursing care concepts, processes, and skills, including communication and assessment.

Upper-Division Courses

N X20. Introduction into Patient-Centered Nursing Care.

Examines the profession of nursing and introduces the concept of nursing process as a framework for patient-centered care of younger and older adults. Special emphasis will be placed on topics that apply to the bio-psycho-social-spiritual needs of the aging adult.

N X21. Ethics of Health Care.

Examination of ethical issues of health care and related legal concerns; contradictions, inconsistencies, and competing views that lead to dilemmas in health care.

N X21H. Ethics of Health Care: Honors.

Ethical issues in health care and related legal concerns; contradictions, inconsistencies, and competing views that lead to dilemmas in health care. Emphasis on resolving ethical dilemmas through ethical reasoning and ethical obligations in health professional-patient relationships; and just allocation of scarce health care resources.

N X23. Genetics in Health Care.

The integration of genetic information into nursing practice, including ethical, legal, psychological, and social issues.

N X24. Health Assessment Skills.

Discussion, application, and documentation of health assessment skills needed to provide data for health promotion and nursing interventions.

N X25. Adult Health Nursing I.

Discussion of the concepts necessary to promote and restore the health of adults with biological problems including related physiological and psychological responses.

N X25P. Adult Health Nursing I (Practicum).

Application of the concepts and theories necessary to promote and restore health of adults with biological problems; related physiological and psychological responses.

N X27P. Clinical Nursing Skills I (Practicum).

Laboratory instruction and practice in clinical nursing skills.

N X28S. Topics in Nursing.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Nursing. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

N X29M. Topics in International Learning Seminars.

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.

N X37. Topics in Independent Study.

Study in a specific area; topic and mode of study are agreed upon by student(s) and instructor.

N X38. Complementary and Alternative Medicine in Health Care.

Overview of representative Complementary and Alternative Medicine (CAM) modalities and their role in shaping an emerging wellness-oriented, patient-centered model of care. Evaluation of current research evidence of CAM therapies in four domains: mind-body medicine, biologically based practices, manipulative and body-centered therapies, and energy medicine. Includes a hands-on experiential component for familiarization of some fundamental CAM concepts.

N X44. Perinatal Nursing Care.

Examine concepts, theories, and processes essential to understanding the health concerns and problems of women and their families during the childbearing years.

N X44P. Perinatal Nursing Care Practicum.

Apply concepts, theories, and processes pertinent to care of women and their families during the childbearing years.

N X47. Specialized Topics in Nursing.
N X47.1. Informatics in Health Care and Nursing.
N X47.10. Child Wellness Center (Practicum).
N X47.11. Children with Chronic Illness in the Community.
N X47.12. Clinical Nursing Preceptorship.
N X47.13. Community-Oriented Ambulatory Nursing.
N X47.14. Genetics in Clinical Nursing (Practicum).
N X47.15. Home Health Nursing.
N X47.16. Pediatrics in the Community.
N X47.17. Well Children in the Community.
N X47.2. Acute Care Pediatrics.
N X47.3. Cardiovascular Nursing.
N X47.4. Childbearing Nursing Elective.
N X47.5. Critical Care Nursing.
N X47.6. High-Risk Maternity.
N X47.7. Pediatrics.
N X47.8. Perioperative Nursing.
N X47.9. Special Topics in Pediatrics.

N X50. Interprofessional Collaborative Practice.
Focuses on developing the competencies needed for interprofessional collaborative practice among health care professionals. Core interprofessional competencies addressed include: values and ethics for interprofessional practice; knowledge of roles and responsibilities of different health professions; interprofessional communication; and teams and teamwork.

N X52. Career Planning and Professional Development.
Develop foundational knowledge and skills needed to launch a successful career in health care. Explore career management and professional development as a continuous lifelong process.

N X54. Spanish for Health Care Professionals.
Basic medical Spanish language skills and phrases related to assessment and nursing activities. Focus on the cultural values of Latino patients who seek health care in the United States.

N X55C. Adult Health Nursing IIA.
First of a two-part sequence in adult health nursing. Advanced concepts and theories to promote and restore health of adults with biological problems and related physiological and psychological responses.

N X55D. Adult Health Nursing IIB.
Second part of a two-part sequence in adult health nursing. Advanced concepts and theories to promote and restore health of adults with biological problems and related physiological and psychological responses

N X55P. Adult Health Nursing II (Practicum).
Application of advanced concepts and theories to promote and restore health of adults with biological problems and their related physiological and psychological responses.

N X56. Mental Health Nursing across the Life Span.
Biological, environmental, cultural, and interpersonal factors predisposing individuals across the life span to mental health problems. The course is organized around the nursing process, as well as multidisciplined therapeutic modalities, that assist the individual and family to adapt, recover, and grow through these problems. Current relevant research, and the sociocultural, legal, and ethical implications of providing nursing care to the mentally ill.

N X56P. Problems in Mental Health Nursing (Practicum).
Application of strategies for the care of individuals, groups, and families experiencing mental health problems.

N X57P. Clinical Nursing Skills II Practicum.
Laboratory instruction and practice in clinical nursing skills.

N X64. Nursing Research.
An introduction to key components of the research process, interpretation of basic statistics in research, and critical examination of patient-outcome research studies.

N X64H. Nursing Research: Honors.
An introduction to key components of the research process, interpretation of basic statistics in research, and critical examination of patient-outcome research studies.

N X66. Nursing Care of Children and Their Families.
Concepts, theories, and developmental processes essential to the health concerns and problems of children, adolescents, and their families.

N X66P. Nursing Care of Children and Their Families Practicum.
Application of concepts, theories, and developmental processes essential to the health concerns and problems of children, adolescents, and their families.

N X71. Disability over the Life Course.
An interdisciplinary introduction to the study of disability as a distinct social and clinical concept with practical and theoretical implications for health care. Focus on the changing needs of persons with disabilities over the life course. Explores how to understand the health needs of persons with disabilities and how to work with them and their families so they may negotiate environments with appropriate accommodations that meet their health care needs.

N X72. International Health Implications.
Explore global substantive and methodological content to enhance an understanding beyond the United States. Examine the cultural and socioeconomic variability between countries as part of key indicators of understanding.

N X73. Quality and Safety for Nursing Practice.
Designed to prepare students for professional nursing practice. Provides opportunities for synthesis of theoretical, evidence-based, and clinical knowledge with emphasis on quality care and patient safety.

N X74. Complex Nursing Care.
Addresses the management of complex and critical needs of patients and their families across the continua of care. The focus will be on people with multiple chronic conditions experienced by various populations such as age groups, disease/health conditions, and settings. In addition, transitional care, critical care concepts, palliative, and end-of-life care will be explored.

N X75. Public Health Nursing.
Presents public health nursing concepts, theories, and processes used in health promotion, disease or injury prevention, health protection, and risk reduction with individuals, families, groups, communities, and populations.

N X75P. Public Health Nursing Practicum.
Application of public health nursing concepts, theories, and processes used in health promotion, disease or injury prevention, health protection, and risk reduction with individuals, families, groups, communities, and populations.

N X77. Leadership and Management of Nursing Care.
Investigation,synthesis and application of laws,rules,theories and concepts in nursing leadership and management that promote professional nursing practice and healthcare leadership in diverse settings.

N X77H. Leadership and Management of Nursing Care: Honors.
Investigation,synthesis and application of laws,rules,theories and concepts in nursing leadership and management that promote professional nursing practice and healthcare leadership in diverse settings.

N X77P. Clinical Care Management Practicum.
Application of selected concepts and theories of management in the planning and delivery of health care.

N X79P. Capstone Preceptorship.
Designed to provide students with clinical experiences similar to those that confront newly employed registered nurses. Focuses on the role transformation of students and on clinical competence in

communication, collaboration, negotiation, delegation, coordination, and evaluation of interdisciplinary work.

N X84C. Professional Nursing Foundations.

Introduction to fundamental nursing care concepts, processes, and skills, including communication and assessment.

Graduate Courses

N X80C. Psychopharmacology for Advanced Practice Nurses.

Covers prescribing and monitoring medications commonly used with patients who have psychiatric or mental health problems.

N X80D. Family Care Concepts in Psychiatric-Mental Health Nursing.

Explore psychiatric-mental health nursing care for families with complex relational problems. Discover applications of theoretical, ethical, and evidence-based practices to formulate delivery of culturally sensitive care within the family context. Examine common practices, with emphasis on critical thinking skills inherent to the role of the Psychiatric-Mental Health Nurse Practitioner (PMHNP).

N X80F. Advanced Psychiatric and Mental Health Nursing I.

Studies the theory and evidence bases for diagnosis and management of a variety of common psychiatric and behavioral disorders. Emphasizes diagnostic reasoning, clinical decision-making, and therapeutic strategies appropriate for the role of the family psychiatric and mental health nurse practitioner. Considers the sociocultural and community context for patient care.

N X80G. Advanced Psychiatric and Mental Health Nursing I: Clinical.

A precepted, clinical environment in which to apply knowledge related to biological and psychosocial theories, pharmacology, health promotion, and ethics to patients and families with common psychiatric and behavioral disorders. Emphasis is placed on role development using standardized procedures and tools that assist in diagnosis, treatment, and developing beginning-level therapy skills in multiple modalities.

N X80H. Advanced Psychiatric-Mental Health Nursing II.

In-depth focus on the role of the family psychiatric and mental health nurse practitioner using theoretical bases for care of complex psychiatric and mental health patients with psychopathology in a variety of settings across the life span. Students integrate various biological and psychosocial theories with psychopharmacology, health promotion, and ethical decision-making to develop culturally sensitive care. Emphasizes evidenced-based practices, recommended practices and treatment protocols, ethical decision making, and critical thinking strategies that are integral to the role of the family psychiatric and mental health nurse practitioner.

N X80J. Advanced Psychiatric and Mental Health Nursing II: Clinical.

Studies the role of the advanced psychiatric and mental health nurse practitioner in providing care for patients and families with complex psychopathology and psychiatric and mental health problems in a variety of clinical settings. Knowledge from biological and psychosocial theories, psychopharmacology, health promotion, and ethics to develop culturally sensitive care. Emphasizes role development, evidenced-based practices, recommended practices and treatment protocols, ethical decision making, and critical thinking strategies.

N X80M. Topics in Historical and Philosophical Study of Nursing.

N X80M.1. Philosophical Aspects of Nursing.

Introduction to the analysis of nursing language: defining terms, detecting logical fallacies, analyzing meanings, and recognizing descriptive and normative aspects of judgments.

N X80M.2. Historical Development of Nursing.

In-depth study of the history of nursing, with emphasis on influences on the profession and changes that have occurred within it. Review of the association of nursing with related disciplines, its emergence into institutions of higher learning, organizational structure and hierarchy, changes in educational focus resulting from the preparation of educational leaders, and related topics.

N X80M.3. Philosophy of Nursing Theory.

Advanced seminar in the application of philosophical aspects of nursing theory.

N X80M.4. Philosophical and Theoretical Bases of Nursing Science.

Philosophical principles and theories that contribute to the ongoing evolution of nursing science. Explores the historical development of nursing as a professional discipline in the context of philosophy and science.

N X80Q. Psychiatric Assessment and Psychotherapy Skills.

Introduces psychiatric-mental health assessment of individuals and families throughout the life span, using established therapeutic communication techniques, individual psychotherapeutic modalities, and psychotherapy skills from evidence-based practices. Covers synthesis of theories and knowledge from nursing, biology, psychiatry, psychology, and socio-cultural studies as they apply to the comprehensive assessment of psychiatric clients. Focus on assessment and psychotherapy skills commensurate with the role of the PMHNP through didactic, experiential and observational practice in the classroom.

N X80T. PMHNP: Management of Chronic Illness.

Analysis and application of physiological, psychosocial, spiritual, and environmental concepts to treat selected patients with chronic illness. Focus on dynamics of chronic illness and related psychiatric mental health nurse practitioner roles. Explores concepts relevant to the management of complex and chronic health care problems often comorbid with psychiatric illness. Includes supervised instruction in clinical agencies.

N X80U. Spanish for Health Care Professionals.

Basic medical Spanish language skills and phrases related to assessment and nursing activities. Focus on the cultural values of Latino patients who seek health care in the United States.

N X81C. Health Informatics.

Information and communication technologies are increasingly being applied to the healthcare context, with many new jobs opening up in areas such as health information management, electronic health records, and consumer and public health informatics. Explores the challenges and career opportunities provided by these recent developments. Discusses major issues-social, cultural, political, economic, technological, historical, and ethical-associated with health informatics.

N X81D. Leadership Development for Healthcare Professionals.

Examines leader-follower partnerships in diverse healthcare settings. Uses theories, research findings, and expert opinions from several fields of study to explore the related concepts of power, authority, influence, leadership, followership, decisional involvement, structural empowerment, and emotional intelligence in the context of complex healthcare work environments. Special emphasis is placed on the use of effective leadership and followership behaviors to sustain high performing interprofessional teams and improve quality outcomes for patients, families, and healthcare organizations.

N X81F. Leadership in Diverse Settings Advanced Nursing Capstone II Practicum.

Focus on monitoring, closing, and evaluating the Capstone project that addressed organizational challenges, health issues, and/or enhance healthcare delivery effectiveness.

N X81M. Topics in Adult Health Nursing.

N X81M.6. Nursing Science: Domains of Inquiry and Interdisciplinary Perspectives.

Explore domains of nursing science through inquiry, shaped by the problems and perspectives of nursing as a practice and academic discipline. Includes critical review of theories that contribute to the

understanding of nursing practice and nursing research within an interdisciplinary context.

N X81P. Project Planning Practicum.
Discuss practical skills and experiences to initiate and lead quality improvement or evidence-based practice projects that address organizational challenges, health issues, and/or effective healthcare delivery.

N X81Q. Patient Care Practicum.
Apply advanced nursing concepts in a selected area of nursing. Develop individual goals and objectives for practicum activities. Address health issues in areas such as the care of individuals, families, communities, and systems.

N X81R. Theoretical Foundations of Aging.
Theories in gerontology as applied to nursing practice.

N X81S. Gerontological Nursing.
Physiological changes in the elderly, and their implications for nursing practice.

N X81V. Leadership in Diverse Settings Advanced Nursing Practicum.
Precepted practicum focusing on advanced nursing concepts and skills in a setting selected with consideration of the student's interest, needs, goals, and objectives. Assessments of individuals, families, or groups, and their environments, implementation of appropriate evidence-based specialized nursing interventions, and evaluation the role of master's prepared nurses in diverse practice settings.

N X81W. Leadership in Diverse Settings Advanced Nursing Capstone Practicum.
Focus on planning, implementing, and monitoring the Capstone project. Address organizational challenges, health issues, and/or enhance healthcare delivery effectiveness.

N X82. Sociocultural Influences on Health.
Focus on factors associated with inequities in health status, health care, and health policies. Use an ecological approach to explore relationships among individual characteristics such as gender, education, income, literacy, race, ethnicity, culture, acculturation, disability, age, and sexual orientation. Examine interpersonal factors such as communication with health care providers, family and social ties, and discrimination as well as societal-level factors such as neighborhood and community context, health care organizations, economics, politics, and policies. Seek to understand how those factors shape health behaviors, access to health care services, and health status locally, nationally, and globally.

N X82W. Informatics for Healthcare Professionals.
Explores subjects of health informatics that are specifically focused to healthcare professionals. Representative subjects include: key roles and responsibilities of health informaticians in American healthcare system; Informatics related theoretical foundations, research needs assessment and available information sources on EBP; Applications of health informatics by healthcare professionals (HCPs) in clinical settings; Implementation and evaluation of health informatics applications in clinical settings; Human-computer interaction (HCI), usability and ethical challenges and issues faced by HCPs; and new trends in health informatics technology to engage patients.

N X84C. Professional Nursing Foundations.
Introduction to fundamental nursing care concepts, processes, and skills, including communication and assessment.

N X84N. Genomic Applications in Nursing.
The ethical, legal, psychological, and social issues involved in the integration of genetic information into nursing practice.

N X84P. Aging and Disability.
Examines concepts and theories of aging and disability. Addresses the changing physical, psychological, social, economic, ethical, legal, and spiritual needs, environmental accommodations, and caregiver responsibilities and needs across the life course.

N X84T. Professional Nursing Management.
Examines selected concepts and theories of nursing leadership and management in the context of the nursing work environment and professional nursing career development.

N X85. Topics in Nursing.

N X85.1. Big Data in Health Sciences Research.

N X85E. End-of-Life Communication and Decision-Making.
Examine the scholarly research, theory, and practice associated with decision-making and communication at the end of life across diverse populations, including subjects of death and dying, loss, grief, bereavement, ethical principles, shared decision-making, advance directives, refusal or withdrawal of life-sustaining medical treatment, and family caregiving. Explore communication and conflict in the context of psychosocial, spiritual and cultural aspects of the lives of patients and families.

N X86F. Budget and Finance in Health Care.
Conceptual and practical applications of financial management, cost analyses, and budgeting in the contemporary health care delivery system.

N X86Q. Quality and Safety in Healthcare.
Examination of quality and safety in the U.S. healthcare system based on quantitative and qualitative research findings, expert opinions, and cultural surveys. Explores and evaluates strategies for creating and sustaining a culture of safety in healthcare.

N X86W. Foundations of Health Care Finance.
Explore conceptual and practical applications of financial management, cost analyses, and budgeting in the contemporary health care delivery system.

N X87F. Adult Health Nursing I.
Introduction to concepts, theories, and research findings essential for promoting and restoring the health of adults with selected commonly occurring physiological alterations and responses to health and illness.

N X87G. Psychiatric-Mental Health Nursing.
The biological, environmental, cultural, and interpersonal factors affecting individuals with psychiatric-mental health problems.

N X87H. Child Health Nursing.
Integrates concepts, theories, and processes essential to understanding the health and illness of children within the context of the family.

N X87K. Leading and Managing in Complex Healthcare Systems.
Concepts related to individual, group and organizational behavior are studied and applied to the processes of leading people and managing work in complex healthcare systems. Theories of nursing, economics, organizational psychology, management science, sociology, and complexity science are used to critically examine healthcare work environments. Theory application will focus on creating and sustaining healthy work environments, leading and managing organizational change, managing work processes, and administrative decision making. Relevant research in nursing and other behavioral sciences is reviewed.

N X87Q. Public Health Nursing.
Integration of nursing, public health, and social science concepts and theories essential for promoting and restoring health and preventing disease and disability in aggregates, populations, and communities.

N X87R. Adult Health Nursing II.
Advanced concepts, theories, and research findings essential for promoting and restoring health of adults with selected complex physiological alterations and responses.

N X87S. Integration of Nursing Knowledge.
Integration of nursing knowledge derived from didactic and clinical courses, with application in case studies and simulated patients across the life span and in a variety of settings.

N X87T. Perinatal Nursing.
Explore the normal processes and physiological alterations that occur before, during, and after pregnancy. Examine concepts, theories, and processes essential for promoting health and addressing health

concerns of women, neonates, and their families during the childbearing years.

N X89C. Adult-Gerontology Clinical Nurse Specialist: Role Dimensions.

Survey of the underlying values and the central and core competencies of the adult-gerontology clinical nurse specialist in adults (young adults through older adults) across the spheres of influence (patient, nursing practice, organization/system). Application of theory and research to advanced practice.

N X89D. Adult-Gerontology Clinical Nurse Specialist: Health Promotion and Illness Prevention.

Analysis of physiological, psychosocial, and environmental concepts and testing of assessments and interventions for select adult-gerontology (AG) populations across the life spectrum (young adults through older adults).

N X89E. Adult-Gerontology Clinical Nurse Specialist: Chronic Illness.

Analysis of physiological, psychosocial, spiritual, and environmental concepts and testing of assessment and interventions for select adult-gerontology (AG) populations with chronic illness conditions. The focus is on dynamics of multiple chronic illness and related Adult-Gerontology Clinical Nurse specialist (AG-CNS) roles.

N X89F. Adult-Gerontology Clinical Nurse Specialist: Acute Care.

Analysis of physiological, psychosocial, and environmental concepts and testing of assessments and interventions in select adult-gerontology populations experiencing acute illness. Focus on dynamics of acute illness and related Adult-Gerontology Clinical Nurse specialist (AG-CNS) roles.

N X89H. Diagnosis and Management of Adult-Gerontology Health Problems.

Theoretical and clinical content for management of health problems of adult patients across the life spectrum (young adults through older adults). Integration and application of skills and knowledge gained in previous adult-gerontology clinical nurse specialist coursework for adult patients in the acute or chronic setting. Pattern recognition, critical thinking, analysis, diagnostic testing, differential diagnosis, and medical management of common adult, older-adult health problems.

N X89M. Adult-Gerontology CNS: Practicum I.

Guided clinical application of Adult-Gerontology Clinical Nurse Specialist (AG-CNS) core competencies (expert coaching, collaboration, consultation, research, leadership, and ethical decision-making) in delivery of care for select adult-gerontology (AG) populations to promote health and manage acute and/or multiple chronic conditions at the patient, nurse, and system level. Preparation for certification and credentialing as an AG-CNS.

N X89N. Adult-Gerontology CNS: Practicum II.

Guided clinical application of Adult-Gerontology Clinical Nurse Specialist (AG-CNS) core competencies, such as expert coaching, collaboration, consultation, research, leadership, and ethical decision-making in the delivery of care for select adult-gerontology (AG) populations to promote health, and manage acute and/or multiple chronic conditions at the patient, nurse, and system level. Prepares students for certification and credentialing as an AG-CNS.

N X89P. Diagnosis and Management of Adult-Gerontology Health Problems.

This seminar course offers theoretical and clinical content for advanced nursing students to provide medical management of health problems for adult-gerontological patients. Students will learn pattern recognition, critical thinking, analysis, diagnostic testing, differential medical diagnosis, and medical management of common adult-gerontological health problems using an interprofessional team approach. This seminar is appropriate as a support course for other interprofessional graduate students.

N X90D. Public Health in a Global Context.

Advanced study of theory and research related to public health within a global context. Examines relationships among public health needs and resources, health services, health policy, law, and population health indices. Emphasis is on developing both the knowledge fundamental to population-based health and the research base for optimizing public health through community action.

N X90E. Global Health and Primary Care in Costa Rica.

Explore fundamental concepts of global health, including social, political, and economic determinants of health for Costa Rica. Examine culture, health care systems, and health outcomes. Assess disease management in these environments from a primary care perspective. Consider how to empower people within their communities to manage their health through evidence-based practice, research, and education.

N X90F. Adult Health Nursing I Practicum.

Application of concepts, theories, processes and skills pertinent to promoting and restoring the health of adults with selected commonly occurring physiological alterations and responses.

N X90G. Psychiatric-Mental Health Nursing Practicum.

Application of concepts, theories, processes, and skills that are pertinent to promoting mental health and providing nursing care for people with psychiatric and mental illnesses.

N X90H. Child Health Nursing Practicum.

Application of concepts, theories, processes, and skills pertinent to the care of children within the context of the family.

N X90Q. Public Health Nursing Practicum.

Application of public health nursing concepts, theories, and processes pertinent to the care of aggregates, populations, and communities.

N X90R. Adult Health Nursing II Practicum.

Application of advanced concepts, theories, processes, and skills essential for promoting and restoring the health of adults with selected complex physiological alterations and responses.

N X90S. Integration of Nursing Knowledge Practicum.

Designed to assist the student in the application and integration of knowledge from didactic and clinical courses in the care of multiple patients.

N X90T. Perinatal Nursing Practicum.

Apply concepts, theories, processes, and skills pertinent to the care of women, neonates, and their families during the childbearing years.

N X90U. Foundations of Nursing Education.

Examine essential elements of nursing education, including theoretical bases of culturally-relevant teaching, learning, and curriculum development. Explore approaches to the development of values integral for a novice nurse educator, including ethical and legal considerations and the importance of engaging in scholarship.

N X90V. The Art and Science of Teaching Nursing.

Examine the essentials of course, curriculum and program design for the nurse educator. Using educational technologies, explore teaching and learning strategies in varied formats, including face-to-face, online and hybrid. Explore diversity, inclusivity, and personal and professional values with regard to the art and science of nursing education and life-long learning.

N X90W. Role of the Nurse Educator.

Explore advanced role development for the nurse educator, including concepts and skills related to curriculum development and program evaluation, quality improvement, faculty governance and leadership, and the scholarship of teaching, research, and service.

N X91Q. Health Care Informatics.

Information and communication technologies are increasingly being applied to the healthcare context, with many new jobs opening up in areas such as health information management, electronic health records, and consumer and public health informatics. Explore the challenges and career opportunities provided by these recent developments. Discuss major issues-social, cultural, political, economic, technological, historical, and ethical-associated with health informatics.

N X91S. Alternate Entry Capstone Preceptorship.
Apply and integrate knowledge from didactic and clinical training in the care of multiple patients.

N X92E. Applications of Health Care Research.
Designed to prepare students to discover, examine, and evaluate knowledge, theories, and creative approaches to health care. Focuses on the skills needed to identify research questions in practice, evaluate existing practice in the light of research findings, and develop strategies to incorporate research findings into the clinical setting.

N X92P. Health Policy, Program Planning, and Evaluation.
Exploration of multilevel health care policy implementation, program development, and outcome evaluation. Focus on the application of policies from macro-level to micro-level systems.

N X93C. Advanced Pediatric Health Assessment.
Explore advanced developmental and health assessment of children (newborn through adolescent), with an emphasis on theories and skills applicable to the assessment of children.

N X93D. Advanced Pediatric Pharmacology.
Study pediatric pharmacotherapeutics, with emphasis on pharmacokinetics, pharmacodynamics, administration, and education.

N X93E. Pediatric Nurse Practitioner Primary Care I.
Study health promotion, anticipatory guidance, prevention of illness, and the assessment and management of acute illnesses commonly affecting children. Discuss concepts related to the advanced role development of nurse practitioners.

N X93F. Pediatric Nurse Practitioner Primary Care I Clinical.
Attain clinical experience in primary care settings, focusing on health promotion and management of well-child care and acute illnesses commonly encountered in children.

N X93G. Pediatric Nurse Practitioner Primary Care II.
Examine theoretical knowledge relevant to the management of complex and chronic primary health care problems from infancy through adolescence.

N X93H. Pediatric Nursing Practitioner Primary Care II Clinical.
Attain clinical experience in the management of complex or chronic health problems of infants, children, and adolescents in a specialty setting, as well as management in primary care.

N X93J. Pediatric Acute Care Management III and Role Transition.
Learn to recognize, interpret, and respond to emerging health crises and organ system dysfunction or failure of physiologic systems in children with complex acute, critical, and chronic health conditions. Examine patient stabilization, minimizing complications, and restoring maximal health potential. Explore core concepts such as team-based management of care and interprofessional collaboration; complex discharge planning; community and social influences of child and family health; advanced role development; and legal, political, and ethical issues that affect nurse practitioner practice.

N X93M. Topics in Maternal/Parent-Child Nursing.

N X93P. Pediatric Diagnostic Reasoning and Advanced Invasive Skills.
Interpretation of laboratory and diagnostic testing; and the development of diagnostic and psychomotor skills needed to care for acute or critically ill pediatric patients.

N X94. Topics in Independent Study in Nursing.
Detailed or in-depth study in a specific topic area. Topic and mode of study are agreed upon by student and instructor.

N X94E. Pediatric Primary Health Care Concepts I.
Study of health promotion, anticipatory guidance, prevention of illness, and the assessment and management of acute illnesses commonly affecting children. Concepts related to advanced role development of nurse practitioners.

N X94F. Pediatric Primary Health Care Concepts I Clinic.
Clinical experience in primary care settings, focusing on health promotion and management of well-child care and acute illnesses commonly encountered in children.

N X94G. Pediatric Acute Care Role Transition and Advanced Practicum.
Demonstrate role behaviors and clinical competence consistent with that of an advanced beginner acute care pediatric nurse practitioner. Experience a concentrated and supervised opportunity to make more independent and interdependent decisions in managing emerging crisis and organ system dysfunction in children with a variety of complex acute, critical, and chronic health conditions. Work collaboratively with faculty and preceptors in a variety of settings including emergency departments, intensive care units, inpatient medical/surgical units, and sub-specialty clinics.

N X94J. Pediatric Primary Health Care Concepts III.
Primary care management of complex conditions in children. Additional emphasis on advanced role development of the pediatric nurse practitioner.

N X94K. Pediatric Primary Health Care Concepts III Clinic.
Pediatric primary health care practicum in the advanced nursing management of the health of infants, children, and adolescents.

N X94Q. Pediatric Acute Care Management I.
Designed to prepare students to recognize, interpret, and respond to emerging health crises and organ system dysfunction or failure in children with complex acute, critical, and chronic health conditions. Emphasizes patient stabilization, minimizing complications, restoring maximal health potential through risk reduction, and providing physical and psychosocial support to the patient and family. Acute, critical, and chronic disorders within selected physiological systems are explored from a developmental and multicultural perspective.

N X94R. Pediatric Acute Care Management I: Clinical.
Provides an opportunity for the beginner acute care pediatric nurse practitioner student to apply advanced knowledge of pathophysiology, pharmacology, current research and evidence, and diagnostic and psychomotor skills to caring for children with complex acute, critical, and chronic health conditions, and their families.

N X94S. Pediatric Acute Care Management II.
Designed to prepare students to recognize, interpret, and respond to emerging health crises and organ system dysfunction or failure of physiological systems in children with complex acute, critical, and chronic health conditions. Emphasizes patient stabilization, minimizing complications, and restoring maximum health potential. Explores core concepts such as transport, complex discharge planning, rehabilitation, home care, and long-term care.

N X94T. Pediatric Acute Care Management II: Clinical.
Designed to prepare students for clinical competence consistent with that of a beginner acute care pediatric nurse practitioner. Under the supervision of faculty and preceptors, students integrate advanced knowledge of pathophysiology, pharmacology, current research and evidence, and diagnostic and psychomotor skills to create comprehensive management plans for children with complex acute, critical, and chronic health conditions.

N X94U. Pediatric Acute Care Advanced Practicum.
Designed to prepare students to demonstrate the clinical competence of an advanced beginner acute care pediatric nurse practitioner. Under the supervision of faculty and preceptors, students have the opportunity to make independent and interdependent decisions in managing emerging health crises and organ system dysfunction in children with a variety of complex acute, critical, and chronic health conditions. Students work in a variety of settings, including emergency departments, intensive care units, inpatient medical and surgical units, and subspecialty clinics. Explores the legal, political, and ethical issues affecting nurse practitioner practice.

N X94V. Child Adolescent Psychiatric Mental Health for Primary Care.
Examines foundational content relative to the care of children and adolescents with behavioral and psychiatric mental health disorders. Aspects of care examined will include health promotion, screening, treatment and referral to psychiatric mental health specialists. Focus on inter-professional and collaborative practice using evidence-based models for evaluation and management of common behavioral and psychiatric mental health disorders in the child and adolescent.

N X94W. Pediatric Clinical Pharmacology and Therapeutics in Acute Care.
Explore pediatric pharmacotherapeutics with emphasis on pharmacokinetics, pharmacodynamics, administration and education in acute care settings.

N X95. Topics in Nursing.
Areas of special interest.

N X95C. Clinical Pharmacology and Therapeutics.
Application of pharmacologic and pharmacokinetic principles to drug therapy management in family primary care nursing.

N X95D. Pediatric Clinical Pharmacology and Therapeutics.
The study of pediatric pharmacotherapeutics, with emphasis on pharmacokinetics, pharmacodynamics, administration, and education.

N X95F. Theoretical Foundations for Nursing Practice.
Examines the nature of theory and theory development for nursing practice; the application of theory to practice, practice change, and scholarship are also explored.

N X95N. Biostatistics.
Basic concepts in descriptive and inferential statistical methods. Explores intermediate statistical concepts including analysis of variance (ANOVA) with planned comparisons and post-hoc tests, factorial ANOVA, bivariate linear correlation and logistic and multiple regression, survival analysis, the chi-square tests for goodness of fit and association, the Mann-Whitney U test, and the essentials of sample size estimation.

N X95P. Health Care Economics.
Explores basic economic theory, market drivers and restraints, health care budget, financial management and reimbursement, cost/benefit analysis, and healthcare entrepreneurialism. Includes theory and application, with a particular focus on the clinical role of the Doctor of Nursing Practice within the contemporary healthcare environment.

N X95Q. Professional Practice of the FNP.
Explores concepts and theory from nursing, social, and biological sciences related to primary care management of complex health/illness conditions in adults and children as members of families. Emphasis is on community/social issues influencing individual and family health, complex individual, family and/or community interventions, advanced role development and legal, political, ethical issues affecting nurse practitioner practice.

N X96C. Advanced Pathophysiology.
Pathophysiologic concepts from the cellular level through major body systems and across the life span. Etiological, pathogenic, and presenting patterns. Fundamental concepts of anatomy and physiology. Students are expected to develop an understanding of nursing and medical interventions for common health problems and the ability to apply and design interventions based on pathophysiologic changes.

N X96J. Advanced Health Assessment.
Advanced knowledge and skills involved in the assessment of individuals throughout the life span, within the context of the family, to determine their health status.

N X96L. Primary Health Care Concepts I.
Theoretical and clinical knowledge needed for advanced nursing management within the context of the family and the community of individuals who are essentially well or who have minor health problems.

N X96M. Primary Health Care Concepts I Clinic.
Supervised experience in the nursing management of infants, children, and/or advanced adults and families who are well or who have common acute health problems.

N X96N. Primary Health Care Concepts II.
Theoretical and clinical knowledge needed for the management of complex and chronic health problems of individuals and families.

N X96P. Primary Health Care Concepts II Clinic.
Supervised experience in the nursing management of infants, children, adults, and families who have complex or chronic health problems.

N X96Q. Primary Health Care Concepts III.
Offers the FNP student the theoretical and clinical content for management of complex health problems throughout the lifespan. Focus is on the integration and application of skills and knowledge gained in prior FNP coursework for pediatric, adult, and aging clients in primary health care settings. Use pattern recognition, critical thinking, analysis, diagnostic testing, differential diagnosis and medical management of complex health problems throughout the lifespan.

N X96R. Primary Health Care Concepts III Clinic.
Advanced supervised experience as a direct primary health care giver in family practice clinical settings.

N X96S. Special Project in Advanced Practice.
Development of a special project in an area of research, policy, or clinical issues relevant to advanced practice.

N X96T. Ecological Approaches to Child Health.
The ecological approach to understanding individual, parental, family, and societal determinants of children's health. Students gain knowledge of developmental and family theories and use epidemiological principles to comprehend the complex dimensions and related conceptual factors that contribute to the health and well-being of children within families. Theoretical foundations for graduate students interested in health promotion and risk reduction for children and families.

N X96U. Pediatric Primary Health Care Concepts II.
Theoretical knowledge relevant to the management of complex and chronic primary health care problems from infancy through adolescence.

N X96V. Pediatric Primary Health Care Concepts II Clinic.
Clinical practice in the management of complex or chronic health problems of infants, children, and adolescents in a specialty setting as well as management in primary care.

N X97C. Doctoral Seminar I.
Introduction to nursing science. Explores the history, current priorities, and funding mechanisms of science development in nursing along with established programs of nursing research. Provides a forum for students to develop and exchange ideas regarding research topics.

N X97D. Doctoral Seminar II.

N X97L. Topics in Nursing Research Methods.

N X97L.1. Analysis and Interpretation of Data.
Critiquing, interpreting, disseminating, and using research findings.

N X97L.2. Instrumentation and Measurement.
Theoretical, methodological, and procedural aspects of measurement: norm-referenced and criterion-referenced measurement; data management and instrumentation.

N X97L.3. Conceptual Foundations of Research Design and Methods.
Theoretical approach to basic statistical and measurement concepts and their importance to research in health-related areas.

N X97L.4. Critical Review of the Literature.
Designed to assist the novice researcher in conducting a systematic and critical review of the literature in a substantial area of health-related scholarship.

N X97L.5. Quantitative Design, Methods, and Analysis.
The quantitative research design, methods, and analyses used in health care research. Includes descriptive, correlational, and experimental designs; related methods of analyses using statistical software; and interpretation of data.

N X97M. Qualitative Research.
Introduction to the theoretical and methodological aspects of qualitative research methods. Qualitative research approaches from a variety of disciplines and philosophical traditions, with emphasis on the application of research designs and data collection and analysis techniques to nursing studies.

N X97N. Correlation and Regression in Health Research.
Examine the principles and applications of statistical techniques using a linear model approach. Explore correlation, partial correlation, linear regression, multiple regression, and logistic regression.

N X97P. Nursing Research Practicum.
Guided experience in conceptual and methodological aspects of research: data management and analysis; critique and interpretation; instrumentation; and measurement.

N X97Q. Research Practicum I.
Examine essential aspects of the responsible conduct of research and beginning skills needed to initiate a research program. Transition into the role of the nurse scientist with emphasis on individual career development, sustaining a program of research, and evolving research trajectories. Focus on conceptual, methodological, and practical aspects of research within an ongoing faculty research project.

N X97R. Research Practicum II.
Examine essential procedural aspects of conducting health-related research and developing skills in scholarly leadership and service. Explore subjects such as drafting research questions, recruitment and retention of participants, data collection methods, and management of data. Focus on conceptual, methodological, and practical aspects of research within an ongoing faculty research project.

N X97S. Research Practicum III.
Focuses on essential skills needed to develop a research proposal and plan an independent research program. Students focus on conceptual, methodological, and practical aspects of research within an ongoing faculty research project.

N X97W. Developmental Writing.
Study writing skills for graduate level course work, including clarity and continuity of thought, use of proper grammar, and proper use of APA format.

N X98. Thesis.

N X98C. Theoretical Basis for Precision Health Implementation Science.
Examine a scoping review of the theoretical foundations of precision health and implementation science approaches. Explore biological, technological, behavioral, and social-ecological health contexts; and team science approaches and ethics related to implementing precision health approaches.

N X98D. Designing Precision Health and Implementation Science Research.
Analyze the scientific rigor of precision health approaches to intervention, data collection, and other study procedures. Examine cutting-edge strategies, emerging resources, and rigorous approaches to precision health research and their potential application to multiple chronic conditions.

N X98E. Precision Health Interventions for Self-Management.
Examine issues and approaches in design and implementation of precision health self-management interventions for multiple chronic conditions. Engage in hands-on practice with application of concepts to student-defined, instructor-approved projects.

N X98T. Supervised Teaching and Learning in Nursing.
Designed to introduce the student to the essential elements of nursing education prior to engaging in the role of assistant instructor. Critical elements include the theoretical bases of teaching and learning; teaching strategies for clinical and classroom settings; assessment and evaluation strategies for various educational settings; ethical and legal considerations; and the importance of engaging in the scholarship of teaching.

N X99W. Dissertation.

Professional Courses

N X84C. Professional Nursing Foundations.
Introduction to fundamental nursing care concepts, processes, and skills, including communication and assessment.

N E - Nuclear Engineering

Nuclear Engineering: N E

Lower-Division Courses

N E X19S. Topics in Nuclear Engineering.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Cockrell School of Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

Upper-Division Courses

N E X29S. Topics in Nuclear Engineering.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Cockrell School of Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

N E X36P. Concepts in Nuclear and Radiation Engineering.
Explore different aspects and applications of nuclear and radiation engineering/physics. Examine the history of nuclear development, basic concepts of radiation and radioactivity, radioactive waste management, global warming and the impact of nuclear power plants, industrial applications, health physics, nuclear medicine, job opportunities at power plants, non-proliferation, and nuclear security.

N E X37C. Introduction to Nuclear Power Systems.
Explore radioactivity, nuclear interactions: fission and fusion, fission reactors, nuclear power systems, nuclear power safety.

N E X37F. Nuclear Environmental Protection.
Explore ionizing radiation and its interactions with matter and living tissues; radioactive decay kinetics; external and internal dose measurement; transportation through the environment; managing radioactive waste streams; and safeguards.

N E X37G. Nuclear Safety and Security.
Explore policy and technical aspects related to nuclear safety and security. Evaluate the proliferation of risk from facilities within the nuclear fuel cycle. Examine the criticality conditions for a nuclear assembly and derive parent/daughter decay equations.

N E X61E. Nuclear Reactor Operations and Engineering.
Explore fission and chain reactions; neutron diffusion and moderation; reactor equations; Fermi Age theory; and multigroup and multiregional analysis.

N E X61F. Radiation and Radiation Protection Laboratory.
Introduction to the application of radiation and radiation protection instrumentation. Lecture and laboratory topics include personnel monitoring, radiation detection systems, gamma-ray spectroscopy, determination of environmental radiation, counting statistics, gamma and neutron shielding, and air sampling.

Graduate Courses

Professional Courses

N S - Naval Science

Naval Science: N S

Lower-Division Courses

N S X00. Drill.

N S X02. Introduction to Naval Science.
A general introduction to sea power and the naval service, including the mission, organization, regulations, warfare components, and personnel programs.

N S X12. Sea Power and Maritime Affairs.
A consideration of the influence of sea power, naval history, and maritime affairs on current events and national policy.

N S X15. Naval Engineering.
Introduction to types, structures, and purposes of naval ships and systems.

N S X16. Naval Weapons Systems.
Introduction to types, capabilities, and purposes of Naval weapons systems.

N S X19S. Topics in Naval Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Naval Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

N S X30. Leadership and Ethics.
Principles of leadership and ethics reinforced through seminar discussion and case studies. Discussion of the duties and responsibilities of a naval officer.

Upper-Division Courses

N S X12. Sea Power and Maritime Affairs.
A consideration of the influence of sea power, naval history, and maritime affairs on current events and national policy.

N S X26. Evolution of Warfare.
Explores the forms of warfare employed by great leaders in history as they relate to the evolution of warfare.

N S X29. Navigation and Naval Operations I.
An introduction to piloting, a survey of navigational aids, and a study of the Rules of the Nautical Road.

N S X29S. Topics in Naval Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Naval Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

N S X30. Leadership and Ethics.
Principles of leadership and ethics reinforced through seminar discussion and case studies. Discussion of the duties and responsibilities of a naval officer.

N S X35. Leadership and Management.
Study of leadership and management theory in organizations, with emphasis on examining the leadership process in the context of the dynamic interaction of the leader, the followers, and the situation.

N S X36. Fundamentals of Maneuver Warfare.
Intended for Naval ROTC students. Focuses on the evolution of the United States Marine Corps as a maneuver warfare organization, with particular attention devoted to the structure and capabilities of the present day USMC as a forward deployed and rapid deployment force and the development of Expeditionary Maneuver Warfare concepts.

N S X62. Amphibious Warfare.
Defines the concept of amphibious warfare, explores its doctrinal origins, and traces its evolution as an element of naval policy during the twentieth century.

N S X69. Navigation and Naval Operations II.
Study of the celestial sphere and nautical astronomy to determine positions on the earth by mathematical analysis, and an introduction to relative motion and the maneuvering board.

Graduate Courses

N S X12. Sea Power and Maritime Affairs.
A consideration of the influence of sea power, naval history, and maritime affairs on current events and national policy.

N S X30. Leadership and Ethics.
Principles of leadership and ethics reinforced through seminar discussion and case studies. Discussion of the duties and responsibilities of a naval officer.

Professional Courses

N S X12. Sea Power and Maritime Affairs.
A consideration of the influence of sea power, naval history, and maritime affairs on current events and national policy.

N S X30. Leadership and Ethics.
Principles of leadership and ethics reinforced through seminar discussion and case studies. Discussion of the duties and responsibilities of a naval officer.

NEU - Neuroscience

Neuroscience: NEU

Lower-Division Courses

NEU X19S. Topics in Neuroscience.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Neuroscience. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

NEU X20. Introduction to Neuroscience.
Introduction to the nervous system with an emphasis on brain organization, neuron physiology, perceptual systems, and motor systems. Designed for non-neuroscience majors.

NEU X29S. Topics in Neuroscience.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Neuroscience. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

NEU X30. Neural Systems I.
Introduction to the nervous system with an emphasis on brain organization, neuron physiology, perceptual systems, and motor systems.

NEU X35. Neural Systems II.
Introduction to the nervous system with an emphasis on neural development and on the neural mechanisms of memory, emotions, and other higher cognitive functions.

NEU X37. Selected Topics in Neuroscience.
Topics include recent developments and research methods in the field of neuroscience.

NEU X37.3. Neuroscience for Plan II.

NEU X37.6. Rigor in Neuroscience.
Explore the application and integration of many different approaches, from molecules to behavior. Includes statistics, experimental design,

and philosophy of science with a mixture of discussion and hands-on training.

NEU X40. Neural Systems III: Quantitative Tools.
Introduction to quantitative approaches central to the study of the brain, with an emphasis on mathematical and statistical methods required for the rigorous design and interpretation of neuroscience experiments and data.

NEU X61T. Comparative Animal Physiology.
Examine the physiology of organ systems in animal phyla, with special emphasis on the neural and behavioral adaptations of organisms to their environment.

NEU X65D. Principles of Drug Action.
Introduction to the basic principles of pharmacology; including how drugs get into the body, exert their actions, and are metabolized and excreted.

NEU X65E. Epigenetics of Neuroscience.
Explore how epigenetic modifications cause long-lasting changes in gene expression.

NEU X65L. Neurobiology Laboratory.
An introduction to physiological, morphological, and molecular techniques used for analysis of the nervous system. Experiments and computer simulations illustrate basics of information processing by the nervous system.

NEU X65M. Advanced Experimental Neurobiology.
Examine neocortical cell and circuit function through presentation and critique of research goals and strategies.

NEU X65N. Nerve Regeneration in Invertebrates and Vertebrates.
Explore use of nerve regeneration and degeneration in invertebrate vs vertebrate systems to synthesize concepts in neuroscience.

NEU X65P. Programming and Data Analysis for Modern Neuroscience.
Explore the basics of programming, statistics, and machine learning, and apply these techniques to the analysis of data from neuroscience experiments.

NEU X65T. Neurobiology of Disease.
The neurobiological basis of disorders of the brain, with the main focus on mental illness. Emphasizes the neural circuitries and neurochemical events that underlie specific mental processes and behaviors.

NEU X65W. Neurobiology of Addiction.
Study of the neurobiology of neurotransmitters, and the influence of alcohol and drugs of abuse on neurotransmitters.

NEU X66C. Ion Channels and the Molecular Physiology of Neuronal Signaling.
Explores the role of molecular conformational changes in higher-level neuronal function and sensory transduction, including the generation and regulation of diverse types of neuronal signaling characteristics. Emphasizes a quantitative approach and the use of models to study function.

NEU X66D. Synaptic Physiology and Plasticity.
Detailed study of the physiology of synaptic transmission in the mammalian central nervous system. Covers dendritic integration and various forms and mechanisms of synaptic plasticity.

NEU X66G. Functional and Synaptic Neuroanatomy.
Neuroanatomy and function of synapses as a basis for brain function and behavior. Examine the ultrastructure and function of synapses, dendrites and axons underlying basic synaptic transmission and plasticity. Laboratory projects involve three-dimensional reconstructions from serial section electron microscopy.

NEU X66L. Neuroimaging Laboratory.
Basic principles of image formation and techniques of fluorescent imaging and confocal laser-scanning microscopy. Includes image processing and analysis to extract quantitative information from digital images. Survey of imaging techniques, including electron microscopy and MRI.

NEU X66R. Rhythms in the Nervous System.
Explore the study of systems of oscillators in the nervous system including mechanisms of generation and theories about functions.

NEU X66S. Neuromolecular Genetics and Disease Laboratory.
Explores techniques used to study the molecular genetic basis for nervous system function and disease with a powerful invertebrate model system. Subjects will range from studying the conserved molecular basis for our senses and male/female-specific behaviors, to exploring how mutations of conserved neural genes cause neurological disorders, such as Parkinson's disease and Alzheimer's disease.

NEU X66T. Modeling and Theory in Neuroscience.
Examine the basic mathematical and computational tools central to the analysis of neural systems in a laboratory setting. Discuss linear algebra, differential equations, filtering, correlation, probability with an emphasis on quantitative methodology and applications to neuroscience.

NEU X66W. Neural Computation.
Examine why quantitative methods are so important in neuroscience. Learn how to apply basic mathematical concepts to neuroscience, with the goal of seeing the applications of these concepts more broadly and appreciating the interactions between neuroscience and other quantitative fields.

NEU X67C. Cellular and Molecular Bases of Neural Development.
Introduction to the principles by which the neural tube (brain and spinal cord) forms during embryonic development. Discuss the cellular and molecular mechanisms underlying the formation of a three-dimensional neural tube and its division into forebrain, midbrain, hindbrain, and spinal cord.

NEU X67F. Foundations of Human Neuroimaging.
Survey of methods for neuroimaging research. Describes the physics of MRI image acquisition, the physiology of neural responses, and the design and analysis of MRI studies.

NEU X67S. Analytical Skepticism.
Examine basic principles that allow accurate interpretation and depiction of scientific data, with an emphasis on notions of behavioral economics, probability and statistics, and experimental design.

NEU X67V. Evolutionary Neurobiology.
Examination of the nervous system in an evolutionary context.

NEU X70C. Topics in Neuroscience.
Supervised study of selected topics in Neuroscience, by individual arrangement with the instructor.

NEU X77. Undergraduate Research.
Laboratory or research in the various fields of neuroscience under the supervision of one or more faculty members.

NEU X79H. Honors Tutorial Course.
Original laboratory research project under the direction of a faculty mentor leading to a thesis or research presentation.

NEU X79N. Neuroscience and Computer Science Capstone.
Investigate questions at the intersection of neuroscience and computer science through collaborative projects. Develop computational tools and methods to study the brain and behavior. Explore how ideas from neuroscience and computer science can inform each other.

Graduate Courses

NEU X80C. Computational Neuroscience.
Introduction to computational neuroscience. Examines neural network and learning theory, coding, dynamics, memory, computation and learning in recurrent and feed forward neural circuits.

NEU X80E. Vision Systems.
Introduction to the anatomy, physiology, and psychophysics of human vision from an information-processing and computational perspective.

NEU X80M. Dual MD/PhD Program with UT Medical Branch.
Preclinical medical study at the University of Texas Medical Branch at Galveston.

NEU X81G. Grant Writing in the Behavioral and Biological Sciences.
Introduction to grant writing in the behavioral and biological sciences and development of grant writing skills. Subjects include: finding grant opportunities, planning proposal activities, successful grant writing strategies, and how to talk to grant program officers. Write grant proposals (e.g., proposals to federal agencies such as NSF or NIH) and revise proposals based on peer and instructor feedback. Explore how grant proposals are reviewed by participating in a mock review session.

NEU X81N. Basic Processes of Nerve Cells.
Degeneration and regeneration in nervous systems following traumatic injury; invertebrate versus vertebrate, peripheral nervous system versus central nervous system, axonal versus cell body, role of glia versus neurons.

NEU X81V. Mechanisms of Vision.
Physiology of the eye, the retina, and the visual pathways. Prospects for nutritional prevention of blinding eye diseases. Functional and ecological adaptations of primate and nonprimate vision.

NEU X82E. Epigenetics.
Study of how epigenetic modifications are covalent modifications of DNA or histones that cause changes in gene expression and how epigenetic modifications appear to be a method through which nurture or the environment can influence nature. Emphasis on how experience or environmental factors epigenetically modify health or behavior of animals.

NEU X82T. Principles of Neuroscience I.
Examines the core material on essential topics in molecular and cellular neuroscience, together with review and discussion of important early studies and contemporary literature.

NEU X82V. Neural and Computational Basis of Vision.
Introduction to the physiology, psychophysics and computational aspects of the visual system. Review linear systems analysis, information theory, Bayesian statistical decision theory, and other relevant mathematical areas.

NEU X83C. Functional Neuroanatomy.
An examination of the anatomy of the brain and spinal cord, emphasizing connections and functions of neural systems.

NEU X83D. Neuropharmacology.
An advanced survey of neurotransmitters and systems in the brain. Emphasis is on pharmacological analysis at the molecular level to determine mechanisms of action of drugs that act on the brain.

NEU X83E. Neuropharmacology II.
Explore neuropharmacological concepts related to brain development, organization and anatomy; neuroendocrinology, neuroimmunology and neuroinflammation; gut-brain axis; neurobiology of addiction; and others.

NEU X83M. Data Analysis and Statistics for the Neurosciences.
Statistical applications relevant to areas of research in neuroscience.

NEU X83T. Principles of Neuroscience II.
Examines the core material on essential subjects in systems and behavioral neuroscience, together with review and discussion of important early studies and contemporary literature.

NEU X84C. Bootstrap Statistics.
An introduction to modern methods of statistical analysis based on numerical computer simulation. Covers a range of common data analysis situations drawn mainly from the fields of neuroscience and experimental psychology. Techniques include point estimation, two-group and multiple group experiments, regression and curve fitting, and Bayesian analysis.

NEU X84M. Advanced Statistics: Inferential.
Covers t-test, chi-square, analysis of variance, and nonparametric tests.

NEU X85D. Responsible Conduct of Science.
Ethical considerations in the conduct of science, including issues of animal welfare, data analysis, fraud, publications, misconduct, intellectual property, grants, peer review, and mentor responsibility.

NEU X85L. Topics in Neuroscience.

NEU X85L.12. Quantifying Brain Structure.
Concepts and hands-on applications for quantifying aspects of brain and cellular structure, with a focus on stereological approaches.

NEU X85L.13. Neurobiology of Disease.
Examines the neurobiological basis of disorders of the brain, with a focus on mental illness. Emphasis on the neural circuitries and neurochemical events that underlie specific mental processes and behaviors.

NEU X85L.3. Addiction Biology.
Current research in addiction biology. Students present individual research papers and reports.

NEU X85L.5. Behavioral Neuroendocrinology.
Current research in neuroendocrinology, including action of neuroendocrine systems on behavior, assays of substances in the blood to identify gene products, and examination of stress from neuroendocrine, behavioral, health, and immunity perspectives.

NEU X85L.6. Foundations of Human Neuroimaging.
A survey of the foundations for neuroimaging research with a focus on cognitive neuroscience. Describes the physical methods of image acquisition and physiological mechanisms used for functional imaging. Emphasis on magnetic resonance methods for structural and functional imaging. Surveys other imaging modalities, including positron emission tomography (PET), optical, and EEG/MEG electrical source localization.

NEU X85L.7. Topics in Vision and Hearing.
Current research in human vision and hearing.

NEU X85L.8. Ion Channels and Neuronal Signaling.
Molecular properties of ion channels and the mechanisms of electrical signaling in neurons and other excitable cells.

NEU X85L.9. Synaptic Physiology and Plasticity in the Central Nervous System.
Detailed background in the physiology and plasticity of synaptic transmission in the mammalian central nervous system.

NEU X85P. Programming and Data Analysis for Modern Neuroscience.
Explore the basics of programming, statistics, and machine learning, and apply these techniques to the analysis of data from neuroscience experiments.

NEU X86D. Multivariate Pattern Analysis.
Explores cutting-edge techniques for finding meaningful patterns in large, noisy brain data sets, and how to use these techniques to address a variety of questions in cognitive neuroscience.

NEU X86T. Modeling and Theory in Neuroscience.
Examine the basic mathematical and computational tools central to the analysis of neural systems in a laboratory setting. Discuss linear algebra, differential equations, filtering, correlation, probability with an emphasis on quantitative methodology and applications to neuroscience.

NEU X87S. Analytical Skepticism.
Examine basic principles that allow accurate interpretation and depiction of scientific data, with an emphasis on notions of behavioral economics, probability and statistics, and experimental design.

NEU X88M. Fundamentals of Fluorescence Microscopy.
Explores optics, image formation, functioning of epifluorescent and confocal microscopes, detector technology (cameras and photomultiplier tubes), immunofluorescence techniques, image analyses, and image presentation for publication. Study of the technology and science behind widely-used high-end microscope systems.

NEU X88V. Career Development for Neuroscientists.
Explore a range of careers in neuroscience and career development. Discuss professional development and careers with scientists from industry, academia, and government agencies.

NEU X90. Research.

NEU X91. Graduate Seminar in Neuroscience.
Presentations and discussions of research topics in neuroscience.

NEU X91N. Learning and Memory.
Presentation of contemporary approaches to the study of conditioning and learning at the behavioral level. Focuses on empirical data and theoretical analysis of acquisition and performance in Pavlovian and instrumental conditioning. Includes discussion of habituation, sensitization, stimulus control, and other paradigms for studying cognitive processes in nonverbal organisms.

NEU X94I. Neuroinflammation in Health and Pathology.
Assess cutting-edge pre-clinical and clinical neuroimmune research, and interact with professors from across campus in special seminars.

NEU X94N. Neural Networks.
Biological information processing; architectures and algorithms for supervised learning, self-organization, reinforcement learning, and neuro-evolution; theoretical analysis; hardware implementations and simulators; applications in engineering, artificial intelligence, and cognitive science.

NEU X94P. Topics in Neuroscience: Seminar.

NEU X94P.1. Current Topics in Behavioral Neuroscience.
Brain-behavior relationships, particularly recent research in behavioral neuroscience, including the anatomical and neurochemical mechanisms of behavioral events, and behavioral influences on the brain.

NEU X94P.10. Statistical Methods in Computational Neuroscience.
Introduction to statistical and computational methods for understanding information processing in the nervous system, with emphasis on neural coding and statistical modeling of neural responses.

NEU X94P.11. Integrative Omics in the Evolution of Development and Behavior.
Discuss the conceptual foundations and historical roots of research programs in evo-devo and evolutionary neuroscience including recent discoveries and limitations in these fields. Explore how -omics approaches and comparative methods enable novel insights into the diversification, convergence, and constraint of complex traits.

NEU X94P.3. Neurobiology of Learning and Memory.
Neuroanatomical systems that are functionally related to basic forms of learning and memory in mammals.

NEU X94P.4. Advanced Topics in Neuroanatomy.
Neuroanatomical systems and function across species. Basic forms of neuroanatomy in mammals.

NEU X94P.7. Analysis of Functional Magnetic Resonance Imaging Data.
Functional magnetic resonance imaging experimental design and analysis.

NEU X94P.8. Topics in Systems Neuroscience.
Focuses on one or two topics and examines them in depth through group discussions of key scientific manuscripts. Discusses both classical studies and contemporary research.

NEU X94P.9. Perception and Action.
Current topics in visually guided behavior, including eye movements, attention, and motor control, from behavioral, computational, and neurophysiological approaches.

NEU X96D. Clinical Psychopharmacology.
Recent findings concerning the mechanisms of action and the behavioral effects of psychoactive drugs, particularly those used in psychiatry.

NEU X98. Thesis.

NEU X99W. Dissertation.

Professional Courses

NOR - Norwegian

Norwegian: NOR

Lower-Division Courses

NOR X04. Accelerated First-Year Norwegian.

NOR X12. Accelerated Second-Year Norwegian.

NOR X19S. Topics in Norwegian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser for the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

NOR X29S. Topics in Norwegian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

NOR X19S. Topics in Norwegian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser for the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

NOR X27. Advanced Norwegian I.
Norwegian language and culture with a focus on the skills of speaking, comprehension, reading, and writing Norwegian.

NOR X28. Advanced Norwegian II.
Continuation of Norwegian 327. Further study of Norwegian reading, writing, speaking, and aural comprehension. Readings include contemporary journalism, fiction, and other texts that promote the understanding of a modern Scandinavian society.

NOR X29S. Topics in Norwegian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

NOR X30D. Norwegian across Disciplines.
Read and discuss Norwegian language materials related to the subject matter of another designated course.

NOR X79. Conference Course in Norwegian Language or Literature.
Supervised individual study of selected problems in Norwegian language or literature.

Graduate Courses

NOR X19S. Topics in Norwegian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser for the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

NOR X29S. Topics in Norwegian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Professional Courses

NOR X19S. Topics in Norwegian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser for the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

NOR X29S. Topics in Norwegian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

NRP - Nurse Professional

Nurse Professional: NRP

Lower-Division Courses

Upper-Division Courses

Graduate Courses

Professional Courses

NRP X80D. Family Care Concepts in Psychiatric-Mental Health Nursing.
Explore psychiatric-mental health nursing care for families with complex relational problems in various clinical settings. Discover applications of theoretical, ethical, and evidence-based practices to formulate delivery of culturally sensitive care within the community context. Examine common practices and treatment protocols, with emphasis on critical thinking skills inherent to the role of the Psychiatric-Mental Health Nurse Practitioner (PMHNP).

NRP X80E. Psychopharmacology for Advanced Practice Nurses.
Discuss prescribing and monitoring medications commonly used with patients who have psychiatric or mental health problems.

NRP X80F. Advanced Psychiatric and Mental Health Nursing I.
Study the theory and evidence bases for diagnosis and management of a variety of common psychiatric and behavioral disorders with an emphasis on diagnostic reasoning, clinical decision-making, and therapeutic strategies appropriate for the role of the family psychiatric and mental health nurse practitioner. Discuss the sociocultural and community context for patient care.

NRP X80J. Advanced Psychiatric and Mental Health Nursing II: Clinical.
Study the role of the advanced psychiatric and mental health nurse practitioner in providing care for patients and families with complex psychopathology and psychiatric and mental health problems in a variety of clinical settings. Gain knowledge from biological and psychosocial theories, psychopharmacology, health promotion, and ethics to develop culturally sensitive care. Discuss role development, evidenced-based practices, recommended practices and treatment protocols, ethical decision making, and critical thinking strategies.

NRP X80K. Advanced Psychiatric and Mental Health Nursing I: Clinical.
Apply knowledge related to biological and psychosocial theories, pharmacology, health promotion, and ethics to patients and families with common psychiatric and behavioral disorders in a precepted, clinical environment. Focus on role development using standardized procedures and tools that assist in diagnosis, treatment, and developing beginning-level therapy skills in multiple modalities.

NRP X80L. Advanced Psychiatric and Mental Health Nursing II.
Focus on the role of the family psychiatric and mental health nurse practitioner using theoretical bases for care of complex psychiatric and mental health patients with psychopathology in a variety of settings across the life span. Integrate various biological and psychosocial theories with psychopharmacology, health promotion, and ethical decision-making to develop culturally sensitive care. Discuss evidenced-based practices, recommended practices and treatment protocols, ethical decision making, and critical thinking strategies that are integral to the role of the family psychiatric and mental health nurse practitioner.

NRP X80Q. Psychiatric Assessment and Psychotherapy Skills.
Introduction to psychiatric-mental health assessment of individuals and families throughout the life span, using established therapeutic communication techniques, individual psychotherapeutic modalities, and psychotherapy skills from evidence-based practices. Examine synthesis of theories and knowledge from nursing, biology, psychiatry, psychology, and socio-cultural studies as they apply to the comprehensive assessment of psychiatric clients. Focus on assessment and psychotherapy skills commensurate with the role of the Psychiatric-Mental Health Nurse Practitioner (PMHNP) through didactic, experiential, and observational practice in the classroom.

NRP X80T. Psychiatric-Mental Health Nurse Practitioner: Management of Chronic Illness.
Analyze and apply physiological, psychosocial, spiritual, and environmental concepts to treat selected patients with chronic illness under supervised instruction in clinical agencies. Focus on dynamics of chronic illness and related psychiatric mental health nurse practitioner roles. Explore concepts relevant to the management of complex and chronic health care problems often comorbid with psychiatric illness.

NRP X89D. Adult-Gerontology Clinical Nurse Specialist: Health Promotion and Illness Prevention.
Analyze physiological, psychosocial, and environmental concepts and testing of assessments and interventions for select adult-gerontology (AG) populations across the life spectrum (young adults through older adults).

NRP X89G. Adult-Gerontology Clinical Nurse Specialist: Acute Care.
Analyze physiological, psychosocial, and environmental concepts and testing of assessments and interventions in select adult-gerontology populations experiencing acute illness. Focus on dynamics of acute illness and related Adult-Gerontology Clinical Nurse specialist (AG-CNS) roles.

NRP X89H. Diagnosis and Management of Adult-Gerontology Health Problems.
Examine theoretical and clinical content for management of health problems of adult patients across the life spectrum (young adults through older adults). Integrate and apply skills and knowledge gained in previous adult-gerontology clinical nurse specialist coursework for adult patients in the acute or chronic setting. Discuss pattern recognition, critical thinking, analysis, diagnostic testing, differential diagnosis, and medical management of common adult, older-adult health problems.

NRP X89J. Adult-Gerontology Clinical Nurse Specialist: Chronic Illness.
Analyze physiological, psychosocial, spiritual, and environmental concepts and testing of assessment and interventions for select adult-

gerontology (AG) populations with chronic illness conditions. Focus on dynamics of multiple chronic illness and related Adult-Gerontology Clinical Nurse specialist (AG-CNS) roles.

NRP X89M. Adult-Gerontology Clinical Nurse Specialist: Practicum I.

Discuss the clinical application of Adult-Gerontology Clinical Nurse Specialist (AG-CNS) core competencies in delivery of care for select adult-gerontology (AG) populations to promote health and manage acute and/or multiple chronic conditions at the patient, nurse, and system level. Prepare for certification and credentialing as an AG-CNS.

NRP X89N. Adult-Gerontology Clinical Nurse Specialist: Practicum II.

Discuss the clinical application of Adult-Gerontology Clinical Nurse Specialist (AG-CNS) core competencies in the delivery of care for select adult-gerontology (AG) populations to promote health and manage acute and/or multiple chronic conditions at the patient, nurse, and system level. Prepare for certification and credentialing as an AG-CNS.

NRP X89R. Application of Adult-Gerontology Clinical Nurse Specialist Roles.

Explore the Adult-Gerontology Clinical Nurse Specialist (AG-CNS) roles through guided field experience and clinical application outside of direct patient sphere, including educator, leader, researcher, or advocate in the system or nursing spheres.

NRP X93C. Advanced Pediatric Health Assessment.

Explore advanced developmental and health assessment of children (newborn through adolescent), with an emphasis on theories and skills applicable to the assessment of children.

NRP X93D. Advanced Pediatric Pharmacology.

Study pediatric pharmacotherapeutics, with emphasis on pharmacokinetics, pharmacodynamics, administration, and education.

NRP X93E. Pediatric Nurse Practitioner Primary Care I.

Study health promotion, anticipatory guidance, prevention of illness, and the assessment and management of acute illnesses commonly affecting children. Discuss concepts related to the advanced role development of nurse practitioners.

NRP X93G. Pediatric Nurse Practitioner Primary Care II.

Examine theoretical knowledge relevant to the management of complex and chronic primary health care problems from infancy through adolescence.

NRP X93H. Pediatric Nursing Practitioner Primary Care II Clinical.

Attain clinical experience in the management of complex or chronic health problems of infants, children, and adolescents in a specialty setting, as well as management in primary care.

NRP X93K. Pediatric Nurse Practitioner Primary Care I Clinical.

Participate in clinical experience in primary care settings, focus on health promotion and management of well-child care and acute illnesses commonly encountered in children.

NRP X93N. Pediatric Diagnostic Reasoning and Advanced Invasive Skills.

Interpret laboratory and diagnostic testing. Discuss the development of diagnostic and psychomotor skills needed to care for acute or critically ill pediatric patients.

NRP X94J. Pediatric Primary Health Care Concepts III.

Explore primary care management of complex conditions in children. Focus on advanced role development of the pediatric nurse practitioner.

NRP X94K. Pediatric Primary Health Care Concepts III Clinic.

Participate in pediatric primary health care practicum in the advanced nursing management of the health of infants, children, and adolescents.

NRP X94Q. Pediatric Acute Care Management I.

Prepare to recognize, interpret, and respond to emerging health crises and organ system dysfunction or failure in children with complex acute, critical, and chronic health conditions. Discuss patient stabilization, minimizing complications, restoring maximal health potential through risk reduction, and providing physical and psychosocial support to the patient and family. Explore acute, critical, and chronic disorders within selected physiological systems from a developmental and multicultural perspective.

NRP X94R. Pediatric Primary Health Care Concepts I Clinic.

Participate in clinical experience in primary care settings, focusing on health promotion and management of well-child care and acute illnesses commonly encountered in children.

NRP X94S. Pediatric Acute Care Management II.

Prepare to recognize, interpret, and respond to emerging health crises and organ system dysfunction or failure of physiological systems in children with complex acute, critical, and chronic health conditions. Discuss patient stabilization, minimizing complications, and restoring maximum health potential. Explore core concepts such as transport, complex discharge planning, rehabilitation, home care, and long-term care.

NRP X94T. Pediatric Acute Care Management II: Clinical.

Prepare for clinical competence consistent with that of a beginner acute care pediatric nurse practitioner. Integrate advanced knowledge of pathophysiology, pharmacology, current research and evidence, and diagnostic and psychomotor skills to create comprehensive management plans for children with complex acute, critical, and chronic health conditions, under the supervision of faculty and preceptors.

NRP X94V. Child and Adolescent Psychiatric Mental Health for Primary Care.

Examine foundational content relative to the care of children and adolescents with behavioral and psychiatric mental health disorders. Discuss health promotion, screening, treatment, and referral to psychiatric mental health specialists. Focus on inter-professional and collaborative practice using evidence-based models for evaluation and management of common behavioral and psychiatric mental health disorders in the child and adolescent.

NRP X95. Topics in Nursing.

NRP X95C. Clinical Pharmacology and Therapeutics.

Apply pharmacologic and pharmacokinetic principles to drug therapy management in family primary care nursing.

NRP X95D. A Systems Approach to Health Promotion Across Diverse Populations.

Analyze the impact of social, cultural, and ecological factors on health decision-making, healthcare delivery, and health promotion behaviors among diverse populations and settings through application of theory, ethical principles, and health promotion methodologies.

NRP X95E. Health Policy for Diverse Systems and Populations.

Discuss the expanded role of clinical leaders in health policy advocacy at the organizational, community, state, national, and international level through examination of socio-political and economic contexts of health, advocacy, policy development, analysis, implementation, and evaluation.

NRP X95F. Health Care Economics and Finance.

Explore basic economic theory, market drivers and restraints, health care budgets, financial management and reimbursement in systems, cost/benefit analysis of programs or initiatives, and health care, entrepreneurism through theory, application, and clinical leadership principles.

NRP X95G. Translating Evidence into Nursing Practice.

Appraise literature critically and make recommendations for evidence-based practice changes, innovations, or guidelines to improve health care outcomes.

NRP X95K. Leadership in Organizations and Systems.

Explore leadership and systems theories, including philosophies, cultures, structures, processes, information management, interprofessional communication, and other areas relevant to healthcare organizations. Examine the role of the Doctor of Nursing Practice nurse within the larger context of the health care system.

NRP X95L. Quality Improvement and Safety Principles and Methods.
Apply the science of quality improvement and implementation to improve organizational effectiveness and health outcomes. Discuss strategies to enhance complex system thinking, process analysis, and measuring and monitoring quality and safety indicators. Explore developing and evaluating cost-effective improvement initiatives and implementation of evidence-based practices.

NRP X95M. Epidemiology and Population Health.
Explore the activities of international, national, state, and local entities in relation to population health, health disparities, and the needs of priority populations. Discuss basic epidemiological principles, disaster and emergency prevention and response, and inter-professional collaboration to identify, analyze, and evaluate key population health issues.

NRP X95O. Roles and Theory Foundations of the Nursing Practice Leadership Role.
Engage in both practicum experiences and self-directed scholarship to explore the development of the Doctor of Nursing Practice role and its unique contributions of clinical leadership within an interdisciplinary and dynamic healthcare environment. Refine and state the tenets of their personalized conceptual or theoretical framework derived from nursing theories and related sciences with the goal of improving healthcare practice outcomes and disseminating findings as a DNP clinical leader. Identify a clinical area of interest and begin to demonstrate standards of DNP practice, to improve healthcare outcomes for diverse populations.

NRP X95Q. Research and Evaluation Methods I.
Examine basic concepts in research and evaluation methods including quantitative and qualitative designs, descriptive and inferential statistics, reliability and validity, and data collection and extraction strategies that DNPs use to evaluate evidence-based literature.

NRP X95R. Research and Evaluation Methods II.
Apply research design, statistical and qualitative techniques, and data collection/extraction methods to the Doctor of Nursing Practice (DNP) Scholarly Project and other research, quality assurance, and program evaluation activities.

NRP X95S. Healthcare Information Systems.
Discuss interprofessional approaches to informatics by incorporating health specific disciplines (such as nursing and pharmacy), computer science, and information science. Examine resources and methods required to apply informatics and technology to implement clinical guidelines, support communication systems, and enhance safe health care delivery. Explore opportunities to analyze information requirements, design system alternatives, and consider the management of resources.

NRP X95T. Clinical Leadership Specialization Seminar and Practicum I.
Utilize practicum experiences and self-directed scholarship to conceptualize the area of clinical specialization and the Doctor of Nursing Practice (DNP) scholarly project. Propose evidence-based strategies for implementing and achieving health care outcomes, such as a pilot study, program evaluation, quality improvement, policy analysis, or practice-change initiative.

NRP X95U. Clinical Leadership Specialization Seminar and Practicum II.
Utilize practicum experiences and self-directed scholarship to assess the feasibility of conducting scholarly projects, which may consist of implementation of a significant pilot study, a program evaluation project, a quality improvement project, a policy analysis, or a practice change.

NRP X95V. Clinical Leadership Specialization Seminar and Practicum III.
Utilize practicum experiences and self-directed scholarship to implement a significant pilot study, a program evaluation project, a quality improvement project, a policy analysis, or a practice-change initiative in an identified area of clinical leadership specialization. Discuss implementation strategies, including incorporation of the most recent evidence-based practice in the management of patient care within an interdisciplinary practice model and utilization of evidence-based research in the clinical management of individuals, families, and communities. Explore leadership and systems analysis in complex organizations, managing interdisciplinary teams, improving educational systems, and developing and implementing quality improvement projects and evidence-based management systems to improve patient, population, and health systems outcomes.

NRP X95W. Clinical Leadership Specialization Seminar and Practicum IV.
Engage in both practicum experiences and self-directed scholarship to analyze, evaluate, and disseminate findings of the scholarly project (pilot study, a program evaluation project, a quality improvement project, a policy analysis, or a practice-change initiative) in an identified area of clinical leadership specialization.

NRP X96C. Advanced Pathophysiology.
Examine pathophysiologic concepts from the cellular level through major body systems and across the life span. Explore etiological, pathogenic, and presenting patterns. Discuss fundamental concepts of anatomy and physiology. Develop an understanding of nursing and medical interventions for common health problems and the ability to apply and design interventions based on pathophysiologic changes.

NRP X96G. Primary Health Care Concepts II Clinic.
Participate in supervised experience in the nursing management of infants, children, adults, and families who have complex or chronic health problems.

NRP X96H. Primary Health Care Concepts III Clinic.
Participate in advanced supervised experience as a direct primary health care giver in family practice clinical settings.

NRP X96J. Advanced Health Assessment.
Explore the advanced knowledge and skills involved in the assessment of individuals throughout the life span, within the context of the family, to determine their health status.

NRP X96K. Primary Health Care Concepts I Clinic.
Participate in supervised experience in the nursing management of infants, children, and/or advanced adults and families who are well or who have common acute health problems.

NRP X96L. Primary Health Care Concepts I.
Discuss theoretical and clinical knowledge needed for advanced nursing management within the context of the family and the community of individuals who are essentially well or who have minor health problems.

NRP X96N. Primary Health Care Concepts II.
Discuss theoretical and clinical knowledge needed for the management of complex and chronic health problems of individuals and families.

NRP X96Q. Primary Health Care Concepts III.
Focus on the integration and application of skills and knowledge gained in prior coursework for pediatric, adult, and aging clients in primary health care settings. Use pattern recognition, critical thinking, analysis, diagnostic testing, differential diagnosis and medical management of complex health problems throughout the lifespan.

NRP X98G. Advanced Leadership Practicum I.
Introduction to the steps of program planning with a focus on identification of evidence-based strategies for implementing interventions and improving health care outcomes as a Doctor of Nursing Practice (DNP)-prepared advanced practice nurse leader. Focus on application of theory, review of the literature and population data to frame the development of the DNP project.

NRP X98H. Advanced Leadership Practicum II.
Focus on the development of the Doctor of Nursing Practice (DNP) project proposal by applying advanced nursing competencies and integrating the best evidence into practice. Investigate financial costs, feasibility, outcomes, and sustainability of the project. Collaborate with team members and stakeholders to advance leadership skills and develop the DNP project proposal.

NRP X98J. Advanced Leadership Practicum III.
Focus on the implementation and evaluation of the Doctor of Nursing Practice (DNP) project demonstrating clinical judgment founded on a broad knowledge base, including integrating the best evidence into advanced nursing practice and optimizing system effectiveness. Utilize the application of innovation and evidence-based practice to improve patient, population, and health system outcomes.

NRP X98K. Advanced Leadership Practicum IV.
Focus on clinical scholarship and analytical methods to evaluate the Doctor of Nursing Practice (DNP) project and improve health outcomes of patients, communities, and systems. Disseminate the DNP project results to advance the scholarship of nursing and professional and leadership development and serve as a foundation for future scholarly practice.

NRP X98L. Epidemiology, Population Health, and Health Promotion.
Explore epidemiological statistics; examine patterns of health and disease in human populations; identify population health disparities and health inequities; examine models of health promotion; discuss primary, secondary, and tertiary prevention; examine the socioecological model, and social determinants of health; critique health promotion interventions and implementation strategies; and evaluate program outcomes for specific populations.

NRP X98M. Health Economics and Finance.
Explore basic economic theory, market drivers and restraints, cost/benefit analysis, health care budgets, accounting and financial management of healthcare services, and healthcare entrepreneurism to make effective financial, strategic, and operational decisions.

NRP X98N. Advanced Practice Nursing Advanced Practicum.
Explore the culmination of core competencies for knowledge of advanced nursing practice, person-centered care, interprofessional collaboration, and personal and professional nursing accountability for the respective Advanced Practice Nursing (APRN) concentration.

NRP X98P. Research Designs and Evaluation Methods for Evidence-Based Practice.
Focus on quantitative and qualitative research designs and evaluation methods to critically appraise studies as a basis for evidence-based practices. Differentiate design and methods that correspond to levels of evidence relevant to complex nursing decision-making for health care settings

NRP X98Q. Reviewing Evidence and Synthesizing Literature.
Build on knowledge of statistical and qualitative methods when evaluating research and quality improvement reports. Synthesize findings reported in health-related literature and conduct a critical review of the literature for a substantive area of health-related scholarship. Focus on using systematic approaches to searching, selecting, evaluating, synthesizing, and disseminating research evidence with particular attention to evaluation methods used.

NRP X98R. Foundations in Theory and Advanced Practice Nursing Roles.
Examine central and core competencies of advanced practice nursing roles in the context of the broader healthcare environment and interprofessional partnerships along with role expectations for practice with Doctor of Nursing Practice preparation. Understand and apply theory to guide practice, scholarship, and to facilitate excellence in healthcare.

NSC - Natural Sciences

Natural Sciences: NSC
Lower-Division Courses

NSC X01C. Freshman Seminar.
Small-group seminar involving reading, discussion, writing, and oral reports. Introduction to University resources, including libraries, computer and research facilities, and museums. Several sections are offered each semester, with various topics and instructors.

NSC X01F. Experiential Learning.
Course may include research, career and networking events, student and community speakers, and other subjects related science. Emphasis on student participation.

NSC X01S. Natural Sciences Seminar.
Seminars may include study sessions, career and networking events, student and community speakers, and other subjects related to issues for students in science. Emphasis on student participation.

NSC X02. Texas Interdisciplinary Plan: Critical Thinking Seminar.
An examination of fundamental concepts in critical thinking, including the role of intellectual virtues, an analysis of the elements of thought, Socratic thinking, and the application of universal intellectual standards.

NSC X03. Creative Communication of Scientific Research.
Learn to communicate about science, technology, and medicine to broad audiences in order to increase understanding of the impact these fields have on human lives.

NSC X06. Dialogue Across Difference: Identity, Power, and Privilege.
Explore frameworks, terminology, critical thinking, and empathy tools for engaging in productive conversations around difficult subjects related to diversity, equity, and inclusion (DEI). Examine DEI resources, issues, and challenges across campus.

NSC X07. Diversity, Equity, and Inclusion Capstone.
Use critical, reflective thinking, and effective problem solving to: identify a diversity, equity, and inclusion (DEI) issue on campus or in the community to address and propose a solution or steps toward a solution; develop leadership in the DEI concentration; facilitate debriefs of DEI events and assist with concentration development.

NSC X07J. The Effective Health Care Professional.
Introduction to careers in the health professions. Discuss the intra- and inter- personal core competencies of the professions sought in healthcare providers. Work on the critical reasoning skills needed to succeed on reading comprehension and situational judgment tests found on traditional professional school placement exams.

NSC X07K. Thriving in a Collaborative Healthcare Environment.
Introduction to the collaborative relationship between the health professions. Work on the critical reasoning skills needed to succeed on reading comprehension and situational judgment tests found on traditional professional school placement exams.

NSC X07M. Introduction to the Health Professions Action Plan.
Discuss the steps necessary to complete a competitive application to professional school including the generation of an effective application, personal statement, and the refinement of skills for a successful professional school interview.

NSC X08. Topics in Natural Sciences.

NSC X08.1. Capstone Prospectus Seminar.
Seminar to prepare students for their capstone project by helping them develop a research prospectus, identify faculty mentors, and develop a target list of journals for publication of a report on their research.

NSC X08.2. Evidence and Inquiry Proposal Seminar.
Development of compelling, cross-disciplinary, and academically feasible questions of interest outside student's major area of study; design a field of study around those questions; and write a field proposal for faculty review.

NSC X09. Topics in Natural Science.

NSC X09.1. Planning Your Capstone Experience.
Develop a feasible capstone experience and consult with subject matter experts. Explore substantive writing instruction to develop a proposal that describes and justifies the capstone experience.

NSC X09.2. Health Science Scholars Capstone Experience Preparation.
Explore and determine a viable capstone experience to prepare for the honors thesis. Consult with subject matter experts. Receive substantial writing instruction to develop a written proposal that defends the capstone experience.
NSC X09.3. Natural Sciences Ethics Seminar.
NSC X09.4. Polymathic Capstone Field Invention.
Guidance in developing a feasible interdisciplinary field of study and consulting with faculty who are familiar with the field. Substantive writing instruction to develop a proposal that describes and justifies the interdisciplinary field of study.
NSC X09.5. Introduction to Applied Problem Solving.
Introduction to applied problem-solving with a focus on critical thinking and ethical reasoning on issues relevant to college students.
NSC X09P. Topics in Calculus for Emerging Scholars.
A workshop focusing on ideas more than computation and procedures, where students work in small groups on sets of problems designed to encourage advanced thinking about calculus.
NSC X10E. Internship in the Sciences.
Practical work experience related to the student's area of interest in natural sciences. Internships may be on or off campus, paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. Students work in a professional environment and apply analysis, communication, and other academic skills to practical work.
NSC X10H. Topics in Natural Sciences Honors Seminar.
Emphasis on student participation. Format may include student speakers, outside speakers, discussions, visits to laboratories, or other enrichment activities.
NSC X10H.1. Dean's Scholars First-Year Seminar.
NSC X10H.2. Health Science Scholars First-Year Seminar.
NSC X10H.3. Polymathic Scholars First-Year Seminar.
NSC X11. Critical Reasoning.
An examination of the fundamental concepts in critical reasoning, including the analysis of argument, application of intellectual standards, and the role of intellectual virtues.
NSC X15. Women in Natural Sciences Seminar.
The work and lives of women scientists in a sociocultural context.
NSC X18C. Topics in Forum Seminar Series.
Lectures and discussions on various contemporary issues. Emphasis on multidisciplinary perspectives and critical discourse.
NSC X19. Topics in International Learning Seminars.
Discussion of various issues related tot he academic, cultural, and personal aspects of completing academic work in international locations.
NSC X19S. Topics in Natural Science.
To record credit earned while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the College of Natural Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studied program.

Upper-Division Courses

NSC X20E. Internship in the Sciences.
Practical work experience related to the student's area of interest in Natural Sciences. Internships may be on or off campus, paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. Students work in a professional environment and apply analysis, communication, and other academic skills to practical work.
NSC X21. Introduction to Peer Mentoring and Leadership.
Explores current theory and research related to peer mentoring and leadership within higher education. Includes interactive lectures; and the opportunity for students to identify and work through ethical choices as peer leaders; to study leadership concepts such as conflict resolution, diversity, and group dynamics; to work collaboratively; and to conduct independent research.
NSC X22. Natural Science Topics.
NSC X23. Natural Sciences Topics.
NSC X23.1. Polymathic Capstone Thesis Preparation Seminar.
Supports the research process to identify a faculty mentor, define appropriate thesis topics, develop an annotated bibliography, draft a thesis proposal, and develop an initial plan for drafting thesis.
NSC X24. Natural Sciences Topics.
NSC X25. Topics in Inventors Program Practicum.
Design, research, prototype, and test a STEM-related product or solution.
NSC X26. Introduction to Scientific Programming.
Introduction to programming using both the C and Fortran (95/2003) languages, with applications to basic scientific problems. Discuss common data types and structures, control structures, algorithms, performance measurement, and interoperability.
NSC X29. Topics in International Learning Seminars.
Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations.
NSC X29S. Topics in Natural Science.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the College of Natural Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
NSC X35. Scientific and Technical Computing.
Introduction to computing techniques and methods applicable to many scientific disciplines and technical applications. Discuss computer hardware and operating systems, systems software and tools, code development, numerical methods and math libraries, and basic visualization and data analysis tools.
NSC X71. Capstone Thesis Seminar.
Directed reading, research, and discussion followed by the writing of a substantial thesis.

Graduate Courses

NSC X88C. Science Communications Seminar.
Professional development supplemental to primary studies. Designed to develop skills in the effective communication of scientific concepts.
NSC X88D. Science Communications Practicum.
Professional development supplemental to primary studies. May be taking concurrently with the Science Communication Seminar. Opportunities to focus on skill development while receiving constructive assessment and evaluation.
NSC X88E. Professional Ethics and Social Responsibility in Research.
NSC X88G. Concentration on Science in Public Policy.
NSC X88J. Concentration in Science in Public Policy.
Identify and articulate the relevance of scientific scholarship to public policy.
NSC X88L. Introduction to Evidence-Based Teaching.
Designed for graduate students interested in learning to teach science and mathematics effectively in their own courses, rather than as Teaching Assistants. Subjects include defining learning objectives, designing learning tasks, observing classrooms to identify effective teaching strategies, and practice teaching. Intended for graduate students in the College of Natural Sciences.
NSC X88M. Mentoring Undergraduate Researchers.
Aims to develop graduate students' skills in mentoring undergraduates and other junior participants in STEM research. Explores how to define suitable projects, establish appropriate relationships, set expectations,

encourage communication, balance guidance with independence, and address diversity and ethical issues in mentoring.

NSC X88P. Leading People and Organizations.
Professional development supplemental to primary studies. Designed for graduate students in STEM disciplines. Explores the knowledge and skills necessary for scientists to manage and lead effectively within organizations.

NSC X88S. Strategic Management.
Professional development supplemental to primary studies. Designed to help students develop general management skills such as managing change strategically, implementing strategy, and addressing long-term health of an organization.

NSC X88T. Mentored Teaching.
Designed for graduate students who have completed NSC-088L Introduction to Evidence-Based Teaching, or its equivalent. Each student will design, teach, and conduct assessment of an instructional unit (~3 hours of class time) in an undergraduate CNS course, working in collaboration with the faculty member acting as instructor of record. Intended for graduate students in the College of Natural Sciences.

NSC X88V. STEM Professional Development.

NSC X98D. Investigating Career Options for STEM Advanced Degrees.

Professional Courses

NSC X80. Topics in Research for Independent Study.
Produce group and individual projects in research design, research methodologies, and research execution. Practice in a professional position under supervision.

NSP - National Security Policy

National Security Policy: NSP

Lower-Division Courses

NSP X09. Introduction to National Security.
Explore the actors, processes, and current challenges of U.S. national security. Examine policy formulation, the instruments of national security and their integration, and legal and ethical tensions. Learn about the array of current state and non-state actors threatening national and global security.

Upper-Division Courses

NSP X25. Topics in National Security Policy.
Survey various topics in national security policy.

NSP X30. Foundations of International Security: Theory and Practice.
Explore core foundational concepts and theoretical frameworks for explaining how state and non-state actors operate in the international arena. Learn how to identify, assess, and manage international security challenges.

NSP X31. National Security Institutions, Processes, and Politics.
Explore instruments of statecraft available to policymakers to advance and protect United States national security interests at home and abroad; departments, agencies, private sector elements, and branches of government with the authorities and equities to implement national security; and the politics, structures and processes of policy formulation.

NSP X32. Grand Strategy and Military Operations.
Learn to assess the integration of political, economic, and military factors to formulate comprehensive strategies that effectively achieve long-term objectives while navigating the intricacies of modern conflict. Explore the practical integration of national goals into the tactical execution of military campaigns. Examine historical precedents and contemporary case studies to understand the complex dynamics shaping strategic decision-making and operational planning in warfare.

NSP X34. Writing for National Security.
Develop the written and oral communication skills necessary for national security professionals. Explore the various genres of writing and presenting common in national security careers.

NSP X35. Economics for Foreign Policy.
Develop an understanding of economic power available to foreign policymakers. Explore the design and implementation of policies focused upon international trade, access to intellectual property, financial sanctions, and direct foreign investment by governments, private actors and multilateral lending organizations.

NSP X36. Analytical Methods for National Security.
Develop competency in the quantitative and qualitative techniques of research design and analysis widely used by professionals in the national security environment.

NSP X45. Advanced Topics in National Security Policy.
Examine various advanced topics in national security policy.

NSP X59. National Security Internship.
Participate in a supervised internship in an agency of government, a nonprofit organization, or a national security-related unit in the private sector.

NSP X70. Independent Study in National Security.
Undertake supervised individual research on a special subject in the field of national security policy.

Graduate Courses

NSP X80P. Topics in Policy Research Project on National Security Issues.
Conduct two semesters of interdisciplinary research on a contemporary national security policy problem involving interaction with sponsoring organizations.

NSP X83M. National Security Institutions, Processes, and Politics.
Explore instruments of statecraft available to policymakers to advance and protect United States national security interests at home and abroad; departments, agencies, private sector elements, and branches of government with the authorities and equities to implement national security; and the politics, structures and processes of policy formulation.

NSP X86W. Writing for National Security.
Develop the written and oral communication skills necessary for national security professionals. Explore the various genres of writing and presenting common in national security careers.

NSP X87M. Foundations of International Security: Theory and Practice.
Explore core foundational concepts and theoretical frameworks for explaining how state and non-state actors operate in the international arena. Learn how to identify, assess, and manage international security challenges.

NSP X89. Conference Course in National Security.
Individual instruction related to selected aspects of professional theory and practice in national security.

NSP X93M. Economics for Foreign Policy.
Develop an understanding of economic power available to foreign policymakers. Explore the design and implementation of policies focused upon international trade, access to intellectual property, financial sanctions, and direct foreign investment by governments, private actors and multilateral lending organizations.

NSP X95M. Grand Strategy and Military Operations.
Learn to assess the integration of political, economic, and military factors to formulate comprehensive strategies that effectively achieve long-term objectives while navigating the intricacies of modern conflict. Explore the practical integration of national goals into the tactical execution of military campaigns. Examine historical precedents and contemporary case studies to understand the complex dynamics shaping strategic decision-making and operational planning in warfare.

NSP X96K. Internship in National Security.
Participate in a supervised internship in an agency of government, a nonprofit organization, or a national security-related unit in the private sector.

NSP X97N. Analytical Methods for National Security.
Develop competency in the core quantitative and qualitative techniques of research design and analysis widely used by professionals in the national security environment.

NSP X98R. Master's Report.
Prepare a report to fulfill the requirement for the master's degree under the report option.

Professional Courses

NTR - Nutrition

Nutrition: NTR

Lower-Division Courses

NTR X06. Fundamentals of Nutrition.
Essential food components and their functions in life processes.

NTR X07. Introductory Food Science.
Application of the principles of food chemistry to processing and preparation techniques.

NTR X07L. Introductory Food Science Laboratory.

NTR X12. Introduction to Nutritional Sciences.
Biochemical, physiological, and cellular functions of energy macronutrients, vitamins and minerals, and the scientific basis for current dietary and nutrient recommendations. Designed for science majors.

NTR X12H. Introduction to Nutritional Sciences: Honors.
Biochemical, molecular, and cellular functions of nutrients with emphasis on primary scientific literature and current methodology.

NTR X12L. Introduction to Nutritional Science Laboratory.
Collection and evaluation of dietary intake data, nutrient composition of food, and survey of dietetic practice.

NTR X12R. Research in Nutritional Sciences.
Introduction to biochemical and molecular biological techniques, enzyme and coenzyme assays, dietary analysis and assessment protocols, and statistical methods in nutritional sciences. Preparation of a scholarly paper and oral presentation of research findings.

NTR X15. Nutrition through the Life Cycle.
Adapting nutrition recommendations to physiological changes throughout the life span.

NTR X16. Culture and Food.
Influence of culture on foodways around the world.

NTR X17L. Introduction to Nutrition Assessment and Education.
Explore the fundamentals of nutrition assessment, nutrition education, and behavior change theories as well as their application to the care of individuals and groups in community and clinical settings. Analyze the use of anthropometric, biochemical, clinical, and dietary intake data assessments for effective care of individuals. Identify strategies for successful development and implementation of nutrition education planning using behavior change theory as the guide for development.

NTR X18. Assessment of Nutritional Status.
Assessment of nutritional status using anthropometric, biochemical, clinical, and dietary intake data, and development and implementation of effective care for individuals.

NTR X18L. Assessment of Nutritional Status Laboratory.

NTR X19S. Topics in Nutrition.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

NTR X55. Undergraduate Research in Nutrition.
Supervised individual undergraduate research in nutrition.

NTR X72C. Practicum in Clinical Dietetics.
Supervised practice in health care facilities.

NTR X72F. Practicum in Food Services Systems Management.
Supervised practice in food service facilities.

NTR X74P. Advanced Practicum in Dietetics.
Culminating experience in the practice of administrative, clinical, or community dietetics.

NTR X97C. Conference Course in Nutritional Sciences.

Upper-Division Courses

NTR X21. International Nutrition: The Developing World.
Nutrition-related issues in the developing world, including nutrient deficiency and disease, concerns in vulnerable populations (pregnancy, infancy, childhood, and old age), and food aid.

NTR X24. Advanced Food Science.
Application of the principles of food chemistry to the development of food products.

NTR X24L. Advanced Food Science Laboratory.
Individual research project on food product development and evaluation.

NTR X26. Intermediate Nutrition and Metabolism.
Integration of nutrition, genetics, cell biology, and molecular biology. Focuses on the cellular and molecular basis of nutrition-related diseases and nutrient-gene interactions.

NTR X26L. Nutritional Sciences Laboratory.
Basic laboratory techniques in nutritional sciences.

NTR X27L. Advanced Food Science Laboratory.
Apply fundamentals of nutrition science, food science, and chemistry to scientific research in creating a novel food product for a chosen target audience. Explore food science, food research and development, fundamentals of nutrition, ingredient functionality, food product sensory evaluation, scientific inquiry, study design, and science communication. Design and execute a scientific study by engineering a unique food product, create scientific abstracts, and create and participate in scientific poster sessions.

NTR X29S. Topics in Nutrition.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

NTR X30. Nutrition Education and Counseling.
Application of counseling and learning theories to the care of individuals and groups in community and clinical settings.

NTR X30L. Advanced Nutrition Assessment and Counseling.
Examine the fundamentals and application of nutrition assessment, nutrition education, counseling, and behavior change theories to the care of individuals and groups in community and clinical settings. Explore the use of nutrition focused physical exam, nutrition care process standardized language, anthropometric, biochemical, clinical, and dietary intake data assessments for effective care of individuals. Identify the implementation of nutrition counseling techniques and communication skills through the understanding of behavior change in individuals.

NTR X31. International Nutrition: Social and Environmental Policies.
Explores the nutritional concerns of different countries, environmental aspects of food supply, and social policies needed to balance supply with demand in a sustainable manner.

NTR X32. Community Nutrition.
National and international issues in public health and nutrition programs.

NTR X34. Foodservice Systems Management.
Procurement, production, and service delivery in foodservice systems.
NTR X34L. Laboratory in Foodservice Systems.
NTR X37. Principles of Epidemiology in Nutritional Sciences .
Introduction the role of epidemiology methods as the basis for selection of study design and data collection tools in nutrition research such as dietary tools, biomarkers of diet or disease, and anthropometric measurements like obesity. Emphasis on interpretation of study results in nutrition research.
NTR X38H. Issues in Nutrition and Health: Honors.
Identifying, reading, analyzing, writing, and presenting scientific research on selected subjects in nutrition and human health. Detailed literature review as preparation for an honors research thesis.
NTR X38W. Issues in Nutrition and Health.
Identifying, reading, analyzing, writing, and presenting scientific research on selected topics in nutrition and human health.
NTR X39L. Experimental Methods and Design in Nutritional Sciences.
Explore nutritional sciences methods and research. Examine overall study design, observational and intervention studies, animal and cell-based research in nutritional sciences, nutritional research assessment methods (such as dietary assessment and biomarkers), and research ethics. Practice assessing and interpreting research findings to evaluate scientific research in nutritional sciences and nutritional epidemiology.
NTR X42. Advanced Nutritional Sciences.
Biochemical and molecular biological aspects of carbohydrate, fat, and amino acid metabolism.
NTR X43. Vitamins and Minerals.
Biomedical, cellular and molecular, and clinical aspects of vitamins, minerals, and water.
NTR X44M. Advanced Nutrition II Laboratory.
Advanced laboratory techniques in nutrition assessment and research.
NTR X45C. Clinical Practice in Medical Nutrition Therapy I.
Application of principles of medical nutrition therapy to the care of clients in the practice setting.
NTR X45M. Clinical Practice in Medical Nutrition Therapy II.
Application of principles of medical nutrition therapy to the care of patients in health care facilities.
NTR X52. Topics in Field Experience in Nutrition.
NTR X53. Field Experience in International Nutrition.
Supervised study abroad experience designed to help students understand nutrition science issues, applications, related health care practices in a global environment, and other cultures. Students work in schools, hospitals, or similar settings to gain professional experience with food science and dietetics.
NTR X55. Undergraduate Research in Nutrition.
Supervised individual undergraduate research in nutrition.
NTR X55H. Honors Research.
Research in biological, biochemical, or nutritional science, coordinated with readings of scientific literature, and a written research report for each semester in which credit is sought.
NTR X55M. Advanced Food Systems Management.
Financial control, quality assurance, personnel administration, foodservice equipment, layout and design in foodservice operations. Analysis and evaluation of an organized foodservice operation.
NTR X60. Selected Topics in Applied Nutrition.
NTR X62. Standards, Ethics, and Credentialing for Dietetic Practice.
Identification of standards and discussion of current issues in ethics and credentialing for dietetics practice.
NTR X65. Selected Topics in Nutritional Sciences.
NTR X65.2. Nutrition and Genes.
Interactions between nutrients and gene expression, including heredity, gene regulation, metabolic disease, developmental abnormalities, and molecular techniques.
NTR X65.4. Obesity and Metabolic Health.
Examines the prevalence, prevention, and treatment of adult and childhood obesity, and the metabolic disorders related to obesity.
NTR X65.5. Principles and Applications in Community Engagement.
Implement community engagement activities, such as gardening, cooking, and nutrition lessons within a school or other community environment with the goal of improving nutrition and health. Explore evidence-based nutrition programs, such as fundamental principles of food gardening with an emphasis on central Texas, application of skills in the university teaching garden and school gardens, and application of nutrition curriculum in a school setting.
NTR X65.6. Sports Nutrition.
Explore the physiology of sports nutrition as well as its practical application such as summarizing physiological adaptations to exercise, and describing energy systems. Examine the role of sport specific body weight, composition measurement, and estimate macronutrient/hydration needs for athletes of different sports.
NTR X65.7. Nutritional Biochemistry: Busting Myths.
Introduction to the science of nutrition. Explore components of food (macro- and micronutrients), digestion and absorption, energy metabolism, micronutrients, supplements, energy balance, and the role of nutrition in the growing epidemics of obesity and chronic illnesses.
NTR X65L. Experiential Learning in Community Engagement.
Implement hands-on community engagement activities, such as gardening, cooking, and nutrition lessons through the experiential learning laboratory within community/school settings to improve nutrition and health and decrease the incidence of chronic diseases. Apply the fundamental principles of nutrition through activities such as food gardening to planting to maintaining a school garden; work within school cultures/constraints to improve the school nutrition/gardening culture; apply effective communication, classroom management/engagement, and teaching skills in working with the public, community leaders, and administrators; and evaluate nutrition programs in schools.
NTR X66L. Research Methods in Nutritional Sciences.
Focuses on state-of-the-art research in nutrition, including biochemistry and molecular biological techniques for nutrient-gene interactions, enzyme and coenzyme functions, and nutrient analysis of biologic materials. Includes data analysis and statistical methods.
NTR X67. Undergraduate Seminar in Nutritional Sciences.
NTR X70. Medical Nutrition Therapy I.
The role of nutrition in prevention and treatment of chronic disease such as diabetes and heart disease.
NTR X71. Medical Nutrition Therapy II.
Nutritional care of critically ill patients, including techniques of nutrition support.
NTR X72C. Practicum in Clinical Dietetics.
Supervised practice in health care facilities.
NTR X72F. Practicum in Food Services Systems Management.
Supervised practice in food service facilities.
NTR X73S. Practicum in Dietetic Administration.
Supervised practice in the administration of food and nutrition programs.
NTR X74C. Practicum in Community Dietetics.
Supervised practice in one or more community-based nutrition programs.
NTR X74P. Advanced Practicum in Dietetics.
Culminating experience in the practice of administrative, clinical, or community dietetics.
NTR X79H. Honors Tutorial Course.
Supervised individual research on a special topic in nutrition; oral presentation and preparation of a scholarly paper covering the research. May be based on laboratory, library, or field research.

NTR X97C. Conference Course in Nutritional Sciences.

Graduate Courses

NTR X55. Undergraduate Research in Nutrition.
Supervised individual undergraduate research in nutrition.

NTR X72C. Practicum in Clinical Dietetics.
Supervised practice in health care facilities.

NTR X72F. Practicum in Food Services Systems Management.
Supervised practice in food service facilities.

NTR X74P. Advanced Practicum in Dietetics.
Culminating experience in the practice of administrative, clinical, or community dietetics.

NTR X80K. Topics in Research Methods in Nutritional Sciences.

NTR X80K.1. Experimental Nutrition.

NTR X80K.2. Nutritional Immunology.

NTR X80K.3. Experimental Design and Statistics.

NTR X80K.4. Advanced Experimental Design and Statistics.

NTR X80K.5. Carcinogenesis.

NTR X80K.6. Nutritional Biochemistry.

NTR X90. Topics in Recent Advances in Nutritional Science.

NTR X90.1. Advances in Nutritional Sciences I.

NTR X90.10. Geriatric Nutrition and Metabolism.
Study of how aging influences nutrient requirements and metabolism at the biochemical and molecular level. Discussion of dietary changes to offset the effects of aging and to improve quality of life.

NTR X90.12. Nutritional Immunology.

NTR X90.13. Nutrigenomics.
Examine the interactions between nutrition and multi-level "omics (e.g., genome, transcriptome, methylome) as they relate to chronic disease and health. Includes a focus on gene-diet interactions in the context of population genetic variation and the bidirectional molecular interactions that influence gene and protein expression as well as epigenetic modification.

NTR X90.14. Theories of Nutrition Behavior.
Explore and examine nutrition-related behavior through the application of health behavior theories and models. Includes theories such as the Health Belief Model, Theory of Planned Behavior, Social Cognitive Theory, Diffusion of Innovations, Transtheoretical Model, Social Support, and Social Ecological Model. Investigate theoretical constructs, benefits and limitations of each theory/model, considerations needed for unique populations or behaviors, and how to develop a theory-based program plan.

NTR X90.15. Principles of Epidemiology in Nutritional Sciences.
Examine the role of epidemiological methods as the basis for selection of study design and data collection tools in nutrition research such as dietary tools, biomarkers of diet or disease, and anthropometric measurements like obesity. Examine the interpretation of study results in nutrition research.

NTR X90.2. Carbohydrates and Fiber.

NTR X90.3. Lipids.

NTR X90.4. Vitamins and Minerals.

NTR X90.5. Minerals.

NTR X90.6. Molecular Nutritional Sciences.

NTR X90.7. Advances in Nutritional Sciences II.

NTR X90.8. Clinical Nutrition.

NTR X92. Topics in Research Problems in Nutritional Sciences.

NTR X92.10. Nutrition and Metabolism.

NTR X92.11. Obesity.

NTR X92.12. Nutrition as Medicine.

NTR X92.13. Nutrition and Disease Prevention.
Explore the role of nutrition as a critical preventive measure for both acute and chronic disease. Examine and evaluate the current research supporting the role of nutrition as a preventative therapy.

NTR X92.14. Evidence Synthesis and Communications.
Introduction to evidence synthesis and communications in nutritional sciences and dietetics. Learn how to evaluate evidence from basic, clinical, and/or translational research and translate the findings and impact to those within your respective field of study as well as across disciplines. Explore hands-on experiences through the completion of article critiques, peer and self-reviews, and the development of scientific presentations to build skills in these areas.

NTR X92.2. Nutrient Requirements.

NTR X92.3. Nutrition and Cancer.

NTR X92.4. Nutrition and Immunology.

NTR X92.5. Food Sciences.

NTR X92.6. Clinical Nutrition.

NTR X92.7. Nutrition Education.

NTR X92.8. Developmental Nutrition.

NTR X92.9. Foodservice Systems.

NTR X92R. Research Hours in Nutritional Sciences.

NTR X94. Topics in Graduate Seminar in Nutritional Sciences.

NTR X94.2. Clinical Nutrition.

NTR X94.3. Molecular and Cellular Nutrition.

NTR X94.4. Nutrition, Immunology, and Disease.

NTR X94.5. Nutrition through the Life Cycle.

NTR X94.6. Study Design and Research Methods.

NTR X97C. Conference Course in Nutritional Sciences.

NTR X98. Thesis.

NTR X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

NTR X98T. Supervised Teaching in Nutrition.
Teaching under close supervision; group meetings, individual conferences, and reports.

NTR X99W. Dissertation.

Professional Courses

NTR X55. Undergraduate Research in Nutrition.
Supervised individual undergraduate research in nutrition.

NTR X72C. Practicum in Clinical Dietetics.
Supervised practice in health care facilities.

NTR X72F. Practicum in Food Services Systems Management.
Supervised practice in food service facilities.

NTR X74P. Advanced Practicum in Dietetics.
Culminating experience in the practice of administrative, clinical, or community dietetics.

NTR X97C. Conference Course in Nutritional Sciences.

O M - Operations Management

Operations Management: O M

Lower-Division Courses

O M X19S. Topics in Operations Management.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

O M X20F. Foundations of Operations and Supply Chain Management.

O M X29S. Topics in Operations Management.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

O M X32F. Topics in Foundations of Operations Management.

O M X34M. Healthcare Operations Management.
Overview of healthcare operations management. Focus on process diagramming, vocabulary, and analysis of effects of variability on healthcare operations in terms of increasing waiting lines, inventory, and patient safety issues. Focus on modern process improvement methodologies.

O M X35. Operations Management.
The operations or production function and the skills required for analyzing and solving related problems.

O M X35H. Operations Management: Honors.
An investigation of the operations or production function, and the skills required for analyzing and solving related problems.

O M X38. Supply Chain Modeling and Optimization.
Framing, formulating, and applying quantitative optimization and descriptive models to support supply chain and operations management decisions, using spreadsheets and other software. Requires familiarity with spreadsheets.

O M X50. Digital Transformation of Supply Chain Management.
Study strategic frameworks for facilitating the digital transformation of supply chains and operations management to align with a firm's business model. Explore the tactical deployment of digital capabilities and the use of data analytics to transform operational processes to improve efficiency, quality, and timing.

O M X60. Procurement and Supplier Management.
Explore strategic issues in procurement and supplier management; a review of competitive analysis and benchmarking; the purchasing role in fulfilling a firm's operational and competitive strategies; supplier evaluation, development, and relationship management; negotiating with suppliers for results; and commodity planning.

O M X66P. Operations Management Practicum.
Students apply skills in their major area and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise.

O M X70. Supply Chain Design, Planning, and Execution.
Analyze the entire flow of information, materials, and services from suppliers through factories and warehouses to the end customer. Examine logistics, supplier selection, and inventory management using case studies, optimization, and simulation.

O M X71T. Topics in Operations Management.

O M X72T. Topics in Operations Management.

O M X72T.1. Total Quality Management.

O M X72T.12. Information Technology for Supply Chains.
Learn how information technology is used to coordinate supply chain activities across different industries.

O M X72T.17. Health Care Analytics.
Explore key management challenges and how data may be leveraged to guide decisions and improve operations, with the unifying theme of providing health care services in a manner that leads to lower cost and higher quality.

O M X72T.2. Sustainable Operations.

O M X72T.20. Supply Chain Analytics.
Study dynamic demand forecasting models based on both data aggregation as well as hierarchical aggregation of point-of-sale predictive analytics. Explore the use of developed predictive dynamic models for operations planning and operations decision maing.

O M X72T.21. Time Series Forecasting.
Examine statistical forecasting methods used in business. Discuss Box-Jenkins models; exponential smoothing models; ARCH/GARCH models for varying volatility in financial returns; seasonal adjustment of time series; tests for nonstationary of time series; and modeling multiple time series.

O M X72T.24. Data-Driven Revenue Management.
Use data-driven tactics and strategies to predict consumer demand and optimize price and capacity/inventory availability to maximize revenue or profit. Explore demand analytics and revenue management techniques, produce rigorous and practical insights, and develop data analysis and optimization skills, based on business cases, datasets, and exercises. Examine diverse contexts and industries, such as conventional retailing, e-commerce, airline/hotel, and contemporary platform and cloud services (e.g., Uber, Dropbox, Netflix, AWS), by utilizing software (Excel, R, or Python) to build models, conduct optimization, and develop insights for a variety of revenue management examples.

O M X72T.5. Project Management.

O M X72T.7. New Product Development.
Examine the integration of supply chain management into the product design and development process. Learn skills and knowledge involving product development and incorporating supply chain considerations with an emphasis on designing products that optimize the supply chain while maintaining the products vision from concept to customer.

O M X75. Supply Chain and Operations Management Strategy.
Discuss the role of supply chain management to increase a firm's competitive performance and understand how that performance affects the economy and society as a whole. Examine supply chain and operations design as well as environmental, social, and governance (ESG) issues. Explore the impact of new business models including e-commerce and automation; contracting; outsourcing and vertical integration, resiliency; and new delivery modalities.

O M X79. Independent Research in Operations Management.

Graduate Courses

O M X80. Topics in Seminar in Operations Management.

O M X80.1. Combinatorial Optimization.
Concepts of computational complexity; the foundation of discrete mathematics and combinatorial theory.

O M X80.10. Queueing Systems.
Deterministic queues, priorities, random walks, networks, approximations, and applications.

O M X80.11. Graduate Seminars.

O M X80.12. Logistics.
Tools and concepts for the management of the flow of information, material, product, and cash between the initial suppliers of raw material and the ultimate consumers of finished goods.

O M X80.13. Management Planning and Control of Complex Systems.
Designed to provide guidance to doctoral students interested in research on new approaches to management planning and control of complex systems, and to MBA students interested in evaluating new practices currently being used in management planning and control activities.
O M X80.15. Optimization I.
Introduction to operations research and optimization, including linear programming, network models, deterministic dynamic programming, decisions under uncertainty, game theory, inventory models, and simulation. Emphasis on mathematical programming models and algorithmic approach of operations research problems.
O M X80.16. Optimization II.
Designed to provide students, especially those involved in research, with more advanced optimization tools in several broad areas. Includes nonlinear programming, graph theory, integer programming, Markov chains, probabilistic dynamic programming, queueing theory, and metaheuristics. Emphasis on mathematical programming modeling and algorithmic approach of operations research problems.
O M X80.17. Supply Chain Analytics.
Supply chain analytics combines analytical tools with technology to identify trends, compare performance and highlight improvement opportunities in supply chain areas including sourcing, inventory management, manufacturing, quality, sales and logistics.
O M X80.2. Linear Programming.
Model formulation: solution algorithms; duality theory; decomposition; sparse matrix issues; sensitivity and parametric analysis; optimization and matrix generation computer software.
O M X80.4. Algorithms and Implementations.
Design, analysis, implementation, and use of computer algorithms. Introduction to fundamental data structures, sorting, recursive programs, dynamic data structures, memory management, algorithm design techniques and complexity analysis, and applications in optimization problems. Examples from linear and integer programming, covering, knapsack, graph-theoretic problems, network analysis, and scheduling.
O M X80.5. Business Process Simulation.
Modeling with simulation languages; random number generation; statistical analysis of input and output; variance reduction techniques; computer software applications.
O M X80.6. Integer Programming.
Mathematical programming models with discrete (integer) decision alternatives. Model formulation and solution algorithms.
O M X80.7. Nonlinear Programming.
Optimization of nonlinear functions of many variables subject to linear or nonlinear constraints. Basic theory, solution algorithms, applications, computer software.
O M X80.8. Large-Scale System Optimization.
Formulation and solution of large mathematical optimization models. Focus on algorithms that exploit special structure of linear and nonlinear programming models. Applications.
O M X80.9. Stochastic Processes.
Discrete stochastic systems, queueing processes, inventory models, replacement, renewal theory, Markovian processes.
O M X84. Topics in Business Analytics.
Selected topics in business analytics.
O M X86. Current Topics in Operations Management.
Strategic problems, policies, models, and concepts for the design and control of new or existing operations systems.
O M X86.1. Service Management.
O M X86.10. Sustainable Operations.
Discuss how the operations of creating value can be better managed to address the challenges of environmental sustainability. Learn about the trade-offs and challenges associated with measuring and reporting emissions, extended producer responsibility, closed-loop supply chains, and business model innovations. Develop critical thinking skills by learning economic theory related to environmental sustainability.
O M X86.11. Operations Bootcamp.
Explore real-world operations challenges through intensive, team-based case work with industry collaborators. Investigate problems such as supply chain disruptions, production planning, and service delivery improvements across multiple sectors. Design and present research-driven solutions to practitioners for review and discussion while strengthening analytical, problem-solving, and presentation skills in an operations context.
O M X86.2. Supply Chain and Operations Strategy.
O M X86.3. Strategic Quality Management.
O M X86.4. Operations Practicum.
O M X86.5. Managing Projects.
O M X86.6. Decision-Support Modeling.
Operations research and modeling to assist in decision making through building data models and operations research software systems.
O M X86.7. Data Driven Health Care Operations.
Explore operational challenges arising in outpatient clinics, hospitals, and drug development and production. Examine a combination of business cases and representative data sets. Utilize R as a supporting tool.
O M X86.8. Healthcare Analytics.
O M X86.9. Supply Chain Management.
Learn how to use analytical tools and conceptual frameworks to make decisions in supply chain contexts. Develop insights about major strategic issues and trade-offs that arise in supply chain management. Collaborate with others in simulated supply chain decision making environments.
O M X92. Topics in Seminar: Operations Management.
Intensive analysis of operations management issues.
O M X92.1. Operations Management Colloquium.
O M X92.2. Network Optimization.
Focus on theory, algorithms, and applications of network optimization with emphasis on supply chain operations and applications. Optimize the routing of flows on networks, discover the special structure and properties of network flow problems, and design effective solution methods that exploit these properties.

Professional Courses

ORI - Operations Research and Industrial Engineering

Operations Research and Industrial Engineering: ORI

Lower-Division Courses

ORI X19S. Topics in Operations Research and Industrial Engineering.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mechanical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
ORI X80M. Research.
ORI X97K. Graduate Seminar.
ORI X97P. Projects in Operations Research and Industrial Engineering.
Independent project carried out under the supervision of a faculty member in operations research and industrial engineering.

Upper-Division Courses

ORI X29S. Topics in Operations Research and Industrial Engineering.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mechanical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

ORI X65. Data Science for Engineers.
Learn data analysis and programming skills. Explore essential data science techniques, including regression, decision trees, classification, and neural networks.

ORI X66. Operations Research Models.
Formulation and solution-interpretation for operations research models requiring, for example, optimization, simulation, or analysis of Markov chains or queues. Applications include manufacturing design and control, routing and scheduling, plant location, inventory analysis, and management of queueing systems.

ORI X67. Simulation Modeling.
Basic concepts of discrete-event simulation. Statistical input and output analysis. Application of simulation software. Modeling of systems under uncertainty.

ORI X69. Decision Analysis.
Principles and application of techniques for the logical illumination of complex decision problems within any context. Subjects may include utility theory, probability as a statement of belief, risk preference, value of information and control, probability assessment, influence diagrams, risk sharing and scaling, and life-and-death decision making.

ORI X70. Statistical Methods in Manufacturing.
Contemporary concepts and methods for statistical quality design and control will be presented. These include: descriptive statistics, behavior of process over time, design and interpretation of control charts, process capability studies, measurement system analysis, correlation and regression analysis, design and analysis of two level factorial experiments, design and analysis of two level fractional factorial experiments, response surface methodology, and Taguchi approach to robust design.

ORI X73. Facility Planning and Logistics.
Design and analysis of production systems, including plant layout and location, material flow, and flexible manufacturing.

ORI X74. Production and Inventory Management.
Introduction to production and inventory models; basic factory dynamics; analysis of variability; push-and-pull production control; sequencing and dispatching.

ORI X77K. Projects in Operations Research and Industrial Engineering.
Independent project carried out under the supervision of a faculty member in operations research & industrial engineering. Student prepares a project proposal and a final report, each of which is evaluated by the faculty committee on individual projects.

ORI X80M. Research.

ORI X97K. Graduate Seminar.

ORI X97P. Projects in Operations Research and Industrial Engineering.
Independent project carried out under the supervision of a faculty member in operations research and industrial engineering.

Graduate Courses

ORI X80M. Research.

ORI X83. Healthcare Delivery Models.
Study the operations research literature on the use of models and techniques related to healthcare delivery. Discuss decomposition techniques for integer programs, simulation, Markov chains, and stochastic programming.

ORI X84. Emerging Trends in Operations Research and Industrial Engineering.
Explore the development and use of operations research and industrial engineering techniques via weekly presentations and speakers, including faculty and visiting experts.

ORI X90D. Topics in Analytics and Decision Making.
Discuss the tools and concepts to enable quantitative analysis and to support decisions under uncertainty.

ORI X90D.1. Analytics and Data Science.
Examine theory and methods to draw inferences from data and apply these insights to support decision making in uncertain environments.

ORI X90D.2. Decision Analysis.
Examine the theory and principles required to make good decisions in the face of uncertainty. Discuss expected utility theory, families of utility functions, Bayesian inference, value of information, probability elicitation, scoring rules, and the verification of probabilistic forecasts. Explore how these apply to areas including engineering, business, public policy, healthcare, and sports.

ORI X90D.3. Decision Engineering.
Examine the tools, methods, and processes required to apply decision analysis to applied problems. Explore creativity, framing, ideation, modeling, approximations, and decision biases that can degrade decision making.

ORI X90D.4. Decision Theory.
Explore the fundamental axioms supporting decision analysis and challenges to this approach. Examine behavioral decision making, subjective probability, alternative approaches to decision making, and advanced decision analytic tools.

ORI X90D.5. Markov Decision Processes.
Discuss the theory and application of Markov decision processes. Examine finite horizon models, average-cost and discounted-cost infinite horizon problems, discrete-time and continuous-time frameworks. Explore approximate dynamic programming, reinforcement learning, and stochastic bandit problems.

ORI X90D.6. Systems Modeling and Decision Making.
Explore the application of operations research, decision analysis, economics, and management science tools and concepts to the modeling of human-designed and natural systems with the goal of improving decisions that involve these systems. Examine models that integrate engineering, economics, natural science, and policy.

ORI X90Q. Topics in Industrial Engineering.
Industrial engineering techniques for quantitative solution of contemporary systems and management problems.

ORI X90Q.1. Project Management.
Methods for organizing, coordinating, and controlling resources to minimize risk and conflict and to maintain budgets and schedules. Topics include evaluation of competing alternatives, organization of a project, scheduling of tasks and resources, and the role of management over time.

ORI X90Q.10. Logistics Analytics.
Discuss strategic, tactical, and operational logistics decision making; exact and heuristic methods for logistics problems; optimization models; deterministic and stochastic logistics modeling; network design and routing; manufacturing, service, and transportation logistics; applications. Explore freight logistics, humanitarian logistics and disaster management.

ORI X90Q.2. Production and Inventory Control.
Issues in inventory control with known and unknown demand, materials requirement planning, just-in-time, pull control systems, operations scheduling, dispatching and aggregate planning, and the basic dynamics of production and inventory control.

ORI X90Q.4. Modeling and Analysis of Manufacturing Systems.
Applications of analysis to manufacturing processes, using mathematical models, optimization, and stochastic analysis. Economic

evaluation, identification of bottlenecks, estimation of resources requirements, and system design.

ORI X90Q.5. Scheduling Theory and Applications.
Modeling, analysis, and solution techniques for production and service scheduling problems, machine scheduling in deterministic and stochastic settings, exact and heuristic algorithms, and industrial applications, including semiconductor manufacturing and airlines applications.

ORI X90Q.7. Statistical Methods in Manufacturing.
Statistical monitoring of manufacturing processes; methods and applications of various control charts; formal design of experiments (DOE), including the statistical evaluation of main and interaction effects, as well as intelligent experimentation through reduced factorial experimental design; Taguchi's design philosophy as applied to response surface methods and gradient-based search techniques; and advanced issues in quality control and design of manufacturing systems.

ORI X90Q.9. Analytics and Control in Semiconductor Manufacturing.
Learn key data analytics and process control methods for turning metrology and sensing data into useful information and decisions in semiconductor manufacturing. Explore applications of statistical models for statistical process control, as well as applications of dynamic models for virtual metrology and run-to-run control in semiconductor manufacturing systems.

ORI X90R. Topics in Statistics and Probability.
Concepts of probability and mathematical statistics; application of these analytical methods to planning and evaluation of research and industrial experimentation.

ORI X90R.1. Applied Probability.
Basic probability theory, combinatorial analysis of random phenomena, conditional probability and independence, parametric families of distributions, expectation, distribution of functions of random variables, limit theorems.

ORI X90R.14. Special Topics in Probability, Stochastic Processes, and Statistics.
Study of specialized topics, such as advanced stochastic processes, Bayesian statistics, simulation, and stochastic optimization, intended to introduce and stimulate further research.

ORI X90R.2. Mathematical Statistics.
Sampling distributions, properties of estimators, point and interval estimation, hypothesis testing, introduction to multivariate and nonparametric statistics.

ORI X90R.3. Time-Series Modeling, Analysis, and Control.
Methods for analytical modeling, analysis, prediction, and control of linear, stationary time series. Includes examples of advanced research in nonstationary time-series modeling and applications in manufacturing, financial engineering, geosciences, and other areas. Students complete a project on a topic of their choice.

ORI X90R.4. Reliability Theory and Modeling.
Theory of probabilistic and statistical models of aging elements, reliability, replacement, and repair maintenance, and their integration in surveillance, quality control, and manufacturing problems.

ORI X90R.5. Applied Stochastic Processes.
Poisson process, renewal theory, discrete and continuous-time Markov chains, queueing and reliability applications.

ORI X90R.6. Regression and Analysis of Variance.
Fitting equations to data; joint confidence regions; partial correlation analysis; general linear hypotheses; dummy variables; diagnostics and remedial measures; design of experiments; fixed, random, and mixed models; factorial and nested designs.

ORI X90R.8. Queueing Theory.
Introduction to the classical and modern theories of queueing systems. Simple Markovian queues; the M/G/1 and G/G/1 queues; Jackson and Kelly networks; multiclass networks; stability, scheduling, and routing in queueing networks; fluid and diffusion approximations.

ORI X90R.9. Systems Simulation.
Random number generation, simulation experiments, statistical verification, clock routines, simulation language applications, industrial problems.

ORI X91Q. Topics in Optimization.
Mathematical optimization techniques with applications to engineering and industrial problems.

ORI X91Q.1. Nonlinear Programming.
Theory and solution techniques for nonlinear, continuous optimization problems. Topological properties of functions, general convexity, optimality conditions, line search methods, unconstrained techniques, and algorithms for constrained formulations. Lagrangian duality theory and bundle methods for nondifferentiable optimization.

ORI X91Q.10. Stochastic Optimization.
Optimization of mathematical programming models under uncertainty; model formulations; exact, bounding-and-approximation, and Monte Carlo sampling-based solution techniques that exploit special structures; applications; use of algebraic modeling language.

ORI X91Q.11. Advanced Mathematical Programming.
Advanced topics in modeling and algorithms for linear, integer, nonlinear, and network programming. Model formulation considerations, decomposition algorithms, interior point and active set methods, duality, modern optimization software.

ORI X91Q.12. Metaheuristics.
Reactive and adaptive tabu search methods, simulated annealing, genetic algorithms, and greedy randomized adaptive search methods. Emphasis on theoretical context of methods and on similarities and distinguishing characteristics.

ORI X91Q.14. Computational Optimization.
Computer programming methods and tools for implementing advanced optimization algorithms, working with data, and visualizing results. Code organization techniques, debugging, and building complex software.

ORI X91Q.15. Convex Optimization.
The fundamentals of convex optimization with a focus on modeling, computation and scale: convex sets and functions, unconstrained optimization via first and second-order methods, duality, constrained optimization, SDPs, stochastic and sub-gradient descent methods, ADMMs, and applications.

ORI X91Q.16. Optimization in Engineering Systems.
Formulation and solution of continuous optimization problems in engineering design and operations.

ORI X91Q.17. Optimization Under Uncertainty.
Introduction to optimization models and methodologies for addressing uncertainty-affected decision problems. Examine fundamental techniques from stochastic programming, robust optimization, and distributionally robust optimization. Explore theory through concrete examples from production planning, supply chain management, project management, portfolio selection, machine learning.

ORI X91Q.18. Computational and Variational Methods for Inverse Problems.
Introduction to the numerical solution of inverse problems that are governed by systems of partial differential equations (PDEs). Explore variational formulations, ill-posedness, regularization, adjoint methods for gradients and Hessians, variational discretization, and efficient large-scale optimization algorithms for inverse problems. Examine the Bayesian framework and draw connections between the classical and the Bayesian interpretations of inverse problems.

ORI X91Q.2. Dynamic Programming.
Systems that require sequential decisions. Problem modeling and solution algorithms for deterministic and stochastic systems.

ORI X91Q.3. Network Flow Programming.
Optimization problems related to network flows, shortest path, maximum flow, minimum cost flow, generalized networks, nonlinear costs. Modeling, theory, and computational methods.

ORI X91Q.4. Integer Programming.
Models, theory, and computational methods for problems with discrete decision alternatives. Greedy algorithms, branch and bound, cutting plane methods, Lagrangian relaxation, and heuristics.
ORI X91Q.5. Linear Programming.
Models, algorithms, and theory of linear programming. Linear programming geometry, primal, dual and revised simplex algorithms, duality theory, optimality conditions, sensitivity analyses, interior point methods, and computer implementations.
ORI X91Q.6. Algorithms for Mixed Integer Programming.
Methods and software for solving large-scale mixed integer programming problems: intelligent heuristics, decomposition, lower bounding schemes, limited enumeration, and simple methods for quickly finding good feasible solutions. Numerous examples taken from industry.
ORI X91Q.8. Combinatorial Optimization.
Optimization of combinatorial structures; computational complexity; stable marriages, shortest paths, maximum flows, minimum-cost flows, matching problems; approximation algorithms for NP-hard problems.
ORI X91Q.9. Large-Scale Systems Optimization.
Mathematical programs with special structure, Dantzig-Wolfe decomposition, partitioning and relaxation procedures, duality and decomposition, compact inverse methods, applications in engineering and management.
ORI X97. Current Topics in Operations Research and Industrial Engineering.
ORI X97K. Graduate Seminar.
ORI X97M. Graduate Research Internship.
Students conduct research in an industrial setting to gain practical experience in their area of interest.
ORI X97P. Projects in Operations Research and Industrial Engineering.
Independent project carried out under the supervision of a faculty member in operations research and industrial engineering.
ORI X98. Thesis.
ORI X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
ORI X99W. Dissertation.

Professional Courses

ORI X80M. Research.
ORI X97K. Graduate Seminar.
ORI X97P. Projects in Operations Research and Industrial Engineering.
Independent project carried out under the supervision of a faculty member in operations research and industrial engineering.

P A - Public Affairs

Public Affairs: P A

Lower-Division Courses

P A X01. Foundations of Public Affairs.
Explore key concepts and debates in the study of public policy. Review foundational historical texts, influential theoretical writings, and important case studies. Discover a range of policy issues, both domestic and international.
P A X05. Analysis of Policy Adoption and Implementation.
Examine how US policymakers and staff in local, state, and federal government formulate and manage public policy, including the processes for creating and adopting public policy and the processes for implementing and governing public policy.
P A X09. Introductory Topics in Policy.
Survey various introductory topics in public affairs and policy.
P A X09.1. Introduction to International Development Policy.
Explore the ideational landscape of international development, including the main "schools of thought" in development over time, as well how the beliefs and assumptions within these schools inform particular policy solutions. Analyze the institutional landscape with respect to the actors, organizations, and transnational communities that shape how global development has been practiced at the local, national and international levels. Examine the indicator landscape concerning how data on development can be found, interpreted and used to pursue evidence-based analysis and decision making in this space. Survey contemporary development policy issues.
P A X09.2. Introduction to National Security.
Explore the actors, processes, and current challenges of U.S. national security. Examine policy formulation, the instruments of national security and their integration, and legal and ethical tensions. Learn about the array of current state and non-state actors threatening national and global security.
P A X11L. Qualitative Methods for Public Affairs.
Survey a variety of qualitative empirical methods, drawn from the fields of history, anthropology, political science, and sociology, that are essential for making and evaluating public policies and programs.
P A X11N. Quantitative Methods for Public Affairs.
Survey a variety of quantitative empirical methods, drawn from the fields of data science and management science, that are essential for making and evaluating public policies and programs.
P A X15. Economic Analysis for Public Affairs.
Use the tools of microeconomics to analyze the public policymaking role of governments. Examine rationales for policy interventions including addressing market failures, distributional goals, generating revenue, among other objectives. Explore specific policy interventions and topics relevant to contemporary public policy debates such as taxation, health, social welfare, energy and the environment, and income inequality.
P A X19S. Topics in Public Affairs.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Lyndon B. Johnson School of Public Affairs. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
P A X80L. Topics in Public Policy and Law.
Various aspects of policy making, policy development, and communications at a variety of levels.
P A X80L.1. Policy Development and Law.
Examines effective policy making at all levels of government, including consideration of the legal process which provides critical context; the policy development process and its relationship to the rule of law; and key elements of public policy development, including ethics, decision making, leadership, and policy implementation.
P A X80L.2. Policy and Law Placement.
Thorough examination of ethical issues and professional responsibilities and development of written and oral communication skills that are preparatory for field placement in policy and law.
P A X80L.3. Law and Public Policy.
Examines the interconnection of public policy and law and how the two disciplines approach related issues; how legal structures and precedent shape and constrain policy choices; and how public policy informs the work of the courts.
P A X90D. Dissertation Proposal Preparation.
Development and preparation of the dissertation proposal.
P A X98T. Supervised Teaching in Public Affairs.
Group meetings with the instructor, individual consultations, and reports. Mandatory for students seeking teaching assistant positions.

Upper-Division Courses

P A X20. Communication for Public Affairs.
Develop strategies to engage with policy audiences outside of academic circles by practicing clear concise communication. Evaluate and practice

various genres of policy communication with an emphasis on learning by doing.

P A X25. Topics in Policy.
Survey various topics in public affairs and policy.

P A X29S. Topics in Public Affairs.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Lyndon B. Johnson School of Public Affairs. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

P A X36. Professional Development.
Practice entering the professional realm of policymaking through a series of workshops that focus on different aspects of professional development such as resume-writing, mock job interviews, drafting cover letters for jobs and internships, and professional networking.

P A X37. Leadership Laboratory.
Discover the basic skills of effective public and nonprofit leadership that promote well-being and strengthen civil society. Determine the characteristics of good leaders, including personal and social responsibility, inclusivity, and ethics. Develop and refine a guiding personal philosophy of leadership for navigating real world applications to advance social and policy change.

P A X45. Advanced Topics in Policy.
Examine various advanced topics in public affairs and policy.

P A X55. Advanced Topics in Policy Analysis Skills and Methods.
Explore advanced qualitative or quantitative methods to better shape and evaluate public policies.

P A X59. Public Affairs Internship.
Participate in fieldwork at an organization focused on public affairs.

P A X59R. Topics in Public Policy Issues.
Current issues in public policy.

P A X59R.1. UT Energy Symposium.

P A X65W. Topics in Policymaking in Washington, DC.
Explore various topics about the practice of policymaking by United States federal institutions, international organizations, and non-state actors in Washington, DC.

P A X68. Policy Simulation.
Apply principles of policy analysis and development, as well as skills in policy communication and leadership, to tackle a contemporary policy problem.

P A X70. Independent Study in Public Affairs.
Undertake supervised individual research on a special topic in the field of public affairs.

P A X80L. Topics in Public Policy and Law.
Various aspects of policy making, policy development, and communications at a variety of levels.

P A X80L.1. Policy Development and Law.
Examines effective policy making at all levels of government, including consideration of the legal process which provides critical context; the policy development process and its relationship to the rule of law; and key elements of public policy development, including ethics, decision making, leadership, and policy implementation.

P A X80L.2. Policy and Law Placement.
Thorough examination of ethical issues and professional responsibilities and development of written and oral communication skills that are preparatory for field placement in policy and law.

P A X80L.3. Law and Public Policy.
Examines the interconnection of public policy and law and how the two disciplines approach related issues; how legal structures and precedent shape and constrain policy choices; and how public policy informs the work of the courts.

P A X90D. Dissertation Proposal Preparation.
Development and preparation of the dissertation proposal.

P A X98T. Supervised Teaching in Public Affairs.
Group meetings with the instructor, individual consultations, and reports. Mandatory for students seeking teaching assistant positions.

Graduate Courses

P A X80L. Topics in Public Policy and Law.
Various aspects of policy making, policy development, and communications at a variety of levels.

P A X80L.1. Policy Development and Law.
Examines effective policy making at all levels of government, including consideration of the legal process which provides critical context; the policy development process and its relationship to the rule of law; and key elements of public policy development, including ethics, decision making, leadership, and policy implementation.

P A X80L.2. Policy and Law Placement.
Thorough examination of ethical issues and professional responsibilities and development of written and oral communication skills that are preparatory for field placement in policy and law.

P A X80L.3. Law and Public Policy.
Examines the interconnection of public policy and law and how the two disciplines approach related issues; how legal structures and precedent shape and constrain policy choices; and how public policy informs the work of the courts.

P A X80P. Policy Research Project.
Interdisciplinary research on a contemporary policy problem involving interaction with sponsoring organizations.

P A X80W. Apprenticeship in Public Policy.

P A X81W. Topics in the Foundations of Policymaking.

P A X82D. Policy Research Project.
Interdisciplinary research on a contemporary policy problem involving interaction with an agency of government.

P A X82G. Policy Research Project on Global Policy Issues.
Interdisciplinary research on a contemporary global policy problem involving interaction with sponsoring organizations.

P A X82W. Topics in Policy Analysis: Seminar.

P A X83C. Topics in Policy Development.
Introduction to how public policy is developed and adopted in government systems. Covers the role of politics and institutions in implementing and managing policy. Normally taken during the first year.

P A X83D. Politics and Process.
Introduction to how public policy develops and is adopted in the American government system.

P A X83G. Policymaking in a Global Age.
History, politics, and organization of how the United States makes and implements foreign policy decisions.

P A X84D. Public Management.
Covers the development and implementation of policy within an organization environment, including the role of political and institutional factors, organization and management concepts, and human information resource issues. Normally taken during the first year.

P A X85C. Topics In Public Management.
Develop and implement policy within an organizational environment in the public and nonprofit sectors including the role of political and institutional actors, organization and management concepts, and human resource information issues.

P A X85D. Advanced Topics in Public Management.
Explore various advanced public management topics related to the development and implementation of policy within an organizational environment in the public and nonprofit sectors including the role of political and institutional actors, organization and management concepts, and human resource information issues.

P A X87G. The Nature of the International System.
Introduces systematic analysis of global policy, factors that motivate foreign policies and private decisions, and instruments used in the conduct of international relations.

P A X87K. Advanced Topics in Public Policy.
Issues in political values and ethics and in natural resources, transportation, health, environmental, international, regulatory, urban, and labor and human resources policy.

P A X87W. Writing For Global Policy.

P A X88D. Advanced Topics in Public Policy.
Typical topics include issues in political values and ethics and issues in transportation, health, environmental, international, regulatory, urban, and labor and human resources policy.

P A X88D.1. Perspectives on Public Policy.
Covers the art and science of policy formulation in the areas of economics, national security, monetary policy, science, technology, and trade. Examines the relationships among policy development processes at the federal, state, and local levels of government.

P A X88D.2. Politics and Policies in an Aging Population.

P A X88D.3. Texas Health Policy.

P A X88F. Topics in Policy and Practice.

P A X88G. Topics in Global Policy Studies.

P A X88J. Writing for Policy.

P A X88K. Advanced Topics in Public Policy.
Typical topics include issues in political values and ethics and in natural resources, transportation, health, environmental, international, regulatory, urban, and labor and human resources policy.

P A X88K.10. Nonprofit Management and Strategy.

P A X88K.11. Qualitative Methods for the Social Sciences.

P A X88K.7. International Development.

P A X88K.8. Introduction to Geographic Information Systems.

P A X88K.9. Nongovernmental Organizations in Developing Worlds.

P A X88L. Advanced Topics in Management.

P A X88N. Invisible Global Market.

P A X88S. Advanced Topics in Public Policy.

P A X88W. Advanced Topics In Public Policy.

P A X89. Conference Course in Policy Analysis.
Individual instruction related to selected aspects of professional theory and practice.

P A X89C. Independent Study in Public Policy.
Individual instruction related to selected aspects of professional theory and practice.

P A X89D. Communications.

P A X89W. Policy Portfolio Internship.
Integrative portfolio course organized around a project incorporating previous studies, academic research and practical application of work in a professional internship.

P A X90C. Advanced Research Methods.
Study of research methods, with a focus on those needed by doctoral students in public policy. Includes discussions of broad controversies in social science methodology and subjects not commonly covered in other first-year graduate courses.

P A X90D. Dissertation Proposal Preparation.
Development and preparation of the dissertation proposal.

P A X90E. Research Design.
Designed to provide a structured framework in which students can develop and apply methods training and produce a research paper.

P A X90G. Writing for Global Policy Studies.
Instruction in the writing styles appropriate for professional careers in international settings.

P A X91. Public Financial Management.
The budget process, budgetary methods, governmental accounting analysis of financial statements, government revenues, debt management, and other financial management techniques for public and nonprofit programs.

P A X91G. Advanced Topics In Public Financial Management.
Explore various advanced public financial management topics that may include budgetary methods, government accounting analysis of financial statements, government revenues, debt management, and other financial management techniques for public and nonprofit programs.

P A X92C. Theory and Philosophy of Public Policy I.
Explores the theoretical foundations of public policy. Includes political philosophy concepts and various theoretical approaches to the policy-making process.

P A X92D. Theory and Philosophy of Public Policy II.

P A X93C. Foundations of Public Policy.

P A X93G. Microeconomics.
Principles of markets and market failures relevant to global policy studies.

P A X93H. International Economics.
Comparative advantage, international trade, international trade institutions, and agreements.

P A X93J. Topics in International Economics.
Comparative advantage, international trade, international trade institutions, and agreements.

P A X93K. Applied Microeconomics for Policy Analysis.
The use of economic reasoning in the development and implementation of public policy.

P A X93L. Topics in Advanced Policy Economics.
Advanced topics in the application of economic reasoning to the development and implementation of policy.

P A X94C. Research Design and Methods I.
Introduction to research and design methods in public affairs/policy.

P A X95. Public Affairs Colloquium.
Guest lectures on topics to be announced.

P A X95C. Supervised Policy Research.
Supervised, individual policy research experience on a topic chosen by the supervising faculty member.

P A X95D. Research Design and Methods II.
Continuing study of research and design methods for students at the doctoral level.

P A X95G. Global Policy Simulation.
Supervised role-playing exercises on global policy.

P A X95W. Policy Simulation.
Supervised role-playing exercises on public policy.

P A X96C. Supervised Public Service.
Supervised, individual practical public service experience in an area chosen by the supervising faculty member.

P A X96G. Internship in Global Policy Studies.
Supervised participation in and observation of international issues as a working member of the staff in an agency of government, a nonprofit organization, or a public policy-related unit in the private sector.

P A X96K. Internship in Public Policy.
Supervised participation and observation as a working member of the staff in an agency of government, a nonprofit organization, or a public policy-related unit in the private sector.

P A X97. Introduction to Empirical Methods for Policy Analysis.
Survey of the application of a broad range of quantitative models to policy analysis and managerial decision-making: optimization techniques based on calculus and linear programming, probability theory and decision analysis, sampling theory and hypothesis testing, regression analysis, and forecasting.

P A X97C. Topics in Advanced Empirical Methods for Policy Analysis.
Research methods, specialized empirical techniques, and data analysis as used in policy analysis and management.

P A X97D. Applied Quantitative Analysis I.

P A X97G. Analytical Methods for Global Policy Studies.
Descriptive statistics, inference, multivariate regression, qualitative methods, and case study methods applicable to global policy research.

P A X98J. Joint Programs with Partner Institutions.
Certification course for students enrolled in Lyndon B. Johnson School of Public Affairs interdisciplinary joint degree programs.

P A X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

P A X98T. Supervised Teaching in Public Affairs.
Group meetings with the instructor, individual consultations, and reports. Mandatory for students seeking teaching assistant positions.

P A X99W. Dissertation.

Professional Courses

P A X80L. Topics in Public Policy and Law.
Various aspects of policy making, policy development, and communications at a variety of levels.

P A X80L.1. Policy Development and Law.
Examines effective policy making at all levels of government, including consideration of the legal process which provides critical context; the policy development process and its relationship to the rule of law; and key elements of public policy development, including ethics, decision making, leadership, and policy implementation.

P A X80L.2. Policy and Law Placement.
Thorough examination of ethical issues and professional responsibilities and development of written and oral communication skills that are preparatory for field placement in policy and law.

P A X80L.3. Law and Public Policy.
Examines the interconnection of public policy and law and how the two disciplines approach related issues; how legal structures and precedent shape and constrain policy choices; and how public policy informs the work of the courts.

P A X90D. Dissertation Proposal Preparation.
Development and preparation of the dissertation proposal.

P A X98T. Supervised Teaching in Public Affairs.
Group meetings with the instructor, individual consultations, and reports. Mandatory for students seeking teaching assistant positions.

P B - Plant Biology

Plant Biology: P B

Lower-Division Courses

Upper-Division Courses

Graduate Courses

P B X80C. Advanced Conservation Biology.
Explore principles and concepts of ecology to the preservation of wild plant and animal species and to the preservation, management, and restoration of natural and semi-natural ecosystems. Focus on biological aspects of issues such as endangered species protection, invasive species, preserve design, and forest management, via a set of case studies.

P B X80E. Advanced Microbial Ecology.
Examine microbial population, community, and ecosystem ecology.

P B X80P. Population Genetics.
Introduction to population genetics. Focus on quantitative understanding of evolutionary change caused by selection, drift, mutation, and migration. Explore phenotypic and molecular evolution.

P B X80R. Advanced Readings in the Biological Sciences.

P B X80T. Topics in Current Biology Concepts.
Designed for beginning graduate students seeking a review of modern biological concepts.

P B X81E. Ecology Seminar.
Listen to and discuss presentations ranging from research progress reports to practice conference talks and well-versed presentations of long term research programs.

P B X81P. Advanced Plant Physiology.
Explore general principles of mineral nutrition, water relations, metabolic activities, growth, and development of green plants.

P B X82. Advanced Study and Research.

P B X82K. Topics in Computational and Statistical Biology.

P B X82K.4. Numerical Ecology in R.
Examine basic concepts and methods of laboratory and field analysis in various fields of biology. Explore systematics and ecology of natural populations.

P B X82K.5. Meta Analysis.
Explore a quantitative approach for synthesizing results from diverse research studies that address a similar hypothesis.

P B X82K.6. Programming for Biology.
Explore programming skills that are relevant to research in the biological sciences, including but not limited to programming in Python, R, Perl, C++.

P B X82K.7. Ecological Theory and Modeling.
Explore concepts and methods of modeling ecological systems including populations, communities, and ecosystems. Focus on the methodology and utility of ecological theory and modeling. Examine the basic techniques and classic insights derived from differential equation, statistical, and individual based models with emphasis on the ability to interpret and evaluate models in the literature.

P B X82K.8. Introduction to Biology for Data Science.
Explore biological concepts and methods (including its assumptions and limitations), particularly in the areas of systems biology, medical and evolutionary genomics, and neuroscience. Focus on approaches that produce a lot of data but are analysis-challenged.

P B X84K. Topics in Ecology, Evolution, and Behavior.
Examine basic concepts and methods of laboratory and field analysis in various fields of biology. Explore systematics and ecology of natural populations.

P B X84K.1. Chemical Ecology.
Explore the breadth of chemical ecology, from its historical focus on pheromonal communication, plant-insect interactions, and coevolution to new frontiers, including novel methods in metabolomics and the community and ecosystem effects of chemically mediated species interactions.

P B X84K.2. Recent Advances in Ecosystem Ecology.
Explore recent advances in ecosystem ecology.

P B X84K.3. Recent Advances in Ecological and Evolutionary Genetics.
Discuss and analyze current and classic literature related to ecological and evolutionary genetics.

P B X84L. Issues in Population Biology.
Analyze currently active areas of research in population biology.

P B X86K. Topics in Plant Sciences.

P B X86K.1. Advanced Subjects in Plant Systematics.

P B X87J. Advanced Plant Anatomy.
Examine plant anatomy in relation to development and differentiation, systematics, and evolution.

P B X87L. Laboratory in Advanced Plant Anatomy.
Review cellular details and tissue systems of plant organs and discuss the preparation of plant materials for histological examination.

P B X88D. Current Research in Plant Biology.
Introduction to various fields of plant biology. Attend seminars, faculty research presentations, and other meetings.

P B X88E. Plant Growth and Development.
Focus on whole plant physiology, especially growth and development, water relations, and mineral nutrition of vascular plants.

P B X88M. Plant Molecular Biology.
Explore the fundamentals of plant molecular biology, including structure and expression of the chloroplast and mitochondrial genomes.
P B X89D. Subjects and Skills for Graduate Students in Plant Biology.
Designed for first-year graduate students in ecology, evolution, and behavior. Introduction to the writing, presentation and appraisal skills needed to excel in all fields of biological research.
P B X90C. Fundamentals of Evolution.
Introduction to major principles and questions in evolutionary biology. Explore population genetics, genetic diversity, adaptation, origin of species, phylogenetics, molecular evolution, and macroevolution. Focus on identifying open questions, analysis and interpretation of data, and gaining familiarity with the primary scientific literature.
P B X90E. Fundamentals of Ecology.
Explore the fundamentals of ecology, ranging from organism physiology to population, species, community, and ecosystem-level processes across landscapes and biomes.
P B X98. Thesis.
P B X98R. Master's Report.
Prepare a report to fulfill the requirement for the master's degree under the report option.
P B X99W. Dissertation.

Professional Courses

P L - Public Leadership

Public Leadership: P L

Lower-Division Courses

Upper-Division Courses

Graduate Courses

P L X81E. Topics in Leadership and Management.
Discover the characteristic and traits of a strategic leader. Explore the skills needed for impactful change management and leadership of inclusive organizations in an ever-changing global environment.
P L X81E.1. Leadership and Management Foundations.
Explore facets of leading a public organization, drawing on research about the sources of success for leaders. Review management foundations and strategies - decision-making, self-awareness, goal setting, team building, and more. Create a personal leadership philosophy.
P L X81E.2. Leading Strategic Change.
Explore the skills and knowledge to plan and lead strategic change initiatives more effectively.
P L X81E.3. Public Leadership Ethics.
Research the concept of ethics and examine how to deploy value-driven decision-making in public organizations. Explore diversity, equity, and inclusion concepts. Determine steps for creating and leading an inclusive organization.
P L X82E. Topics in Strategic Communication and Engagement.
Develop an approach and toolkit for delivering effective public policy communications, managing risk management, and building collaboration among a diverse group of stakeholders.
P L X82E.1. Strategic Policy and Public Communications.
Examine policy and public messages. Use modern communication tools, and manage personal brands.
P L X82E.2. Managing Risks and Creating Shared Value.
Explore risk assessment, crisis management and practical tools and skills to use in the face of crises. Explore how effective leaders create shared value by building cross-sector partnership and engaging in negotiation with stakeholders to solve challenges.
P L X83E. Topics in Executive Analytics.
Explore the fiscal management, data and evaluation tools needed to lead 21st-century public organizations.
P L X83E.1. Financial Management for Decision-Makers.
Examine the theory and practice of public financial management, the principles of budget, finance, accounting, and fiscal administration.
P L X83E.2. Data Analytics and Program Evaluation.
Learn tools, skills, and experience needed to be a sophisticated data-driven decision maker.
P L X84E. Topics in Politics and Policy.
Explore how policymaking, politics, and emerging technologies impact public organizations and agencies.
P L X84E.1. Politics and Policymaking.
Explore how to develop and implement policy. Examine the relationship between policy and politics in developing and implementing policy. Delve into the intersections between national, state, and local politics and policymaking.
P L X84E.2. IT, Cybersecurity and the Public Sector.
Explore modern-day organizational and technology change processes in the public sector. Outline techniques for managing future-focused IT projects and policies in public organizations. Examine the knowledge and skills necessary to acquire, exploit, and protect digital and sensitive information entrusted to public sector organizations.
P L X89E. Research Capstone.
Develop a professional research capstone project that will contribute to leadership success in current or future employment. Create research, writing, and presentation components.

Professional Courses

P R - Public Relations

Public Relations: P R

Lower-Division Courses

P R X05. Fundamentals of Public Relations.
An introduction to public relations history and practice.
P R X05S. Introduction to Integrated Communication for Sports.
Examination of the mass media industry in relation to the field of sports. Focus on the "off-the-field" industries of advertising, marketing, and public relations that impact sports; rights fees contracts; pre-game shows; gameday production; in-stadium activities; and press coverage.
P R X09. Introduction to Advertising and Public Relations Research.
Introduction to concepts and methods of statistics, with emphasis on analyzing personal and group behaviors. Includes exploratory data analysis, correlation and regression, descriptive statistics, sampling distributions, confidence intervals, and hypothesis testing.
P R X11. Topics in Public Relations.
P R X16. Creativity and American Culture.
A cross-disciplinary view of the creative process and creative products. The conceptual core of film, fine arts, advertising, architecture, and literature.
P R X17. Writing for Public Relations.
Introduction to writing skills for the media, including readability, clarity, verification, and style.
P R X19S. Topics in Public Relations.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Advertising and Public Relations. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

P R X20. Integrated Communication for Nonprofit Organizations.
Explores integrated communication and branding in a variety of nonprofit settings. Examines the strategic, integrated use of multiple

communication approaches, including advertising, public relations, new media, promotions, sponsorships, and special events.

P R X21. Leadership and Ethics.
Explores leadership, communication, ethics, and the ability to lead others ethically and effectively. Examine concepts and frameworks related to skills that are integral to ethical, effective leadership.

P R X22. Health Communication: Messages, Campaigns, and the Media.
Covers the development of effective health messages, the design of health campaigns, and investigate the role of the media in influencing people's health and perceptions of health.

P R X23. Public Communication of Science and Technology.
Explores the rapidly growing field of science communication. Examines the intersection of science, media, and society, focusing on media's impact on how people come to understand, perceive, and act relative to scientific issues. Special attention will be directed toward the strategic communication of science and maximizing scientists' engagement with public audiences.

P R X24. Communicating Sustainability.
Focuses on persuasion in the context of environmental attitudes and behaviors. Explores how humans think about and interact with the environment, paying particular attention to climate change. Drawing on theory and examples, examines the challenges and opportunities that arise when people try to communicate about the environment and change individual attitudes and behaviors.

P R X29S. Topics in Public Relations.
Enrollment in this course is to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Public Relations; transfer credit is awarded for work in an affiliated studies program. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.

P R X32. Technology Marketing and Advertising.
Explores case histories, interviews with leading technology advertising and marketing executives, and latest trends in digital advertising, both mobile and social, as well as its impact across marketing segments and industries.

P R X32C. New Media Entrepreneurialism.
Covers real life experience/exposure with a series of interviews with real-life practitioners from social media, venture capital, and others with expertise in the field. Explores important trends in digital content and digital business models; a primer for those who wish to learn about entrepreneurialism, technology, and it's intersection with media.

P R X32D. Entrepreneurialism in Communication.
Project-oriented exercise where small teams conceptualize a business idea in communications, curate the insights and opinions of fellow team members, and ultimately develop a business plan around their new endeavor. A panel of local entrepreneurs will provide feedback and critique.

P R X39K. Digital Graphic Communication.
Introduction to the fundamentals of good graphic design, as well as production basics. Develops digital design skills using industry-standard software, from print (Adobe InDesign, Photoshop, Illustrator) to motion (Adobe Premiere, AfterEffects) and interactive (HTML, CSS, WordPress). Assumes no prior knowledge.

P R X39L. Brand Storytelling.
Examination of how classic elements of storytelling, semiotics, and symbolism can be used to create and manage a modern brand's story and 'meaning'. Create visual, verbal, and video examples of brand storytelling that go beyond traditional advertising and public relations.

P R X41S. Research in Sports Communication and Media.
An introduction to advertising and public relations research and methodology for sports.

P R X48. Public Relations Techniques.
Analysis and production of print, electronic, and oral messages to achieve organizational objectives; fundamentals of media relations; Internet applications.

P R X48S. The Business of Sports Media.
Examination of the business of sports-related media, including over-the-air television, cable, satellite television, print, radio, social media, and internet-based media, and the impact of such media on sports presentation and development, professional franchises, colleges, and conferences. Emphasis on how the business of sports media generates revenue and content, and the business models for each type of media, the challenges to such models, and the likely future changes to them.

P R X50. Public Relations Internship.
Internship to be arranged by student and approved by instructor.

P R X50S. Internship in Sports Media.
Practical work experience in sports media. Internship to be arranged by student and approved by instructor.

P R X51. Public Relations Internship.

P R X52. Strategies in Public Relations.
Strategies relating to public relations disciplines, including the management of external, internal, community, nonprofit, and media issues, and public relations marketing programs.

P R X53. Advertising and Public Relations Law and Ethics.

P R X60. Business Foundations for Public Relations.
Examine how communication professionals gain fluency in the language and issues of corporate/nonprofit organizations, discover how to build trust with C-suite leaders, and learn how to become strategic communications counselors for leadership.

P R X61. Creativity in Artificial Intelligence.
Explore the intersection of artificial intelligence (AI) and creative processes. Examine how AI can enhance and augment human creativity in various domains such as art, music, writing, and design. Discuss the latest AI technologies and techniques used to generate innovative content. Analyze the ethical implications and societal impacts of AI-driven creativity. Learn the knowledge and skills to harness the power of AI to push the boundaries of human creativity.

P R X63. Immersive Media Studio.
Explore the space of Immersive Technology. Conduct experimental projects over short periods of time and learn through discovery and sharing findings with others.

P R X64. Immersive Experiences.
Develop an understanding of an audience, the language of development, and awareness of the affordances of each medium to use them effectively in designing immersive user experiences. Work on a real-world client project, which will also be prepared for entry into an immersive storytelling competition.

P R X65. Audience Development and Engagement.
Examine the latest methods used to better understand audiences and their motivations. Explore new approaches and tools for engaging audiences in different content strategies, and what metrics can be used to measure their engagement in ways that prove valuable to content creators, marketers, and audiences.

P R X67. Integrated Communications Management.
Public relations as a managerial problem-solving process; strategic management of programs to enhance public-organizational relationships.

P R X67E. Experimental Storytelling.
Working with real-world clients, examine design thinking and human-computer interaction techniques while ideating, synthesizing concepts, creating user experiences, and developing a proof of concept (PoC) exemplary towards becoming an experience designer.

P R X69. Social Media.
Introduction to social networking platforms and their application in relation to media plans, brand building, and insights.

P R X77H. Integrated Communications Campaigns: Honors.
The concept of media mix; matching product, consumer, and media profiles; and the conception, research, planning, and execution of advertising campaigns. Special emphasis on advanced copywriting, layout, and production for print and broadcast media. Students usually participate in major national contests involving brand development in advertising strategies.

P R X77K. Integrated Communications Campaigns.
Integration of theory, research methods, and communication techniques for planning, implementing, and evaluating public relations campaigns; client proposal writing and presentation.

P R X77M. Topics in Media Studies.
Topics in media and its effects on advertising and public relations strategies.

P R X78. Advanced Topics in Public Relations.

P R X78.21. Semester in Los Angeles: Entertainment Promotion, Press, and Public Relations.
Consider the core disciplines of research, creative, distribution, advertising, publicity, and promotion as they apply to entertainment.

P R X78.3. Black Music and the Media.

P R X78.37. Social Enterprise Branding.
Focus on the development of strategic branding and communication for businesses focused on balancing purpose and profit. Explore components of brand identity and implementation as they relate to the success or failure of companies enacting social impact across a number of industries.

P R X78.38. Influencer Marketing.
Identify, analyze, approach, manage, and measure business goals. Differentiate between attention and influence.

P R X78.39. Pop Star Activism.
Engage with issues of diversity, political activism, public relations, and marketing communication through the lens of popular music.

P R X78.4. Health Communication: Theory and Practice.

P R X78.41. Advertising Intelligence.
Analyze how insights enhance decision making in advertising and public relations in areas such as campaign development, segmentation, positioning, product development, and promotion. Review advertising and public relations problems and processes in ways that will benefit from informed decision making.

P R X78.42. Issues in Black American Advertising and Public Relations.
Explore cultural critiques of the advertising and public relationship industry related to historical and contemporary challenges involving representation, systemic injustice, stereotypes, and social responsibility involving the Black American experience.

P R X78.43. Digital Social Media Analytics.
Explore cutting edge technologies that enable public relations and advertising professionals to better understand online conversations and audience behaviors. Examine how to recommend creative solutions for engaging key stakeholders. Determine how data, creative, and strategy intersect.

P R X78.6. Public Relations in Entertainment.

P R X78S. Special Topics in Sports Media.
Topics in sports media related to issues in traditional and new media as they affect sports and entertainment advertising and public relations.

P R X78S.1. Advertising and Public Relations for Sports.

P R X78S.10. Leadership and Administration in Sports Organizations.
Designed to develop marketing skills related to events, programs, products, and facilities in the sports management field.

P R X78S.11. Sports and Social Media.
Designed to provide an understanding of and experience with the components and best practices of social media, marketing, and communications as they relate to sports entities and the sports field as a whole.

P R X78S.12. Sports Audiences.
An exploration of marketing innovations in sports to attract audiences, and the use of sports media by advertisers, sponsors, and other entities to target various customer groups.

P R X78S.13. Business of Sports Television.

P R X78S.2. Legal Aspects of Sports and Media.

P R X78S.3. Return on Investment of Sports Media.

P R X78S.4. Analysis of Sports and Entertainment Audiences.

P R X78S.5. Ethics and Social Issues in Sports Branding.

P R X78S.6. Sports Audiences and Nontraditional Media.

P R X78S.7. Contributions of Sports and Entertainment to Education and Health.

P R X78S.8. College Sports Media.
An examination of the history of college sports media, with an emphasis on the evolution of sports coverage from NCAA-controlled limited broadcasting of football and basketball,to present day intercollegiate athletics coverage available via multiple outlets.

P R X78S.9. Sports Contract Negotiation Techniques.
Strategies and techniques for successfully negotiating contracts, with a special emphasis on the negotiation of sports contracts.

P R X79. Public Relations Problems.

Graduate Courses

P R X91K. Topics in Seminar in Public Relations.
Survey and analysis of current public relations issues and practices.

Professional Courses

P S - Physical Science

Physical Science: P S

Lower-Division Courses

P S X03. Introductory Physical Science I: Mechanics and Heat.
Inquiry laboratory approach to basic concepts of measurement, forces, motion, energy, temperature, and heat. Designed for students with minimum prior preparation in mathematics and physics. Especially appropriate for prospective elementary school teachers.

P S X04. Introductory Physical Science II: Electricity, Light, and Optics.
Inquiry laboratory approach to electricity, magnetism, waves, light, and optical instruments.

P S X10. Topics in Physical Science.

P S X19S. Topics in Physical Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

P S X29S. Topics in Physical Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

P S X41. Topics in Physical Science.

P S X50. Physical Science for Elementary and Middle School Teachers.
An inquiry laboratory in the basic concepts of light, electricity, and magnetism.

P S X67M. Physical Science: Methods of Astronomy.
An introductory, self-paced course in the methods of astronomy that emphasizes learning astronomical principles through observations.

P S X75. Topics in Physical Science: Individual Study.
Guided inquiry reading or laboratory research in physical science.

Graduate Courses

Professional Courses

PBH - Public Health

Public Health: PBH

Lower-Division Courses

PBH X17. Introduction to Public Health.
Overview and basic principles of public health, including the public health system, concepts and tools for measuring health in populations, the relationship between public health and the medical care system, and the role of law and government in public health.

PBH X19S. Topics in Public Health.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

PBH X20. Topics in Health Informatics and Health Information Technology.
Concepts, theories, and issues in health informatics and health information technology.

PBH X20.1. Introduction to Health Informatics and Healthcare Analytics.
Consists of didactic lectures about the theoretical foundations of health informatics, database theory and management, healthcare standards, medical decision making, and healthcare analytics. Includes four hands-on workshops that relate to subjects taught in this course: HL7, SQL, Microsoft Excel, Microsoft Access, and Tableau. Also includes a research project over a six-eight week time period, production of a professional poster, and a presentation in a research poster forum judged by faculty, industry representatives, healthcare professionals, and policy makers.

PBH X20.2. Fundamentals of Health Information Technology.
Explores healthcare policy (including privacy and security), current technologies (telemedicine, hospital information systems and computer and networking technologies) and the interoperable exchange of healthcare data.

PBH X20.3. Project Management, Process Redesign and Quality Improvement.
Explores the basics of project management, including requests for proposals, scope, project planning, budgets and deliverables. Also discussed is an analysis of workflow processes and the impact of technology to improve these processes. Quality improvement, including tools to improve quality, is also presented. Includes several individual assignments and one team project.

PBH X20.4. Operational Models of Healthcare Systems.
Explores the complex United States (US) health care system and explains the manner by which health care is delivered along a continuum of care. A special emphasis is placed on the operational delivery of ambulatory care and the manner in which acute care facilitates are evolving. Subjects include a comparison of the US health care system to health care delivery in other countries, population health and health care finance/insurance - including discussion on public (Medicare and Medicaid) and private (Managed Care) coverage. Descriptions of current and emerging payment mechanisms, revenue cycle management, risk management, overhead reduction and practice management are covered in detail to allow students a robust understanding of business issues associated with health care delivery.

PBH X20.5. Technology Competencies in Health Informatics and Health Information Technology.
Hands-on laboratory, team-taught by program faculty and staff with support from industry partners. Utilization of multiple health informatics and health information technology systems, health information exchange and interoperability software, and key analytics tools. This laboratory builds upon concepts taught in Public Health 320, Topic 1 and Public Health 320, Topic 2.

PBH X20.6. Practicum and Professional Development in Health Informatics and Health IT.
Professional development lectures, activities, and a ten-day practicum experience off campus to experience working with industry, healthcare systems, policy makers, and other experts in the field.

PBH X23. Introduction to Health Informatics.
Introduces theoretical foundations of health informatics, database theory and management, healthcare standards, and medical decision making.

PBH X29S. Topics in Public Health.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PBH X30. Topics in Public Health.
Concepts, theories, and issues in public health.

PBH X34. Global Health.
An investigation of global health issues, including the principles of global health, the burden of morbidity and mortality, health determinants, health care and public health systems, socioeconomic development, and human rights.

PBH X37. Selected Topics in Public Health.
Recent developments and research methods in the field of public health will be explored.

PBH X37.1. Senior Seminar in Public Health.
Discuss public health importance, learn how to demonstrate scholarly and applied experience in public health, and prepare to enter the public health workforce or continue in advanced public health or other professional programs.

PBH X38. Environmental Health.
Introduction to the major areas of environmental health presented in the context of epidemiology, toxicology, and health effects. Subjects include water and air quality, solid and liquid waste, hazardous chemicals, radiation, infectious agents, food safety, and occupational health.

PBH X41R. Public Health Research.
Conduct research mentored by public health practitioners at governmental agencies, non-governmental organizations, or health care facilities.

PBH X54. Epidemiology I.
Introduction to basic principles and concepts in epidemiology, including descriptive epidemiology, association and causation, basic epidemiological study design, evidence-based decision analysis, and applications of epidemiology methods to basic and clinical science.

PBH X56. Health Behavior Theory and Practice.
An introduction to social and behavioral theories that inform the discipline of public health and applied public health practice, including practical examples of how these theories inform and influence health promotion to understand and modify health-related behaviors. Focus on health inequities and inequalities of populations living in the United States and how underlying cultures and social structures impact the health of individuals and communities.

PBH X58D. Health Policy and Health Systems.
Explore an overview of the U.S. health care system and the impact of policy and legislative actions on the essentials of organization, financing, management, and delivery of private and public health care.

PBH X61P. Public Health Internship.
Includes a public health research project off campus at a public health practice agency or a graduate school of public health.

PBH X62. Epidemiology II: Quantitative Methods.
Introduction to advanced applied statistical and analytical techniques used for public health research and practice. Examine both continuous and categorical data often used in public health research and apply appropriate data analysis techniques for purposes of data collection, analysis, and evaluation.

PBH X63. Project Management, Planning, and Evaluation.
Investigate the importance of and the key approaches used to lead, conduct and evaluate effective public health programs. Examine practical management and program evaluation tools and techniques such budgeting, proposal/application development and use of logic models. Apply these concepts and tools within the context of service delivery and policy making in the field of public health. Recommended for students who are interested in the Certified Associate in Project Management (CAPM) exam from the Project Management Institute.

PBH X64. Field Epidemiology.
Explore an overview and basic principles of field epidemiology including initiating operations, collecting and managing data, analyzing and interpreting data, developing interventions, and communicating during investigations

PBH X65. Public Health Informatics.
Examine fundamental concepts in the application of informatics and information technology to the practice of public health. Investigate how interoperable information systems are used to facilitate a variety of public health functions, including outbreak management, bio-surveillance, disease prevention, and electronic laboratory reporting.

PBH X66. Global Health in Action.
Interact with non-profit organizations to improve social determinants of health in communities globally. Participate in activities including needs assessments; Internal Review Board (IRB) applications; data collection, management, analysis, and visualization; report preparation; and resource identification as well as gain cultural understanding of the community.

PBH X67. Emerging and Re-emerging Infectious Diseases.
Explore, research, and present emerging and re-emerging infectious diseases, including factors in disease emergence, animal reservoirs, and the principles that govern the detection, mitigation and control of pandemic disease. Study a detailed analysis of host-pathogen interactions, illuminating how viral and bacterial pathogens defeat the host's immune defenses and cause disease. Examine representative emerging and re-emerging pathogens, case-based outbreak investigations, and individual case studies.

PBH X68. Maternal, Child, and Family Health.
Explore an overview of maternal, child, and family related services in the US and the historical and current paradigms in the field with a focus on the life course perspective, health equity, and social determinants of health.

PBH X69. Diverse Communities and Health Equity.
Examine historical and current subjects related to social disparities, structural and institutional inequalities, social determinants of health, racially and ethnically classified social groups, gender inequity, and other forms of inequality and disparities in society and their links with human health. Explore how to work towards health equity by addressing the historical, social, and political drivers of health disparities through implementation of community centered and culturally congruent health equity strategies across varies levels of intervention.

PBH X70. Local Health in Action.
Interact with non-profit organizations to improve social determinants of health in communities locally. Participate in activities including needs assessments; Internal Review Board (IRB) applications; data collection, management, analysis, and visualization; report preparation; and resource identification as well as gain cultural understanding of the community.

PBH X79H. Honors Tutorial Course.
Supervised individual research on a special topic in public health, leading to an honors thesis and an oral presentation. May be based on laboratory, library, or field research.

Graduate Courses
Professional Courses

PED - Physical Education

Physical Education: PED
Lower-Division Courses

PED X01J. Topics in Swimming.

PED X01J.1. Beginning Swimming I.
Elementary physical and mental adjustments, four basic strokes, water safety.

PED X01J.2. Beginning Swimming II.
Five basic strokes, elementary diving, water safety.

PED X01J.3. Intermediate Swimming.
Six power strokes, diving, water safety, introduction to conditioning.

PED X01J.5. Stroke Technique and Fitness Swimming.

PED X02G. Topics in Skin Diving and Scuba Diving.
Training in underwater safety, skin and scuba skills, care of equipment. Culminates in PADI certification.

PED X02G.1. Basic Scuba Diving.
Classroom, pool, and open water training with emphasis on underwater safety, the skills of skin and scuba diving, equipment, the underwater environment, planning for a dive. Culminates in nationally recognized certification.

PED X02G.2. Intermediate Scuba Diving.
Classroom, pool, and open water training with emphasis on navigation, air consumption, emergency procedures, night dives. Culminates in nationally recognized certification.

PED X02G.3. Advanced Scuba Diving.
Classroom, pool, and open water training with emphasis on deep dives, mapping, search and research diving, equipment rescue work. Culminates in nationally recognized certification.

PED X03L. Topics in Social Dance.

PED X03L.1. Beginning Social Dance: Leads.
Introduction to popular social dances, including swing, waltz, bachata, nightclub two-step, cross-step waltz, salsa, west coast swing, and tango. Emphasis on connecting with a dance partner and the art of leading and following. Must register for the role you want to learn: lead or follow.

PED X03L.2. Intermediate Social Dance.
An intermediate survey of popular social dances. Includes more complex partnering and variations in familiar and new dance styles.

PED X03L.3. Advanced Social Dance.
An advanced survey of popular social partner dances. Includes advanced partnering, role reversal, and an emphasis on creativity and style.

PED X03L.4. Intermediate Social Dance: Follows.
Continue exploring the skills learned in Beginning Social Dance. Examine intermediate variations and partnering as well as new dances.

PED X03L.5. Advanced Social Dance: Leads.
An advanced survey of popular social partner dances. Includes advanced partnering, role reversal, and an emphasis on creativity and style.

PED X03L.6. Advanced Social Dance: Follows.
An advanced survey of popular social partner dances. Includes advanced partnering, role reversal, and an emphasis on creativity and style.

PED X03L.7. Beginning Social Dance: Follows.
Introduction to popular social dances, including swing, waltz, bachata, nightclub two-step, cross-step waltz, salsa, west coast swing, and tango. Emphasis on connecting with a dance partner and the art of leading and following. Must register for the role you want to learn: lead or follow.

PED X03L.8. Intermediate Social Dance: Leads.
Continue exploring the skills learned in Beginning Social Dance. Examine intermediate variations and partnering as well as new dances.

PED X04P. Topics in Tennis.

PED X04P.1. Beginning Tennis.

PED X04P.2. Advanced Beginning Tennis.

PED X04P.3. Intermediate Tennis.

PED X04P.4. Advanced Intermediate Tennis.

PED X04P.5. Advanced Tennis.

PED X04R. Topics in Racquetball.

PED X04R.1. Beginning Racquetball.

PED X04R.2. Intermediate Racquetball.

PED X04R.3. Advanced Racquetball.

PED X05C. Topics in Handball.

PED X05C.1. Beginning Handball.

PED X05C.2. Intermediate Handball.

PED X05C.3. Advanced Handball.

PED X05C.4. Handball Doubles.

PED X05M. Topics in Fencing.

PED X05M.1. Beginning Fencing: Foil.

PED X05M.2. Beginning Fencing: Epee.

PED X05M.3. Intermediate Fencing: Foil.

PED X05M.4. Intermediate Fencing: Epee.

PED X05M.5. Intermediate Fencing: Saber.

PED X05M.6. Advanced Fencing: Foil.

PED X05R. Topics in Karate/Tae Kwon Do.
Includes self-defense.

PED X05R.1. Beginning Karate/Tae Kwon Do.
Explore basic hand strikes, kicks, blocks, and fighting combinations. Engage in strikes and kicks on pads and learn practical self-defense techniques. Examine physical conditioning, discipline, and respect.

PED X05R.2. Intermediate Karate/Tae Kwon Do.
Explore beginner and intermediate hand strikes, kicks, blocks, and fighting combinations. Engage in strikes on pads and learn practical self-defense techniques. Examine light sparring, form training, conditioning, respect, and discipline.

PED X05R.3. Advanced Karate/Tae Kwon Do.

PED X05T. Topics in Judo.
Includes self-defense.

PED X05T.1. Beginning Judo.

PED X05T.2. Intermediate Judo.

PED X05T.3. Advanced Judo.

PED X05U. Beginning Hapkido/Self-Defense.

PED X05V. Kickboxing and Self-Defense.
Explore basic karate and boxing hand strikes, kicks, and blocks. Work fighting combinations on pads and understand concepts of speed and power. Examine conditioning and practical self-defense strategies.

PED X06C. Topics in Conditioning.

PED X06C.1. Swim Conditioning.

PED X06C.10. Intermediate Yoga.
Explore yogic physical and subtle body anatomy through poses, breath and meditation techniques. Follow alignment-based instruction to deepen poses learned in Beginner's Yoga and to further explore new and more challenging poses. Employ breathing and meditation practices to experience increased self-regulation and self-awareness.

PED X06C.11. Advanced Yoga.
Continue exploring yoga poses, breathing, and meditation techniques. Discover the modern-day relevance and application of the ancient teachings of yoga as explored in the text The Yogi Sutras.

PED X06C.12. Beginning Yoga.
Explore the principles and benefits of mind-body fitness through the lens of yoga and examine the relationship between exercise, health, and wellness. Discover a yogic approach to cardio and strength training exercises through hatha and vinyasa styles of yoga, as well as mental focus and breathing techniques. Explore aerobic capacity, muscular endurance, muscular strength, mental focus, and overall flexibility.

PED X06C.13. Beginning Pickleball.
Learn to play pickleball: a racquet sport which merges elements of badminton, tennis, and table tennis. Work on the basic pickleball shots and discuss how to keep score, rules, ways to win or lose points, serve order, safety, and etiquette. Play singles and doubles matches.

PED X06C.2. Cardiovascular and Weight Training.

PED X06C.3. Aerobic Walking.

PED X06C.4. Aerobics.

PED X06C.5. Body Works.
Step training with emphasis on muscular/strength endurance work, and inclusion of yoga and pilates. Combines aerobic conditioning with muscular work for a shorter, more intense aerobic segment followed by a challenging muscular workout for the trunk and upper and lower body. Designed to improve body composition, aerobic capacity, muscular endurance, muscular strength, and overall flexibility.

PED X06C.6. Circuit Aerobics.

PED X06C.7. Weight Training.

PED X06D. Topics in Running.

PED X06D.1. Beginning Running.

PED X06D.2. Intermediate Running.

PED X06D.3. Advanced Running.

PED X07C. Topics in Archery.

PED X07C.1. Beginning Archery.
Basic form.

PED X07C.2. Intermediate Archery.
Bow mechanics and competition.

PED X07C.3. Intermediate Field Archery.

PED X07C.4. Advanced Archery.
Tournament shooting and psychology of competition.

PED X07D. Topics in Golf.

PED X07D.1. Beginning Golf.

PED X07D.2. Intermediate Golf.

PED X07D.3. Beginning Golf II.

PED X07L. Topics in Gymnastics.

PED X07L.1. Beginning Tumbling and Trampoline.

PED X07L.2. Intermediate Tumbling and Trampoline.

PED X07L.3. Rhythmic Gymnastics.
Combination of gymnastics and dance movements performed to music using the hand apparatus of balls, hoops, ribbons, or ropes.

PED X07L.4. Beginning Gymnastics I.
Apparatus work in either men's or women's Olympic gymnastics events.

PED X07L.5. Beginning Gymnastics II.
Apparatus work in either men's or women's Olympic gymnastics events.

PED X07L.6. Intermediate Gymnastics.
Apparatus work in either men's or women's Olympic gymnastics events.

PED X07L.7. Intermediate Advanced Gymnastics.
Apparatus work in either men's or women's Olympic gymnastics events. Intense activity.

PED X07L.8. Advanced Gymnastics.
Apparatus work in either men's or women's Olympic gymnastics events. Intense activity.

PED X08C. Topics in Basketball.
PED X08C.1. Beginning Basketball.
PED X08C.2. Intermediate Basketball.
PED X08C.3. Advanced Basketball.
PED X08C.4. Basketball: All Level.
PED X08S. Topics in Softball.
PED X08S.1. Beginning Softball.
PED X08S.2. Intermediate Softball.
PED X09D. Topics in Volleyball.
PED X09D.1. Beginning Volleyball.
Designed for students with few or no volleyball skills.
PED X09D.2. Intermediate Volleyball.
Designed for students with good basic skills: bump, set, spike, serve.
PED X09D.3. Advanced Volleyball.
Designed for students with high skills and knowledge of multiple offenses.
PED X09D.4. Sand Volleyball.
Explore basic motor skills and apply systems and skills of outdoor sand volleyball. Examine physical activity, service learning, cardiovascular health and fitness, and overall well-being.
PED X19S. Topics in Physical Education.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Kinesiology and Health Education. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

PED X29S. Topics in Physical Education.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Kinesiology and Health Education. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
PED X30S. Topics in Physical Education.

Graduate Courses

Professional Courses

PGE - Petroleum and Geosystems Engineering

Petroleum and Geosystems Engineering: PGE

Lower-Division Courses

PGE X01. Engineering, Energy, and the Environment.
Introduction to the field of petroleum engineering. Overview of energy supply and demand. Studies subsurface engineering and engineering problem-solving methods, with an emphasis on fossil energy exploitation and geologic CO2 storage. Includes aspects of basic petroleum geology.
PGE X09. Topics in Petroleum and Geosystems Engineering.
PGE X11. Numerical Methods and Programming.
Introduction to computer programming and mathematical equations typically encountered in petroleum and geosystems engineering; methods to visualize data and solve engineering and mathematical equations with numerical methods; and applications of computers to general problem solving.
PGE X12. Physical and Chemical Behavior of Fluids I.
Principles of organic chemistry; phase behavior; properties of hydrocarbon gases and liquids and oil field waters; overview of laboratory phase behavior measurements; material balance calculations.
PGE X19S. Topics in Petroleum and Geosystems Engineering.
Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Petroleum and Geosystems Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
PGE X80. Advanced Petroleum Laboratory for Master's Degree Candidates.
PGE X90. Advanced Laboratory for Doctoral Candidates.

Upper-Division Courses

PGE X21K. Physical and Chemical Behavior of Fluids II.
Applications of thermodynamics and physical chemistry to petroleum and geosystems engineering.
PGE X22K. Transport Phenomena in Geosystems.
Applications of mass, heat, and momentum balances to fluid flow problems; shell balances; non-Newtonian fluids; transport processes through permeable media.
PGE X23K. Reservoir Engineering I: Primary Recovery.
Classification of subsurface reservoirs by type and recovery mechanism; reserve estimates based on material balance; steady-state and transient fluid flow in permeable reservoir rocks as applied to subsurface engineering problems.
PGE X23L. Reservoir Engineering II: Secondary and Tertiary Recovery.
Introduction to reservoir displacement processes; water and gas injection; enhanced recovery.
PGE X23M. Reservoir Engineering III: Numerical Simulation.
Mathematical equations governing fluid flow in reservoirs; numerical methods to solve the equations; numerical reservoir simulation; treatment of wells; history matching; a simulation project performed using a commercial simulator.
PGE X24. Petrophysics.
Properties of rocks; measurement and interpretation of petrophysical properties; application of petrophysics to subsurface engineering problems; interaction of resident fluids with rocks. Extensive written reporting.
PGE X26. Thermodynamics and Phase Behavior.
Basics of phase behavior, classical thermodynamics in terms of material and energy balances, and applications to changes of state of petroleum fluids.
PGE X27. Properties of Petroleum Fluids.
Principles of organic chemistry, phase behavior of multicomponent mixtures, properties of hydrocarbon gases and liquids and oil field waters, overview of laboratory phase behavior measurements, and material balance calculations.
PGE X29S. Topics in Petroleum and Geosystems Engineering.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Petroleum and Geosystems Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
PGE X30. Drilling and Well Completions.
Elements of rock mechanics, drilling fluids, factors affecting rate of penetration, and well completions, including casing and tubing design.
PGE X33T. Engineering Communication.
Advanced technical communication skills, with emphasis on writing strategies for technical documents, oral presentations, and visual aids.

PGE X34. Reservoir Geomechanics.
Basic stress and strain analysis; pore pressure and in situ stress estimation and measurement; deformation mechanisms in rock; rock fracture description and analysis; wellbore stresses and failure; wellbore stability analysis; fault stability analysis; depletion-induced reservoir deformation; and hydraulic fracturing. Emphasis on applications to petroleum engineering.

PGE X38. Geostatistics and Data Analysis.
Explore basic frequentist and Bayesian probability and statistics, confidence and significance models, multivariate and spatial correlated features, feature engineering, spatial debiasing and estimation, stochastic simulation, uncertainty modeling, basic machine learning, and optimum decision making in the presence of uncertainty. Examine applications to spatial problems such as geology and subsurface resource development.

PGE X58. Principles of Formation Evaluation.
Integrated petrophysical interpretation of well logs, core laboratory measurements, and geological data for static, dynamic, and geophysical appraisal of subsurface rock formations.

PGE X61. Advanced Reservoir Engineering.
Secondary recovery methods; computer simulation of reservoir performance; applications to field problems.

PGE X62. Production Technology and Design.
Analysis, specification, and characteristics of production systems; inflow performance; wellbore and tubing hydraulics; and artificial lift.

PGE X63. Petroleum Leasing Regulations and Practices.
Domestic and worldwide regulations associated with petroleum leasing, including offshore areas, and environmental provisions concerning petroleum exploration and production.

PGE X64. Natural Gas Engineering.
Production, transportation, and storage of gas; metering and gauging; performance of wells; estimation of gas reserves; prevention of waste and utilization of natural gas.

PGE X65. Resource Economics and Valuation.
Derivation of profitability criteria for earth resource investments, project analysis in terms of the interrelation of technical and economic factors, investment analysis in the presence of uncertainty, and project planning.

PGE X68. Fundamentals of Well Logging.
Principles, applications, and interpretation of well logs as used in exploration and evaluation of subsurface formations.

PGE X71. Energy Finance.
Fundamentals of finance as applied to the petroleum industry, including petroleum project financing techniques, investigating sources of capital, and methods used to evaluate an oil company's financial performance.

PGE X72. Advanced Drilling and Well Completions.
Applications of geomechanics in wellbore and near-wellbore problems encountered in drilling and completing high-pressure, high-temperature wells on land and water locations.

PGE X73L. Geosystems Engineering Design and Analysis.
Team-oriented design projects involving the application of geologic and engineering methods to the solution of subsurface problems, using field case histories. Projects are selected for each student based on his or her petroleum engineering technical area option.

PGE X75. Special Topics in Petroleum and Geosystems Engineering.
Explore recent developments in engineering.

PGE X76. Special Problems in Petroleum and Geosystems Engineering.
Independent investigation of an advanced subject in petroleum and geosystems engineering, for superior students only.

PGE X77. Deepwater Operations.
Overview of various technical, logistical, and managerial elements that are functionally integrated in deepwater operations, with emphasis on applications in the Gulf of Mexico.

PGE X78. Applied Reservoir Characterization.
Reservoir modeling using software tools for statistical analysis of reservoir data; variogram analysis and modeling; spatial interpolation (kriging); tools for data integration in kriging; stochastic simulation of rock-types (lithology), pay thickness/porosity, and permeability; inputting geological models into flow simulation; uncertainty assessment.

PGE X79. Topics in Petroleum and Geosystems Engineering.
Special courses or seminars on recent developments in engineering.

PGE X79.10. Artificial Lift.
Life of a well, well testing, gas and plunger lift, progressive cavity pumps, electric submersible pumps, and beam lift.

PGE X79.11. Facilities Management.
Petroleum fluid characteristics, process control, separators, metering, produced water, tanks, gas processing, gas compression, and liquid pumps.

PGE X79.12. Blowout Prevention and Control.
Background in hydrostatics, hydrodynamics, hydraulics, geomechanics, mechanical systems, and procedures as they apply to well control.

PGE X79.13. Fundamentals of Enhanced Oil Recovery Techniques.
Overview of the fundamental displacement concepts of chemical, miscible, and thermal enhanced oil recovery methods. Also includes the concept of phase behavior in each process.

PGE X79.14. High Performance Computational Engineering.
An introduction to the UNIX environment in a scientific computing context, including instruction in several import UNIX applications to improve user productivity. Examine the differences between various parallelization styles of computing and develop a basic working understanding of how to utilize the application programming interfaces (APIs) in scientific applications.

PGE X79.15. E4: The Earth, Natural Resources, and Sustainability.
Application of logic, common sense, the fundamental laws of mass and energy conservation, as well as more advanced thermodynamics to evaluate overall efficencies of major human energy supply schemes such as fossil, nuclear, solar, wind, and biomass to define and quantify the irreversible linear processes and sustainable/unsustainable cycles.

PGE X79.16. Hydraulic Fracture Design and Evaluation.
Overview of Formation evaluation; elasticity; in situ stress calculation and measurement; fracture initiation; basic equations of fracture mechanics; 2-and-3-dimensional fracture models; fluid rheology; proppant settling; pipe friction/surface pressure calculations; treatment pressure analysis; fracture diagnostics; fracturing from horizontal and deviated wells; and treatment design and completions.

PGE X79.17. Applied Subsurface Geology.
Principles and techniques for subsurface geologic interpretation, including subsurface mapping; construction of cross-sections; core description and analysis; stratigraphic interpretation of well logs; and stratigraphic and facies interpretation of seismic data.

PGE X79.18. Wellbore Mechanics and Managed Pressure Drilling.
Operational topics will draw from drilling fluids engineering; drilling system engineering; rig and wellbore hydraulics; ROP parameters and drilling optimizations; wellbore stability; fracture and pore pressure gradients; mud weight windows; in-situ and near-wellbore stress states; lost circulation; pressure control; pipe sticking; and other situations common to drilling operations.

PGE X79.19. Advanced Well Construction.
Focus on advanced topics in drilling fluids, cementing, hydraulics, managed pressure and dual gradient drilling, advanced well control and casing design, complex well design (DW, HPHT, Arctic), and well completions.

PGE X79.20. Drilling Engineering and Operations Management.
A broad overview of the key elements of today's drilling engineering discipline, including an understanding of rigs and rig equipment, familiarity with drilling fluids, cementing, directional drilling techniques etc., up to understanding of casing design, well control and the application of new & emerging drilling and completion technologies.

PGE X79.21. Wellbore to Reservoir Geomechanics.
Applications from offshore to unconventionals. Applications of fluid flow/geomechanics concepts at wellbore, near-wellbore and reservoir scales; vertical, inclined, and horizontal wells; drilling, completion, production and reservoir applications; sandstones, shales, carbonates

PGE X79.22. Global Carbon Monitoring Systems.
Review technologies that help us monitor the pulse of the planet. Learn about systems that directly measure carbon dioxide and methane emissions from both natural sources like wetlands and permafrost and human-made sources like agriculture and fossil fuels. Study how modern technologies - drones, satellites, aerial systems - are revolutionizing the way we measure carbon emission from energy production and use.

PGE X79.23. Subsurface Energy Storage.
Explore hydrogen, compressed air, and carbon storage in geological formations. Review ongoing projects and their relations to net-zero greenhouse emission targets. Discuss flow, transport, and geochemical interactions of different gases with site minerals.

PGE X79.3. Geothermal and Sustainable Energy Resources.
Explore energy resources including geothermal, solar thermal, and biomass. Examine the foundations of these energy resources and the engineering approaches to recovering them. Build on basic knowledge in thermodynamics, flow through porous media, and chemistry.

PGE X79.4. Carbon Capture and Storage.
Explore carbon dioxide emission into the atmosphere; carbon dioxide capture from industrial sources; and the utilization, underground storage, and monitoring of carbon dioxide.

PGE X79.5. Energy and the Environment.
Examine current and potential energy sources and how these might impact the earth's environment. Explore the consequences of energy production in terms of the environmental impact. Discuss carbon, water, and land footprints.

PGE X79.7. Small Scale Fluid Flow.
Examine the physics of fluid flow at the microscale in the context of pore-scale transport in subsurface systems and microfluidic models of subsurface systems. Review geological sediment deposition and how that motivates the appropriate microscopic length-scales. Explore equations of mass and momentum conservation for incompressible fluids. Develop simplifications towards the small-scale slow-flow limit to describe transport through pores and cover techniques in microfluidics and micromodels development.

PGE X79.8. Oil, Gas, and Mineral Law.
Explore basic oil and gas law concepts, the forms generally used in oil and gas transactions and the type of regulation commonly applied to the oil and gas industry with a focus on Texas oil and gas law and regulation.

PGE X79.9. Subsurface Machine Learning.
Explore fundamental probability and statistics; inference and prediction; and model training, testing, tuning, and validation. Examine workflows for integrating many features; workflows for anomaly detection, spatiotemporal prediction, and uncertainty integration. Communicate results within a project team to impact subsurface decision making.

PGE X79H. Undergraduate Honors Thesis.
Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis.

PGE X80. Advanced Petroleum Laboratory for Master's Degree Candidates.

PGE X90. Advanced Laboratory for Doctoral Candidates.

Graduate Courses

PGE X80. Advanced Petroleum Laboratory for Master's Degree Candidates.

PGE X81. Drilling Engineering.
Basic drilling terminology and advanced drilling engineering topics.

PGE X81K. Engineering Analysis.
Application of classical methods of mathematical analysis to problems frequently encountered in engineering applications.

PGE X81L. Advanced Petrophysics.
Measurement, interpretation, and analysis of petrophysical properties of petroleum reservoir rocks.

PGE X81M. Transport Phenomena.

PGE X82. Basic Geological Concepts for Engineers.
Basic geological principles for students with little or no geological background.

PGE X82K. Theory and Application of Reservoir Transients.
Mathematical development and application of multiple pressure transients in well and reservoir systems.

PGE X82L. Numerical Methods in Petroleum and Geosystems Engineering.
The use of numerical methods and computers in the solution of petroleum and geosystems engineering problems.

PGE X83. Special Topics in Petroleum and Geosystems Engineering.
Recent literature on petroleum production practice and petroleum and geosystems engineering problems.

PGE X83.10. Numerical Solution of Time-Dependent Problems.

PGE X83.12. Near Wellbore Problems.

PGE X83.16. Topics in Computational Methods.

PGE X83.17. Naturally Fractured Reservoirs.

PGE X83.2. Advanced Drilling Fluids.

PGE X83.20. Geostatistics.

PGE X83.24. Natural Gas Engineering.

PGE X83.27. Rock Mechanics: Drilling, Completing, and Producing Applications.

PGE X83.28. Macroeconomics of Petroleum.

PGE X83.30. Fundamentals of Subsurface Environmental Engineering.

PGE X83.32. Hydraulic Fracture Design and Evaluation.

PGE X83.33. Advanced Drilling and Well Completion.

PGE X83.35. Advanced Production Engineering.

PGE X83.36. Advanced Numerical Methods.

PGE X83.38. Chromatographic Transport and Geochemical Modeling.

PGE X83.39. Design and Analysis of Pumping Systems.

PGE X83.41. Energy Finance.

PGE X83.46. International Petroleum Concessions and Agreements.

PGE X83.5. Thermal Recovery.

PGE X83.50. Reservoir Applications of Foam.

PGE X83.55. Pore-Level Petrophysics.
Geological and mathematical investigation of pore-scale basis for transport phenomena and petrophysical properties of sedimentary rocks.

PGE X83.56. Stochastic Methods for Reservoir Modeling.
Spatial interpolation and stochastic simulation techniques for reservoir characterization.

PGE X83.57. Deepwater Operations.
Overview of various technical, logistical, and managerial elements that are functionally integrated in deepwater operations, with emphasis on applications in the Gulf of Mexico.

PGE X83.58. Applied Reservoir Characterization.
Reservoir modeling using software tools for statistical analysis of reservoir data; variogram analysis and modeling; spatial interpolation (kriging); tools for data integration in kriging; stochastic simulation of rock types (lithology), pay thickness/porosity, and permeability; inputting geological models into flow simulation; uncertainty assessment.

PGE X83.59. Oil and Gas Production Facilities Design.
Applied theory relating to field processing of hydrocarbons and water, including hydrocarbon and gas separation, gas sweetening and dehydration, gas compression, fluid metering, process control, corrosion, and safety systems.

PGE X83.60. Energy and Earth Resource Economics.
Theoretical and applied topics in natural resource economics, including project analysis, production theory, industrial organization, markets and regulation, and environmental economics.

PGE X83.61. Project Management.
Overview of project management theory and practice in the natural resource sector, with a focus on exploration and production of energy resources.

PGE X83.62. Energy and the Environment.
A survey course covering current and potential energy sources, what the energy supply mix will be in the future, and how this might impact the environment.

PGE X83.63. Subsurface Machine Learning.
Explore the theory and practice of data analytics and machine learning for subsurface resource modeling. Examine fundamental probability and statistics; data preparation and feature engineering, inference (clustering, multidimensional scaling) and prediction (regression, naive Bayes, decision trees, random forest, support vector machines and artificial neural nets); and model selection, training, testing, tuning, and validation.

PGE X83.64. High Performance Computing for Engineers.
Explore an introduction to the UNIX environment in a high-performance scientific computing context. Examine several import UNIX applications that can help users be more productive. Discuss the basic differences between various parallelization styles of computing, as well as how to utilize the application programming interfaces (APIs) in scientific applications.

PGE X83.65. Formation Evaluation of Unconventional Reservoirs.
Explore advanced formation evaluation of unconventional reservoirs through experimental and computational/analytical methods and workflows. Discuss the rock physics of unconventional reservoirs. Examine multi-physics and multi-scale formation data (well logs, core data, and geological information) to construct hydrocarbon reservoir models amenable to production forecast and improved development of available reserves in unconventional reservoirs.

PGE X83.66. Data Analytics and Geostatistics.
Explore subsurface data analytics and geostatistics, from fundamental probability and statistics, univariate and multivariate analysis, representative sampling, spatial characterization and modeling, and uncertainty management to decision-making in the presence of uncertainty.

PGE X83.67. Applied Subsurface Geology.
Explore subsurface geology as a window into stratigraphy, depositional environments, depositional processes, tectonic influences, and other knowledge that can be applied to petroleum systems. Examine principles and techniques for subsurface geologic interpretation through inquiry-based, hands-on activities using petroleum-industry datasets.

PGE X83.68. Digital Rock Physics.
Examine current modalities used in imaging porous medium structure, transport within, or its deformation. Discuss the analysis and visualization of 2D or 3D images, quantifying properties of interest (such as porosity, tortuosity, areas or permeability) as well as the associated uncertainty. Delve into a combination of advanced image analysis algorithms, scientific visualization, and computation (based on the images). Explore digital rock physics: the images, their analysis, and using them in simulation of petrophysical properties of interest.

PGE X83.69. Geothermal and Sustainable Energy Resources.
Explore energy resources including geothermal, solar thermal, and biomass. Examine the foundations of these energy resources and the engineering approaches to recovering them. Build on basic knowledge in thermodynamics, flow through porous media, and chemistry.

PGE X83.70. Advanced Geomechanics.
Examine the fundamentals of theoretical geomechanics and its application to problems in petroleum engineering. Explore the mechanics of porous solids and saturated porous solids, mechanical properties of real reservoir geomaterials, plane strain solutions for typical applications and numerical solutions for particular problems, and thermo-hydro-mechanical coupled processes. Apply this knowledge to understand the deformational behavior of various geomaterials found in petroleum engineering, to recognize situations in which geomechanical effects are important, and to choose the proper tools to solve geomechanical problems.

PGE X83.71. Artificial Lift.
Explore the life of a well, well testing, gas and plunger lift, progressive cavity pumps, electric submersible pumps, and beam lift.

PGE X83.72. Carbon Capture and Storage.
Explore carbon dioxide emission into the atmosphere; carbon dioxide capture from industrial sources; and the utilization, underground storage, and monitoring of carbon dioxide.

PGE X83.73. Finite Element Methods.
Explore the basic concepts of the finite element method for two-point boundary value problems, elliptic and parabolic partial differential equations, and linear and nonlinear solvers. Examine the development of the method: weak formulations, approximating spaces, and construction and solution of linear systems.

PGE X83.74. Writing Technical Papers.
Explore how to write technical papers, theses, and dissertations. Practice writing and editing technical works.

PGE X83.75. Inverse Problems in Geophysics and Petroleum Engineering.
Explore the basics of multi-parameter linear and nonlinear inversion of noisy measurements. Discuss inversion methods including deterministic, stochastic approaches, and machine-learning approaches. Examine examples of application from the fields of subsurface geophysics and petroleum engineering.

PGE X83.76. Decision Analysis.
Explore the principles and application of techniques for the logical illumination of complex decision problems within any context. Examine utility theory, probability as a statement of belief, risk preference, value of information and control, probability assessment, influence diagrams, risk sharing and scaling, and life and death decision making. Discuss the principles and fundamental concepts for the normative theory of decision making under uncertainty. Develop a language, set of theories, and tools to transform complex decisions into ones where the course of action is clear.

PGE X83.77. Small-Scale Fluid Flow.
Examine the physics of fluid flow at the microscale in the context of pore-scale transport in subsurface systems and microfluidic models of subsurface systems. Review geological sediment deposition and how that motivates the appropriate microscopic length-scales. Explore equations of mass and momentum conservation for incompressible fluids. Develop simplifications towards the small-scale slow-flow limit to describe transport through pores and cover techniques in microfluidics and micromodels development.

PGE X83.78. Subsurface Energy Storage.
Explore hydrogen, compressed air, and carbon storage in geological formations. Review ongoing projects and their relations to net-zero

greenhouse emission targets. Discuss flow, transport, and geochemical interactions of different gases with site minerals.

PGE X83.79. Global Carbon Monitoring Systems.
Review technologies that help us monitor the pulse of the planet. Learn about systems that directly measure carbon dioxide and methane emissions from both natural sources like wetlands and permafrost and human-made sources like agriculture and fossil fuels. Study how modern technologies - drones, satellites, aerial systems - are revolutionizing the way we measure carbon emission from energy production and use.

PGE X84. Advanced Thermodynamics and Phase Behavior.
Thermodynamic study of pressure/volume/temperature/composition relationships in oil and gas mixtures.

PGE X85K. Advanced Multi-Well Formation Evaluation.
Advanced concepts in formation evaluation for the estimation of static and dynamic petrophysical properties of rocks from well logs, core data, and geological information. Multi-well data sets, seismic amplitude data, and regional geological studies are used to construct hydrocarbon reservoir models amenable to production forecast and improved development of available reserves.

PGE X85M. Advanced Well-Logging and Correlation.
Advanced well-logging for the geologist and engineer, involving working problems with suites of well logs to cover advanced mapping and logging techniques.

PGE X86K. Advanced Fluid Flow in Porous Media.
The hydrodynamic equations governing the steady state flow of homogeneous fluids in porous media and their application to petroleum and geosystems engineering problems.

PGE X87. Secondary Recovery of Petroleum.
Recovery by gas injection and water flooding.

PGE X87K. Fundamentals of Enhanced Oil Recovery I.
Recent innovations in the recovery of petroleum by injecting fluids miscible with the oil or by application of heat to the reservoir.

PGE X87L. Fundamentals of Enhanced Oil Recovery II.
Basic concepts and principles of chemical flooding methods of enhanced oil recovery, which include polymer flooding, surfactant-polymer flooding (SP), alkaline-sufactant-polymer flooding (ASP), chemical imbibitions by wettability alteration methods and surfactant-gas (SG) methods, and also some comparisons with other EOR methods such as miscible gas flooding when appropriate and as time permits.

PGE X88. Advanced Reservoir Engineering.
Basic concepts of reservoir engineering, with applications to the production of hydrocarbons from both gas and oil reservoirs. Examines the governing equations for flow in permeable media, as well as concepts such as streamline flow; pseudo-steady-state flow, fractional flow, and both immiscible and miscible flow. Uses black oil and compositional reservoir simulators.

PGE X89. Economic Analysis in the Petroleum Industry.
Engineering justification for capital outlay in the petroleum industry.

PGE X90. Advanced Laboratory for Doctoral Candidates.

PGE X92K. Numerical Simulation of Reservoirs.
Development and application of reservoir simulator models to primary and secondary recovery processes in reservoir engineering.

PGE X97M. Graduate Research Internship.

PGE X97R. Research in Petroleum and Geosystems Engineering.

PGE X98. Thesis.

PGE X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

PGE X99W. Dissertation.

Professional Courses

PGE X80. Advanced Petroleum Laboratory for Master's Degree Candidates.

PGE X90. Advanced Laboratory for Doctoral Candidates.

PGS - Pharmacy Graduate Studies

Pharmacy Graduate Studies: PGS

Lower-Division Courses

Upper-Division Courses

Graduate Courses

PGS X80E. Concepts in Biomedical Pharmacology.
Explore fundamental concepts of pharmacology, pharmacologic agents and relevant physiology and disease pathophysiology in the areas of neuropharmacology; cardiovascular; gastrointestinal; renal; hematopoiesis; immune/asthma/allergy; endocrine; anti-virals and anti-retrovirals; cancer therapeutics and immunotherapy.

PGS X80J. Advanced Pharmaceutics: Laboratory Research.

PGS X80M. Topics in Advanced Pharmaceutics.

PGS X80S. Basic Principles in Experimental Design and Statistics.
Basic principles in experimental design and statistics with a focus on real world situations that may be encountered while performing scientific research.

PGS X80T. Texas Venture Labs Startup Practicum.
Places students in teams and connects them with Austin-area startup companies. The teams then execute business consulting projects for the startup companies. Explores how these projects help companies better understand their market, competition, business model, etc, in order to accelerate their path to market and funding decisions.

PGS X81F. Product Development.
Application of physical-chemical principles to the formulation and development of stable and bioavailable drug delivery systems.

PGS X81G. Advanced Manufacturing Pharmacy.
Physical-mechanical properties of compacts, drugs, and polymers. Properties of biodegradable and nonbiodegradable polymers in pharmaceutical formulations. Process validation and pilot plant scale-up.

PGS X81H. Advanced Pharmaceutical Processing.
Didactic and laboratory exposure to pharmaceutical processes used in the design, development, and optimization of drug delivery systems. Emphasis on equipment and machinery used in pharmaceutical manufacturing of these dosage forms, with discussion of other issues, such as technology transfer and scale-up.

PGS X81J. Advanced Pharmacy Administration: Laboratory Research.

PGS X81M. Topics in Advanced Pharmacy Administration.

PGS X81N. Health Care Systems.
Overview of the health care system in the United States and examination of the classic and contemporary literature on managed health care systems, with emphasis on pharmacy-related issues. Studies the advantages, disadvantages, and effects of these systems on patients, providers, and payers.

PGS X81V. Communication Skills for Translational Scientists.
Explores oral and written communication skills for scientists conducting translational research at the interface of basic and clinical science. Introduction to the skills necessary to successfully convey medication and healthcare-related data in a professional manner. Involves discussions addressing subjects such as medical writing, grant writing, abstract development, and poster design.

PGS X81W. Molecular and Pharmacological Basis of Therapeutics.
Broad issues of molecular pharmacotherapeutics, including potential and challenge for optimization of drug therapy, implications for drug development and regulation, ethical and social aspects of pharmacogenomics, signal transduction, use of knock-out mice, and informed consent process in pharmacogenomic research.

PGS X82F. Analytical Methods in Biologics Formulation.
Explore theory and practice of techniques used to characterize and analyze pre-formulated and formulated biologics, as well as basic biology specific to formulation sciences.

PGS X82J. Advanced Pharmacotherapy Seminar I.
Discussion of advanced pharmacotherapeutics topics, case presentations, and journal clubs at the advanced practitioner level.

PGS X82K. Advanced Pharmacotherapy Seminar II.
Discussion of advanced pharmacotherapeutics topics, case presentations, and journal clubs at the advanced practitioner level.

PGS X82R. Topics in Recent Advances in Pharmaceutics.
Presentation of topics of current research interest in physical pharmacy, biopharmaceutics, and pharmacokinetics.

PGS X82S. Advanced Biopharmaceutics.
Provides students with a more comprehensive background in biopharmaceutics and the drug approval process.

PGS X82T. Basic Concepts of Tumor Biology.
A survey of cancer biology that includes tumor pathology, initiation, progression and metastasis, genetic instability, DNA damage and repair, cell cycle control, oncogenes, tumor suppressor genes, and the immune response.

PGS X82U. Drug Discovery and Development.
Examine the fundamental principles of drug discovery and development including patenting, clinical trials, and marketing.

PGS X82V. Pharmaceutical Biotechnology.
Application of protein, oligonucleotide, and related molecules as therapeutic agents: stability, formulation, kinetics, dynamics.

PGS X82W. Ethics in Science and Clinical Practice.
Ethical considerations in the conduct of clinical research, including institutional review boards, adherence to protocol, Food and Drug Administration and related site reviews, protection of human subjects through informed consent and confidentiality, and the use of genetic banks in research.

PGS X83D. Neuropharmacology I.
An advanced survey of neurotransmitters and systems in the brain. Covers experimental approaches and pharmacological analysis at behavioral, neurochemical, and neuroanatomical levels to determine mechanisms of actions of drugs that act on the brain.

PGS X83E. Neuropharmacology II.
Explore neuropharmacological concepts related to brain development, organization and anatomy; neuroendocrinology, neuroimmunology and neuroinflammation; gut-brain axis; neurobiology of addiction; and others.

PGS X83G. Analytical Methods in Biologic Formulations.
Examine primary challenges in formulating biologics. Compare relevant techniques to characterize and analyze biopharmaceuticals and explore how they are applied in pre-formulated and formulated biologics.

PGS X83M. Health Innovation Entrepreneurship.
Explore a highly interactive and interdisciplinary approach for developing health innovation, including drug product, devices, and digital health solutions. Examine foundational entrepreneurial and innovation concepts for identifying and developing ideas, performing market validation, conducting customer discovery, assessing competition, and identifying skills for effectively working in teams.

PGS X83N. Solution Theory and Disperse Systems.
The theory and technology of solutions and heterogeneous systems; applications of scientific principles to the design of pharmaceutical products; a study of factors influencing physical chemical characteristics, stability, and biopharmaceutical activity of solutions and coarse dispersions; review of recent literature.

PGS X83P. Advanced Pharmacokinetics.
Study of the kinetics of absorption, distribution, metabolism, and excretion of drugs in the intact organism.

PGS X83Q. Statistics in Translational Science.
Pharmaceutical statistical analysis with a focus on choosing the appropriate statistical test to address both basic science and clinical research hypotheses. Students use the JMP software package to execute statistical analysis on their own pharmaceutical research projects.

PGS X83R. Rate Processes in Pharmaceutical Systems.
A study of decomposition and stabilization of drug molecules in solutions and in solid dosage forms; principles of kinetics and diffusion as applied to pharmaceutical systems.

PGS X83V. Research Design and Methods.
Explore a practical approach to classical experimental design, hypothesis generation, development of translational research methods that incorporate principles of basic and clinical science. Examine writing with a focus on grantsmanship and protocol development.

PGS X83W. Biopharmaceutical Analysis.
Analytical methods for the isolation and identification of drugs and their metabolites, specific genes, and proteins in biological fluids.

PGS X84G. Pharmacological Mechanisms of Addiction.
Overview of neurobiological and pharmacological mechanisms of addiction, with in-depth discussion of recent literature in the field of addiction and animal models of addiction

PGS X84K. Fundamentals of Toxicology.
An organ system approach to advanced topics in general toxicology.

PGS X84L. Biochemical and Molecular Toxicology.
Discussion of mechanisms of selected drugs and toxicants.

PGS X84N. Health Behavior Theory and Medication Use Process.
In-depth analysis of the social and behavioral issues that affect medication use, using the content, theories, and methodologies associated with patient compliance research.

PGS X84S. Introduction to Epidemiology.
Principles of epidemiology; descriptive analytic, and clinical epidemiology; epidemiologic perspective for health care management; epidemiology and the public policy process; pharmacoepidemiology.

PGS X84T. Advanced Epidemiology.
Review of major research methods and current issues within drug epidemiology. Emphasis on application of methods by reviewing historical and contemporary literature/examples. Areas presented include: how to read, interpret, design, conduct, review, critique and evaluate pharmacoepidemiology studies.

PGS X84U. Biopharmaceutical Analysis Laboratory.
Analytical methods for the isolation and identification of drugs and their metabolites, specific genes, and proteins in biological fluids.

PGS X85D. Responsible Conduct of Science.
Ethical considerations in the conduct of science, including issues of animal welfare and/or human subjects research, data analysis, fraud, publications, misconduct, intellectual property, grants, peer review, and mentor responsibility.

PGS X85G. Grant Writing for Pharmacology and Toxicology.
Subjects include federal and nonfederal grants, specific aims, preliminary data, hypothesis testing, experimental design, peer review, responding to critiques, biosketch, and budgeting.

PGS X85J. Advanced Pharmacotherapy Laboratory Research.

PGS X85L. Clinical Pharmacokinetics.
In-depth analysis of pharmacotherapeutic regimens, using complex mathematical models.

PGS X85M. Advanced Pharmacokinetics and Pharmacodynamics.
Continuation of Pharmacy Graduate Studies 385L. Advanced pharmacokinetic and pharmacodynamic concepts and their application.

PGS X85N. Translational Science PhD Seminar.
Explore the scientific and operational principles underlying each step of the translational process, with an emphasis on multi-disciplinary, collaborative research and methods to move discovery more efficiently and effectively into application.

PGS X85W. Advanced Topics in Pharmacotherapy.

PGS X86C. Cellular and Systems Physiology I.

Basic principles of human physiology and anatomy in relation to drug action. Includes cellular and subcellular physiology, membrane transport, electrophysiology, synaptic transmission, and autonomic, neurological, and cardiovascular physiology and anatomy.

PGS X86D. Cellular and Systems Physiology II.

Principles of cellular and systems physiology. Subjects include immunology, kidney function, respiration, acid-base balance, blood and hematopoiesis, general endocrinology, neuroendocrinology, and reproduction.

PGS X86J. Advanced Medicinal Chemistry: Laboratory Research.

Modern laboratory techniques used in medicinal and natural products chemistry.

PGS X86M. Pharmaceutical Industry and Marketing.

Subjects include the structure, size, and regulation of the pharmaceutical industry, including good manufacturing practices; drug development, pricing, marketing, and channels of distribution; and issues that impact the drug development industry, including generic drug competition, patent life, active ingredient importation and finished drug product importation, drug counterfeiting and safety concerns, direct-to-consumer advertising, and the drug approval process.

PGS X86N. Topics in Pharmacy.

Current issues in translational science.

PGS X87G. Manuscripts in Pharmaceutical Science.

Explore skills essential for scientific leaders including scientific reviewing, reasoning, and writing, and their application to critically reviewing and communicating research plans and data.

PGS X87Q. Communication Skills for Scientists.

Designed to enhance written and oral communication skills through lectures and practice. Covers grant writing, journal paper writing, poster presentation writing, and delivery.

PGS X88C. Introductory Bioorganic Chemistry.

Survey of enzyme-catalyzed reactions, with emphasis on mechanism, experimental design, and applications in natural products biosynthesis.

PGS X88G. Dialogue Across Difference.

Develop framework, terminology, and critical thinking and empathy tools for engaging in productive conversations around difficult topics. Explore both differences and commonalities across and within social identities, dialogue about issues pertaining to systems of oppression and enhance intercultural competencies. Examine the meaning of social identities and how they intersect, influence and/or are influenced by others.

PGS X88J. Advanced Pharmacology: Laboratory Research.

PGS X88K. Topics in Advanced Pharmacology.

PGS X88M. Fundamentals of Fluorescence Microscopy.

Explores optics, image formation, functioning of epifluorescent and confocal microscopes, detector technology (cameras and photomultiplier tubes), immunofluorescence techniques, image analyses, and image presentation for publication. Study of the technology and science behind widely-used high-end microscope systems.

PGS X89C. Pharmacy Association Management.

An introduction to the principles involved in managing pharmacy associations.

PGS X89J. Advanced Pharmacotherapeutics of Cardiovascular Disorders.

Designed to provide the student with a sound knowledge and comprehension of contemporary pharmacotherapeutic regimens used in treating cardiovascular diseases.

PGS X89M. Fundamentals of Health Innovations.

Explore foundational innovation and entrepreneurship concepts related to the process of developing novel drug therapies, medical devices, diagnostics, and digital health products and services.

PGS X89P. Advanced Pharmacotherapeutics of Infectious Diseases.

Designed to provide the student with a sound knowledge and comprehension of contemporary therapeutic principles used in treating infectious diseases.

PGS X89Q. Seminar in Alcohol Studies.

Presentations and discussion of current research topics in alcohol studies.

PGS X90G. Topics in Advanced Pharmacotherapeutics of Human Diseases and Illnesses.

A comprehensive analysis of disease processes and a determination of appropriate therapeutic interventions for the treatment of those diseases.

PGS X90H. Advanced Pharmaceutics Research Conference.

PGS X90J. Data Analysis in Health Care.

Statistical analysis of research data using the computer and various statistical software programs.

PGS X90K. Experimental Design and Research Methodology in Health Care.

Principles and procedures of experimental, quasi-experimental, and non-experimental research designs; includes reliability, validity, data collection methods, qualitative study designs, and survey methodologies.

PGS X90R. Topics in Pharmacotherapy: Special Problems.

Individual supervision of research problems in the clinical pharmacy sciences, including pharmacokinetics, pharmacodynamics, efficacy, safety, and pharmaceutical care.

PGS X90U. Advanced Research Methods in Health Care.

Advanced methodologies used in pharmacy administration research; designed to build upon the skills covered in Pharmacy 390K. Explores data management issues and statistical procedures, with emphasis on the application of research methodology concepts and principles.

PGS X91E. Advanced Hematology and Oncology Seminar I.

In-depth discussion of the contemporary pharmacotherapy and patient care relating to hematology, oncology, and bone marrow transplantation.

PGS X91F. Advanced Hematology and Oncology Seminar II.

In-depth discussion of the contemporary pharmacotherapy and patient care relating to hematology, oncology, and bone marrow transplantation.

PGS X91H. Advanced Health Outcomes and Pharmacy Practice Research Conference.

PGS X92E. Clinical Research Methods I.

Defining a research question, general study design issues, cross-sectional and case-control studies, and diagnostic test evaluation.

PGS X92F. Clinical Research Methods II.

Prospective observational studies; randomized controlled trials, nonrandomized intervention studies; meta-analysis; and data synthesis, evaluation, and application.

PGS X92Q. Interdisciplinary Collaboration and Career Development.

An overview of pharmacy and its primary disciplines of pharmaceutics, medicinal chemistry, pharmacy administration and practice, pharmacotherapy, and pharmacology/toxicology.

PGS X92T. Joint PhD Program with Partner Institutions.

Translational science study at partner institutions.

PGS X93Q. Health-Related Quality of Life.

Terms, concepts, procedures, methods, problems, and strengths associated with health-related quality of life (HRQOL) research.

PGS X93T. Pharmacoeconomics.

Terms, concepts, procedures, methods, problems, and strengths associated with pharmacoeconomics.

PGS X93U. Pharmacotherapy Master's Mentorship.

Experience in pharmacy practice, research, and/or administration.

PGS X94I. Internship in Pharmaceutical Sciences.

Work in a professional environment and apply research, analysis, communication, and other academic skills to practical work. Experience may be on- or off-campus, paid or unpaid, and may include work with

public or private corporations, nonprofit agencies, government offices, or academic laboratories. Internship to be arranged by the student and approved by their supervising professor.

PGS X94Q. Professional Development for Pharmaceutical Scientists.

Explore professional development skills (e.g., creating an individual development plan, understanding and capitalizing on strengths, curriculum vitae and resume writing, best practices in networking) and career pathways available to graduate students receiving advanced degrees in the pharmaceutical sciences.

PGS X95H. Advanced Pharmacotherapy Research Conference.

PGS X95S. Environmental and Molecular Mechanisms of Health and Disease.

Present and discuss current research topics in environmental and molecular mechanisms of health and disease.

PGS X96H. Advanced Medicinal Chemistry Research Conference.

PGS X96M. Medicinal Chemistry: General Principles, Pharmacological Classification, and Mechanism of Action.

Introduction to medicinal chemistry, covering drug classes according to their pharmacological classification, structural class, and mechanism of action.

PGS X96S. Seminar in Pharmacy.

PGS X96T. Seminar in Toxicology.

Presentations and discussion of current research topics in toxicology.

PGS X97. Fundamentals for Teaching Assistants.

Skills, behaviours, and strategies for effective college teaching, with emphasis on pharmacy-related courses.

PGS X97H. Advanced Pharmacology Research Conference.

PGS X97M. Drug Design and Synthetic Strategy.

A multiperspective approach to modern concepts and drug design and synthetic strategy.

PGS X97S. Seminar in Pharmacotherapy: Advanced Topics.

PGS X98. Thesis.

PGS X98T. College Teaching Methodology.

Interdisciplinary course intended to provide a foundation of theoretical and practical knowledge about teaching at the post-secondary level. Instructional methods; instructional design; practice teaching; teaching philosophy; instructional technology; assessment of learning; class discussions; individual consultations.

PGS X99W. Dissertation.

Professional Courses

PHL - Philosophy

Philosophy: PHL

Lower-Division Courses

PHL X01. Introduction to Philosophy.

A survey of principal topics and problems in areas such as ethics, theory of knowledge, and philosophy of religion.

PHL X01K. Ancient Philosophy.

An introduction to the philosophical achievements of the ancient world, concentrating on Plato and Aristotle.

PHL X01L. Early Modern Philosophy.

An introduction to the philosophical achievements of the seventeenth and eighteenth centuries, concentrating on such figures as Descartes, Hume, and Kant.

PHL X02. World Philosophy.

Basic issues of philosophy in Western and non-Western traditions, such as the nature of philosophy, its relation to religion and science, the self, knowledge, and virtue.

PHL X02C. Ethics and Enlightenment.

A study of non-Western ethics, especially in Hindu and Buddhist traditions.

PHL X03. Human Nature.

Theories of human nature, such as those of Plato, Christianity, Marxism, and existentialism. Modern psychological and biological theories are included, as the interplay of nature and nurture in determining human conduct is explored.

PHL X03M. Mind and Body.

Introduction to philosophical issues about the nature of mind and its relation to body: What is mind? Do people have free will? How does psychology relate to neuroscience?

PHL X04. Contemporary Moral Problems.

Philosophical examination of selected moral problems arising out of contemporary society and culture.

PHL X04T. Introduction to Technology Ethics.

Examine ethical challenges that have been introduced or exacerbated by recent technological advancements.

PHL X05. Introduction to the Philosophy of Religion.

A critical examination of various conceptions of God and of the relationship of the human and the divine.

PHL X06. Topics in Philosophical Thinkers.

An introduction to major areas of philosophy through the study of selected philosophical thinkers.

PHL X06D. Descartes.

Examine the philosophy of Rene Descartes.

PHL X06L. Mind, Matter, and Persons.

Examines the philosophy of John Locke.

PHL X10. Knowledge and Reality.

An introduction to basic issues in epistemology and metaphysics.

PHL X10Q. Problems of Knowledge and Valuation.

Methods and aims of selected sciences, arts, and philosophy in the attainment of knowledge and in providing the basis for valuation.

PHL X11. Argument.

Argument as a kind of discourse: deductive and inductive arguments; principles of reasoning; fallacies; practical applications.

PHL X11K. Games and Decisions.

Introduction to the theories of games and rational decision, with applications to ethical, social, and political issues.

PHL X12. Introduction to Logic.

Logical structure of sentences and arguments; elementary symbolic methods; applications.

PHL X13. Introductory Symbolic Logic.

Introduction to symbolic logic (through first-order predicate logic); interpretations; formal proofs, consistency; some practical applications.

PHL X13K. Logic, Sets, and Functions.

Sets, relations, functions, sentential and predicate logic, proof techniques, algorithms, and elementary metatheory. Mathematically oriented.

PHL X13Q. Logic and Scientific Reasoning.

Introduction to formal proofs, semantics, quantifiers, inductive methods, decision theory, and scientific reasoning.

PHL X15F. Philosophy and Film.

Formulation, analysis, and criticism of philosophical ideas in selected films.

PHL X15L. Philosophy and Literature.

Formulation, analysis, and criticism of philosophical ideas in selected works of literature.

PHL X16K. Science and Philosophy.

Introduction to scientific method, including discussion of the nature and goals of science.

PHL X17K. Introduction to the Philosophy of the Arts.

Classic issues in the philosophy of art and beauty, illustrated from the fine arts and contemporary media: literature, drama, music, painting, film, and television.

PHL X18. Introduction to Ethics.
Study of basic principles of the moral life, with critical examination of traditional and contemporary theories of the nature of goodness, happiness, duty, and freedom.

PHL X18K. Introduction to Political Philosophy.
Views of major political philosophers on humanity, nature, and society; discussions of contemporary political ideologies.

PHL X19S. Topics in Philosophy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Philosophy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PHL X29S. Topics in Philosophy.
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Upper-Division Courses

PHL X19S. Topics in Philosophy.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Philosophy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PHL X21K. Theory of Knowledge.
Systematic and detailed study of major issues in the theory of knowledge, such as the distinction between knowledge and belief, the criteria of knowledge, the justification of knowledge-claims, and perception.

PHL X22. Science and the Modern World.
The historical development and impact of scientific ideas through the modern period to the present.

PHL X22K. History of Ethics.
Survey of ethical theories from ancient times through the nineteenth century.

PHL X23K. Metaphysics.
Problems of substance, change, categories of being, mind, body, space and time, approached either systematically or historically.

PHL X23M. Philosophy of Mind.
Problems concerning the nature of mind and mental phenomena: the relation between mind and body, knowledge of other minds, the computational model of mind, mental causation, intentionality, and consciousness.

PHL X23S. Philosophy of Science.
Examine philosophical issues pertaining to science, with an emphasis on the metaphysics and epistemology of science.

PHL X25D. Environmental Ethics and Philosophy.
Examine moral issues concerning the relation of human beings to the environment, including biodiversity, resource depletion, and animal rights.

PHL X25E. Biomedical Ethics.
Apply ethics to problems of medical practice and theory including abortion, euthanasia, sterilization, psychosurgery, genetic engineering, and concepts of health, cure, insanity, and death.

PHL X25J. Health and Justice.
Examines ethical, political, and legal issues surrounding medicine, society, and healthcare.

PHL X25K. Ethical Theories.
Major traditional and contemporary ethical theories discussed and critically examined.

PHL X25L. Business, Ethics, and Public Policy.
Issues in ethics and politics that are relevant to the organization of business and industry and the distribution of power in society; topics include the role of industry; concepts of profit, property, and moral responsibility.

PHL X25M. Medicine, Ethics, and Society.
Examine moral, legal, and socio-political implications of developments in the biomedical sciences. Explore health and disease, function and normalcy, evidence-based practice, gene editing and cloning, genetic testing, screening, and counseling, public health and compulsory vaccination.

PHL X25N. Organizational Ethics.
Examine the practical and theoretical aspects of ethical issues in organizations, including philosophical, psychological, anthropological, and strategic approaches.

PHL X28. Nineteenth-Century Philosophy.
Major figures in nineteenth-century European philosophy, including Hegel, Schopenhauer, Kierkegaard, Nietzsche, and Mill.

PHL X29C. Plato and His Philosophy.
Intensive study of selected works by Plato.

PHL X29D. Spinoza's Philosophical System.
Examine the significance of Benedict de Spinoza's philosophical system.

PHL X29E. Aristotle.
Study the philosophy of Aristotle through the examination of key texts.

PHL X29F. Squaring the Vienna Circle.
Traces the origin of the Vienna Circle of Logical Empiricism in nineteenth-century Europe, and introduces central texts and problems of intellectual history and historical epistemology at the roots of today's analytic philosophy.

PHL X29K. History of Ancient Philosophy.
Development of Western philosophy from the pre-Socratics to the early Christian era; emphasis on Plato and Aristotle.

PHL X29L. Early Modern Philosophy: Descartes to Kant.

PHL X29P. Kant's Critique of Pure Reason.
An intensive study of Kant's Critique of Pure Reason, focusing especially on his "Copernican Revolution," his theories of categories and concepts, and his rejection of metaphysics.

PHL X29S. Topics in Philosophy.
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PHL X29T. Thomas Aquinas and His Philosophy.
Study the philosophy of Thomas Aquinas through the examination of key selected texts.

PHL X29U. Perspectives on Science and Mathematics.
An examination of five notable episodes in the history of science: Galileo's conflict with the Catholic Church, Isaac Newton's formulation of the laws of motion, Charles Darwin's proposal of the theory of evolution by natural selection, the development of the atomic bomb, and the discovery of the double helix structure of DNA.

PHL X32. Philosophy of Language.
Contemporary theories of meaning and linguistic structure, and their relationships to epistemology, metaphysics, and ethics.

PHL X32M. Interpretation and Meaning.
Examine issues concerning the nature of communication, interpretation, and meaning.

PHL X34F. Forensic Files: Philosophy Crimes.
Explore political philosophies from the continental tradition (Heidegger/Arendt, Nietzsche, Adorno/Horkheimer, and Agamben/Schmitt) implicated in radical politics and answering to political turning points, with a focus on research and reading in historical contexts.

PHL X34G. Hegel and His Heirs: Philosophy That Remade the West.
Explore how Hegel's philosophy contributed to the founding of the modern social sciences and led to innovations in the study of religion, psychology, education, social organizations, and social reform.

PHL X34M. Martin Heidegger.
Examine the work of Martin Heidegger, focusing especially on his views concerning truth, art, history, humanism, and technology.

PHL X34Q. German Scholars: US Exile.
Examine the migration of established European intellectuals into the US, due to the Second World War. Explore how they worked against their persecutors for their own cultural heritage and to influence US intellectual life. Investigate the ethical dilemmas faced in transplanting their lives and projects into new contexts.

PHL X42. Topics in Political Philosophy.
Critical examination of leading theories of the state, including analysis of such concepts as sovereignty, obligation, rights, and freedom.

PHL X42.1. Natural Law Theory.
Study of the fundamental moral principles that are built into the design of human nature and lie at the roots of conscience.

PHL X42C. Philosophy of Citizenship.
Explore central philosophical and ethical questions about citizenship.

PHL X42L. Origins of Liberalism.
Examine the theory of liberal democracy through a study of its development in historical, religious, and political contexts.

PHL X42M. Marx and Marxist Theory.
Introduction to the writings of Karl Marx as well as to those of his intellectual successors in Europe and around the globe in the nineteenth and twentieth centuries.

PHL X42P. Four Modern Political Theories.
Examine four modern political theories (classical liberalism, Marxism, social democracy, and traditional conservativism), with close reading and analysis of central texts.

PHL X42R. Philosophy of Race and Gender.
Examine philosophical issues pertaining to race and gender.

PHL X42T. Advanced Political Philosophy.
Examine one or more of the central subjects in political philosophy including liberty, justice, equality, democracy, and constitutionalism.

PHL X44K. Intermediate Symbolic Logic.
A second-semester course in symbolic logic: formal syntax and semantics, basic metatheory (soundness, completeness, compactness, and Loewenheim-Skolem theorems), and further topics in logic.

PHL X44M. Philosophy of Mathematics.
Philosophical issues concerning mathematics and its foundations, such as the correlation of mathematics to logic, mathematical truth, and mathematical knowledge.

PHL X46K. Aesthetics.
The nature and purpose of art and the aesthetic experience.

PHL X47. Philosophy of Law.
The significance and function of law in political and ethical contexts; comparison of common and statutory to scientific and moral law; readings from among Plato, Kant, Hegel, Bentham, Austin, Hart, Dworkin, Feinberg, and others.

PHL X48C. Classical Chinese Philosophy.
Introduction (in translation) to thinkers, texts, and ideas from the golden age of Classical Chinese philosophy (circa sixth-second centuries BCE), including how to apply their teachings to current sociopolitical issues.

PHL X48D. Chinese Ethics and Political Philosophy.
Examine Chinese ethical and political philosophy, with an emphasis on the Confucian tradition, through close reading of major works. Analyze ideas from the course both philosophically and historically.

PHL X48G. The Bhagavad Gita: Interpretation and Ethics.
Explore one of the most influential books in Indian and global contexts, the Bhagavad Gita, through interpretations, commentaries, and scholarly materials. Navigate ethical dilemmas in the Bhagavad Gita and real-life situations.

PHL X48P. Indian Philosophies.
Investigate the theories and arguments of major Indian philosophers, considering both their historical positioning and contemporary relevance.

PHL X49. History of Medieval and Renaissance Philosophy.
Philosophical thought from Augustine through Cusanus and Vico, with emphasis on its cultural bearing.

PHL X56C. Contemporary Christian Philosophy.
Study of recent work in philosophy written from a Christian point of view or that examines philosophical questions that arise within the framework of the Christian faith.

PHL X56D. History of Christian Philosophy.
Examines the history of Christian philosophy through classic Christian thought, concerning what can be known and how people should live.

PHL X56E. Buddhist Thought and Practice.
Explore important themes in Buddhist thought, various ways in which Buddhists practice their religion, and the relationships between religious concepts and practices.

PHL X58. Philosophical Logic.
Issues in philosophical logic and its applications, such as theories of meaning, logical paradoxes, epistemic logic, deontic logic, modal logic, existence, and identity.

PHL X61K. Philosophy in Literature.
Formulation, analysis, and criticism of philosophical ideas in selected literary works.

PHL X63. Scientific Method.
History, exposition, and analysis of such fundamental concepts in the natural and social sciences as explanation, prediction, discovery, confirmation, laws, hypotheses, theories.

PHL X63L. Topics in Philosophy of Science.

PHL X63L.1. The Philosophy of Biology.

PHL X63L.2. The Outer Limits of Reason.
Examines fundamental questions that appear to transcend the capacities of reason such as semantic paradoxes, theseus' ship, vagueness, infinities, computational intractability, quantum mechanics, fine-tuning arguments, and why mathematics applies to the physical world.

PHL X63L.3. Science and Metaphysics.
Examine questions about the nature of reality informed by science and metaphysics, such as the nature of time, space, minds, meanings, identity, infinity, abstract vs concrete objects.

PHL X63L.5. Biology and Society.
Explore how biological theorizing has influenced and, in turn, been modulated by social ideology from the early twentieth century to the present day.

PHL X63L.6. Philosophy and Computation.
Analyze fundamental results from the early theory of computation such as the unsolvability of the halting problem, uncomputability, computational complexity, and intractability. Question central notions such as 'implementation' of a program, what a program is, what an algorithm is, 'software' versus 'hardware' distinction, and other distinctions. Discuss issues surrounding the relation between computation, thought, and experience. Consider questions such as what artificial intelligence is, whether there is a relevant distinction between 'simulation' of a phenomenon such as intelligence versus the production of genuine intelligence, the ethics of AI, and the status of various 'virtual' entities, such as internet sites, the metaverse, and bitcoin.

PHL X65. Topics in Selected Problems in Philosophy.
PHL X65.2. Introduction to Cognitive Science.
PHL X65.6. Process Philosophy and Pragmatism.
PHL X65M. The Meaning of Life.
Investigate the meaning of life, exploring pre-modern perspectives, modern views including those of the nineteenth through twenty-first centuries, and contemporary problems such as whether AI poses new threats to meaning in life.
PHL X65N. The Nature of Visual Consciousness.
PHL X65P. The Pursuit of Happiness.
Investigate happiness and how it is attained. Examine contrasting perspectives on happiness or human flourishing offered by major thinkers, both religious and secular, representing different epochs, cultures, and theoretical approaches.
PHL X66K. Existentialism.
Existentialism and its relationship to literature, psychoanalysis, and Marxism.
PHL X75M. Topics in Major Seminar.
PHL X75M.1. Philosophy and Feminism.
PHL X75M.10. Philosophy of Action.
Study contemporary philosophy of action through a survey of some of its central questions and influential authors.
PHL X75M.11. Constitutional Law and Theory.
Explore issues surrounding constitutional theories and interpretations as they relate to the rule of law and the function of a constitution.
PHL X75M.2. Philosophy of David Hume.
Examine David Hume's contributions to Philosophy holistically: metaphysics, knowledge, morality and religion. Explore the systematic nature of his thought, as applied to specific problems including causation, induction, moral belief, and the existence of God.
PHL X75M.3. Wittgenstein.
Examine the later philosophy of Ludwig Wittgenstein in the context of the development of analytic philosophy in the early twentieth century.
PHL X75M.4. Philosophy of the First Amendment.
Examine the philosophical principles beneath the several freedoms protected by the First Amendment of the United States Constitution, as well as the applications of those freedoms (speech, religion, press, assembly, and petition) to concrete legal disputes.
PHL X75M.5. Major Ethical Theories.
Examine selected major works in ethical theory from ancient and modern philosophy. Explicate the argumentative structure of the texts, situate them in their historical contexts, and consider their significance for contemporary moral thought.
PHL X75M.6. Studies in Epistemology.
Examine one or more of the philosophical approaches to the study of knowledge and rational belief.
PHL X75M.7. Foundational Issues In Metaphysics.
Examine foundational questions in metaphysics, including being and existence, essence, real definition, grounding, ontological dependency, form and matter, explanation, causation, and parts and wholes.
PHL X75M.8. History of Metaphysics.
Examine selected major works of metaphysical inquiry from an earlier period, from the ancient Greeks to the twentieth century.
PHL X75M.9. The Philosophy of Privacy.
Explore the legal, political, and personal dimensions of privacy. Examine the nature of privacy and the value of privacy.
PHL X79H. Honors Tutorial Course.
Supervised individual reading for one semester, followed by research and writing to produce a substantial paper on a special topic in philosophy, to be completed during the second semester.
PHL X79K. Conference Course.
Intensive tutorial study of selected problems in philosophy.

Graduate Courses

PHL X19S. Topics in Philosophy.
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PHL X80. Topics in Contemporary Philosophy.
Past topics include pragmatism; postmodernism; contemporary Marxism; critical theory.
PHL X80N. French-German Philosophy and Theory.
Explore core philosophical texts from the nineteenth and twentieth century that ground post-World War II French post-structuralism.
PHL X81. Topics in History of Philosophy.
Past topics include major figures and movements in ancient, medieval, early modern, and nineteenth- and twentieth-century philosophy.
PHL X82. Topics in Metaphysics.
Past topics include basic issues in metaphysics; particulars and universals; identity and individuation; realism and antirealism; mind-body issues.
PHL X83. Topics in Theory of Knowledge.
Past topics include basic issues in epistemology; theories of belief and rationality; justification and truth.
PHL X83C. Introduction to Cognitive Science.
PHL X84F. First-Year Seminar.
Central problems in philosophy.
PHL X84K. The Analytic Tradition.
A selective examination of works by major figures such as Frege, Moore, Russell, and Wittgenstein.
PHL X85. Topics in Theory of Value.
Past topics include basic issues in value theory; the objectivity of value; literature and philosophy; philosophy of art; literary criticism.
PHL X86. Topics in Philosophy of Science.
Past topics include basic issues in the philosophy of science; theories and explanations; philosophy of quantum mechanics; philosophy of the social sciences.
PHL X87. Topics in Ethical, Political, and Legal Philosophy.
Past topics include contemporary ethical theory; theories of justice; philosophy of law; social contract theories; political philosophy.
PHL X87C. Intersectionality: Identity and Politics.
Examine current theories of identity and identity politics from the US and Europe, deriving from theories of economic and class-based origins of identity.
PHL X88. Conference Course.
Mainly a reading course in the works of classical and modern philosophers.
PHL X88C. Prospectus Course.
Mainly a reading course for development of a dissertation prospectus.
PHL X89. Topics in Logic.
Rigorous definitions of syntax and semantics. Proofs of soundness and completeness of sentential and predicate logics; other topics in metatheory. May include extensions of and alternatives to classical logic. Philosophical significance of logic and metalogical results.

PHL X91. Topics in Logic and Philosophy.
Past topics include identity and substitutivity; philosophy of logic; discourse representation.
PHL X94K. Philosophy of Language.
PHL X96M. Job Market.
PHL X96W. Dissertation Seminar.
Intensive examination of selected dissertation topics: attention to research methods, presentation, structure, and argument. Student reports on current research.
PHL X98. Thesis.
PHL X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
PHL X98T. Supervised Teaching in Philosophy.
Teaching experience developed through an apprentice relationship between student and faculty member.
PHL X99W. Dissertation.

Professional Courses

PHL X19S. Topics in Philosophy.
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PHM - Pharmacy PharmD

Pharmacy PharmD: PHM

Lower-Division Courses

PHM X10K. Drugs in Our Society.
Survey of drug development, distribution, and safety, including therapeutic categories of drugs, their actions and abuse potential, and the sociological aspects of drug use.
PHM X11K. Take your Medicine: Developing New Drug Products.
Explores the process, challenges, and issues in developing pharmaceutical products. An overview of drug development, approval, and consumer issues will be presented and discussed in the context of research practices, consumers, science, marketing, public welfare, and innovative practices.
PHM X19S. Topics in Pharmacy PharmD.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Pharmacy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

PHM X29S. Topics in Pharmacy PharmD.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Pharmacy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
PHM X38. Introduction to Pharmacology.
Survey of basic concepts and principles in pharmacology.
PHM X50K. Drugs in Our Society.
Survey of drug development, distribution, and safety, including therapeutic categories of drugs, their actions and abuse potential, and the sociological aspects of drug use. Essay papers required.
PHM X60J. Basic Study in Pharmaceutical Research for Nonmajors.
Original investigation in any area of the pharmaceutical sciences.
PHM X60R. Topics in Pharmaceutical Sciences for Nonmajors.
Explore any basic area of the pharmaceutical and clinical sciences.

Graduate Courses

Professional Courses

PHM X80. Pharmacotherapeutics of Vaccine-Preventable Diseases.
Examine the administration of safe and accurate immunization services to patients that will promote disease prevention and public health. Explore the national immunization standards through the Centers for Disease Control and Prevention.
PHM X80C. Human Normal Physiology/Pathophysiology and Basics in Pharmacology I.
Integrated approach consisting of normal physiology (with limited functional anatomy), pathophysiology, and basic principles in pharmacology to address the etiology of disease states affecting the nervous, gastrointestinal, visual/olfactory, skin, muscular, and cardiovascular systems.
PHM X80D. Human Normal Physiology/Pathophysiology II.
Integrated approach consisting of normal physiology (with limited functional anatomy), pathophysiology, and basic principles in pharmacology to address the etiology of disease states affecting the blood/immune system, renal, pulmonary, endocrine, and metabolic systems. Also includes multi-systemic diseases related to infectious disease and cancer.
PHM X80E. Reaching our World.
Explore global cultures through study of people, food, healthcare, economy, religions, and diversity of culture with a focus on comparing healthcare systems in different countries. Examine obstacles to healthcare and other daily challenges faced by societies and cultural groups. Utilize independent reflection and team-based learning to explore barriers faced by a cultural group in a third world country and create a final presentation.
PHM X80H. Landmark Studies in Cardiovascular Disease.
Evidence-based clinical studies in support of drug therapy recommendations in the treatment of cardiovascular diseases.
PHM X80J. Theory and Practice of Teaching in Pharmacy Education.
Explore teaching concepts, processes, and theories related to pharmacy education. Combine theory and practice to create a teaching portfolio.
PHM X80K. Medicinal Chemistry Principles.
Introduction to medicinal chemistry principles. Subjects include drug metabolism and the transition from organic to medicinal chemistry.
PHM X80L. Landmark Pharmacotherapy Studies in Primary Care.
Reviewing, evaluating, and applying the results of landmark studies in pharmacotherapy to primary care practice. An examination of disease states encountered in primary care including diabetes, hypertension, dyslipidemias, and psychological disorders.
PHM X80M. Introduction to Marketing in Pharmacy.
Explore tools and resources used to enhance marketing, communication, and branding strategies. Relate these tools to career advancement in the field of pharmacy.
PHM X80P. Basic Pharmaceutical Sciences Laboratory.
Laboratory exercises to support the basic pharmaceutical sciences courses.

PHM X80Q. Pharmaceutical Industry Fellowship Preparation.
Explore pharmaceutical industry fellowships and review skills needed for competitive fellowship applications.

PHM X80R. Basic Study in Pharmaceutical Research.
Basic exploration in any area of the pharmaceutical sciences.

PHM X80S. Tools to Enhance Academic Success.
Investigate tools and resources available for enhancing academic success in the professional pharmacy curriculum.

PHM X80T. Global Health.
An exploration of health care issues outside the United States with an inside look at different cultures and healthcare systems to enhance global awareness and cultural competence in the practice of pharmacy.

PHM X80W. Psychiatric Pharmacy Practice and Drug Treatment of Mental Disorders.
Advanced study in the pathophysiology of selected psychiatric disease states and the clinical presentation, phenomenology, diagnosis, and treatment of these disease states.

PHM X81. Pharmacotherapeutics of the Renal and Autonomic Systems.
An integrated approach to the etiology and treatment of disease states of the renal and autonomic systems.

PHM X81E. Introductory Spanish for the Pharmacy Professional.
Develop foundational skills for communicating with Spanish-speaking patients within pharmacy practice settings, including basic medication instruction use. Explore the pitfalls of online translators/apps and etiquette for using a medical translator. Discuss disparities in care for patients with limited English proficiency and other topics applicable to a pharmacy practice environment. Designed for students with little-to-no Spanish-speaking experience.

PHM X81J. Theory and Practice of Assessment in Pharmacy Education.
Explore current assessment concepts related to pharmacy education and apply those concepts to create an assessment portfolio.

PHM X81K. Pharmaceutical Marketing.
Concepts of marketing as they apply to the pharmaceutical industry, pharmaceutical products, and the health care environment.

PHM X81M. Pharmaceutical Biochemistry I.
Basic principles of intermediary metabolism, with emphasis on defects in pathways that result in disease and on identification of molecular targets for therapeutic control.

PHM X81N. Pharmaceutical Biochemistry II.
The biosynthesis and function of macromolecules (nucleic acids, lipids, proteins, and carbohydrates); sites of drug action, immunology, and applications of biotechnology and molecular biology to the pharmaceutical sciences.

PHM X81Q. Introduction to Pharmaceutical Industry.
Explore potential careers for pharmacists in the pharmaceutical industry.

PHM X81R. Research Opportunities in the Pharmaceutical Sciences.
An introduction to research in all divisions of the College of Pharmacy. Includes ethical issues in research, career paths in research, and subjects such as choosing a research mentor or project.

PHM X81S. Foundations of Professional Development I.
In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars and team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration.

PHM X81T. Foundations of Professional Development II.
In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars, team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration.

PHM X81V. Pharmacy Practice Lab I.
Navigate the pharmacists' patient care process in preparation for Introductory and Advanced Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, assess, plan, implement and follow-up on patients at an introductory level.

PHM X81W. PharmD Year 1 Administrative Session I.
Co-curricular and supplemental material for students in the first year of the Pharmacy (PharmD) program.

PHM X82. Pharmacotherapeutics of the Respiratory System.
An integrated approach to the etiology and treatment of disease states of the respiratory system.

PHM X82E. Nonprescription Pharmacotherapeutics and Self-Care I.
Study of nonprescription products and complementary and alternative medicine as it relates to the patient's ability to care for themselves with emphasis on the pharmacist's consultant role in product selection and nonpharmacologic recommendations.

PHM X82F. Nonprescription Pharmacotherapeutics and Self-Care II.
A continuation of Pharmacy PharmD 282E. The study of nonprescription products and complementary and alternative medicine as it relates to the patient's ability to care for themselves with emphasis on the pharmacist's consultant role in product selection and non-pharmacologic recommendations.

PHM X82G. Pharmacy Business Plan Development.
The fundamentals of writing a pharmacy business plan, including the mission statement, objectives, description of products and services, legal structure, location analysis, layout and design, pro forma financial statements, staffing, market analysis and strategies, and promotion and advertising plans, culminating in submission of the plan for national competition.

PHM X82I. Nonprescription Pharmacotherapeutics and Self-Care: Introductory Pharmacy Practice Experience.
Participate in a hands-on experience in a community pharmacy setting related to the pharmacist's consultant role in nonprescription product selection (including complementary and alternative medicine) and non-pharmacologic recommendations in self-care.

PHM X82K. Experimental Design and Research Methods in Health Care.
Concepts and procedures involved in designing and completing a research project.

PHM X82L. Clinical Toxicology.
A course in toxicology that focuses on common poisons and their management; designed for pharmacy students planning to enter general practice.

PHM X82M. Interprofessional Approach to Integrative Medicine.
Explore an overview of the fundamentals of integrative medicine, including Traditional Chinese Medicine (TCM). Examine an interprofessional perspective of the interview and assessment of patients and the clinical reasoning used to develop patient care plans.

PHM X82P. Nonprescription Pharmacotherapeutics and Self Care II Laboratory.
Laboratory practice related to the pharmacist's consultant role in nonprescription product selection (including complementary and alternative medicine) and non-pharmacologic recommendations in self-care; includes fieldwork in a community pharmacy.

PHM X82R. Topics in the Pharmaceutical Sciences.
Basic exploration in any area of the pharmaceutical and clinical sciences.

PHM X82S. Foundations of Professional Development III.
In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars, team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration.

PHM X82T. Foundations of Professional Development IV.
In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars, team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration.

PHM X82V. Pharmacy Practice Lab II.
Navigate the pharmacists' patient care process in preparation for Introductory Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, asses, plan, implement and follow-up on patients at an advanced introductory level.

PHM X82W. PharmD Year 1 Administrative Session II.
Co-curricular and supplemental material for students in the first year of the Pharmacy (PharmD) program.

PHM X83. Pharmacotherapeutics of the Cardiovascular System.
An integrated approach to the etiology and treatment of disease states of the cardiovascular system.

PHM X83E. Development of Interprofessional Education for Collaborative Practice.
A collaboration between students in pharmacy, nursing, social work, and medicine in the development of educational modules addressing interprofessional education in collaborative practice relating to error disclosure, service learning, healthcare quality improvement. Preprofessional introduction to interprofessional education competencies.

PHM X83F. Basic Intravenous Admixtures.
Basic principles of injectable and other sterile dosage forms; methods of preparation and evaluation that meet current pharmacy practice standards.

PHM X83G. Basic Intravenous Admixtures Laboratory.
Basic laboratory principles in the preparation and evaluation of injectable and other sterile dosage forms.

PHM X83I. Institutional Introductory Pharmacy Practice Experience.
Participate in a hands-on experience at an institutional practice care facility; examine pharmacy services, hospital pharmacy management, staff interaction, and the flow of information from pharmacy to bedside.

PHM X83K. New Concepts, Topics, and Issues in Pharmacy Practice.

PHM X83L. Health Behavior and Health Outcomes.
Explore the concepts and principles of health behavior and health outcomes in a multicultural U.S. population.

PHM X83M. Health Innovation Entrepreneurship.
Explore a highly interactive and interdisciplinary approach for developing health innovation, including drug product, devices, and digital health solutions. Examine foundational entrepreneurial and innovation concepts for identifying and developing ideas, performing market validation, conducting customer discovery, assessing competition, and identifying skills for effectively working in teams.

PHM X83R. Advanced Study in Pharmaceutical Research.

PHM X83S. Foundations of Professional Development V.
In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars, team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration.

PHM X83T. Foundations of Professional Development VI.
In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars, team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration.

PHM X83U. Multidisciplinary Pain Management.
Problem-based instruction to help health professions students acquire knowledge and skills in the care of patients with acute and chronic pain. Taught by faculty members in medicine, pharmacy, and nursing.

PHM X83V. Pharmacy Practice Lab III.
Navigate the pharmacists' patient care process in preparation for Introductory Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, asses, plan, implement and follow-up on patients at an intermediate level.

PHM X83W. PharmD Year 2 Administrative Session I.
Co-curricular and supplemental material for students in the second year of the Pharmacy (PharmD) program.

PHM X84. Pharmacotherapeutics of the Gastrointestinal System and Nutrition.
An integrated approach to the etiology and treatment of disease states of the gastrointestinal system. Also includes nutrition.

PHM X84D. Antimicrobics: Mechanism of Action and Clinical Use.
Mechanisms of antimicrobial activity and the development of bacterial resistance, and their relationship to clinical therapy.

PHM X84E. Pharmacy Law.
State and federal pharmacy laws.

PHM X84H. Antimicrobics: Advanced Inquiry.
Designed to give students additional insight, beyond Pharmacy PharmD 384D, into the development of antimicrobial agents and the interactions of these agents with each other, the pathogen, and the patient. Students explore a self-selected topic for research and presentation.

PHM X84I. Community Introductory Pharmacy Practice Experience.
Participate in a hands-on experience in a community pharmacy setting. Explore medication therapy management training, the development of patient care plans, the ability to develop and conduct a public health project, carry out patient exercises, and complete prescription management activities such as patient counseling.

PHM X84K. Community Pharmacy Management.
Advanced concepts in community pharmacy management for the student who plans to become a pharmacy owner or manager. Covers operational, personnel, and financial management; marketing; layout and design; and the delivery of pharmaceutical care in a community pharmacy setting.

PHM X84L. Pharmacy and the Health Care System.
The health care system in the United States; principles of managed care; application of pricing policies; and an overview of pharmacy services.

PHM X84M. Pharmacy Professional Communications.
Professional communication skills in interacting with patients and other health care professionals.

PHM X84S. Quality and Patient Safety Interprofessional Education.
Concepts of patient safety and quality improvement. Current and past quality improvement projects are used to demonstrate the model of clinical safety and effectiveness. Reducing and preventing medical errors using the TeamSTEPPS approach; working in interprofessional teams on a quality improvement project.

PHM X84V. Pharmacy Practice Lab IV.
Navigate the pharmacists' patient care process in preparation for Introductory Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, assess plan, implement and follow-up on patients at an advanced intermediate level.

PHM X84W. PharmD Year 2 Administrative Session II.
Co-curricular and supplemental material for students in the second year of the Pharmacy (PharmD) program.

PHM X85. Pharmacotherapeutics of Diabetes.
An integrated approach to the etiology and treatment of diabetes.

PHM X85I. Ambulatory Introductory Pharmacy Practice Experience.
Participate in a hands-on experience in an ambulatory pharmacy setting. Work on patient care plans, review and evaluate patient medication lists, identify goals for common chronic disease states, utilize formularies in making drug therapy decisions, and assess appropriate resources to respond to drug information questions in an ambulatory setting.

PHM X85K. Applied Pharmacy Management.
Examination and application of principles of pharmacy management, with emphasis on human resource management. Subjects include interviewing and selection techniques, assessing job performance, improving the work environment, leadership skills, management skills, managing medication errors, and quality improvement of pharmacy services.

PHM X85M. Patient-Centered Diabetes Care.
Explore a practice-based approach to the non-pharmacologic and pharmacologic management of diabetes in multiple pharmacy practice settings.

PHM X85N. Biomedical and Professional Ethics.
Explore biomedical and professional ethics and the implications and challenges for pharmacy practice. Examine core principles and theories in biomedical and professional ethics including the pharmacy code of ethics and codes of ethics for other healthcare practitioners.

PHM X85V. Pharmacy Practice Lab V.
Navigate the pharmacists' patient care process in preparation for Introductory Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, assess plan, implement and follow-up on patients at an advanced level.

PHM X85W. PharmD Year 3 Administrative Session I.
Co-curricular and supplemental material for students in the third year of the Pharmacy PharmD) program.

PHM X86. Pharmacotherapeutics of Infectious Diseases.
An integrated approach to the etiology and treatment of infectious disease.

PHM X86E. Careers in Academic Pharmacy.
Examine pharmacy education with a focus on the three pillars of academia: teaching, service, and scholarship.

PHM X86G. Spanish for the Pharmacy Professional.
Intermediate communication skills in Spanish.

PHM X86H. Institutional Clinical Skills.
Hands-on experience in an institutional practice care facility; examines pharmacy services, hospital pharmacy management, staff interaction, and the flow of information from pharmacy to bedside.

PHM X86I. Contemporary Pharmacy Practice Introduction to Pharmacy Practice Experience I.
Participate in a hands-on experience in a contemporary pharmacy setting.

PHM X86K. Pharmacy Association Management.
An introduction to the principles involved in managing pharmacy associations. Students gain practical experience in a community pharmacy.

PHM X86M. Advanced Oncology.
Review supportive care and symptom management for oncology patients, cancer types and treatments. Examine clinical trials, new cancer types, and palliative care/end-of-life. Discuss and debate clinical controversies in oncology treatment.

PHM X86Q. Experiential Pharmacy Practice and Patient Counseling.
Medication use and dispensing in a practice environment. Counseling skills and techniques for a better understanding of disease states and positive medication outcomes.

PHM X86R. Advanced Contemporary Compounding.
The art and science of compounding pharmaceutical preparations to develop an advanced understanding of formulation, stability, and quality standards of compounded pharmaceuticals. Focuses on pharmaceutical elegance; developing professional judgement based on limited data to assess the stability and efficacy of a compound before dispensing the preparation; the regulations governing compounding, including those outlined by the United States Pharmacopeial Convention, the Pharmacy Compounding Accreditation Board, and other scientific and professional organizations; mechanisms for evaluation and analysis of the quality of a compounded formulation; and marketing and promotion of compounding services.

PHM X86S. Advanced Contemporary Compounding Laboratory.
Advanced compounding methods with respect to pharmaceutical dosage forms and formulations, with emphasis placed on creating formulations that satisfy unique patient needs, and a discussion of equipment used by compounding pharmacists to formulate preparations that satisfy those needs. Pharmacy PharmD 186S builds upon compounding skills taught in Pharmacy PharmD 188P.

PHM X86V. Pharmacy Practice Lab VI.
Navigate the pharmacists' patient care process in preparation for Introductory Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, asses, plan, implement and follow-up on patients.

PHM X86W. PharmD Year 3 Administrative Session II.
Co-curricular and supplemental material for students in the third year of the Pharmacy (PharmD) program.

PHM X87. Pharmacotherapeutics of the Endocrine System.
An integrated approach to the etiology and treatment of disease states of the endocrine system.

PHM X87E. Emotions, Ethics, and Empathy.
Explore emotions, ethics, and what it means to be an empathetic pharmacist.

PHM X87F. Foundations of Patient-Centered Care I.
Explore a broad overview of the pharmacist's role in patient-centered care through lectures, simulations, activities, and writing assignments.

PHM X87G. Foundations of Patient-Centered Care II.
Continue to explore a broad overview of the pharmacist's role in patient-centered care through lectures, simulations, activities, and writing assignments.

PHM X87H. Community Care Clinical Skills.
Clinical work in a community-based pharmacy practice setting. Includes medication therapy management training, participation in the development of patient care plans, the ability to develop and conduct a public health project, carry out patient exercises, and complete prescription management activities such as patient counseling.

PHM X87I. Contemporary Pharmacy Practice Introduction to Pharmacy Practice Experience II.
Participate in continued hands-on experience in a contemporary pharmacy setting.

PHM X87J. Advanced Problems in Pharmacy Education.
Laboratory course examining professional education issues and techniques for students exploring an academic career.

PHM X87K. Pharmacy Association Management Residency.
Experience working in a pharmacy association, including active involvement in some managerial aspect of the association.

PHM X87M. Physical and Chemical Principles of Drugs.
Fundamental, introductory principles of pharmaceutics, including thermodynamics, kinetics, and other basic chemical principles related to drugs.

PHM X87N. Biopharmaceutics.
Complements the basic pharmaceutics principles covered in Pharmacy PharmD 387M. Subjects include core concepts in biopharmaceutics of drugs.

PHM X87R. Exploratory Research in Pharmacy.
The student participates in ongoing in-depth research activities in pharmaceutics, medicinal chemistry, toxicology, pharmacology, pharmacy administration, pharmacy practice, or pharmacotherapy.

PHM X88. Pharmacotherapeutics of Oncology and Transplant.
An integrated approach to the etiology and treatment of disease states related to oncology and transplants.

PHM X88E. Clinical Drug Development: Regulatory Perspectives.
Explore the regulatory affairs involved in the review, submission, and design of clinical trials for compounds being considered for Food and Drug Administration approval.

PHM X88G. Dialogue Across Difference.
Develop framework, terminology, and critical thinking and empathy tools for engaging in productive conversations around difficult topics. Explore both differences and commonalities across and within social identities, dialogue about issues pertaining to systems of oppression and enhance intercultural competencies. Examine the meaning of social identities and how they intersect, influence and/or are influenced by others.

PHM X88H. Pharmacy Honors Proposal and Tutorial Course.
Honors seminar; development of laboratory research proposal for approval by the Honors Program Committee.

PHM X88K. Hospital Pharmacy.
Basic principles, standards, and procedures involved in providing professional pharmaceutical services in hospitals.

PHM X88M. Pharmaceutics.
General introduction to dosage forms, and the technology and pharmaceutical rationale fundamental to their development.

PHM X88P. Pharmaceutics Laboratory.
Laboratory course supporting the subjects discussed in Pharmacy PharmD 388M.

PHM X89. Pharmacotherapeutics of the Reproductive System.
An integrated approach to the etiology and treatment of disease states related to reproductive health.

PHM X89E. Modern Trends in Drug Design.
Examine drug metabolism, pharmacogenomics, mechanisms of drug action, and approaches used in modern drug discovery and development.

PHM X89H. Pharmacy Honors Thesis and Tutorial Course.
Honors seminar; laboratory research project conducted under the supervision of one or more faculty members.

PHM X89K. Social Media and Consumer Healthcare.
An exploration of how social media is transforming healthcare and improving patient outcomes.

PHM X89M. Fundamentals of Health Innovations.
Explore foundational innovation and entrepreneurship concepts related to the process of developing novel drug therapies, medical devices, diagnostics, and digital health products and services.

PHM X89S. Community Service Learning.
Community-based participatory projects designed to connect coursework and community service experiences. Past and present health issues specific to the Texas region (such as United States-Mexico border issues), national and regional health initiatives, service challenges and opportunities, as well as personal/professional identities and responsibilities to the community. Projects developed in consultation with a faculty mentor and a selected community site. Includes an academic service-learning component.

PHM X90. Pharmacotherapeutics of Dermatology and Inflammatory Processes.
An integrated approach to the etiology and treatment of disease states of the dermis. Includes inflammatory responses.

PHM X90C. Communication Skills for Health Professionals.
Designed for pharmacy, pre-pharmacy, premedical, predental, and nursing students. Enhancement of verbal communication skills for professional and public presentations, patient consultations, and interviewing.

PHM X90D. Nutritional Aspects of Clinical Pharmacy.
Explores the interrelationships of nutrition, disease, and drug therapy, including aspects of both normal and clinical nutrition, nutritional deficiencies, and the metabolic consequences or diseases associated with malnutrition. Patient case studies examine both the effects of drug therapy on nutrition and the effects of nutrition on drug therapy. Disease states covered include cardiovascular disease, diabetes, hepatic and renal failure, and anemia.

PHM X90E. Controlled Substances: Violations, Investigations, and Enforcement.
Explore violations of federal and state-controlled substances laws and rules, and analyze the pharmacist's role in enforcement.

PHM X90H. Pharmacy Research Honors Proposal.
Write a research proposal and conduct a research project under the supervision of one or more faculty members.

PHM X90K. Clinical Management of Drug-Drug Interactions.
Group discussions with an emphasis on clinically relevant drug-drug interactions, mechanisms, significance, and clinical management.

PHM X90L. Introduction to Nuclear Pharmacy.
An overview of nuclear pharmacy, a recognized specialty area of pharmacy practice focusing on the compounding and dispensing of radioactive materials for use in nuclear medicine procedures (therapeutic, diagnostic, and imaging).

PHM X90M. Inpatient Adult Medicine.
Clinical therapeutic management of adult patients in an inpatient, institutional (primarily hospital) setting.

PHM X90N. Integrated Basic and Applied Pharmacokinetics.
Introduction to pharmacokinetic principles; and the application of principles to specific drugs and patient situations.

PHM X90S. Interprofessional Community Service Learning.
Integration of community service with contemporary pharmacy practice, with a focus on social justice and social determinants of health care.

PHM X90T. Pharmacy International Exchange.
Work in an exchange program with international colleges and schools of pharmacy as partners. Examination of similarities and differences between pharmacy education, professional practice, and/or research in the hosting country and in the United States.

PHM X90V. Patient Safety.
Covers methods to ensure patient safety, prevent misadventures, and develop policy associated with patient safety and misadventure prevention.

PHM X90W. Health Leadership.
Develops skills necessary to identify and establish professional goals, build and lead teams, delegate effectively, resolve conflicts, network for career advancement, document leadership experiences/abilities on curriculum vitae and in recommendation letters, and demonstrate leadership abilities during job interviews.

PHM X91. Pharmacotherapeutics of Pain and Addiction.
An integrated approach to the etiology and treatment of disease states related to pain and addiction.

PHM X91H. Pharmacy Research Honors Report.
Continue to conduct a research project and complete a laboratory research report under the supervision of one or more faculty members.

PHM X91K. Pediatric Pharmacotherapy.
Pathophysiology and pharmacotherapy of selected pediatric diseases. Designed to expose students to pediatric pharmacy as a potential area of focus, and to prepare them for a potential residency or practice in providing pharmaceutical care in a pediatric setting.

PHM X91L. Leadership in Community Service Learning.
Designed for students enrolled in Pharmacy PharmD 193U who elect to serve in a leadership role for the community service-learning project. Coordinate and organize responsibilities at each phase of the project, communicate with community partners, and additional outreach based on the needs of the community partner. Develop a plan and disseminate the project outcomes.

PHM X91M. Introduction to Ambulatory Care Pharmacy.
Clinical and non-clinical topics relevant to treating commonly encountered disease states, effectively communicating with patients, and managing a clinical pharmacy practice in an ambulatory setting. Emphasis on application of concepts learned in previous classes to real-world situations.

PHM X91U. Foundations for Interprofessional Collaborative Practice I.
Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team.

PHM X91V. Foundations for Interprofessional Collaborative Practice II.
Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team.

PHM X91W. Leadership and Advocacy in Pharmacy.
A discussion forum for exploring current legislative and regulatory issues influencing the pharmacy profession. Focuses on retrieving legislative and regulatory information, interpreting legislation, regulations and their potential impacts, engaging in discussion on various perspectives of the issues and presenting information on legislation and regulations that impact pharmacy practice.

PHM X92. Pharmacotherapeutics of Psychiatric Disorders.
An integrated approach to the etiology and treatment of disease states related to psychiatrics.

PHM X92G. Herbal and Botanical Supplements.
A practice-based approach to learning about the most common herbal and botanical supplements in a pharmacy practice setting, including review of studies of popular uses, clinical indications, pharmacological effects, mechanisms of action, side effects, contraindications, and common dosage guidelines. Discussion of the legal, regulatory, and ethical aspects, in addition to analyzing manufacturing quality issues and counterfeit products is also addressed.

PHM X92H. Pharmacy Research Honors Project.
Continue to conduct a research project and complete a review of a research article, under the supervision of one or more faculty members.

PHM X92L. Leadership in Community Service Learning II.
Designed for students enrolled in Pharmacy PharmD 193V who elect to serve in a leadership role for the community service-learning project. Coordinate and organize responsibilities at each phase of the project, communicate with community partners, and additional outreach based on the needs of the community partner. Develop a plan and disseminate the project outcomes.

PHM X92M. Introduction to Specialty Pharmacy Practice.
Explore the basic principles, standards, and procedures involved in providing professional pharmaceutical services in a specialty pharmacy.

PHM X92U. Foundations for Interprofessional Collaborative Practice III.
Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team.

PHM X92V. Foundations for Interprofessional Collaborative Practice IV.
Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team.

PHM X93. Pharmacotherapeutics of Neurologic Disorders.
An integrated approach to the etiology and treatment of disease states related to neurology.

PHM X93C. Ambulatory Care Pharmacy Practice.
Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in the context of ambulatory patient care.

PHM X93E. Elective in Pharmacy Practice I.
Experience in pharmacy practice, research, or administration.

PHM X93F. Pharmacoeconomics and Pharmacy Management.
Explore the terms, concepts, procedures, methods, problems, and strengths associated with pharmacoeconomics. Examine and utilize health information resources to manage medication use and minimize medication errors. Evaluate information regarding the financial status of the pharmacy and implications of the decisions faced by managers in reaching financial goals for the pharmacy.

PHM X93H. Pharmacy Research Honors Thesis.
Conduct a research project and write an honors thesis under the supervision of one or more faculty members.
PHM X93M. Pharmacy Residency Preparation.
Explore pharmacy residency and the skills needed to be competitive residency applicants.
PHM X93N. Advanced Hospital Pharmacy Practice.
Analysis of pharmacotherapy, evaluation of drug use, synthesis of rational drug regimens, and dispensing of medications in the context of institutional patient care.
PHM X93P. Advanced Community Pharmacy Practice.
Analysis of pharmacotherapy, evaluation of drug use, synthesis of rational drug regimens, and dispensing of medications in the context of community-based patient care.
PHM X93R. Supplemental Rotation in Pharmacy Practice I.
Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in the context of patient care.
PHM X93S. Selective in Pharmacy Practice I.
Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in a selected pharmacy practice environment.
PHM X93U. Foundations for Interprofessional Collaborative Practice V.
Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team.
PHM X93V. Foundations for Interprofessional Collaborative Practice VI.
Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team.
PHM X93W. Elective International Pharmacy Experience.
Competitive placement for an international advanced pharmacy experience.
PHM X94. Pharmacotherapy of Viral and Fungal Infections.
Explore an integrated approach to the etiology and treatment of viral and fungal infections.
PHM X94C. Inpatient General Medicine Pharmacy Practice.
Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in the context of acute patient care.
PHM X94E. Elective in Pharmacy Practice II.
Experience in pharmacy practice, research, or administration.
PHM X94F. Pharmacoeconomics.
Terms, concepts, procedures, methods, problems, and strengths associated with pharmacoeconomics.
PHM X94M. Veterinary Pharmacotherapy.
Explore veterinary medicine from a pharmacist's perspective.
PHM X94R. Supplemental Rotation in Pharmacy Practice II.
Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in the context of patient care.
PHM X94S. Selective in Pharmacy Practice II.
Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in selected pharmacy practice environments.
PHM X95. Pharmacotherapy of Bacterial Infections.
Explore an integrated approach to the etiology and treatment of viral and fungal infections.
PHM X95E. Elective in Pharmacy Practice III.
Experience in pharmacy practice, research, or administration.
PHM X95P. Drug Information and Evidence-Based Practice Laboratory.
Practical application of the concepts presented in Pharmacy 195Q. Includes assignments, projects, and oral presentations.
PHM X95Q. Drug Information and Evidence-Based Practice.
Knowledge and skills needed to retrieve and interpret drug information. Interpretation of biomedical literature and an introduction to concepts of evidence-based practice.
PHM X95R. Advanced Evidence-Based Practice.
Research methodology and biostatistical concepts as they relate to the interpretation and critical evaluation of biomedical literature. Designed to build upon the material covered in Pharmacy PharmD 295Q.
PHM X98T. College Teaching Methodology.
Interdisciplinary course intended to provide a foundation of theoretical and practical knowledge relating to teaching at the postsecondary level. Subjects include instructional methods, instructional design, practice teaching, teaching philosophy, instructional technology, and assessment of learning. Includes class discussions and individual consultations.

PHY - Physics

Physics: PHY

Lower-Division Courses

PHY X01. Mechanics.
Designed for students who intend to major in science or mathematics.
PHY X01L. Laboratory for Physics 301.
PHY X02K. General Physics Technical Course: Mechanics, Heat, and Sound.
Noncalculus technical course in physics. Completion of high school trigonometry or Mathematics 305G is highly recommended.
PHY X02L. General Physics Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics.
Noncalculus technical course in physics.
PHY X02M. Laboratory for Physics 302K.
PHY X02N. Laboratory for Physics 302L.
PHY X03E. Electromagnetic, Quantum, and Semiconductor Physics.
Discuss electricity, magnetism, electromagnetic waves, photons, matter waves, atomic physics, band structure, semiconductors, diodes, and transistors.
PHY X03K. Engineering Physics I.
A general survey of physics; primarily laws of motion, heat, and wave phenomena.
PHY X03L. Engineering Physics II.
Electricity and magnetism, optics, and atomic phenomena.
PHY X03M. Laboratory for Physics 303K.
PHY X03N. Laboratory for Physics 303L.
PHY X04. Introductory Physics Seminar.
Discussion of the development of important ideas in physics, with emphasis on their relevance to contemporary research.
PHY X05M. Laboratory For Physics 302K, 303K, and 317K.
Participate in an introductory mechanics laboratory.
PHY X05N. Laboratory For Physics 302L, 303L, and 317L.
Participate in an introductory electricity, magnetism, and optics laboratory.
PHY X06. Elementary Physics Methods.
Designed for students who have not had high school physics, have weak problem-solving skills, and need preparation for Physics 301 or 303K.
PHY X08. Introduction to Research.
Introductory laboratory experience; use of tools and test equipment; beginning apprenticeship in active physics research.
PHY X08F. Introduction to Research.
Introductory laboratory experience; use of tools and test equipment; beginning apprenticeship in active physics research.

PHY X09K. Elementary Physics for Nontechnical Students.
Mechanics, heat, and sound. Designed for students who do not intend to do further work in natural sciences, engineering, mathematics, or medicine.

PHY X09L. Elementary Physics for Nontechnical Students.
Electricity and magnetism, light, atomic and nuclear physics. Designed for students who do not intend to do further work in natural sciences, engineering, mathematics, or medicine.

PHY X10. Topics in Physics.

PHY X10C. Topics in Conference Course.
Supervised study of selected topics in physics, by individual arrangement with department and instructor.

PHY X15. Wave Motion and Optics.
Study of general properties of waves; examples include sound, electromagnetic, and mechanical waves; special emphasis on light and optics.

PHY X15L. Laboratory for Physics 315.

PHY X16. Electricity and Magnetism.

PHY X16L. Laboratory for Physics 316.

PHY X17K. General Physics I.
Mechanics, heat, and sound, with biomedical applications. An introductory course designed and recommended primarily for premedical students and others in the biomedical sciences whose professional or preprofessional training includes an introductory course in calculus. Satisfies most medical and dental school requirements for physics.

PHY X17L. General Physics II.
Electricity and magnetism, light, atomic and molecular physics, nuclear physics, and their biomedical applications. Designed and recommended primarily for premedical students and others in the biomedical sciences whose professional or preprofessional training includes an introductory course in calculus. Satisfies most medical and dental school requirements for physics.

PHY X17M. Laboratory for Physics 317K.

PHY X17N. Laboratory for Physics 317L.

PHY X19S. Topics in Physics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PHY X29S. Topics in Physics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

PHY X19S. Topics in Physics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PHY X21. Modern Physics: Plan II.
Conceptual foundations of modern physics. Examines quantum mechanics, quantum field theory, relativity, and general relativity, including large-scale structure and cosmology; and the development of analytic problem-solving skills, including estimation.

PHY X29. Introduction to Computational Physics.
Computational methods for problem solving and research in physics; numerical analysis and computer simulation methods for physics applications using different types of computers.

PHY X29S. Topics in Physics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PHY X29W. Cooperative Physics.
Covers the work period of physics students in the Cooperative Education Program, which provides supervised work experience by arrangement with the employer and the supervising instructor.

PHY X33. Modern Optics.
Review of geometrical optics, polarization, interference, and optical instruments. Subjects include Fourier optics, light propagation in fibers, quantum optics, and coherence.

PHY X33L. Laboratory for Physics 333.

PHY X36K. Classical Dynamics.
Elementary linear vector algebra, Newtonian mechanics, Lagrangian mechanics, central force motion, dynamics of rigid bodies, and theory of small oscillations.

PHY X36L. Fluid Dynamics.
Fundamental concepts of fluid mechanics developed and applied to laminar and turbulent flows. Subjects include the Navier-Stokes equations, pipe and channel flow, drag, boundary layers, convection, and rotating fluids.

PHY X38K. Electronic Techniques.
Elementary circuit theory, amplifiers, feedback, pulse and digital techniques, signal processing, and microprocessors as applied to physics instrumentation.

PHY X39C. Physics Cognition and Pedagogy.
Investigate physics-specific education literature, and think about how the results of these studies apply to teaching practice. Discuss obstacles to students' academic success such as stereotype threat, identity, implicit bias, and mindset. Reflect on how to make a difference in students' learning as a physics learning assistant.

PHY X41. Selected Topics in Physics.

PHY X41.1. Energy Production.
The various means that exist or have been suggested for generating energy; comparison in terms of efficiency, safety, and effects on the environment.

PHY X41.3. Musical Acoustics.
Study of the production, transmission, and perception of the special kind of sound called music, based on the application of elementary principles of physics.

PHY X41.4. The Nature of Things.
A qualitative survey of all of physics, from falling bodies to quarks, making heavy use of classroom demonstrations.

PHY X41.5. Pseudoscience.
Study of a variety of ideas treated very seriously by the communications media but having no basis in fact, including astrology, extrasensory perception, and flying saucers; why such areas are not part of science.

PHY X41.6. Writing.

PHY X41.7. Research Methods: UTeach.

PHY X41T. Topics in Physics.

PHY X45. Biophysics.
Basic concepts of physics developed and applied to biological systems. Subjects include energy in living systems, entropic interactions, molecular forces and self-assembly, biopolymers, bio-membranes, cell-cell interactions, pattern formation, collective behavior, higher order systems, population dynamics and evolution.

PHY X52K. Classical Electrodynamics I.
Electrostatic fields, magnetostatic fields, derivation of Green's theorems and functions and of Maxwell's equations.

PHY X52L. Classical Electrodynamics II.
A continuation of Physics 352K, emphasis is placed on conservation laws, electromagnetic waves, potentials and fields, radiation, and Lorentz invariance. One or more special subjects, such as Rayleigh scattering and energy loss by relativistic charged particles in matter will be developed.

PHY X53L. Modern Physics Laboratory.
Laboratory experiments investigating the breakdown of classical physics for microscopic phenomena. Includes absorption and emission spectra, the photoelectric effect, blackbody radiation, the Compton effect, X-ray diffraction, and other experiments in modern physics.

PHY X55. Modern Physics and Thermodynamics.
Introduction to modern physics and thermodynamics: photons (spectra, photoelectric effect, blackbody radiation, Compton effect), atoms (Rutherford, Bohr), matter waves (Planck, deBroglie, probability interpretation, Schroedinger), nuclei, particles, special relativity, the laws of thermodynamics, and statistical physics.

PHY X62K. Quantum Physics II: Atoms and Molecules.
The two-electron atom; spin and statistics; coupling schemes for many-electron atoms; atoms and the radiation field; perturbation methods for decay and collisions; thermal, electrical, and magnetic properties of solids; and free-electron metal and band theory. May include subjects such as superconductivity, Josephson tunneling, and others.

PHY X62L. Quantum Physics III: Particles and Nuclei.
Nuclei and nucleons, their gross properties; the hadrons; symmetries and conservation laws; nuclear stability; electromagnetic, weak, and hadronic interactions; nuclear reactions at low, medium, and high energies; nucleon structure; tools of experimental nuclear physics; models of theoretical nuclear physics; nuclear technology.

PHY X69. Thermodynamics and Statistical Mechanics.
Basic concepts of thermal physics; entropy, enthalpy, free energy, phase transitions, equilibrium distribution functions, applications.

PHY X70T. Senior Thesis.
Individual research with faculty supervision. First half involves preparation of proposal; second involves completion of written thesis.

PHY X71C. Individual Study in Physics.
Supervised reading or research in physics.

PHY X73. Quantum Physics I: Foundations.
Postulates of quantum mechanics, the bound states of the finite square well, the harmonic oscillator, operator-eigenvalue formulism and selected examples, the hydrogen atom, angular momentum, rigid rotor, and spin. May include simple scattering theory.

PHY X74. Advanced Laboratory I.
Modern experimental techniques, theory of error, and analysis of experiments; both modern and classical experiments in atomic and nuclear physics, electricity and magnetism, optics and heat.

PHY X75C. Cosmology and AstroParticle Physics.
Discuss the physics of the expanding universe, Einstein's equations, inflationary expansion, the basics of nuclear physics and big bang nucleosynthesis, and the content of the Universe: the known particles and forces of the standard model of particle physics as well as the unknown dark matter and dark energy.

PHY X75P. Introductory Plasma Physics.
Orbit theory and drifts, introduction to plasma stability and waves, applications to plasma confinement and heating.

PHY X75R. Introduction to Relativity.
Overview of the special and general theories of relativity, with emphasis on recent developments in gravitation.

PHY X75S. Introductory Solid-State Physics.
Crystal structure, classification of solids, cohesion, thermal and electrical properties of solids, magnetic properties of solids, imperfections.

PHY X79H. Honors Tutorial Course.

Graduate Courses

PHY X19S. Topics in Physics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PHY X29S. Topics in Physics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PHY X80L. Plasma Physics I.
Particle drifts, equations for plasmas, magnetohydrodynamics, waves and instabilities in the two-fluid model, Vlasov equation, Landau damping, controlled thermonuclear research, plasma diagnostics.

PHY X80M. Plasma Physics II.
Plasma containment, stability theory in fluid models, derivation of Vlasov and Fokker-Planck equations, the dielectric tensor, velocity space and gradient instabilities, Nyquist diagrams.

PHY X80N. Experimental Physics.
Experimental work to provide exposure to physics research techniques.

PHY X80T. Topics in Advanced Physics.
Special topics for physics teachers.

PHY X81C. Computational Physics.
Dynamical and statical descriptions and solutions of many-body, nonlinear physical systems by computation. Theory of computation and applications to various branches of physics.

PHY X81M. Methods of Mathematical Physics I.
Theory of analytic functions; linear algebra and vector spaces; orthogonal functions; ordinary differential equations; partial differential equations; Green's functions; complex variables.

PHY X81N. Methods of Mathematical Physics II.
Continuation of Computational Science, Engineering, and Mathematics 385M and Physics 381M. Topology, functional analysis, approximation methods, group theory, differential manifolds.

PHY X82M. Fluid Mechanics.
Flow of ideal and viscous fluids; introduction to turbulence; boundary layers; sound and shock waves.

PHY X82N. Nonlinear Dynamics.
Basic concepts of evolution and stability, examples of instabilities, low dimensional dynamical systems, chaos, characterization of temporal chaos, pattern formation, Hamiltonian systems.

PHY X82P. Biophysics I.
The cell, small molecules and chemical kinetics, forces on the molecular scale, proteins, lipids and membranes, biopolymers, neurons and electrical signal transduction, and complex pattern formation in cells and cell aggregates.

PHY X82Q. Biophysics II.
Advanced biophysics with emphasis on biologically relevant questions addressed with physical approaches. Biopolymer mechanics, protein-nucleic acid interaction, protein structure and dynamics, membrane dynamics, cytoskeletal dynamics, motor proteins, cell shape and motility, cell communication, tissue mechanics.

PHY X82S. Seminar in Nonlinear Dynamics.

PHY X85K. Classical Mechanics.
Classical and relativistic Hamiltonian mechanics; Hamilton-Jacobi theory; Lagrangian mechanics for continuous media; symmetry principles and conservation laws.

PHY X85L. Statistical Mechanics.
Equilibrium statistical mechanics; introduction to nonequilibrium concepts; ensembles; classical and quantum gases; statistical physics of solids.

PHY X85S. Seminar in Statistical Physics.
Topics to be announced.

PHY X85T. Special Topics in Statistical Physics.
Topics to be announced.

PHY X86K. Physics of Sensors.
Physical principles of acoustic, optical, electromagnetic, radiation, and motion sensors.

PHY X86N. Technical Seminar.
Physics for applied and industrial purposes.

PHY X86S. Seminar in Applied Physics.
Topics to be announced.

PHY X87K. Electromagnetic Theory I.
Electrostatics and magnetostatics; boundary value problems; Maxwell's equations; plane waves; wave guides; diffraction; multipole radiation.

PHY X87L. Electromagnetic Theory II.
Magnetohydrodynamics and plasmas; relativity; collisions of charged particles; radiation from moving charges; radiation damping.

PHY X87M. Relativity Theory I.
Explore tensor calculus, differential geometry, special and general relativity, black holes, and gravitational waves.

PHY X87N. Relativity Theory II.
General relativity theory; gravitational field equations; weak field approximations; Schwarzschild solution, observable consequences; other topics.

PHY X88M. Graduate Colloquy.
Reviews of current topics in physics research.

PHY X88S. Seminar in Teaching Physics.
Topics to be announced.

PHY X89K. Quantum Mechanics I.
Hilbert space and operators; Schroedinger and Heisenberg equations; solutions for systems in one and three dimensions; theory of spin and orbital angular momentum; the effect of symmetries; approximation techniques; elementary scattering theory.

PHY X89L. Quantum Mechanics II.
Perturbation techniques; systems of identical particles; quantum theory of radiation; emission and absorption of photons; selection rules; life times; scattering theory for light and particles, S-matrix; relativistic corrections to electron motion.

PHY X90. Graduate Research.

PHY X91M. Nonlinear Plasma Theory.
Quasi-linear theory, weak turbulence, large amplitude waves, plasma radiation, shock waves, shock structure, computer techniques.

PHY X91S. Seminar in Plasma Physics.
Topics to be announced.

PHY X91T. Special Subjects in Plasma Physics.
Subjects to be announced.

PHY X91U. Seminar in Plasma Theory.
Current topics in plasma theory.

PHY X92K. Solid-State Physics I.
Lattice vibrations and thermal properties of solids; band theory of solids; transport properties of metals and semiconductors; optical properties; magnetic properties; magnetic relaxation; superconductivity.

PHY X92L. Solid-State Physics II.
Elementary excitations: phonons, electrons, spin waves; interactions: phonon-phonon, electron-electron, electron-phonon; theory of metals and semiconductors; transport theory; optical properties.

PHY X92N. Many-Body Theory.
Overview of many-body theory; second quantization; Green's functions and Feynman diagrams; finite-temperature, imaginary-time Green's functions; the disordered metal; path integrals; broken symmetries; and local moments.

PHY X92P. Advanced Optical Spectroscopy.
Examine the foundational principles and cutting-edge applications of advanced optical spectroscopy methods. Analyze the electrodynamics of solids (metals, insulators, semiconductors), which exhibit complex and rich electromagnetic behavior. Study the key components of a basic optical spectroscopy setup. Explore advanced spectroscopy techniques and current research frontiers in the field.

PHY X92Q. Density Functional Theory.
Examine the quantum theory of many-electron systems from the point of view of first-principles atomic-scale calculations. Develop the conceptual foundations of density functional theory and its uses in computational materials modeling, design, and discovery. Perform predictive calculations of structural, electronic, optical, vibrational, and magnetic properties of solids using high-performance computing environments.

PHY X92S. Seminar in Solid-State Physics.
Topics to be announced.

PHY X92T. Special Topics in Solid-State Physics.
Topics to be announced.

PHY X93S. Seminar in Relativity.
Topics to be announced.

PHY X93T. Special Topics in Relativity.
Topics to be announced.

PHY X94U. Special Topics in Theoretical Physics.
Topics to be announced.

PHY X95. Topics in Survey of Atomic and Molecular Physics.
Spectra of atoms and diatomic molecules; quantum electronics; experimental techniques.

PHY X95K. Nonlinear Optics and Lasers.
Gaussian beam optics, interaction of electromagnetic radiation with matter, semiclassical laser theory, experimental laser systems, nonlinear optical susceptibilities, harmonic generation, wave mixing, electro-optic and acousto-optic effects, coherent transient effects, optical breakdown, laser-plasma interactions.

PHY X95M. Laser Physics.
Continuation of Physics 395K. Advanced atomic physics of various laser systems, optical coherence and diffraction theory, pulse propagation and dispersion effects, advanced laser oscillator and amplifier physics, laser amplifier chain design, and chirped-pulse amplification.

PHY X95S. Seminar in Atomic and Molecular Physics.
Topics to be announced.

PHY X95T. Special Topics in Atomic and Molecular Physics.
Topics to be announced.

PHY X96G. Cosmology.
Explore inflationary cosmology, the formation of element abundances during Big Bang nucleosynthesis, cosmological perturbations and structure formation, the cosmic microwave background, and the content of the universe (including dark matter and dark energy). Examine unresolved problems in cosmology (such as the origin of the matter/antimatter asymmetry), the possibility of extra dimensions, what happened before the Big Bang, "big data" in cosmology, observational probes of dark energy, and inflation models and tests.

PHY X96J. Introduction to Elementary Particle Physics.
Historical introduction to elementary particles, elementary particle dynamics, relativistic kinematics, symmetries, bound states, the Feynman calculus, quantum electrodynamics, electrodynamics of quarks and hadrons, quantum chromodynamics, weak interactions, gauge theories.

PHY X96K. Quantum Field Theory I.
Quantization of the Klein-Gordon, Dirac, and electromagnetic field theories; theory of interacting fields, perturbation theory, and renormalization.

PHY X96L. Quantum Field Theory II.
Path-integral formalism, massless particles, electrodynamics, nonperturbative methods, one-loop calculations in quantum

electrodynamics, general renormalization theory, soft photons, bound statics in quantum electrodynamics.

PHY X96P. String Theory I.
Introduction to string theory and conformal field theory. The free string, conformal invariance and conformal field theory, supersymmetry and string interactions.

PHY X96Q. String Theory II.
Advanced conformal field theory, perturbative string theory and compactification. Introduction to nonperturbative aspects of string theory.

PHY X96S. Topics in Particle Physics: Seminar.
Topics to be announced.

PHY X96T. Special Topics in Particle Physics.
Topics to be announced.

PHY X96V. High Energy and Astroparticle Physics.
Review quantum field theory, aspects of the standard model and beyond, the naturalness problem, dark matter, early universe cosmology, and other selected subjects.

PHY X97K. Nuclear Physics.
Systematics of stable nuclei; nuclear structure; decay of the nucleus; cross sections and reaction mechanisms; the elementary particles.

PHY X97S. Seminar in Nuclear Physics.
Topics to be announced.

PHY X97T. Special Topics in Nuclear Physics.
Topics to be announced.

PHY X97U. Graduate Seminar in Nanoscience.
Various seminar topics in nanoscience.

PHY X98. Thesis.

PHY X98R. Master's Report.
Prepare a report to fulfill the requirement for the master's degree under the report option.

PHY X98S. Seminar in High Energy Theory.

PHY X98T. Supervised Teaching in Physics.
A review of physics teaching strategies, administrative procedures, and classroom responsibilities. Includes a review and critique of each participant's classroom teaching.

PHY X99W. Dissertation.

Professional Courses

PHY X19S. Topics in Physics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PHY X29S. Topics in Physics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

POL - Polish

Polish: POL

Lower-Division Courses

POL X01C. Intensive Polish I.
Emphasis on developing oral proficiency in Polish using intensive methods of instruction.

POL X06. First-Year Polish I.
Emphasis on four-skills proficiency.

POL X07. First-Year Polish II.
Emphasis on four-skills proficiency.

POL X11C. Intensive Polish II.
Continuing intensive development of proficiency in Polish, with a focus on speaking and the reading of authentic texts.

POL X12K. Second-Year Polish I.
Emphasis on four-skills proficiency.

POL X12L. Second-Year Polish II.
Emphasis on four-skills proficiency.

Upper-Division Courses

POL X25. Third-Year Polish I.
Oral expression, reading, and composition.

POL X26. Third-Year Polish II.
Continuation of Polish 325: Oral expression, reading, and composition.

POL X28. Topics in Advanced Polish.

POL X79. Conference Course in Polish Language or Literature.

Graduate Courses

POL X92. Topics in Polish Language.

POL X95. Conference Course.
Study of individual problems in Polish language, literature, and culture.

Professional Courses

POR - Portuguese

Portuguese: POR

Lower-Division Courses

POR X01D. First-Year Portuguese I.
Development of speaking, listening, reading, and writing skills; building vocabulary, learning basic rules and terminology of grammar; and gaining a better understanding of Portuguese-speaking cultures, with focus on Brazil, in order to communicate in an accurate, effective, and informed manner within a variety of socio-cultural situations.

POR X10D. First-Year Portuguese II.
Development of speaking, listening, reading, and writing skills; building vocabulary, learning basic rules and terminology of grammar; and gaining a better understanding of Portuguese-speaking cultures, with focus on Brazil, in order to communicate in an accurate, effective, and informed manner within a variety of socio-cultural situations.

POR X10S. Portuguese for Spanish Speakers I.
Designed to provide qualified Spanish-speaking students a rapid introduction to Portuguese language. Development of speaking, listening, reading, and writing skills; building vocabulary, learning basic rules and terminology of grammar; and gaining a better understanding of Portuguese-speaking cultures, with a focus on Brazil, in order to communicate in an accurate, effective, and informed manner within a variety of socio-cultural situations.

POR X11C. Portuguese Conversation and Culture.
Explore the development of speaking, listening, reading, and writing skills, and build vocabulary. Review rules and terminology of Portuguese grammar. Examine complex grammar structures and Portuguese speaking cultures, with a focus on Brazil.

POR X11D. Second-Year Portuguese.
Focuses on the development of speaking, listening, reading, and writing skills while building vocabulary. Reviews rules and terminology of Portuguese grammar. Introduces complex grammar structures and Portuguese speaking cultures, with a focus on Brazil, in order to communicate in an accurate, effective, and informed manner within a variety of socio-cultural situations.

POR X11J. Portuguese Conversation and Culture for Spanish Speakers.
Designed for qualified Spanish-speaking students. Explore speaking and listening skills. Build vocabulary. Examine Portuguese-speaking cultures, with a focus on Brazil.

POR X11S. Portuguese for Spanish Speakers II.
Continuation of Portuguese 610S.

POR X12. Accelerated Second-Year Portuguese: Oral Expression, Reading, and Composition.
Covers the same material as Portuguese 312K and 312L, but in one semester.

POR X14C. Intermediate Writing and Grammar in Context.
Review rules and terminology of Portuguese grammar. Explore complex grammar structures in the context of reading and writing. Build vocabulary in the context of Portuguese speaking cultures, with a focus on Brazil.

POR X14J. Intermediate Writing and Grammar for Spanish Speakers.
Designed for qualified Spanish-speaking students. Review rules and terminology of Portuguese grammar. Explore complex grammar structures in the context of reading and writing. Build vocabulary in the context of Portuguese speaking cultures, with a focus on Brazil.

POR X19S. Topics in Portuguese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

POR X29S. Topics in Portuguese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

POR X19S. Topics in Portuguese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

POR X21P. Portuguese Pronunciation.
Explore Portuguese pronunciation and the fundamental principles of phonetic analysis. Examine how Portuguese sounds are produced, how they fall into patterns, and how they change in different environments.

POR X22C. Conference Course in Luso-Brazilian Civilization.

POR X22L. Conference Course in Luso-Brazilian Literature.

POR X27C. Advanced Grammar and Writing in Context.
Study and practice of Portuguese grammar, including reading exercises and guided composition designed to develop writing skills across styles. Students will be exposed to various topics in Portuguese language, literature, and culture.

POR X28C. Introduction to Literatures and Cultures.
Overview of Luso-Brazilian literatures and cultures, including the arts and popular expressions from a multidisciplinary perspective. Among the regions studied are Brazil, Portugal, and related areas in Africa.

POR X29S. Topics in Portuguese.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

POR X30L. Introduction to Language and Linguistics in Society.
Examines the dynamics of language structure and use throughout the Portuguese-speaking world. Covers topics such as sound systems, grammatical structures, historical developments, language learning and loss, dialect differences, and their social significance.

POR X44C. Luso-Migrations: Portugal and Brazil.
Explore post-colonial political and cultural relations between Portugal and Brazil. Examine nineteenth and twentieth century Portuguese travelogues, memoirs, films, and fiction.

POR X50C. Brazilian Film and Culture.
Explore a critical overview of Brazilian cinema, from the silent era to the present day, with an emphasis on the late twentieth and early twenty-first centuries.

POR X52. Brazilian and Spanish American Literature.
Explore Brazilian and Latin American literature and culture from the twentieth century and later. Examine the literary trends and social roles in the region while comparing and contrasting the culture and history from both Spanish America and Brazil.

POR X53. Sociolinguistics.
Explores the interrelationship of language and society with reference to the Portuguese-speaking world. Examines how socio-economic , political, and anthropological factors like race, social class, gender, age, and identity influence linguistics forms.

POR X54. United States Latino Literatures and Cultures in Context.
Examines the United States Latino literary and cultural production from a multidisciplinary perspective, through literature, film, music, and performance. Analyzes the literatures and experiences of Brazilian American writers and artists in their historical and cultural specificities.

POR X64L. Applied Linguistics.
Introduction to the linguistic structure of Portuguese; application of linguistic principles to the teaching of Portuguese.

POR X67C. Business in Brazilian Life and Culture.
Explore cultural aspects of business practices in Brazil.

POR X68T. Topics in Linguistics.

POR X75D. Global Brazil.
Examine twentieth-century literature, films, and other cultural artifacts of the multicultural Brazilian society. Critique the image of Brazil as a unified, harmonious, racially-mixed nation. Explore contemporary textual and visual representations of the Brazilian diaspora in the United States and Europe.

POR X75E. Popular Music in Brazil.
Explore Brazilian cultural politics through the message and performance of live and recorded song, including samba, bossa nova, protest song, Tropicalist counter-cultural song, Brazilian funk, hip hop, and manguebeat.

POR X77C. Topics in Portuguese.
Examine important themes in Brazilian society related to cultural production including literature, audiovisual, and media production.

POR X79C. Capstone Seminar in Literatures and Cultures.
Central issues, concepts, and themes that define Luso-Brazilian literatures and cultures. Focus on a specific case study or case studies that result in the production of a research paper on a particular topic of interest.

POR X79H. Honors Tutorial Course.
Supervised individual research on a literary, linguistic, or cultural problem, culminating in a written thesis.

POR X79L. Capstone Seminar in Linguistics.
Central issues, concepts, and themes that define linguistics. Focus on a specific case study or case studies that result in the production of a research paper on a particular topic of interest.

Graduate Courses

POR X19S. Topics in Portuguese.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

POR X29S. Topics in Portuguese.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

POR X81. Topics in Brazilian Literature.

POR X81.1. Comparative Studies in the Literatures of Brazil and Spanish America.

POR X85L. Conference Course in Luso-Brazilian Literatures and Linguistics.

For students with special interests not met by other courses offered in any one semester.

POR X96K. Topics in Comparative Romance Linguistics.

POR X96K.1. Comparative Romance Linguistics.

POR X96K.2. Introduction to Romance Linguistics.

POR X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

Professional Courses

POR X19S. Topics in Portuguese.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

POR X29S. Topics in Portuguese.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PPE - Philosophy, Politics, and Economics

Philosophy, Politics, and Economics: PPE

Lower-Division Courses

PPE X01. Introduction to Philosophy, Politics, and Economics.

Cultivate an awareness of the relevance of ethics, politics, and economics, as well as an appreciation for the limitations of each discipline and the necessity of thinking through their interactions.

PPE X19S. Topics in Philosophy, Politics, and Economics.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

PPE X20. Foundations of Philosophy, Politics, and Economics.

Examine distributive justice, collective action, and the rule of law. Reflect on how these approaches amplify and limit civil discourse.

PPE X29S. Topics in Philosophy, Politics, and Economics.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PPE X79. Capstone Course.

Practice researching and prepare to share findings for public discourse related to philosophy, politics, and economics.

Graduate Courses

Professional Courses

PRC - Portuguese Civilization

Portuguese Civilization: PRC

Lower-Division Courses

PRC X19S. Topics in Portuguese Civilization.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRC X29S. Topics in Portuguese Civilization.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

PRC X19S. Topics in Portuguese Civilization.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRC X20E. Topics in Brazilian Studies.

Focus on issues in Brazilian society and Portuguese society and culture.

PRC X20E.1. Samba to Hip Hop: Brazilian Popular Music.

Examines the role of popular music in relationships of power with subordination and the impact of music as a form of cultural expression.

PRC X20E.2. Global Brazil: Immigration and Diaspora in Brazilian Culture.

Examination of twentieth-century literature, films, and other cultural artifacts that capture the multicultural reality of Brazilian society and challenge the image of Brazil as a unified, harmonious, racially-mixed nation. Subjects include contemporary textual and visual representations of the Brazilian diaspora in the United States and Europe.

PRC X20E.3. Afro-Luso-Brazilian Worlds.
Examine the myths and realities in the Afro-Luso-Brazilian worlds and the connections and contrasts between them.

PRC X21. Spectacular Brazil.
Explore the global, historical, thematic, and performative aspects of Brazilian culture using cultural texts, film, popular music, art, and photography.

PRC X25. Modern Brazil.
Explore modern Brazilian urban culture and the processes and contexts that led to the modernization of Brazil.

PRC X27. Black Digital Feminisms in Brazil.
Explore online expressions of Black feminisms in Brazil, highlighting transnational resonances with other Black cultural movements while examining the socio-political particularities of Brazil's current digital landscape.

PRC X29S. Topics in Portuguese Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

PRC X19S. Topics in Portuguese Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRC X29S. Topics in Portuguese Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Professional Courses

PRC X19S. Topics in Portuguese Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRC X29S. Topics in Portuguese Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRF - Performance

The following instruments are offered under PRF: Bassoon (BSN), Clarinet (CLA), Double Bass (D B), Drum Set (DRS), Euphonium (EUP), Flute (FLU), French Horn (F H), Guitar (GUI), Harp (HAR), Harpsichord (HSC), Oboe (OBO), Opera (OPR), Organ (ORG), Percussion (PER), Piano (PIA), Recorder (REC), Saxophone (SAX), Trombone (TRO), Trumpet (TRU), Tuba (TBA), Vibraphone (VIB), Viola (VIA), Violin (VIO), Violoncello (V C), Voice (VOI).

Performance: PRF

Lower-Division Courses

PRF X01. Lower-Division Music Performance: Secondary.
Music performance for nonmusic majors and music majors studying a secondary instrument. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, oboe, organ, percussion, piano, recorder, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice.

PRF X02. Topics in Lower Division Piano: Secondary.

PRF X10. Lower-Division Music Performance: Principal.
Principal instrument performance. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice.

PRF X12. Lower-Division Music Performance: Major.
Music performance for music performance or music performance pedagogy majors. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, and violoncello.

PRF X12J. Lower-Division Music Performance: Improvisation.
This course is offered in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone.

Upper-Division Courses

PRF X51. Upper-Division Music Performance: Secondary.
Music performance for nonmusic majors and for music majors studying a secondary instrument. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, harpsichord, oboe, organ, percussion, piano, recorder, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice.

PRF X60. Upper-Division Music Performance: Principal.
Principal instrument performance. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, harpsichord, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice.

PRF X62. Upper-Division Music Performance: Major.
Music performance for music performance majors. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice.

PRF X62J. Upper-Division Music Performance: Improvisation.
Improvisation for jazz composition and jazz performance majors. This course is offered in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone.

Graduate Courses

PRF X80. Graduate Course in Performance.
Music performance offered in opera and in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice.

PRF X80J. Graduate Course in Performance: Jazz Improvisation.
Jazz improvisation in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone.

PRF X80V. Graduate Course in Performance: Collaborative Piano.
Collaborative piano (accompanying) performance.

PRF X90. Advanced Graduate Course in Performance.
Music performance offered in opera and in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice.

PRF X90J. Advanced Graduate Course in Performance: Jazz Improvisation.
Jazz improvisation in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone.

PRF X90V. Advanced Graduate Course in Performance: Collaborative Piano.
Music performance in collaborative piano (accompanying).

Professional Courses

PRS - Persian

Persian: PRS

Lower-Division Courses

PRS X01C. Intensive Persian I.
First semester of intensive Persian language instruction.

PRS X06. First-Year Persian I.
Elementary colloquial Persian.

PRS X07. First-Year Persian II.
Continuation of Persian 506. Elementary literary Persian.

PRS X11C. Intensive Persian II.
Second semester of intensive Persian language instruction.

PRS X12C. Intensive Persian for Heritage Speakers.
Designed for heritage speakers with prior exposure to Persian speaking and listening. This may include heritage Persian language speakers who have had little or no formal instruction in the language, and speakers who understand at a near-native level but have no knowledge or limited knowledge of reading and writing.

PRS X12K. Second-Year Persian I.

PRS X12L. Second-Year Persian II.
Continuation of Persian 512K.

PRS X19S. Topics in Persian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRS X29S. Topics in Persian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

PRS X06. First-Year Persian I.
Elementary colloquial Persian.

PRS X07. First-Year Persian II.
Continuation of Persian 506. Elementary literary Persian.

PRS X19S. Topics in Persian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRS X22K. Intermediate Persian I.
First semester of intermediate Persian language instruction.

PRS X22L. Intermediate Persian II.
Second semester of intermediate Persian language instruction.

PRS X29. Topics in Persian Language, Literature, and Culture.
Study of various aspects of Persian linguistics, literature, and culture. Conducted in Persian.

PRS X29.1. Ferdowsi's Shahnameh.

PRS X29.10. Iranian Women Poets.

PRS X29.11. Media and Migration in Iran.
Explore the evolving meanings of leaving the homeland in Persian modern media.

PRS X29.12. Cops and Criminals in Iran.
Examine the theme of cops, criminals, and prisons in Iran, explore Persian language skills by reading Persian texts, watching or listening to media samples, participating in discussions, giving presentations, writing papers.

PRS X29.13. Cultural History of Contemporary Iran.
Conducted in Persian (Farsi). Describe and analyze the main trends and patterns in a variety of the cultural aspects of modern Iran, including literary arts, visual arts, performing arts, architecture, sports, etc.

PRS X29.2. Sa'di's Golestan.

PRS X29.3. Hafez's Ghazals.

PRS X29.4. Sadeq Hedayat and Twentieth-Century Persian Fiction.

PRS X29.5. Forugh Farrokhzad and Modernist Persian Poetry.

PRS X29.6. Persian Prose Nonfiction.

PRS X29.7. The Classics of Persian Poetry.
Conducted in Persian.

PRS X29.8. Iranian Cinema.

PRS X29.9. Media Persian.
Introduction to the language of media in Iran and the rest of the Persianate world.

PRS X29S. Topics in Persian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRS X30D. Persian across Disciplines.
Students read and discuss Persian language materials related to the subject matter of another designated course.

PRS X69. Conference Course in Persian Language and Literature.
Supervised individual study of selected problems in Persian language or literature.

Graduate Courses

PRS X06. First-Year Persian I.
Elementary colloquial Persian.

PRS X07. First-Year Persian II.
Continuation of Persian 506. Elementary literary Persian.

PRS X19S. Topics in Persian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRS X29S. Topics in Persian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRS X80C. Topics in Persian Language.

PRS X81H. Intensive Graduate Language Instruction I.
Intensive cultural and literacy-focused training in Persian at the beginning level in preparation for research with Persian sources. Includes an independent project component. Incoming students are placed in the appropriate level by means of a departmental placement test.

PRS X81J. Intensive Graduate Language Instruction II.
Intensive cultural and literacy-focused training in Persian at the low-intermediate level in preparation for research with Persian sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

PRS X81K. Intermediate Graduate Language Instruction I.
Intensive cultural and literacy-focused training in Persian at the intermediate level in preparation for research with Persian sources. Includes an independent project component. Incoming students are placed in the appropriate level by means of a departmental placement test.

PRS X81L. Intermediate Graduate Language Instruction II.
Intensive cultural and literacy-focused training in Persian at the high-intermediate level in preparation for research with Persian sources. Includes an independent project component. Incoming students are placed in the appropriate level by means of a departmental placement test.

PRS X82C. Topics in Persian Linguistics and Philology.

PRS X84C. Topics in Persian Literature.
Study of various aspects and periods of Persian language and literature.

PRS X84C.1. Ferdowsi's Shahnameh.

PRS X84C.10. Iranian Film and Fiction.

PRS X84C.2. Sa'di's Golestan.

PRS X84C.3. Hafez and Classical Persian Lyric Poetry.

PRS X84C.4. Sadeq Hedayat and Twentieth-Century Persian Prose Fiction.

PRS X84C.5. Forugh Farrokhzad and Modernist Persian Poetry.

PRS X84C.6. Iranian Women Writers.

PRS X84C.7. Persian Prose Nonfiction, Past and Present.

PRS X84C.9. Iranian Drama.

PRS X89. Conference Course in Persian Studies.
Supervised individual study of selected problems in Persian studies.

PRS X98. Thesis.

PRS X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

PRS X99W. Dissertation.

Professional Courses

PRS X06. First-Year Persian I.
Elementary colloquial Persian.

PRS X07. First-Year Persian II.
Continuation of Persian 506. Elementary literary Persian.

PRS X19S. Topics in Persian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PRS X29S. Topics in Persian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PSC - Prevention Science

Prevention Science: PSC

Lower-Division Courses

Upper-Division Courses

Graduate Courses

PSC X86. Applied Research Methods.
Explore disciplines of research methods, research design, data-producing techniques, treatment, interpretation of data and reporting on research.

PSC X90. Introduction to Prevention Science.
Introduction to prevention science and to the logic of prevention as preferable to care or management of health problems.

PSC X91. Theories of Change.
Examine personal, social, and environmental factors that influence health-related behavior as well as the role of individuals, groups, institutions, and social structures in encouraging and discouraging healthy behavior. Focus on behavior change theories and the practical application of these theories.

PSC X92. Prevention Science Across the Lifespan.
Introduction to the theories and applications of developmental science and the lifespan approach to prevention science. Learn how to integrate principles of developmental science into a prevention science framework.

PSC X93. Foundations of Epidemiology.
Introduction to the basic tenets of epidemiology as well as the different types of epidemiological study designs.

PSC X94. Community Engaged Intervention Design.
Develop culturally responsive, theory-based prevention and treatment practices in school, community, and family settings. Discuss prevention science research and practice to contextualize the tension between theory and evidence-based design and community contextual fit when developing, refining, and disseminating intervention programs.

PSC X95. Topics in Prevention Science.
Examine advanced topics in prevention science; critique and synthesize research findings and literature.

PSC X95.1. Advanced Methods in Prevention Science.
Explore analytic reasoning and research design, execution, analysis, interpretation, and appraisal for prevention scientists. Examine complex study designs, analytic techniques, issues of bias, moderation and mediation, and causal inference.

PSC X95.10. Psychology of Immigration and Cultural Adaption.
Discuss psychology of immigration and cultural adaptation. Examine immigration and cultural adaptation from the perspectives of demography, sociology, anthropology, developmental psychology, family psychology, vocational studies, and other disciplines.

PSC X95.11. Mind, Body, and Health.

PSC X95.12. Fundamentals of Health Coaching.

PSC X95.2. Implementation Science.
Discuss the theory and practice of Dissemination and Implementation (D&I) Sciences. Explore conceptual and theoretical foundations of implementation science, methodologies for evaluating implementation and dissemination strategies, and examining case examples from literature.

PSC X95.3. The Design and Conduct of Randomized Controlled Trials.
Conduct randomized controlled trials (RCTs) of preventive intervention and health promotion programs.
PSC X95.4. Social Determinants of Health.
Explore social determinants of health and health disparities in the United States and globally, as well as strategies to address them.
PSC X95.5. Research Ethics.
Explore ethical issues in research.
PSC X95.6. Impact of Marketing on Public Health.
Introduction to research on the impact of marketing from a public health perspective, with a focus on youth and young adults. Explore theoretical approaches to understanding marketing's influence, impacts on public health, and disproportionate impact on vulnerable groups.
PSC X95.7. Physical Activity and Public Health Practice.
Practice strategies for implementation of public health programming related to physical activity, approached through review of the current research literature. Focus on evidence-based strategies, and key approaches to program development, implementation, and evaluation.
PSC X95.8. Risk and Resilience in Children and Adolescents.
Introduction to the theories and methods of child and adolescent risk and resilience. Examine resilience processes in populations at elevated risk for negative outcomes. Explore how empirical research contributes to the development of programs aimed at strengthening resilience in at-risk youth.
PSC X95.9. Child and Adolescent Health Psychology.
Introduction to the psychological, social, and physical aspects of childhood and adolescence. Examine issues from a developmental-contextual perspective.
PSC X96. Doctoral Seminar.
Produce individual or shared project research with reports evaluated by seminar participants and the instructor.
PSC X96T. Directed Research in Prevention Science.
Investigate assigned problems under the direction of a Graduate Studies Committee member; develop and demonstrate competence in research design and execution; produce an acceptably written research report.
PSC X97. Research Problems.
Examine individual or group research in a specialized area of health education.
PSC X97P. Graduate Internship.
Practice in a professional organization or institution under supervision.
PSC X98. Thesis.
PSC X98T. Teaching in Higher Education.
Explore diverse instructional strategies, common issues in teaching and learning, short and long-term planning, practical aspects of course design and management, as well as assessment and grading practices. Review historical perspectives on the research in teaching and learning.
PSC X99W. Dissertation.

Professional Courses

PSF - Public Safety

Public Safety: PSF

Lower-Division Courses

PSF X11. Social Work and Public Safety.
Focuses on the intersection between social work, public safety, law, and human services.

Upper-Division Courses

PSF X60K. Public Safety Field Immersion.
Explores the intersection of social work and public safety. Experiential learning in approved public safety-related settings and a weekly one-hour seminar.

Graduate Courses

Professional Courses

PSY - Psychology

Psychology: PSY

Lower-Division Courses

PSY X01. Introduction to Psychology.
Basic problems and principles of human experience and behavior.
PSY X04. Introduction to Child Psychology.
General introduction to physical, social, and cognitive development from conception onward.
PSY X05. Introduction to Cognitive Psychology.
Introduction to the study of how people perceive, act, communicate, and reason.
PSY X06. Introduction to Human Sexuality.
Introduction to the science of sex and mating. Provides an overview of the psychological, biological, and social factors that contribute to sexual well-being and human sexual attraction.
PSY X08. Biopsychology.
Introduction to the biological bases of psychological processes and behavior. Overview of the physiology and anatomy of the nervous system, followed by a survey of brain mechanisms of perception, cognition, learning, and emotion; biological perspectives on drug action and mental disease.
PSY X09. Personality.
Research and theory concerning personality structure, dynamics, development, and assessment.
PSY X17. Statistical Methods in Psychology.
Measures of central tendency and variability; statistical inference; correlation and regression.
PSY X17L. Introduction to Statistics for the Behavioral Sciences.
Explore the R programming language, data visualization, data wrangling, descriptive statistics (measures of central tendency and variation), measures of association (correlation, regression). Examine inferential statistics including parametric tests (such as t-tests and ANOVA) and non-parametric tests (such as Kruskal-Wallis and chi-squared tests).
PSY X19K. Social Psychology.
Theory and research on the analysis of human conduct in social settings.
PSY X19R. Introductory Research Experience.
Learn broad knowledge about laboratory goals and observe how scientific studies are conducted. Develop entry-level firsthand supervised research experience in psychology in collaboration with projects' principal investigators or graduate/medical students.
PSY X19S. Topics in Psychology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
PSY X29S. Topics in Psychology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
PSY X82K. Internship in Clinical Psychology.
Supervised practical experience in clinical assessment and treatment.

Upper-Division Courses

PSY X19S. Topics in Psychology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study

Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PSY X20M. Psychological Methods and Statistics.
Explore the basic and intermediate scientific methods and statistical techniques commonly employed in psychological research.

PSY X20R. R Programming for Behavioral Sciences.
Introduction to the R programming language.

PSY X23. Perception.
Theory and research in the ways we extract information from the environment.

PSY X23P. Perceptual Systems: Neurons, Behavior, and Evolution.
An introduction to perceptual systems, with an emphasis on perception in human and nonhuman primates. Subjects include the physics of perceptual stimuli, the neural processing of perceptual information, the performance of human and other primates in perceptual tasks, and the evolution of perceptual systems.

PSY X23S. Sex Differences in Cognition and Perception.
Examination of facts, theories, and implications of sex differences in human cognition and perception. Subjects include genetic and hormonal origins of sex differences, structural differences in the body and brain, verbal abilities, spatial abilities, learning, memory, sensory-motor abilities, and the auditory, olfactory, visual, and other sensory systems.

PSY X23V. Seeing and Acting in a Virtual World.
Methods of experimentation and discovery for examining one's own perceptions and actions in ordinary life.

PSY X25K. Advanced Statistics.
Advanced statistical theory and methods for analysis of behavioral sciences data; subjects include analysis of variance and covariance, regression, and nonparametric techniques.

PSY X26K. Principles of Conditioning and Learning.
Explore how people learn emotional and motor responses without conscious intent.

PSY X29S. Topics in Psychology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PSY X32. Behavioral Neuroscience.
Neuroscientific study of behavioral functions: fundamental structure and function of the human nervous system, sensory systems and perception, motor systems and behavior, motivation and learning, brain disorders and maladaptive behavior.

PSY X32C. Hormones and Behavior.
Neuroscientific study of hormones and behavior in animals and humans. Includes sexual behavior, sexual differentiation, parental behavior, aggressive behavior, feeding and drinking, stress, learning, and memory.

PSY X32D. Human Brain Imaging in Psychology.
Study of human brain imaging technologies such as fMRI and electrophysiology.

PSY X32E. Ethics, Genetics, and the Brain.
Discuss the ethical, legal, and societal implications of advances in the understanding of neuroscience and genetics.

PSY X32J. The Developing Brain.
Explore the process of brain development from prior to fertilization through to old age with focus on the molecular, cellular, neurobiological, and behavioral changes that occur.

PSY X32M. The Neuroscience of Motivation and Reward.
Examination of mechanisms of the brain that control behaviors such as incentive motivation, reward, aversion, and addiction.

PSY X32P. Neural Plasticity And Behavior.
Examine basic concepts and current research directions in brain plasticity. Includes theory and research on how animals learn and remember, how brain areas and neurons adapt to life experiences, trauma, injury, and aging and new treatment directions based on neural plasticity principles.

PSY X32S. Psychology and Neuroscience of Sleep.
Discuss the scientific literature on neuroscience underlying sleep, psychological influences on sleep, and sleep habits and interventions.

PSY X32T. Biological Clocks and Behavior.
Explore the role of biological clocks in health and disease.

PSY X32U. Diversity in Cognitive Aging.
Discuss biological, sociocultural, and environmental factors underlying cognitive aging. Explore how each of these factors dynamically shapes cognitive functioning, brain health, and late-life dementia risk from a life course perspective.

PSY X32W. Vision and Action.

PSY X33C. Controversial Issues in Development.
An exploration of questions in developmental psychology that are currently in dispute. Subjects may include stem cell research, treatment of juveniles in the legal system, physician-assisted suicide, and methods of sex education.

PSY X33D. Introduction to Developmental Psychology.
Physical, social, and cognitive development in humans.

PSY X33E. Identity Formation.
An introduction to historical theories of and current research on identity, with particular focus on identity development in the domains of occupation, religion, politics and morality, gender, ethnicity, and adoption.

PSY X33F. Fantasy and Reality.
Examination of how children and adults decide what is real and what is not. Subjects include the fantasy-reality distinction, magical thinking, and religious cognition.

PSY X33G. The Development of Attachment Relationship.
Study of the attachment relationship.

PSY X33M. Infant Development.
Examine the development of motor, perceptual, cognitive, language and socio-emotional capacities during the infancy and toddler years (0-2years). Discuss theoretical foundations, empirical findings, and methodological advances related to these areas.

PSY X33N. Cognitive Development.
Overview of the development of thinking from infancy through childhood.

PSY X33P. Child Language.
Examination of theory and research concerning the development of language in the child.

PSY X33R. Social Development in Children.
Development of social behavior (for example, sex typing and aggression) and social relationships.

PSY X33S. Developmental Science of Adolescence.
An in-depth exploration of what it means to be an adolescent - how the brain, hormones and cognitive development change motivation and behavior, and how institutions (schools, governments, police) help or hinder young people's development.

PSY X33T. Adolescent Development.
Physical, cognitive, social, and personality development during adolescence.

PSY X33W. Moral Development.
An introduction to theory and research on morality. Subjects include culture and morality, Freudian and social learning perspectives on moral development, Kohlberg's theory of morality, challenge to Kohlberg's theory, and cognitive, familial, and emotional influence on morality.

PSY X34D. Psychology of Human Mating.
Mate selection, sources of conflict, and mating over the life span, studied in the context of evolutionary psychology and sexual selection theory.

PSY X34E. Evolutionary Psychology.
Fundamentals of evolutionary psychology, including issues of natural and sexual selection, adaptation, and domain-specific psychological mechanisms.

PSY X37. Psychology of Language.
Consideration of approaches to the study of language, its development in children, and its functioning; important research from psychology and linguistics.

PSY X37P. Language Processing.
Introduction to psycholinguistics, which uses methods and theories from cognitive psychology and cognitive science to understand how people speak, comprehend, and learn language(s).

PSY X38K. Psychology of Reading.
Theory and research on the reading process and its acquisition.

PSY X39. Behavior Problems of Children.
Adjustment difficulties during childhood and adolescence; causation and treatment.

PSY X40M. Industrial Psychology.
A general introduction to organizational behavior and issues in industrial/organizational psychology. Subjects include organizational structure, selection and placement, leadership, job satisfaction, training, and change.

PSY X41K. Selected Topics in Psychology.
Topics of contemporary interest that may vary from semester to semester.

PSY X41K.12. Personality Assessment.
Theoretical and methodological issues involved in trying to understand and measure personality.

PSY X41K.14. Robot Cognition.

PSY X41K.15. History of Modern Psychology.
A survey of the diverse roots of modern psychology, the competing schools that influenced psychology's development, and the perspectives that guide scholarship in present-day psychology.

PSY X41K.16. Psychology of Fundamentalism.
Psychological research and theory on religious fundamentalism. Considers the nature of different forms of religious fundamentalism, and possible psychological mechanisms that motivate fundamentalism. Includes topics such as the development of fundamentalism, the movement from fundamentalism to terrorism, and fundamentalism and the family.

PSY X41K.17. Psychology and Religion.
An exploration of the psychological processes involved in religion. Discusses seminal psychological theories of religion, such as the work of James, Freud, Jung, and Maslow. Discussion of empirical work includes topics such as the development of religion across the life span, religious experience, conversion, and the effects of religion on mental and physical health.

PSY X41K.18. Language and Thought.

PSY X41K.19. Psychology of Literature.
Delves into the relation between literature and psychological research. Addresses this relation in terms of character development, plot devices, and historical influences. Broadly explore why people are interested in reading literature that might be subjective or wholly fictional in nature. Explore the extent to which authors create characters that 'ring true' to what psychological science has learned about human nature and how this affects the reader's enjoyment of the literature.

PSY X41K.4. Health Psychology.

PSY X41K.7. Epidemiology.

PSY X41K.8. Learning and the Brain.

PSY X43K. Substance Abuse.
Causes of substance abuse: the evolutionary perspective, sex differences, predisposition, biological and cognitive theories; emphasis on food and alcohol.

PSY X44C. Growing up Latine.
Examine the multiple dimensions of Latine development across the lifespan. Discuss theoretical foundations, empirical findings, and methodological advances in the field.

PSY X45. Individual Differences.
Study of person-to-person variation in intelligence, personality, and interests, with an emphasis on genetic and environmental determinants, developmental processes, and their relation to real-world outcomes.

PSY X46K. Psychology of Sex.
Development of sex from genes to human behavior.

PSY X50. Motivation.
Theory and research on motivation; biological and social determinants.

PSY X52P. Psychopathology.
Explore biological and social factors in the development and treatment of psychopathology.

PSY X53K. Psychopharmacology.
The pharmacology and the neurochemical, neurophysiological, and psychological effects of psychoactive drugs, with regard to their use as therapeutic and behavioral research tools.

PSY X55. Cognition.
Theoretical and critical analysis of the development, nature, and function of the thought process.

PSY X55C. Development of Categories and Concepts.
Study of the historical and contemporary knowledge about the ways that people learn about concepts.

PSY X55D. Animal Cognition.
An introduction to animal intelligence and the evolution of mind. Examines what is known about intelligence in other animals, how intelligence is revealed in social and problem-solving behavior, and the ways in which human intelligence is structured by its evolutionary past.

PSY X55E. Psychology of Consciousness.
Introduction to the scientific study of consciousness from the perspective of psychology and neuroscience.

PSY X55M. The Cognitive Psychology of Music.
Cognitive foundations of music in terms of physics of sound, the psychophysics of musical experience, perceptual organization of musical scenes, the perception of time through rhythm, and the ways in which music reflects natural form.

PSY X55N. Cognitive Neuroscience.
Exploration of the link between the brain, mind, and behavior and cognitive neuroscience techniques.

PSY X55Q. Cognitive Science of Religion.
Explore cognitive and evolutionary approaches to understanding religion. Examine cutting-edge research on the cognitive science of religion from disciplines including anthropology, psychology, philosophy, and religious studies.

PSY X55R. Reasoning and Decision Making.
Survey of psychological research on how people reason and make decisions. Subjects include mental models, causality, analogy, heuristics, emotion, motivation, culture, and decision making.

PSY X55S. Social Cognition.
Examine major theories and research findings in social cognition.

PSY X57. Undergraduate Research.
Supervised research experience.

PSY X57R. Advanced Undergraduate Research.
Deepen supervised research experience in psychology. Implement advanced laboratory experience and skills within a leadership role in

collaboration with principal investigators and a team to assist with research projects.

PSY X58. Experimental Psychology.
Techniques of psychological research illustrated in a series of laboratory experiments.

PSY X58H. Honors Research Tutorial.

PSY X59. Selected Topics: Readings: Tutorial.
Supervised reading in selected topics of significance; area of intensive study is chosen by the student in consultation with the instructor.

PSY X59H. Honors Research I.

PSY X64. Introduction to Clinical Psychology.
Introduction to techniques of assessment and treatment of psychopathology.

PSY X64C. Childhood Trauma and Adversity.
Focus on how childhood trauma impacts behavioral, emotional, cognitive, and biological functioning across the lifespan.

PSY X64F. Forensic Psychology.
Examine the study and practice of psychology as it applies to issues relating to the law and legal system, such as: determination of competency and insanity, expert testimony, jury selection and the social psychology of the courtroom, eyewitness testimony, and false confessions.

PSY X64M. Mental Illness and the Brain.
Introduction to the brain dysfunction and cognitive impairment often associated with mental illness and how its recognition and assessment can be used to help with differential diagnosis, prognosis, and treatment planning.

PSY X64P. Positive Psychology and the Good Life.
Analyze how to live a more satisfying life based on modern psychological science. Survey the emerging field of positive psychology, including assessment and determinants of well-being; human strengths and virtues; the good life considered from evolutionary, economic, sociological, and cross-cultural perspectives; and applications to issues such as social change.

PSY X64S. Human Sexuality.
Human sexuality from a clinical and evolutionary perspective with a focus on the assessment, diagnoses, and treatment of sexual dysfunctions.

PSY X64T. Multicultural Psychotherapy.
Introduction to multicultural approaches to personality assessment and counseling psychotherapy.

PSY X65D. Behavioral Science, Equity, and Inclusion.
Apply the principles of experimental behavioral science to problems of creating an equitable and inclusive society in the twenty-first century.

PSY X65E. Emotion.
Examination of the scientific literature on the psychology of human and animal emotion.

PSY X65G. Gender and Racial Attitudes.
Advanced introduction to the psychological study of gender and racial attitudes in children and adults, with emphasis on the causes, consequences, and revision of an individual's gender and racial stereotypes.

PSY X65L. Advanced Social Psychology.
Experimental research in social psychology, social influence, decision making, affiliation, risk taking, stress, and other subjects.

PSY X71. Learning and Memory.
Analysis of theory and research in learning.

PSY X71E. Psychological Data Science Foundations I.
Introduction to foundational concepts and techniques in data science.

PSY X71F. Psychological Data Science Foundations II.
Explore foundational concepts and techniques in data science, including in-depth Python programming, advanced plotting techniques, curve/model fitting, computer simulations, and machine learning.

PSY X71M. Introduction to Machine Learning.
Introduction to the fundamental concepts and algorithms that enable computers to uncover the underlying patterns from different types of behavioral data.

PSY X71N. Natural Human Behavior in the Real World.
Design experiments that will be conducted in the real world, use mobile sensing technology to collect behavioral data, and discover behavioral patterns by analyzing fine-grained data. Conduct a behavioral study with the aim to provide research evidence to overcome the challenges that the real world poses.

PSY X71P. Applied Data Science.
Explore the fundamentals of data science. Discuss the current trends and subjects in data science.

PSY X71Q. Ethics in Behavioral Data Science.
Examine and discuss important ethical issues in the context of behavioral data science in real-world case-studies such as emotion recognition, surveillance, targeted marketing, and more.

PSY X71R. Brain Mechanisms and Learning Theory Applied to Real World Scenarios.

PSY X71S. Bayesian Data Analysis.
Introduction to Bayesian data analysis and inference.

PSY X71T. Text Analysis for Behavioral Data Science.
Introduction to various methods of text analysis, with a focus on extracting psychological insights. Discuss the underlying scientific basis that supports various use-cases.

PSY X73N. The Neurobiology of Attention.
Examination of behavioral and brain mechanisms of attention in humans and other animals.

PSY X79H. Honors Research II.

PSY X82K. Internship in Clinical Psychology.
Supervised practical experience in clinical assessment and treatment.

Graduate Courses

PSY X19S. Topics in Psychology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PSY X29S. Topics in Psychology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

PSY X80C. Human Neuropsychology.
Basic issues in normal and abnormal human brain function reviewed with emphasis on disorders of higher cerebral functioning.

PSY X80F. Fundamentals of Evolutionary Psychology.
Survey of important theories and research in evolutionary psychology, with emphasis on current problems.

PSY X80G. Grant Writing.
Examine grant writing for fellowships and research funds from a variety of different funding sources. Create and workshop drafts for applications for pre-doctoral fellowships (for example, NSF, NRSA), postdoctoral fellowships, dissertation grants, or general research funds. Generate discussion, contribute peer feedback, draft and revise grant components, and participate in a mock study section.

PSY X80W. Writing Workshop.
Explore tools to create and maintain a consistent writing practice and meet research goals. Track writing, discuss challenges and progress in a supportive community, and receive feedback on written work.

PSY X81C. Methods of fMRI: From Design to Data Analysis.
Methods behind all common fMRI data preprocessing steps and data analysis models, including how to properly implement and evaluate their performance.

PSY X81D. Advanced Topics in Neuroimaging.
Addresses the latest developments in the design, analysis, and interpretation of neuroimaging data.

PSY X81E. Introduction to Psychophysiology.
An overview of the principles, theory, and applications of using physiological measures to study mental processes. Covers the philosophical and theoretical foundations of brain/behavior relations and introduces basic electrical principles and human neurophysiology. A core course option.

PSY X81F. Grant Writing for the National Science Foundation.
Explore the application and review procedures when requesting funding from the National Science Foundation.

PSY X81G. Grant Writing in the Behavioral and Biological Sciences.
Introduction to grant writing in the behavioral and biological sciences and development of grant writing skills. Subjects include: finding grant opportunities, planning proposal activities, successful grant writing strategies, and how to talk to grant program officers. Write grant proposals (e.g., proposals to federal agencies such as NSF or NIH) and revise proposals based on peer and instructor feedback. Explore how grant proposals are reviewed by participating in a mock review session.

PSY X81H. Professional Development for Careers in Psychological Science.
Explore professional development issues that arise in academic and non-academic careers for psychological scientists.

PSY X82E. Area Seminar in Cognitive Science.
Current issues in cognitive science.

PSY X82F. R Programming in Behavioral Sciences.
Design reproducible behavioral data analysis using R and RStudio. Emphasis on coding skills to organize, analyze, and visualize data.

PSY X82H. Promoting Wellbeing and Thriving.
Examine empirically-supported strategies for promoting well-being and thriving through graduate study and beyond. Explore emotions, stress response, coping, gratitude, health behaviors, sleep, resilience, and mindfulness.

PSY X82K. Internship in Clinical Psychology.
Supervised practical experience in clinical assessment and treatment.

PSY X82V. Neural and Computational Basis of Vision.
Introduction to the physiology, psychophysics and computational aspects of the visual system. Review linear systems analysis, information theory, Bayesian statistical decision theory, and other relevant mathematical areas.

PSY X83C. Functional Neuroanatomy.
An examination of the anatomy of the brain and spinal cord, emphasizing connections and functions of neural systems.

PSY X83E. Area Seminar in Cognitive Neuroscience.
Current issues in cognitive neuroscience.

PSY X83M. Fundamentals of Physiological Psychology.
Survey of important theories and research in physiological psychology, with emphasis on current problems.

PSY X83P. Proseminar: Professional Development.
Explore the hidden curriculum of graduate training and future career prospects. Examine work/life balance, writing skills, grants, and issues to consider while in the job market.

PSY X83T. Principles of Sensory and Behavioral Neuroscience.
A proseminar covering the core material on essential topics in sensory and behavioral neuroscience.

PSY X84C. Bootstrap Statistics.
An introduction to modern methods of statistical analysis based on numerical computer simulation. Covers a range of common data analysis situations drawn mainly from the fields of neuroscience and experimental psychology. Techniques include point estimation, two-group and multiple group experiments, regression and curve fitting, and Bayesian analysis.

PSY X84E. Area Seminar in Clinical Psychology.

PSY X84K. Advanced Statistics: Experimental Design.
Consideration of problems of analysis and design commonly encountered in psychological research.

PSY X84M. Advanced Statistics: Inferential.
Covers t-test, chi-square, analysis of variance, and nonparametric tests.

PSY X84P. Regression Analysis.
Offers thorough coverage of all major aspects of regression. Coverage includes linear model theory and application, polynomial and interaction models, multivariate linear and logistic regression, and all related diagnostics.

PSY X84Q. Advanced Applied Statistics I.
Coverage of advanced statistical techniques useful in the social sciences and beyond. Specific areas of focus include non-linear regression, robust analysis, mixed-model regression (hierarchical linear models), and principal components/factor analysis.

PSY X84R. Data analysis with R.
Using R for a variety of data analyses following the topics covered in Psychology 384M including: reading data into R, generating graphs, ANOVA, ANCOVA, and regression.

PSY X84S. Advanced Applied Statistics II.
Coverage of advanced statistical techniques useful in the social sciences and beyond. Specific areas of focus include semi-parametric regression, categorical data modeling, resampling and permutation techniques, monte carlo simulation, time-to-event analysis, and structural equations modeling.

PSY X84T. Structural Equation Modeling.
Introduction to structural equation modeling.

PSY X85E. Area Seminar in Developmental Psychology.
Current issues in developmental psychology.

PSY X85J. Linear Models: Regression and ANOVA Methods.
Explores linear modeling from both conceptual and applied perspectives. Focuses on ANOVA, including multi-factor designs, post-hoc testing, and analysis of covariance, as well as on regression, including univariate and multivariate regression, polynomial and interaction models, logistic regression, and related diagnostics.

PSY X85N. Fundamentals of Personality Psychology.
Survey of important theories and research in personality psychology, with emphasis on current problems.

PSY X85P. Fundamentals of Social Psychology.
Survey of important theories and research in social psychology, with emphasis on current problems.

PSY X86D. Multivariate Pattern Analysis.
Explores cutting-edge techniques for finding meaningful patterns in large, noisy brain data sets, and how to use these techniques to address a variety of questions in cognitive neuroscience.

PSY X86E. Area Seminar in Individual Differences and Evolutionary Psychology.
Current issues in individual differences and evolutionary psychology.

PSY X86N. Fundamentals of Psycholinguistics.
Survey of important theories and research in psycholinguistics, with emphasis on current problems.

PSY X87C. Human Language Processing.
An overview of current psycholinguistic research, primarily in the production and comprehension of spoken language by adults. A core course option.

PSY X87E. Area Seminar in Perception, Brain, and Behavior Psychology.
Current issues in perception, brain, and behavior psychology.

PSY X87N. Perceptual Systems.
Overview of theory and research in visual perception and perceptual information processing.

PSY X87S. Principles of Cognitive Neuroscience.
Introduction of graduate students to the methods, theories, and research of cognitive neuroscience across a broad range of mental domains such as attention, memory, language, and decision making. A core course option.

PSY X88D. Individual Differences Psychology.
Person-to-person differences in cognitive abilities and personality, with emphases on genetic and environmental influences, developmental processes, and relations to real world outcomes. A core course option.

PSY X88E. Area Seminar in Social and Personality Psychology.
Current issues in social and personality psychology.

PSY X88K. Conference on Special Topics.
Readings, conferences, and other work on individually selected topics.

PSY X89E. Area Seminar in Cognition, Brain and Behavior.
Explore current issues in cognition, brain, and behavior.

PSY X89K. Theory and Techniques of Assessment I.
Introduction to intelligence and personality testing procedures, test interpretation, and ethical issues pertaining to clinical interviewing and testing. Includes instruction and feedback on clinical report writing.

PSY X89L. Theory and Techniques of Assessment II.
Clinical interviewing with adults and children. Observation and feedback for test administration and clinical skills.

PSY X90. Research.

PSY X91E. Area Seminar in Behavioral Neuroscience.
Explore current issues in behavioral neuroscience.

PSY X91N. Learning and Memory.
Presentation of contemporary approaches to the study of conditioning and learning at the behavioral level. Focuses on empirical data and theoretical analysis of acquisition and performance in Pavlovian and instrumental conditioning. Includes discussion of habituation, sensitization, stimulus control, and other paradigms for studying cognitive processes in nonverbal organisms.

PSY X91P. Issues and Controversies in Statistical and Scientific Inquiry.
Selected topics on the design and analysis of psychological research.

PSY X92N. Fundamentals of Comparative Psychology.
History and current status of comparative psychology, emphasizing several biological disciplines, including behavior genetics, ethology, evolutionary biology, and sociobiology.

PSY X93. Clinical Practicum I.
Supervised practical experience in the use of clinical techniques.

PSY X93K. Clinical Practicum II.
Continuation of supervised practical experience in the use of clinical techniques.

PSY X94I. Neuroinflammation in Health and Pathology.
Assess cutting-edge pre-clinical and clinical neuroimmune research, and interact with professors from across campus in special seminars.

PSY X94K. Fundamentals of Social and Personality Development.
Survey of important theories, issues, and research in social and personality development.

PSY X94N. Fundamentals of Cognitive Development.
Survey of important theories, issues, and research in the development of perception, language, and cognition.

PSY X94P. Topics in Seminars in Behavioral Neuroscience and Biopsychology.

PSY X94P.1. Current Topics in Behavioral Neuroscience.
Brain-behavior relationships, particularly recent research in behavioral neuroscience, including the anatomical and neurochemical mechanisms of behavioral events, and behavioral influences on the brain.

PSY X94P.13. Foundations of Human Neuroimaging.
A survey of the foundations for neuroimaging research with a focus on cognitive neuroscience. Describes the physical methods of image acquisition and physiological mechanisms used for functional imaging. Emphasis on magnetic resonance methods for structural and functional imaging. Surveys other imaging modalities, including positron emission tomography (PET), optical, and EEG/MEG electrical source localization.

PSY X94P.16. Quantifying Brain Structure.
Concepts and hands-on applications for quantifying aspects of brain and cellular structure, with a focus on stereological approaches.

PSY X94P.17. Behavioral Neuroendocrinology.
Current research in neuroendocrinology, including action of neuroendocrine systems on behavior, assays of substances in the blood to identify gene products, and examination of stress from neuroendocrine, behavioral, health, and immunity perspectives.

PSY X94P.2. Clinical Psychopharmacology.
Recent findings concerning the mechanisms of action and the behavioral effects of psychoactive drugs, particularly those used in psychiatry. Various drug types (such as sedative-hypnotics, hallucinogens, and drugs used to treat depression, schizophrenia, Parkinson's disease, and anxiety) and pathways in the brain are discussed to examine the neurochemical basis of psychiatric disorders and substance abuse.

PSY X94P.3. Neurobiology of Learning and Memory.
Neuroanatomical systems that are functionally related to basic forms of learning and memory in mammals.

PSY X94P.4. Animal Communication.

PSY X94P.7. Advanced Topics in Neuroanatomy.
Neuroanatomical systems and functions across species; advanced forms of neuroanatomy in mammals.

PSY X94Q. Topics in Seminars in Clinical Psychology.

PSY X94Q.17. Seminar in Positive Psychology.
A survey of the emerging field of positive psychology and well-being. Topics include character strengths and virtues, positive emotion, personality influences, motivation and goals, the happiness set point, and the issue of whether happiness can or should be changed.

PSY X94Q.18. Research Methods in Clinical Psychology.
Advanced training in research methodology as it pertains to the field of clinical psychology.

PSY X94Q.19. History and Professional Issues in Clinical Psychology.
History and development of clinical psychology as a profession. Includes clinical psychology before World War II, the recognition of stress, the rise of evidence-based practice, professional psychology, and multicultural diversity.

PSY X94Q.2. Empirically Supported Interventions with Adults.

PSY X94Q.20. Diversity Issues in Research and Practice.
Methodological considerations involved in designing research projects, and clinical assessment and treatment concerns that arise when working with diverse populations.

PSY X94Q.21. Neuropsychological Assessment.
Examine the administration and scoring of a wide variety of neuropsychological measures, as well as test interpretation, case conceptualization and report writing skills. Includes a variety of neurological syndromes and grand rounds case presentations.

PSY X94Q.4. Advanced Practicum in Clinical Psychology.
PSY X94Q.5. Advanced Practicum in Clinical Neuropsychology.
PSY X94Q.6. Empirically Supported Interventions with Children.
PSY X94S. Topics in Seminars in Developmental Psychology.
PSY X94S.2. Children's Racial/Gender Schemata.
PSY X94S.3. Literacy Acquisition.
PSY X94S.4. Psychological Processes in Family Violence.
PSY X94S.5. Language and Conceptual Development.
PSY X94S.6. Infant Perception and Cognition.
PSY X94S.7. Professional Issues in Academia.
PSY X94T. Topics in Seminars in Evolutionary Psychology.
PSY X94U. Topics in Seminars in Cognitive or Perception Psychology.
PSY X94U.12. Knowledge Representation.
Psychological approaches to the ways in which information is stored and processed, focusing on how particular assumptions and mental representation make tasks either easy or difficult to perform.
PSY X94U.13. Reasoning and Decision Making.
High-level cognitive processes of reasoning and decision making. Explores human rationality, analogical reasoning, causal reasoning, heuristics, and decision making in naturalistic settings.
PSY X94U.14. Topics in Systems Neuroscience.
Focuses on one or two topics and examines them in depth through group discussions of key scientific manuscripts. Discusses both classical studies and contemporary research.
PSY X94U.15. Cognitive Neuroscience.
Readings, results, and discussion regarding cutting-edge work in the field. Emphasis on how computational models can be used to bridge brain and behavior.
PSY X94U.16. Perception and Action.
Current topics in visually guided behavior, including eye movements, attention, and motor control, from behavioral, computational, and neurophysiological approaches.
PSY X94U.17. Models of Cognition.
Formal models of cognition and related analysis, such as model selection statistics and Bayesian hierarchical parameter fitting.
PSY X94U.18. Advanced Topics in Perceptual Systems.
Readings, talks, and discussions on perceptual systems.
PSY X94U.19. Statistical Methods in Computational Neuroscience.
Introduction to statistical and computational methods for understanding information processing in the nervous system, with emphasis on neural coding and statistical modeling of neural responses.
PSY X94U.20. Methods for fMRI.
Covers preprocessing and statistical analysis methods of fMRI data with tutorials and laboratory exercises.
PSY X94U.3. Introduction to Cognitive Science.
PSY X94U.4. Cognition.
PSY X94U.6. Memory.
PSY X94U.7. Speech Perception.
PSY X94U.8. Topics in Vision and Hearing.
Current research in human vision and/or hearing.
PSY X94U.9. Visual Perception.
PSY X94V. Topics in Seminars in Social and Personality Psychology.
PSY X94V.10. Close Relationships.
Social psychological theory and research on the topic of close relationships.
PSY X94V.11. Social Neuroscience.
Introduction to psychological and neural foundational concepts in social neuroscience. Surveys current work in the field to examine how it may or may not contribute to the study of social psychology.
PSY X94V.12. Self and Identity.
Broad overview of self-related theory and research, with an emphasis on recent developments in the field. Includes the nature and structure of the self and forms of self-knowledge. Also explores the relationship between the self and group processes, close relationships, and gender.
PSY X94V.13. Theory and Explanation in Social Psychology.
Examine different theoretical approaches in social psychology and the ability to critically evaluate the range and the limits of social psychological explanations from a meta-theoretical perspective. Address meta-theoretical principles in the construction and evaluation of social psychological theories, classic and contemporary approaches to understanding social psychological phenomena, and current directions in social psychological theorizing.
PSY X94V.6. The Self.
PSY X94V.7. Social Stereotypes.
PSY X94V.8. Psychosomatic Processes.
Survey of theories and findings concerning the links between psychological states and health. Includes emotion, stress, coping, psychoneuroimmunology, disclosure, and the social correlates of health and illness.
PSY X94V.9. Language and Personality.
An exploration into computer-based methods used to study the links between word use and basic social and personality processes.
PSY X94W. Foundations of Social Psychology.
Examine key theories and research in social psychology, from classic to current approaches.
PSY X95S. Fundamentals of Developmental Psychology.
Emphasizes understanding the major theoretical approaches to the field, with an introduction to empirical work inspired by these theoretical perspectives.
PSY X96. Advanced Behavior Pathology.
Evaluation of the experimental and theoretical literature concerning major behavioral disorders.
PSY X96C. Child and Adolescent Psychopathology.
The epidemiology, etiology, associated features, developmental course, and prognosis of childhood and adolescent behavior disorders.
PSY X96D. Clinical Psychopharmacology.
Recent findings concerning the mechanisms of action and the behavioral effects of psychoactive drugs, particularly those used in psychiatry.
PSY X98. Thesis.
PSY X98T. Supervised Teaching in Psychology.
Introduction to the teaching of psychology, including basic principles of adequate preparation, clear organization, student-teacher rapport, effective use of class time, clear and engaging communication of course content, fair and effective evaluation of students' understanding of subject matter, and ethical behavior. Also addresses issues concerning the relations of individual courses to other college courses, specific types of instruction (e.g., writing instruction), and the broad goals of colleges and universities.
PSY X99W. Dissertation.

Professional Courses

PSY X19S. Topics in Psychology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
PSY X29S. Topics in Psychology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in

residence. Transfer credit is awarded for work in an affiliated studies program.

PSY X82K. Internship in Clinical Psychology.
Supervised practical experience in clinical assessment and treatment.

R E - Real Estate

Real Estate: R E

Lower-Division Courses

R E X19S. Topics in Real Estate.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Finance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

R E X29S. Topics in Real Estate.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Finance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

R E X40S. Topics in Real Estate.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Finance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.

R E X58. Introduction to Real Estate and Urban Land Development.
An examination of the principles of real estate and urban land economics. Subjects include investment, valuation, financing, and public policy in real estate and mortgage markets.

R E X64. Real Estate Development.
Provides an interdisciplinary experience with the entire development process including finance, branding, architecture, planning, entitlements, engineering, among others; and an opportunity to work with a multi-disciplinary team on real-world commercial real estate projects. Includes various guest speakers from the development industry that represent different aspects and phases of the development process. Additionally, time is provided for project work sessions with teammates, faculty and professional mentors which will include progress reports, workshops and group presentations. Culminates in a presentation of each group's work, including branding, business plan and pro-forma along with site diagrams.

R E X66P. Real Estate Practicum.
Apply skills in real estate finance to focus on private equity opportunities conducted in a professional setting with private companies.

R E X67. Real Estate Investment Trust Investing.
Apply skills in real estate finance to study and invest in a publicly traded Real Estate Investment Trust (REIT) portfolio.

R E X72T. Topics in Real Estate.

R E X72T.13. Taxation of Real Estate Investments.
Identify accounting practices in the real estate industry.

R E X76G. Real Estate Investment.
Study of the setting and measurement of property values in real estate markets and an analysis of real estate assets as investments.

R E X78K. Real Estate Finance and Syndication.
An examination of debt and equity financing of residential and commercial properties; mortgage markets and instruments; lender and investor decisions in real estate financing.

Graduate Courses

R E X86. Topics in Seminar in Real Estate Analysis.

R E X86.1. Real Estate Markets.
Overview of real estate principles, markets, and valuation. Introduction to the major types of commercial property, methods of analyzing real estate markets and investments, urban economics, and real estate institutions.

R E X86.2. Real Estate Investment Decisions.
In-depth coverage of approaches used to analyze real estate investments, including debt and equity.

R E X86.3. Real Estate Analysis.

R E X86.7. Real Estate Decision Making.

R E X88. Seminar in Real Estate Finance.
Current aspects of real estate finance as they affect lenders, borrowers, and investors. Institutional changes affecting trends in real estate finance are presented within a decision-making framework. Special emphasis on real estate capital markets, public and private debt, and equity.

R E X89. Real Estate Practicum.
Project-based study with a focus on the application of real estate and finance principles to practical problems.

Professional Courses

R M - Risk Management

Risk Management: R M

Lower-Division Courses

R M X19S. Topics in Risk Management.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

R M X29S. Topics in Risk Management.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

R M X40S. Topics in Risk Management.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.

R M X57E. Introduction to Risk Management.
Principles of risk management for individuals and organizations, financial aspects of insurance companies and markets, industry structure, managerial aspects of underwriting and pricing, and public policy issues.

R M X69K. Managing Employee Risks and Benefits.
Risk management issues involving financial consequences of life and health contingencies, health care finance, company management, pension planning, economics of industry structure, and public policy issues.

R M X76. Quantitative Methods in Finance.
Explores quantitative methods and techniques in optimization and simulation, and their use in financial decision making. Discusses theory and application in portfolio selection, options and other derivative

pricing, index tracking, risk measures, volatility estimating. Specific topics will include linear, quadratic, nonlinear, and integer programming; dynamic programming; robust optimization; Monte Carlo methods and variance reduction techniques. Emphasis will be placed on problem solving with advanced computational programming languages.

R M X77. Property-Liability Risk Management and Planning.
Analysis of property-liability risks of businesses, risk management tools, risk financing, and insurance contracts for financial planning purposes; investment and underwriting operations, market structures, and insurance regulation.

R M X79. Independent Research in Risk Management.

Graduate Courses

R M X91. Topics in Decision Analysis.

R M X91.1. Decision Analysis.
Descriptive and normative principles of decision making.

R M X91.2. Managing Decisions under Risk.
State-of-the-art methods and tools to analyze risky decisions and design optimal strategies. Practical knowledge and practice are emphasized.

R M X91.3. Research Issues in Decision Making.
Talks by students and faculty members with research interests in decision making, and group discussion of the talks and of students' decision-related research.

R M X91.4. Behavioral Decision Theory.
The psychology of decision making: how and why our judgments are more fallible than we ordinarily suppose, and the extent to which predictive judgment can be improved through use of normative strategies that tell us how we should make judgments and decisions.

R M X92. Topics in Quantitative Finance.

R M X92.1. Modeling and Optimization in Finance.

R M X92.2. Statistics for Finance.

R M X92.3. Financial Engineering.

R M X92.4. Mathematical Finance.

R M X92.5. Computational Finance.

R M X94. Topics in Business Analytics.
Selected topics in business analytics.

R M X94.1. Optimization I.

R M X94.2. Optimization II.

R M X95. Topics in Seminar: Risk Management.

R M X95.1. Corporate Risk Management.
Analysis of risk management and security needs of businesses and individuals; related insurance coverages and other tools available to deal with risk.

R M X95.2. Financial and Economic Aspects of Risk Management.
Analysis of risk management techniques and insurance company operations. Similarities between insurance pricing techniques and risk management methodology.

R M X95.3. Risk Management and Finance.
Examination of theories underlying risk management techniques for business and insurance mechanisms; theoretical analysis of problems and practices in risk management.

R M X95.5. Managing Environmental Risk.

R M X95.6. Risk Analysis and Management.

R M X95.7. Managing International Risk.
The global aspects of risk management; basic risk and crisis management principles pertinent to multinational firms; financially, legally, and culturally multinational marketplaces such as reinsurance markets, captive offshore insurance.

R M X95.8. Managing Employee Risks and Benefits.
Corporate planning and public policy issues associated with employee benefits.

Professional Courses

R S - Religious Studies

Religious Studies: R S

Lower-Division Courses

R S X02. History of the Religions of Asia.
Eastern religions: an introduction to the basic forms and the historical development of the religious traditions of India, China, and Japan.

R S X04. Judaism, Christianity, and Islam: An Introduction.
Examines the intertwined historical developments of the religions of Judaism, Christianity, and Islam, and explores the principal beliefs and practices of Jews, Christians, and Muslims.

R S X04G. Jews, Pagans, and Christians.
Investigate, using a range of primary and secondary readings, how religious identity was imagined and expressed in the 4th-6th centuries CE. Examine the complex interactions of, in particular, Jews, Christians, and Pagans.

R S X05. Introduction to the Philosophy of Religion.
A critical examination of various conceptions of God and of the relationship of the human and the divine.

R S X06C. Comparative Religious Ethics.

R S X06D. The Roots of Religious Toleration.
Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle.

R S X06E. Ethics of Space Exploration.
Examine cultural and ethical questions related to the exploration of space and the emerging field of astrobiology.

R S X07. Introduction to Interreligious Dynamics.
Introduction to the diverse dynamics of interreligious encounters, from armed conflicts to interreligious dialogue.

R S X07F. Gods and Goddesses of India.
Explore a variety of gods and goddesses who have dominated the sacred landscapes of India and beyond, especially North America, from the past until now. Examine various issues relating to patriarchy, power, gender, sexuality, social hierarchy, and devotion.

R S X09C. Medieval Material Culture.
Explore the history of medieval Europe primarily through the lens of material culture.

R S X10. Introduction to the Study of Religion.
Introduction to scholarly methods in the study of religion.

R S X10R. Introduction to Middle East Religions.
Introduction to the religious landscape of the Middle East including the various expressions of Eastern Christianity, Islam, and Judaism as well as Zoroastrianism.

R S X10S. Introduction to Yoruba Religions.
Introduction to the cosmological world of the Yoruba of southwestern Nigeria, covering history, societal organization, myths, legends, customs, and cultural traditions.

R S X11. Topics in Religious Studies.

R S X11E. Religion and the Environment.
Explore the relationship between religions and the environment from multidisciplinary perspectives.

R S X11F. Ethical Food Systems.
Examine the environmental impact of industrial agriculture from the ethical perspectives of religious and secular traditions that promote sustainable and equitable food production.

R S X12C. Introduction to Buddhism.
A structural and historical overview of Buddhism through the examination of various schools, doctrines, biographical narratives, and contemporary ethical issues.

R S X12E. Yoga Past and Present.
Survey yogic practices in South Asian civilization and trace the development of yogic thought and embodied practices in Hindu,

Buddhist, and tantric traditions from early history to the modern-day's social and legal complexities and controversies.

R S X13C. Introduction to the Old Testament.
Introduction to the many interpretations of the Hebrew Bible (the Old Testament) and its meaning in the context of its historical and cultural setting in the ancient Near East.

R S X13D. Introduction to Jewish Studies.

R S X13E. Introduction to Jewish Latin America.
Historical and cultural analysis of how Jews constructed lives and communities in predominantly Hispanic, Catholic countries of Latin America.

R S X13M. Jewish Civilization: Beginnings to 1492.
Introduction to the history, culture, and religion of the Jewish people from around 1000 BC to the end of the medieval period. Subjects may include ancient Israel, late Second Temple sectarianism, the rise of Christianity, rabbinic Judaism, medieval Jewish philosophy, Jewish mysticism, and Hebrew poetry.

R S X13N. Jewish Civilization: 1492 to the Present.
Subjects may include trends toward secularization, the emancipation of European Jewry, the emergence of American Jewry, the Holocaust, the establishment of the State of Israel, and the Arab-Israeli conflict.

R S X14K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations.
A survey of the history and civilization of the Middle East from the sixth to the fourteenth century.

R S X15C. The Bible and Its Interpreters.
Seeks to develop a wide-ranging familiarity with the Jewish and Christian Bibles and with the dominant modes of ancient, medieval, and early modern biblical interpretation. Readings include an extensive range of primary sources, including both the Scriptures themselves and some of their most influential exegetes.

R S X15J. The Conversion of Pagan Europe.
Examine the familiar and unfamiliar fragments of what remains from pre-Christian European culture--the limited written records, the artifacts, and the folklore--as well as the more plentiful anti-pagan writings of early Christian missionaries. Test many of the popular claims about how Europe's pre-Christian inhabitants lived, what they believed, and how Christianization impacted their lives against the limits of what we can actually know, using the tools from the study of history, cultural studies, and religious studies.

R S X15K. Russian Icons and Propaganda.

R S X15M. Luther's World.

R S X15N. Introduction to the New Testament.
Examines representative examples of the texts found in the Christian New Testament and selected noncanonical writings. Focuses on historical setting and systematic methods of interpretation.

R S X15O. The Faust Legend: From the Magus to Today.
Examine a broad selection of the (re)tellings of the Faust legend, i.e., the "bargain with the Devil," to reveal how this particular narrative forms a pillar of the cultural heritage of the European Christendom.

R S X16C. History of Religion in the United States.
Explores instances of religious dominance and religious diversity in United States history. Moving from the pre-colonial period to the present, it examines the changing circumstances of several religious communities, including American Indians and Puritans, Protestant evangelicals, Mormons, Roman Catholics, Jews, Muslims, and Hindus.

R S X16E. American Jews: The Yiddish Experience.
Focuses on over a century of Yiddish-based contributions to American literature, music, and film, including works by Isaac Bashevis Singer, Michael Chabon, Woody Allen, and the Marx Brothers.

R S X16L. Introduction to Religions of Latin America.
Examine a survey of religious practice across Latin America and the Caribbean.

R S X16M. Early Mesoamerican Religions.
Introduction to the study of indigenous religions in Mesoamerica, a geographic and cultural area spanning north-central Mexico through western Honduras, from approximately 250 BC - AD 1700. Examine the role of religion and ritual in daily life, as well as the lines of evidence available today for understanding them.

R S X17N. Introduction to Modern North Africa.
Introduction to the major themes of North African history from the sixteenth century to the present.

R S X18. The Rise of Christianity.
Introduction to the origins and development of Christianity.

R S X19. Introduction to Islam.
The beliefs, theology, history, and main social and legal institutions of Islam, including the concept of God and society, the role of women, and Islamic government and movements.

R S X19S. Topics in Religious Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Religious Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

R S X29S. Topics in Religious Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Religious Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated program.

Upper-Division Courses

R S X19S. Topics in Religious Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Religious Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

R S X20. Introduction to Research Methods in the Study of Religion.
Introduction to research methods in the study of religion, including, historical, social scientific, cultural studies, and digital humanities approaches.

R S X20J. The Bhagavad Gita: Interpretation and Ethics.
Explore one of the most influential books in Indian and global contexts, the Bhagavad Gita, through interpretations, commentaries, and scholarly materials. Navigate ethical dilemmas in the Bhagavad Gita and real-life situations.

R S X21. History of Hindu Religious Traditions.
History of major doctrines, practices, and institutions that shaped the development of Hinduism; how religions adapt to social and cultural change and often provide the catalyst for change.

R S X22. History of Indian Buddhism.
The institutional, social, economic, and doctrinal history of Buddhism in India.

R S X25. Prophet of Islam: His Life and Times.
A detailed study of the prophet Muhammad's life and message, and of the means by which his life was recorded and popularized.

R S X25C. Russia's Soul: Spiritual Traditions.
Explore complex history of Orthodox Christianity, Judaism, Islam, and Buddhism in Russia. Examine important worship sites, including monasteries and pilgrimage destinations. Have discussions with Russian scholars of religion and practitioners of different faiths.

R S X25G. The Qur'an.
Explore the history, language, style, and themes of the Qur'an.
R S X26. History of Religion in America since 1800.
Introduction to the history of religion in the United States of America from the nineteenth century to the present. Focuses on how diverse peoples imagined and transformed the landscape, interacted with one another at different sites, and moved within and across national borders.
R S X29S. Topics in Religious Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Religious Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated program.
R S X30G. Food and Religion in Asia.
Use the lens of food to approach study of religious communities, values, and identity formation in Asia's past and present, covering South Asia, China, Japan, Taiwan, South Korea, and Southeast Asia. Explore questions involving what is eaten and what is not, taboo, hunger, anomaly, gender, food security, and recent ethical problems regarding bio-engineered foods (GMOs).
R S X35. Jesus in History and Tradition.
Critical issues, scholarly debates, and historical methods in studying the development of the Christian tradition regarding the figure of Jesus.
R S X35C. Political Ideologies and Manifestos.
Survey major political ideologies like socialism, capitalism, and fascism; as well as the more recent so-called "Fourth Political Theory of Russian ideologue Aleksandr Dugin, (variable) popular ideologies, and internet manifestos. Explore each ideology through original texts and utopian/dystopian representations in popular culture (e.g., literature, film, music, graphic art, architecture, design).
R S X35D. Queering Black Religions.
Explore the ways Africana religion practitioners disrupt and reframe dominant western discourses of gender and sexuality. Examine concepts of temporality, spirit manifestation, subjectivity, corporeality, and Africana religious epistemologies.
R S X37. Religion and Society.
The growth and decline of religious groups and traditions; "cults" and new religions; comparative sociology of religion; the United States religious landscape; religion and individual health and well-being; spirituality and other aspects of social life.
R S X40C. Shrines and Sanctuaries.
Survey Greek and Roman religious architecture and sacred space from the Bronze Age to the Hellenistic and Roman Empires.
R S X41C. Gandhi and Gandhism.
Explore Gandhi's life, work, philosophy, and influence, as well as his historical and cultural context.
R S X41E. The Taj Mahal and the Diversity of Indian Art.
Examination of the period when Islamic dynasties controlled much of the subcontinent and how a unique mix of forms and cultural practices shaped the development of monuments such as the Taj Mahal.
R S X41F. Jainism: Religion of Non-Violence.
Survey of the history, doctrines, institutions, and practices of Jainism from its origins to the present.
R S X41I. Formation of Indian Art.
Examine the artistic traditions of South Asia up to the fifth century C.E., with an emphasis on social and religious factors shaping its development.
R S X41K. Karma: Ethical Theories of India.
R S X41M. Gender, Sexuality, and the Family in Indian Religions and Cultures.
A comprehensive historical overview of gender issues as they are represented in the textual traditions of South Asia.
R S X41P. Indian Poetry and Religions.
Explores the intersections of religion and poetry in the history of Indian literature as expressed in multiple settings and variations including hymns, chants, bhajans, poetic narratives, and new poetic conventions that deal with caste and gender identities.
R S X41T. Buddhist Art.
Explores the development of Buddhist art in South Asia, the land of its origin as well as its spread elsewhere. Focus on the question of "what is" Buddhist art.
R S X41U. Devotional Literature of India.
Discuss the songs of major saints. Examine how holy men and women expressed their religiosity through the medium of songs and poetry over the centuries and consider the role these songs had in shaping the religious communities of India. All works will be studied in translation.
R S X41V. Indian Philosophies.
Investigate the theories and arguments of major Indian philosophers, considering both their historical positioning and contemporary relevance.
R S X42C. Major Islamic Texts.
Introduction to key religious, philosophical, and political ideas from part of the Islamicate world through sustained readings of core texts.
R S X42F. Buddhist Thought and Practice.
Explore important themes in Buddhist thought, various ways in which Buddhists practice their religion, and the relationships between religious concepts and practices.
R S X43D. Muslim Travelers and Traders.
Introduction to modern Middle Eastern and Islamic history in the broader context of globalization, with a primary focus on the nineteenth century to the present.
R S X44. The Age of Reformation.
Examines late medieval religion, the rise of Protestant movements, and the Catholic response in their cultural, political, and social contexts.
R S X45. Islamic Spain and North Africa to 1492.
An introduction to the impact of Islam on Spain and North Africa, with emphasis on social, economic, and cultural development.
R S X46C. Religion and Visual Culture in the United States.
Focuses on artifacts or "visual culture," and considers how religion mediates artifacts and how artifacts mediate religion.
R S X46D. Native American Religions.
Examination of religious developments in Native American communities from the precolonial period through the present day. Focus on the changing forms of ritual practice and the relationship between religion and community life.
R S X46E. Religion and Film.
Survey of representations of religious beliefs, practices, persons, and institutions in popular film. Examination of film as a vehicle to reflect how a shared religious imagination shaped the way Americans understand themselves.
R S X46F. United States Catholic History.
Examine how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latino/as.
R S X46G. Religion in the American West.
R S X46I. Unbelief in America.
Examine the history of unbelief and the role that it has played in US history.
R S X46J. Evangelical Christianity.
An introduction to the intellectual and social sources of evangelical Protestant traditions in the United States, their varieties of belief and practice, and their role in the wider Christian community and American society.
R S X46K. The Black Church in African American Politics.
Explore the political role of the Black church in the African American experience.

R S X46L. Representation of Jews in the American Public Sphere.
Examines how Jews have been represented and constituted in American public culture as a race, religion, and/or nation through distinct institutions and display practices.

R S X46M. Music and Religious Identities in the US.
Examine religious music in Christianity and Judaism in relation to communities in religious context of Europe and the United States.

R S X46N. American Jewish Material Culture.
Examines the interplay between material culture and Jewish identity and thought in contemporary America.

R S X46O. Religion and Food.
Examine the material relationships between religion and food, by comparing the ritual functions of food in religious traditions and the collective constructions of religious identities in traditional foodways.

R S X46P. Religion in American Political Thought.
Explore religion and politics in the United States through reading of mostly primary sources addressing religious arguments taking positions on historical and contemporary issues.

R S X46R. Religion and Social Justice in United States.

R S X46S. Debating the Bible in the Twenty-First Century.
Examine the ways in which individuals, primarily in the United States, have regarded the Bible as relevant or irrelevant to contemporary life. Discuss contemporary controversial issues in which the Bible has played a role and how these relate to earlier controversies, such as the position of the Bible on slavery.

R S X46U. The History of Islam in the United States.
A brief introduction to Islam. Defines the role of Islam and views of Muslims in the early history of the United States, and introduces students to major issues concerning contemporary American Muslims.

R S X46V. African American Religions.
Survey the history and variety of religion as practiced by Americans of African descent. Examine the social construction of African religion, black religion, and the black church, within the cultural context of the United States.

R S X52D. Japanese Religion and Western Imagination.
Examines Japanese religious traditions, with a focus on Zen, through the perspective of people living in non-Japanese societies since the end of World War II. Explores different ways in which non-Japanese have imagined Japanese religious and ethical ideas and both explained Japanese behavior and adopted ideas about Japan into their writings about philosophy and life.

R S X52E. Confucianism.
Explore the philosophical and historical context of Confucianism, from its origins in ancient China through the early empire and beyond.

R S X52F. Religion and Family in Japanese Society.
Explores the structures of family, kinship, and religion in Japan since 1868 and their roles in the creation and expression of national and individual identities.

R S X52G. Shamanism and the Primitive.

R S X52R. Ritual and Religion in Korea.
Examine major religious traditions of Korea; focus on the recent history and contemporary practice, and the relation between religion and politics during Korea's colonial (1910-1945) and postcolonial eras.

R S X52S. Japanese Concepts of Body and Self.
Exploration of anthropological literature describing Japanese conceptions of self and body, and analysis of the intersection of these conceptions of self with Japanese ideas about religion, morality, aging, and medicine.

R S X53C. Angels, Demons, and Magic in Early Christianity.
Examine angelology, demonology and magic influence on the lives of early Christians and Christianity.

R S X53D. The Dead Sea Scrolls.

R S X53E. Beyond the New Testament.
Study of early Christian writings that were not included in the Christian Bible. Examines issues such as the effect of narrative, religion and violence, gendered expectations for women and men, the uses of fantasy literature, and religious authority. Emphasis on systematic methods for disciplined interpretation.

R S X53F. Interpretation of Jesus' Death and Resurrection.
Examine the narratives of Jesus' death and resurrection and their subsequent interpretation over the last two thousand years. Analyze historical Christian and Islamic texts, contemporary debates and cultural context.

R S X53G. Abraham and Abrahamic Religions.
Examines the figure of Abraham as portrayed in the Bible and the reception of that portrayal in Judaism, Christianity, and Islam.

R S X53I. Ancient Mediterranean Religion and Astrology.
Explore the role of astrology in ancient Mediterranean religious life.

R S X53J. Revelation and Apocalyptic Literature.
Examine the Book of Revelation in the context of early Christian and Jewish literature. Study other apocalyptic texts, methods of textual analysis, and the ongoing effects of Revelation in modern American culture.

R S X53K. Law and Justice in the Bible.
Examine the legal traditions of the Torah (Pentateuch) and what they reveal about the practice of law and justice in ancient Israel and the wider biblical world.

R S X53L. The Sacred and the Secular in Contemporary Jewish Literature.

R S X53M. Debating Genesis.

R S X53N. Biblical Prophecy.
An introduction to the diversity of prophetic literature in the Old Testament, its historical development, social context, and Near Eastern parallels.

R S X53P. Paul and His Social World.
Examine the life and letters of the first-century Jewish missionary Paul by interpreting his writings within the context of diaspora Judaism and the broader Greco-Roman world. Explore his legacy within the context of early church history.

R S X53R. The Five Books of Moses.
Study the socio-historical circumstances that gave shape to the first five books of the Bible: Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. Examine how these five books achieved the status of sacred literature.

R S X53U. Slavery and the New Testament.
Examine slavery in the New Testament.

R S X53V. Archaeology of Jesus's World.
Explore archaeological methods in examining texts and artifacts from first century CE.

R S X54D. The Bible and History.
The critical uses of biblical and extrabiblical data in the reconstruction of the history of the biblical period.

R S X54J. History of Jewish Thought.
Examine major thinkers and movements in both Jewish philosophy and Jewish mysticism since the Middle Ages, with a focus on the importance of modern Jewish thought in the twentieth and twenty-first centuries.

R S X55. The Bible as Literature.
In-depth literary study of the Bible, with emphasis on the formal features of narrative, hymn, prophecy, apocalypse, gospel, and epistle.

R S X55K. The Bible in British and American Literature.
The reading of biblical masterpieces as literature; consideration of different versions of the Bible and their influence on British and American literature.

R S X56C. Italian Renaissance, 1350-1550.
Survey of political, socioeconomic, religious, and intellectual trends during the Italian Renaissance.

R S X56D. Satan and the Idea of Evil.
Explore the history and breadth of Satan's role as a character (or background presence) in literature while developing close-reading techniques for literary analysis that can be applied across diverse eras, forms, and genres.

R S X56F. Twelfth-Century Renaissance: 1050-1200.
An examination of social, cultural, and intellectual developments in eleventh- and twelfth-century Europe.

R S X56J. Northern Renaissance: Religion, Magic, and Humanism.
Explore Northern Europe's transition from medieval to Early Modern in and through the northern Renaissance. Examine humanist culture and its many tensions with the Church, technological breakthroughs and their social and economic consequences, the connections between the discovery of new lands and the recovery of ancient learning, and the formation of the early modern state.

R S X56M. Christian Quest for Meaning.
Study classic Christian texts throughout history.

R S X56P. People of the Midnight Sun - Sami Culture and Civilization.
Examine the indigenous people of Scandinavia, the Sami, including their history, culture, and self-expression. Explore issues of indigeneity, decolonization, and religious repression.

R S X56R. Ritual and Belief in Ancient Greece.
Investigate the practices, premises, and cultural contexts of ancient Greek religion through direct study of ancient sources informed by modern critical approaches.

R S X57C. Machiavelli: Politics and Culture.
Through Niccolo Machiavelli's chief writings, consider the local, regional, Mediterranean, European, and global aspects of his work.

R S X57D. Heresy and the Inquisition.

R S X57E. Jews of Eastern Europe.
Explores the history and culture of Jews in Eastern Europe.

R S X57F. Heretics and Freedom Fighters, 1350-1650.
Explores the theologies, politics, and personal identities that emerged and passed away in this era.

R S X57G. Geography of Religion in Eastern Europe and Russia.
A comprehensive overview of major religious culture regions in the former Eastern bloc countries.

R S X57I. Byzantine Art.
Examination of the medieval art and architecture of the eastern Roman empire, including related traditions (Coptic, Armenian, Georgian, Crusader, Norman).

R S X57J. Northern Renaissance Art, 1350-1500.
Northern European art from the International Style to van Eyck and Hieronymus Bosch.

R S X57K. Northern Renaissance Art, 1500-1600.
Art and cultural development in the sixteenth century; artists include Duerer, Gruenewald, Holbein, and Brueghel.

R S X57L. The Spanish Inquisition.

R S X57M. Spinoza and Modernity.
Introduction to the core of Spinoza's writings and the diverse reactions they have elicited. Examines Spinoza's refusal of mind-body dualism, as well as a transcendent god or ideal as a way of understanding Spinoza's concepts and ideas.

R S X57N. Northern Gods, Northern Faiths: The Conversion of Scandinavians, Finns, Northern Slavs and Shamans.
An introduction to the basic source texts for several pre-Christian belief systems evolving in geographic proximity and their influence on one another including pre-Christian Slavic; pre-Christian Scandinavian; pre-Christian Sami and Finnish; and ancient and modern Siberian shamanism.

R S X57O. The Church and the Jews.
Examination of the complex relationship between the Western Church and Jews over two millenia.

R S X57P. Jewish Folklore.

R S X57Q. Gothic Cathedral: Amiens.
An examination of the cathedral at Amiens, its meaning, structure, political and financial contexts, and sculptural programs, as well as its influence on other buildings in France and Germany.

R S X57R. The Age of Rembrandt and Rubens: Northern Baroque Art.
Northern European art in the seventeenth century, stressing the Netherlands and Flanders.

R S X57S. The Sacred and the Secular in Modern European Thought.
Introduces key themes and methodologies of intellectual history and social theory by exploring the dueling approaches to secularization and sacralization in modern European thought.

R S X57T. Introduction to Germanic Religion and Myth.
Survey of the sources and main features of Germanic religion and of the transition from paganism to Christianity in northern Europe and the Germanic territories of western Europe. Subjects include cosmogonic myths; the origin of man and of society; the concept of the soul; gods and goddesses and their mythology; and the organization of worship.

R S X57U. Medieval Women Mystics.
The life and writings of Saint Birgitta of Sweden, fourteenth-century visionary, religious reformer, and pilgrim, examined and compared with her predecessor Hildegard of Bingen (Germany), her successor Margery Kempe (England), as well as Margery's mentor, Julian of Norwich. Social and historical contexts for all four of these women mystics will be explored in depth.

R S X57V. Holocaust Aftereffects.
Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States.

R S X57W. Russian Orthodox Religion and Culture.
Examine the role and force of the Orthodox Church in Russian history, from the Christianization of the pagan Slavs in the 10th century, through the Russian Revolution into the Soviet era, and up to the present, while considering the prescriptive tenets of the Orthodox faith (religion) alongside descriptive experiences of life within and under Russian Orthodoxy (religiosity).

R S X58C. Islam and Politics.
An introduction to Islamic political thought.

R S X58D. Muslim Women in Politics.

R S X58F. French Empire: The West and Islam.
The development of regions within the Mediterranean, variously called the West and East or Europe and Islam, with an emphasis on the role of modern France and France's Mediterranean empire.

R S X58G. Gender Politics in the Islamic World.
Study of the Islamic world and major sociological concepts such as gender, social organizations, culture, and politics. Examines how culture is mediated by politics, resulting in diverse interpretations of Islam and in different policies with respect to women's rights.

R S X58I. Sufism: Islamic Thought and Spirituality.
Explore Sufism and other Islamic mystical traditions that color cultural milieus spanning four continents and fourteen centuries. Focus on the historical developments in the Islamic theosophical tradition, as well as the relationship between Sufism and poetics, colonialism, and post-colonial resistance movements.

R S X58J. Sex and Sexuality in the Muslim World.

R S X58K. Islamic Law.
Designed to give students a foundation in the substantive teachings of the shariah, which comprises not only what we normally think of as law, but also ethics and etiquette.

R S X58L. Rule of Law in the Middle East.

R S X58O. Origins of Monotheism.

R S X58P. History of the Pilgrimage to Mecca, Hajj.

Survey of the Hajj, Islam's major pilgrimage to Mecca and the nearby Holy Places. It will examine the Islamic pilgrimage from its beginnings in the seventh century C.E. through today.

R S X58Q. Supervised Research.

R S X58R. Islamic Ethics.

R S X58S. Saints and Shrines in Islam.

R S X58U. Islamic Theology.

R S X58V. Veiling in the Muslim World.

R S X58W. Gender and Art in the Muslim World.

R S X59C. Graffiti and Poster Art in the Islamic World.

R S X59D. Islam in the Early Modern World: Religion and Culture.

Examine a history of the religious and cultural development across the Islamic world between the thirteenth and eighteenth centuries, stemming from the rise of the Mongols and the end of the caliphate. Explore the early modern Muslim empires of the Ottomans, Safavids, and the Mughals.

R S X59E. Shia Islam.

Examine how the first century of Islamic history inaugurated debates concerning authority, piety, and justice and how these debates have continued to the present. Explore the social forces and ideologies that shaped Shiism.

R S X59J. Multiculturalism in Jordan.

Explore how past, present, local, and regional events inform current Jordanian culture and identity.

R S X59K. The Shock of Modernity in the Middle East.

Explore cross cultural contacts between the East and the West during the modern period. Analyze Islamic civilization in the Middle East of the modern era by addressing the development of religion, law, government, and morality during and after the colonial period.

R S X59L. Myths and Legends of the Ancient Near East.

Explore myths and legends contained in a variety of ancient sources, including texts from Israel, Greece, Egypt, and Mesopotamia.

R S X59M. Arts of Islam, 650-1500.

Early Islamic art and architecture, with an emphasis on interconnections between the Islamic world and Europe. Examines unique ways Islamic visual culture developed out of the classical and late antique world. Artworks will be contextualized within early Islamic history, religion, and culture.

R S X59N. Arts of Islam 1500-Present.

Later Islamic art and architecture, beginning with the world empires of the Ottomans, Safavids, and Mughals, and extending into the modern and contemporary periods. Subjects include the social and historical context of Islamic art in these periods and its unique visual culture.

R S X59O. Minorities in the Middle East.

Explore the diversity of ethnic and religious minorities found in the Middle East through their history, languages, beliefs, and cultures.

R S X59P. Religions in the Ottoman Empire.

Examine Jewish, Christian, and Muslim communities in the Ottoman Empire (fourteenth to twentieth centuries), with a focus on dynamics both within and between the communities.

R S X59Q. Art and Architecture of Late Antiquity.

Examination of early Christian and late Roman art and architecture, including related traditions, such as Jewish, Coptic, Armenian, Georgian, Persian,and Syriac.

R S X59R. Material Cultures of Coexistence.

Dicuss Muslims living in regions where non-Islamic socio-political systems and infrastructures predominate, exploring the material cultures produced in places where Islam did not originate as, or is not, the dominant authority.

R S X60C. African Religious Culture and Creativity.

Examine religion as an aesthetic practice and explore the inventiveness of the imagination that underlines African religious practices. Study religious practices spanning from the pre-colonial and post-colonial eras to the contemporary period particularly in urban centers.

R S X61. Topics in Religious Studies.

R S X62. Independent Research in Religious Studies.

Faculty-directed research.

R S X65D. Hermits, Monks, and Saints in Early Christianity.

Examine individual and communal forms of Christian monasticism from the first through fifth centuries CE. Explore the social, economic and religious factors that may have made a life of self-denial attractive to many early Christians and the role of authority in these movements.

R S X65G. Death and the Afterlife in Graeco-Roman Antiquity.

Explore the afterlife from Near Eastern myths and Homer through Greek and Roman antiquity to the early Church Fathers.

R S X65J. The Book of Job.

R S X65K. Contemporary Jerusalem.

Explore what life is like in today's contested, rapidly growing, and increasingly diverse Jerusalem.

R S X66C. The Bible in the Colonial Americas.

Varied perspectives on the central role played by the Old Testament in the construction of colonial cultures in the Americas.

R S X66D. Religions of the Caribbean.

Examine the histories and politics of religious practices in the Greater Caribbean, encompassing the islands and Central American coasts as well as the continental diasporas, from Vodou and Rastafari to popular Hinduism.

R S X66E. Jewish Cuba.

R S X66M. Colonial Encounters in Mesoamerica.

Study European-indigenous encounters in Mesoamerica, a geographic and cultural area spanning north-central Mexico through western Honduras, between approximately 1450-1750. Examine strategies of contact, accommodation, and resistance that indigenous communities and European colonizers used to communicate with each other and negotiate the conduct of daily life in colonial society.

R S X66N. African Religion in the New World.

Explore the contributions of scholars and artists who engage African diaspora religions in their work through multiple conceptual approaches.

R S X68C. When Christ was King.

The history of Catholicism in twentieth-century Mexico, often seen as Latin America's most "Catholic" nation.

R S X68D. Church and State in Latin America.

History of Church-state relations and religious politics in modern Latin America, with emphasis on the nineteenth to early twentieth-century periods.

R S X68F. Religion, Conquest, and Conversion in Colonial Latin America.

Focuses on the histories of the Catholic Church and religious devotion in colonial Latin America between 1521 and 1821.

R S X73C. Religious Ethics and Human Rights.

Examine the grounds for human rights, and the relations between rights and religions.

R S X73D. The History of Christmas.

A historical and cross-cultural examination of the evolution of the modern Christmas holiday, beginning with the birth stories of Jesus in the New Testament and concluding with the supposed "War on Christmas" in the 21st Century America.

R S X73E. Anthropology Of Religion.

Examine a genealogy of the anthropology of religion around the globe from the nineteenth century to the present.

R S X73G. Goddesses in World Religions and Cultures.
Historical and cross-cultural overview of the relationship between feminine and religious cultural expressions through comparative examinations and analyses of various goddess figures in world religions.

R S X73I. Race, Gender, Sex, and Religion.
Use an intersectional feminist framework to examine the construction and maintenance of normative categories of race, gender, sex, and sexuality within United States religious discourse.

R S X73J. Creation and Evolution: Human Origins in Scientific and Religious Discourses.
Examines evolutionary theory, intelligent design, and creationism, and how they interact.

R S X73K. Extraterrestrial Intelligence: Culture, Religion, and Imagination.
Focusing primarily on the 20th and 21st Centuries, explores the search for extraterrestrial intelligence (SETI) and considers how these ideas have intersected with other aspects of society, particularly religion, including recent arguments that SETI itself has developed into a religion. Examines meanings and motivations behind issues such as Percival Lowell's quest to prove the existence of canals on Mars and the development of Scientology.

R S X73L. Science, Magic, and Religion.
Historical and cross-cultural overview of the constructed concepts of magic, science, and religion through comparative examinations of cultural contexts from the Islamic world, western Europe, the Caribbean, the U.S., and Mozambique.

R S X73M. Biomedicine, Ethics, and Culture.
Examines ethical questions such as the allocation of medical resources, stem cell research and cloning, organ transplantation, abortion, human experimentation, prolonging life and the right to die, suicide, euthanasia, and diagnosis and treatment of illnesses, explored from a global perspective.

R S X73N. Religions in Contact.
Critically examine the theories (religious othering, conversion, reinterpretation, appropriation, etc.) of how one religion responds to contact with another. Explore the ways in which religious actors grapple with religious plurality, draw or ignore boundaries, and form religious identities.

R S X73S. Sport, Religion, and Society.
Explore sport as it relates to ritual and religious practice and examine the meaning and nature of sport in cross-cultural perspectives.

R S X73T. Talk, Text, and God.
Introduction to the anthropological study of Christianity, particularly in colonial and post-colonial settings.

R S X75S. Topics in Advanced Seminars in Religious Studies.
Discussion and research-based study of topics in religious studies. Includes theoretical approaches to the study of religion.

R S X75S.1. What is Religion?.
Examines classic theories about religion from the last 150 years of academic study: psychological, sociological, economic, phenomenological, and anthropological.

R S X75S.11. Space, Time, and Religion.
Examine religions through the concepts of space and time.

R S X75S.12. Death and the Afterlife in Ancient China.
Investigate ancient Chinese beliefs and practices surrounding death and the afterlife from the Neolithic era to the arrival of Buddhism. Explore tombs, burial objects, and funeral rites; philosophical essays and historical accounts; medical practices; religious relics, tokens, and talismans; ghost stories; poetry; and paintings.

R S X75S.2. Comparing Religions.
A discussion of major comparative approaches in the study of religion.

R S X75S.4. Radical Religion: Ascetics and Holy Persons.
Explores asceticism and the concepts, practices, and goals associated with this radical way of life through case studies from various religions. Subjects include theories of the body and of culture, as well as issues of social status, gender, devotion, and violence.

R S X75S.5. Religion, the Supernatural, and the Paranormal.
Examination of extraordinary events, such as miracles, exorcisms, ghosts, psychic abilities, UFOs, and other related phenomena. Discussion of the similarities and dissimilarities between religious and non-religious contexts for such happenings, as well as possible explanations for them.

R S X75S.6. Religion in the American South.
Examines the social construction and cultural meaning of southern religion using fictional characterizations, philosophical reflections, historical accounts, and theoretical comparisons.

R S X75S.7. Religions Of No Religion.
Examine religious practices that are not religion and critical analysis of the category of religion and its contested borders.

R S X75S.8. The Crusades.
An exploration of the religious encounters between eastern and western Christians, Christian heretics, Jews, Muslims, and polytheists; political, military, and cultural changes of the high middle ages; and the ways that crusading ideas and symbols have been reused in contemporary politics and popular culture.

R S X75S.9. Religion in the Workplace.
Examine the role of religion in the formation of the workplace in the United States. Survey a range of case studies in order to explore how religion has shaped how Americans understand the relationship between human labor and moral community.

R S X79H. Honors Tutorial Course.
Supervised individual reading for one semester, followed by research and writing to produce a substantial paper on a specific topic in religious studies, to be completed during the second semester.

Graduate Courses

R S X19S. Topics in Religious Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Religious Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

R S X29S. Topics in Religious Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Religious Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated program.

R S X80. Topics in Proseminar.
An introduction to the research methodology and ancillary disciplines used in current religious studies.

R S X80R. Topics in Readings in Religious Studies.

R S X81. Conference Course in Religious Studies.

R S X83C. Topics in Comparative Religion.
Advanced treatment of selected problems, topics, or themes concerning comparative approaches to the study of religion.

R S X83C.1. Violence, Sovereignty, and Religion.
Explore the relationships among violence, sovereignty, and religion.

R S X83E. Ethnographic Methods for the Study of Religion.
Explore the use of ethnographic research methods for the study of religion.

R S X83M. Theory and Method in the Study of Religion.
Introduction to the history of the discipline, discussion of classical interpretative works, and examination of current theoretical and methodological developments in the field.

R S X83T. Topics in Theoretical Approaches to the Study of Religion.
Advanced treatment of selected problems, topics, or themes concerning theoretical approaches to the study of religion.

R S X83T.3. Reading Arabic Literature.
Examine the canons of Arabic literature through readings in translation.

R S X84D. Doctoral Seminar in Religious Studies.
Advanced seminar designed to introduce students to the profession of religious studies. Includes development and preparation of a dissertation proposal, placing scholarship within a broader theoretical context,and pedagogical issues in teaching religious studies at the undergraduate college level.

R S X85K. Early Jewish and Christian Literature I.
A survey of major categories of early Jewish and Christian literature by genre in light of comparative historical research.

R S X85L. Early Jewish and Christian Literature II.
A survey of major categories of early Jewish and Christian literature by genre in light of comparative historical research.

R S X86C. Topics in Critical Issues in Christian Origins.
Studies of key scholarly works in and critical approaches to the study of Christian origins in their historical, social, and cultural contexts.

R S X86H. Topics in Critical Issues in the Hebrew Bible.
Advanced studies of critical issues in research on key areas of study in the Hebrew Bible and its environment.

R S X86M. Topics in Critical Issues in Ancient Mediterranean Religions.
Studies of key scholarly works in and critical approaches to the study of ancient Mediterranean religions in their historical, cultural, and archaeological contexts.

R S X86M.1. Religion and Economics in Ancient Mediterranean.
Study the intersections of religion and economics in the ancient Mediterranean through the advanced treatment of primary sources and scholarly approaches.

R S X86M.3. Critical Problems in Second Temple Judaism.
Examine the literature and material culture of Second Temple Judaism (circa 520 BCE to circa 135 CE) in dialogue with recent scholarship on Jews and Judaism in Persian, Hellenistic, and early Roman contexts.

R S X86M.4. Critical Problems in Judaism in Late Antiquity.
Examine the literature and history of Judaism from the destruction of the Second Jewish Temple in 70 CE to the early Middle Ages, with a primary focus on classical Rabbinic Judaism as well as mystical and other writings beyond the canon.

R S X86M.5. Critical Problems in New Testament.
Study foundational and emergent scholarly works and critical approaches in the study of Christian origins and the books of the New Testament in their ancient Jewish and Greco-Roman contexts.

R S X87M. Topics in Seminars in Ancient Mediterranean Religions.
Advanced treatment of selected problems, topics, or themes in the study of the religions of the ancient Mediterranean world.

R S X87M.2. Seeing Gods.
Examine textual and theoretical accounts of the religious phenomenon of epiphany across various belief systems.

R S X87M.3. Art, Gender, and Religion in Late Antiquity.
Examine the gendered experience of religion in Late Antiquity using the evidence of artistic record, with a primary focus on the Mediterranean world.

R S X89R. Topics in Research Seminars on Religion in Europe and the Middle East.

R S X90R. Research and Grant Proposal Writing for Social Sciences and Humanities.
Draft and revise proposals for dissertation research or write-up grants with peer review, learn about research design, methods, data collection, and analysis, as well as strategies for presenting one's project within the genre of grant proposal within the scope of social science and humanities research areas.

R S X90T. Topics in European and Middle Eastern Religion.
Advanced treatment of selected problems, topics, or themes concerning religion in Europe and the Middle East.

R S X90T.1. Islamic Studies: Discipline Intro.

R S X90T.2. Sovereignty in Islam: Theory Practice.
A historical and comparative survey of the concepts and rituals of sovereignty in Muslim societies across the Middle East, Central Asia, and South Asia, with an emphasis on the pre-modern era.

R S X90T.4. The Arabic Humanities.
Explore the traditions formed in pre-modern Islamic humanities.

R S X90T.5. Gender, Islam and Representation in the Modern Middle East.
Examine representations of women across majority Muslim countries and explore how women producers and consumers navigate within the framework of regulations set by religious and governmental bodies.

R S X90T.6. The Qur'an and Its Interpretations.

R S X90T.7. Law and Religion in the Modern Middle East.
Examine the laws that govern religion and religious expression in Middle Eastern national constitutions, with a special focus on both the free exercise and establishment clause of Islam as the religion of the state.

R S X91L. Approaches to the Study of Religion in Latin America.
An introduction to the history of scholarship about religion in Latin America and the Caribbean.

R S X91N. Approaches to the Study of Religion in the United States.
An introduction to the history of scholarship about religion in the United States, including recent research on the Atlantic world, the Pacific world, and the Western Hemisphere.

R S X92T. Topics in Religion in the Americas.
Advanced treatment of selected problems, topics, or themes concerning religion in the Americas.

R S X93F. Topics in the Foundations of Asian Religions.
Introduction to and analysis of primary sources for the study of religion in Asia.

R S X94T. Topics in Religion in Asia.
Advanced treatment of selected problems, topics, or themes concerning religion in Asia.

R S X94T.1. The Body in Indian Medicine and Myth.
Examines issues of embodiment in South Asia in various life stages, including conception, infancy, childhood, adulthood, and death drawn from various historical periods, medical traditions, religious narratives, and sociological and anthropological studies.

R S X94T.2. Intellectual History of Indo-Iranian Islam.

R S X96E. Examination Preparation.
Designed for religious studies doctoral students preparing for qualifying examinations.

R S X96P. Dissertation Prospectus.
Designed for Religious Studies doctoral students preparing a dissertation proposal.

R S X98. Thesis.

R S X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

R S X98T. Supervised Teaching in Religious Studies.
Weekly group meetings with the supervising instructor, individual consultations, and reports.

R S X99W. Dissertation.

Professional Courses

R S X19S. Topics in Religious Studies.
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in the Department of Religious Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

R S X29S. Topics in Religious Studies.

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RBT - Robotics

Robotics: RBT

Lower-Division Courses

RBT X10. Topics in Robotics.

RBT X19S. Topics in Robotics.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Natural Sciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

RBT X20. Topics in Robotics.

RBT X29S. Topics in Robotics.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Natural Sciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RBT X50. Gateway to Robotics.

Explore math, hardware, and programming needed for advanced robotics. Discuss hardware; programming; modeling and control; sensing, perception, and control; and AI and machine learning.

Graduate Courses

Professional Courses

REE - Russian, East European, and Eurasian Studies

Russian, East European, and Eurasian Studies: REE

Lower-Division Courses

REE X01. Introduction to Russian, East European, and Eurasian Studies.

An introduction to the former Soviet Union and Eastern Europe through each of the major disciplines represented in the program: language, literature, anthropology, geography, history, government, sociology, and economics.

REE X01L. Introduction to Russian Literature.

Introduction to Russian literature of the modern period, from the late eighteenth century to the present. Explores a variety of genres, from fairy tales to the works of Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov, Bulgakov, and Pelevin. All reading and instruction is in English.

REE X01M. Introduction to Eastern European Literature.

Introduction to major works by 20th-century Eastern and Central European writers. Explore the history and cultures of the region, including imperial legacies, World Wars, totalitarianism(s), fall of communism, and borderlands.

REE X02. Topics in Russian, East European, and Eurasian Studies.

REE X02.1. The Vampire in Slavic Cultures.

Examines the vampire in the cultures of Russia and Eastern Europe, including manifestations in literature, religion, art, film, and common practices from its origins to present.

REE X02.2. Prague, Magic, and the Struggle for Power.

Examines historical texts from four different magical traditions to find the truth behind the fiction and the historical events that sometimes permitted and sometimes persecuted the religions, philosophies, and sciences that some call magic.

REE X02.3. Introduction To Czech History and Culture: Puppets, Pubs, And Polyglots.

Survey of Czech history and culture from the middle ages to the present day. Subjects include the culture of daily life, literature, history, philosophy, and the arts.

REE X02C. Cuisine and Culture of Central and Eastern Europe.

An in-depth survey of the culinary traditions, history, and practices of Central and Eastern Europe.

REE X02D. Russian Icons and Propaganda.

REE X02E. War in Comics and Photography: Southeast Europe.

Examine different ways to show and tell stories of armed conflict and state-sponsored violence, drawing on a variety of modern media forms - such as comics, cinema, novels, and photography - as well as contemporary digital platforms including social media. Focus on the 1990s conflicts in the former Yugoslavia (Bosnia, Croatia, and Serbia).

REE X02F. Dissent in Twentieth-Century Ukraine.

Survey Ukrainian authors from the 1920s to the present, examining writings from "Executed Renaissance," underground literature, and postmodernism. Focus specifically on works that challenge the paradigm of socialist realism by discussing forbidden subjects (famine, religion, Gulag) or accentuating themes that are not considered "major" (personal life).

REE X02G. The Soviet Hero in Literature and Culture.

Consider Soviet Culture by examining "heroes" from both real life and works of literature, cinema, and folklore. Explore the period from the Russian 19th century throughout the Soviet Era.

REE X02J. The Conversion of Pagan Europe.

Examine the familiar and unfamiliar fragments of what remains from pre-Christian European culture--the limited written records, the artifacts, and the folklore--as well as the more plentiful anti-pagan writings of early Christian missionaries. Test many of the popular claims about how Europe's pre-Christian inhabitants lived, what they believed, and how Christianization impacted their lives against the limits of what we can actually know, using the tools from the study of history, cultural studies, and religious studies.

REE X18Q. Supervised Research.

REE X19S. Topics in Russian, East European, and Eurasian Studies.

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REE X29S. Topics in Russian, East European, and Eurasian Studies.

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counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

REE X19S. Topics in Russian, East European, and Eurasian Studies.

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REE X25. Topics in Language, Literature, and Culture.

REE X25.10. The Major Works of Dostoevsky.

Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky.

REE X25.11. Contemporary Russian Cinema.

Uses contemporary Russian film both as a means of exploring the confusion that resulted from the demise of the Soviet Union in 1991 and the search for a new sense of identity in Russia throughout the 1990s and early 2000s.

REE X25.13. Medieval Russian Literature and Culture.

Medieval and early modern Russian literature and culture, including literary texts from Kievan and Muscovite Russia.

REE X25.16. The Major Works of Tolstoy.

Explores Russian writer Lev Nikolaevich Tolstoy, particularly his progression from idealizing family life and the Russian state to renouncing sexual love and national allegiances.

REE X25.18. War and Revolution in Russian Literature and Culture.

Examines Russian narratives of war and revolution as represented in fiction, cinema, and journalism.

REE X25.19. Russian Youth Culture, Late Soviet to Present.

Examines the history and cultural products (films, music, writings) of Russia's youth, and their impact on contemporary society and politics.

REE X25.2. Living a Catastrophe: Chernobyl.

Examine different ways of narrating the Chernobyl disaster and general disasters through history, environmental history, sociology, art, film, fiction, and science.

REE X25.22. Russian Myths and Folktales.

Examination of the Russian folktale, its roots in ancient, pre-Christian Slavic religious tradition, its connections with other forms of folklore such as myth and legend, and its transformation in modern Russian literature. Subjects include the continuing influence of folklore explored through various aspects of Russian culture, including literature, music, ballet, film, and popular culture.

REE X25.24. Rebels and Revolutionaries in Russian History and Literature.

Study of fictional and real rebels and revolutionaries across almost a century of Russian literature.

REE X25.25. Literature and Art of Russian Modernism and Avant-Garde.

Focusing on literary and artistic expressions of Russian modernist and avant-garde esthetics, this course explores various responses to Russian cultural modernity between 1890s, when Russian Symbolists first published their works, and the Party decree of 1932 that established the Writers' Union and outlawed all other literary organizations.

REE X25.29. Bulgakov's Master and Margarita.

Explores the novel in the context of other literary works by Bulgakov and its varied sources in world literature, music, and the visual arts.

REE X25.31. Chechnya: the Politics, Power, and People.

History, culture, religions, and recent upheaval of the region of the northern Caucasus called Chechnya.

REE X25.32. Bad Language: Race, Class, and Gender.

REE X25.33. Russia's Soul: Spiritual Traditions.

Explore complex history of Orthodox Christianity, Judaism, Islam, and Buddhism in Russia. Examine important worship sites, including monasteries and pilgrimage destinations. Have discussions with Russian scholars of religion and practitioners of different faiths.

REE X25.34. Russian Cinema From Potemkin to Putin.

REE X25.35. Russian Fairytales.

REE X25.36. Women and Resistance in Contemporary Eastern Europe.

REE X25.37. Soviet Romance in Film.

Examine the construction of the ideology of love, intimate relations, and gender roles, deemed appropriate for a Soviet citizen, as it is demonstrated in a selection of films.

REE X25.38. Punks and Divas in Southeast Europe.

Examine popular music and its role in political struggle and collective identity formation in the Balkans. Analyze music genres in this region in the context of the historical changes it underwent in the twentieth and twenty-first centuries, including the fall of Communism and -- in the case of former Yugoslavia -- the formation of seven new nation-states through a series of bloody and brutal wars.

REE X25.39. Memory and Place After the Holocaust.

Examine the literature of Eastern European Jewish Holocaust survivors and their artistic successors. Engage novels, short stories, memoirs, essays, and even song lyrics with questions of memory and of place.

REE X25.40. Russian and Mexican Men in Popular Culture.

Study representations of masculinity in products of Mexican and Russian popular culture at the end of the twentieth and the beginning of the twenty-first centuries.

REE X25.41. Russian Orthodox Religion and Culture.

Examine the role and force of the Orthodox Church in Russian history, from the Christianization of the pagan Slavs in the 10th century, through the Russian Revolution into the Soviet era, and up to the present, while considering the prescriptive tenets of the Orthodox faith (religion) alongside descriptive experiences of life within and under Russian Orthodoxy (religiosity).

REE X25.42. Youth and Violence in the Middle East and Eurasia.

REE X25.43. Traveling Culture.

Examine mobility as a point of inquiry into questions of identity, community, belonging, place and landscape, art, representation, cultural difference, experience, and history.

REE X25.45. Russia Through American Eyes.

Examine a wide array of American attitudes towards Russia and Russians. Using a variety of political, social, and cultural events and encounters, analyze the ways in which nationalism, imperialism, and geopolitics informed American narratives about Russia and Russians, assessments that range from enthusiasm and curiosity to condemnation and outright hostility.

REE X25.46. Queer Eastern Europe.

Explore LGBTQI stories and political struggles in Eastern Europe with a focus on the region's queer culture: literature, cinema, and the arts.

REE X25.47. Cultural Translation.

Examine theoretical readings and concrete examples of how translation politics, translation-induced reconstruction of literary systems, censorship, manipulation, and market dynamics affect the production, distribution, and reception of translated products in the realm of arts and entertainment, news media and politics, and various academic disciplines in the Middle East, United States, and beyond.

REE X25.48. Identity, Codes, and Culture.

Explore how to read identities as patterns in literary texts, linguistic and cultural corpora with digital methods, and come to a deeper understanding of individual texts and textual phenomena. Examine digital research methods, tools, and use cases. Work hands-on with literary and linguistic sources.

REE X25.9. The Russian Novel.
A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century.
REE X25C. Russian Food Ways.
REE X29S. Topics in Russian, East European, and Eurasian Studies.
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REE X35. Topics in History, Economics, and Government.
REE X35.10. The Military in Politics.
REE X35.11. Germany in the Twentieth Century.
Survey of German political and military institutions, economic development, culture, and society.
REE X35.12. Stalinist Russia.
REE X35.13. Russian Economic Development since 1917.
The growth of the planned economy in industry, agriculture, and labor.
REE X35.14. Political Economy of International Crises.
Examines several dimensions of the ongoing crises in the world economic order and the interrelationships among them. Problem areas covered are neoliberalism, international money, debt, famine, immigration, and energy shocks.
REE X35.16. Eastern Europe in the Twentieth Century.
Examines the major political, social, and cultural events that shaped Eastern European society in the twentieth century.
REE X35.18. Southeast Europe in the Twentieth Century.
Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century.
REE X35.19. World War II in Eastern Europe.
Examines the war in Eastern Europe with a particular emphasis on occupation, collaboration, and resistance; the Holocaust; and the connection between ethnic cleansing, population transfer, and the establishment of communism in postwar Eastern Europe.
REE X35.2. Governments and Politics of Eastern Europe.
REE X35.20. German Nationalisms.
History of diverse views and movements regarding German national identity within their respective contexts, 1800-present.
REE X35.21. Causes of War.
REE X35.23. Jews of Eastern Europe.
Explores the history and culture of Jews in Eastern Europe.
REE X35.24. Political Warfare and Propaganda.
Examine the phenomenon of political warfare in a contemporary global context, focusing on Russia and Eastern Europe. Explore the evolution of techniques of political warfare, including psychological warfare and propaganda.
REE X35.25. Revolutionary Russia.
An in depth examination of the political, social, economic, and cultural dynamics at work in early twentieth-century Russia.
REE X35.26. Criminal Punishment in Russia.
Examine the theories of criminal responsibility from a legal perspective. Explore the application of criminal punishment in Russia in the Imperial, Soviet and modern eras.
REE X35.27. Reacting to Revolutionary Ideas.
Explore revolutionary themes in Western and non-Western countries during the nineteenth and twentieth centuries.
REE X35.29. Environmental History of Eastern Europe.
Explore and relate commodification of nature, the climate crisis, and preserving biodiversity from the past and present. Investigate how human societies have changed their environments and how the environment has influenced the courses of societies through case studies from the ecological impact of the Teutonic Crusades to nuclear waste management in Chernobyl.
REE X35.3. Governments and Politics of Russia.
Issues of nationalism and state-building facing Russia and its neighbors. Evaluation of the post-Soviet experience from the perspectives of both domestic and foreign policy.
REE X35.30. Technology and Society in Modern Eastern Europe and Russia.
Learn how technologies and social changes shape each other. Use case studies from Eastern Europe and Russia from the Industrial Revolution to the Era of AI. Explore the industrialization of production and consumption, the professionalization of engineering, the emergence of multidivisional industrial enterprises, the relationship between humans and machines, the uses of "cheap nature", and technological utopianism.
REE X35.31. Security and Policy in Eastern Europe and Russia.
Examine key contemporary security issues and policy dilemmas through the perspective of post-communist Eastern European countries in the context of European Union (EU) enlargement waves, and in the framework of their membership in supranational organizations. Consider the transformation of regional states' national security strategies, threat perception, and priorities transitioning from former Warsaw pact to full-fledged EU and NATO membership in shaping their respective national security priorities.
REE X35.32. European Espionage 1914-1989.
Examine the development and transformation of espionage, intelligence, and surveillance in Europe from the first World War to the end of the Cold War.
REE X35.33. Political Ideologies and Manifestos.
Survey major political ideologies like socialism, capitalism, and fascism; as well as the more recent so-called "Fourth Political Theory of Russian ideologue Aleksandr Dugin, (variable) popular ideologies, and internet manifestos. Explore each ideology through original texts and utopian/dystopian representations in popular culture (e.g., literature, film, music, graphic art, architecture, design).
REE X35.34. Populism in Central and Eastern Europe.
Survey the political nature, profile, and patterns of populism in selected post-communist democracies of Central and Eastern Europe. Examine populism in terms of impact on agenda setting, political process, and governance of the region in focus at specific national and European Union-wide levels.
REE X35.35. Socialism's Past and Futures.
Examine ordinary people's experience of socialism in the Soviet Union and the plural interpretations of this experience after the USSR's collapse.
REE X35.36. Intelligence and Espionage in the Eastern Bloc.
Examine the specific national approaches to foreign and domestic intelligence and espionage of former Communist bloc countries from early twentieth century to the collapse of communism in Eastern Europe.
REE X35.37. Geography in Eastern Europe and Eurasia.
Explore alternatives to nation-state imaginaries across Eastern Europe and Eurasia. Examine spatial thinking, utopia, dystopia, the history of geosciences, counter-mapping, and the decolonial geopoetics of space.
REE X35.38. East European Transnational Worlds to 1914.
Examine an overview of major developments in the economic, political, social, cultural, and gender and sexuality fields of East European history before 1914. Explore diplomacy, institutional legacies of war and peace, urban and rural developments and inequalities, spaces of language and religion, race, labor migration, and the arts.
REE X35.39. Cold War Eastern Europe.
Discover the primary historical developments of the post-war period in Eastern Europe from the imposition of communism in 1945 until its collapse in 1989. Explore political, economic, and cultural transformations of the Cold War.

REE X35.40. Economic Development in Post-Communist States.
Relate broad issues of economic development across the post-communist space since the collapse of the Soviet Union. Question and explore concepts, assumptions, and tools we use to assess development.

REE X35.41. Nature and Politics in Post-Communist States.
Explore the key issues related to the political economy of human-nature interactions in post-communist countries, including politics of point-source natural resources, diffuse resources, and the commons.

REE X35.42. Russia and Ukraine in World History.
Focus on multicultural history, shared imperial and national spaces, and geopolitics of entangled Russian-Ukrainian relations.

REE X35.43. Central Asian Politics and Economies.
Relate major political and economic issues of post-Soviet Central Asia from Soviet legacy and regime types to state-business relations and investment environment. Learn about the characteristics that unite and distinguish the Central Asian region.

REE X35.44. War and Genocide: The Holocaust.
Examine the Holocaust as part of Nazi Germany's quest to build a new racial order.

REE X35.45. Legacies of World War II in Eastern Europe.
Examine the complex and dynamic legacies of World War II and questions of memory, identity, and politics from 1945 to the present.

REE X35.5. History of Russia to 1917.
Survey of Russian history from seventeenth-century Muscovy to the fall of the Romanovs in 1917.

REE X35.6. History of Russia since 1917.
A survey of Russian history from the revolution of 1917 to the collapse of the Soviet Union.

REE X45. Topics in Sociology, Geography, and Anthropology.

REE X45.10. Politics and Performance.
Consider the power struggles of the democratic process by closely attending to language, rhetoric and performance.

REE X45.11. Indigenous Peoples of Russia and the USSR.
Examine an introduction to theories of colonial critique and visual culture studies. Explore the history of the Indigenous peoples of the Eurasian north.

REE X45.12. Shamanism and the Primitive.

REE X45.13. Power and Resistance in Putin's Russia.
Introduction to Russian political and protest cultures--beyond the headlines and outside the Kremlin walls.

REE X45.14. Eastern Europe on American TV.
Focus on ways Eastern Europe is depicted on American television screen. Use anthropological framework to study multiple types of television shows, including reality tv, network dramas, and miniseries. Analyze ethnic, racial, national, and gender representation and what these constructions tell us about the ways that Eastern Europe is imagined.

REE X45.16. Comparative White Nationalisms.
Consider critical questions about the constructions of whiteness and nationalism across the globe. Examine, through an anthropological lens, how the boundaries of whiteness changed throughout history, and its relationship to far-right political groups, to trace the history of white nationalism and its present-day global resurgence.

REE X45.17. Global Perspectives of Health, Illness, and Inequality.
Use an anthropological framework to think critically and analytically about global past and contemporary issues in health. Examine the root causes of health, illness, and inequality.

REE X45.18. The Anthropology of Disinformation and Conspiracy Theories.
Develop an anthropological perspective on disinformation and conspiracy theories and examine how these phenomena are embedded in cultural, social, and political contexts. Explore the ways in which disinformation is constructed, disseminated, and maintained within different media ecologies.

REE X45.19. The Politics of Insult.
Examine how linguistic practices of (im)politeness and verbal aggression shape--and are shaped by--social hierarchies, cultural contexts, and political dynamics across different contexts, from liberal to anti-liberal. Analyze how seemingly neutral concepts of "civility" and appropriate speech" often mask power relations while exploring how taboo language, conflict talk, and transgressive communication can both challenge and reinforce existing social orders.

REE X45.2. Regions and Cultures of Europe.
Spatial patterns in Europe, with emphasis on cultural, historical, and political geography.

REE X45.4. Geography of the Former Soviet Union.
A systematic introduction to cultural, physical, political, and economic geography of the former Soviet Union. Focus on the fundamental transformation that the former Socialist Union Republics, now sovereign states, have undergone since 1991.

REE X45.6. Northern Lands and Cultures.
Develops geographical understanding of the Circumpolar region of the North, an ancient human habitat, home to distinct millennia-old civilizations.

REE X45.7. Northern Gods, Northern Faiths: The Conversion of Scandinavians, Finns, Northern Slavs and Shamans.
An introduction to the basic source texts for several pre-Christian belief systems evolving in geographic proximity and their influence on one another including pre-Christian Slavic; pre-Christian Scandinavian; pre-Christian Sami and Finnish; and ancient and modern Siberian shamanism.

REE X45.8. Cultures and Ecologies.
Examines the anthropology of "nature" and "natural resources," with particular attention to the communities in the arctic and subarctic regions. Use ethnographies to learn about the cultures of peoples who inhabit northern latitudes, especially their cosmological modes of belief and their ecological ways of life.

REE X45.9. Geography of Religion in Eastern Europe and Russia.
A comprehensive overview of major religious culture regions in the former Eastern bloc countries.

REE X58Q. Supervised Research.

REE X79C. Conference Course.

REE X79H. Honors Tutorial Course.
Intensive reading and research planned with and approved by the honors adviser, followed by completion of a thesis.

Graduate Courses

REE X19S. Topics in Russian, East European, and Eurasian Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Russian, East European, and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

REE X29S. Topics in Russian, East European, and Eurasian Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Russian, East European, and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

REE X80. International Business Fellows Seminar.
Multidisciplinary seminar for students in area studies, business administration, law, and public policy. The faculty includes both academics and business leaders.

REE X81. Seminar in Russian, East European, and Eurasian Civilizations and Cultures.
Core course.

REE X82. Conference Course in Russian, East European, and Eurasian Studies.
Individual instruction on some aspect of the former Soviet Union or Eastern Europe.

REE X85. Topics in Russian, East European, and Eurasian Studies.

REE X86. Topics in Literature and Culture.

REE X86.1. Chechnya: Politics, Power, and People.
The history, culture, religions, and recent upheaval of Chechnya.

REE X86.2. Bulgakov's Master and Margarita.

REE X86.3. Russian Literature and the Devil.
Examines Russian literature's extensive reflection on the nature and place of evil in human existence.

REE X86.4. Madness and Madmen in Russian Literature.

REE X86.5. Stalinism: Ideology and Culture.
Examine Stalinism as a complex historical, ideological, and cultural phenomenon that crucially shaped Russia's destiny from the twentieth century to the present moment. Consider this phenomenon beyond popular stereotypes (blood-thirsty tyrant; miserable and terrorized population; total propaganda; etc).

REE X86.6. Memory and Archive in the European Novel.
Examine 20th-century European novels that function as archives of cultural memory to retrieve individual and collective memories that lay hidden and forgotten by 20th-century history. Consider critically acclaimed writers, such as W. G. Sebald, Dubravka Ugresic, Danilo Kis, Witold Gombrowicz, and Dasa Drndic.

REE X86.7. Conspiracy Culture in the United States and Russia.
Examine a wide spectrum of conspiracist expression, from such historical texts as The Protocols of the Elders of Zion to the fictions of Don DeLillo, Thomas Pynchon, Fyodor Dostoevsky, Viktor Pelevin, and others. Consider a number of pop culture artifacts that thematize conspiracy and paranoia, as well as secondary works by contemporary scholars working in the field of conspiracy studies.

REE X86.8. Satire and Politics.
Explore several contemporary novels, featuring comedy or satire, from different Eastern European regions (Russia, Ukraine, Poland, Dagestan, Slovenia, Romania) to consider how complex history and politics are often intertwined with fantastical, humorous, and grotesque elements.

REE X86.9. Post-Communist Protest in Ukraine and Eastern Europe.
Consider the range of protest movements and revolutions resulting from the collapse of communism in the former Soviet Union. Examine the dismantling of the "socialist realism" paradigm in literature and the arts, using a range of literary and non-fiction texts and films to explore these developments in Ukraine, Poland, Belarus, Russia, and other countries.

REE X87. Topics in Economics, History, and Government.

REE X87.1. Security and Policy in Eastern Europe and Russia.
Consider key foreign policy challenges and security issues facing post-communist Eastern European countries from the perspective of their respective NATO and EU memberships. Examine contemporary policy debates regarding a resurgent Russian, Chinese foreign policy outreach, and non-state actors, as well as challenges and concerns on terrorism, extremism, and ethnic, religious, and political radicalization.

REE X87.2. Protest and Revolution in Eastern Europe.
Explore the causes, and the patterns and modes of mobilization, of protest and regime change in Eastern Europe from the 1956 Hungarian Revolution to the 2014 Ukrainian revolution. Examine and compare the specific national roots of discontent, the mechanics of mass mobilization, and the patterns of democratic uprisings, as well as the responses of national elites and external actors, in the context of these countries' socialist and post-socialist pathways.

REE X87.3. Communism in Eastern Europe.
Explore the complicated nature of communist rule in Eastern Europe in its many forms, from Poland in the North to Yugoslavia in the South. Examine the variety of lived experiences of citizens of Eastern Europe, from the imposition of communism in the region after World War II to the collapse of the system in 1989. Discuss the most recent scholarship on the region that ties regional developments to the broader Cold War context, and covers issues ranging from state-society dynamics, to religion, consumer culture, urban change, and collectivization.

REE X88. Topics in Anthropology, Sociology, and Geography.

REE X88.1. Post-Soviet Geopolitics.
Examine the major geopolitical issues in the post-Soviet space, including the history of formation of ethnic and cultural identities, nation-building, and challenges to the regional development. Consider the influences of the 'new world order' on the former Soviet Union republics and their political, demographic, and socio-economic patterns, with special attention on the development of foreign relations by the newly independent countries with their neighbors.

REE X88.2. Global Race and Racism.
Trace the concept of race over time and in its various socio-racial configurations across the globe. Consider race and racism from a global perspective, and utilize anthropological frameworks to analyze the historical and contemporary aspects of racism, racialization, white supremacy, and racial belonging.

REE X88.3. Ethnography of Digital Media.
Investigate new digital technologies and their impact on social worlds, survey old media paradigms (the novel, the newspaper), and explore new social kinds (the troll, the hashtag, the GIF archive, the emoticon, the TikTok challenge). Focus on the "practical" contributions to conversations about media, but also consider classical theoretical text to develop a rigorous understanding of new media forms, and to design ethnographic data collection methods for projects that can answer a variety of questions about digitally mediated interaction.

REE X89. Master's Writing Colloquium.
Receive guidance and assistance through the process of writing a Master's thesis or report. Intended for Master of Arts candidates in the final year of their graduate studies.

REE X98. Thesis.

REE X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

Professional Courses

REE X19S. Topics in Russian, East European, and Eurasian Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Russian, East European, and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

REE X29S. Topics in Russian, East European, and Eurasian Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Russian, East European, and Eurasian Studies. University credit is awarded for work in an exchange program; it may be

counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RHE - Rhetoric and Writing

Rhetoric and Writing: RHE

Lower-Division Courses

RHE X06. Rhetoric and Writing.
An introductory writing course that includes instruction in practical reasoning and the principles of rhetoric.

RHE X06Q. Rhetoric and Writing for Nonnative Speakers of English.
An introductory writing course that includes instruction in practical reasoning and the principles of rhetoric, as well as grammar and mechanics of standard American English.

RHE X09J. Topics in Writing.
Study and practice methods of rhetorical analysis within the contexts of disputed issues of academic, political, or cultural significance.

RHE X09J.1. Rhetoric of the Gospels.
Examine the gospels as rhetorical texts, applying historical method and literary analysis to gain an understanding of how the image of Jesus Christ has been shaped from early Christianity to the present day.

RHE X09J.2. Rhetoric of Animals.
Explore the ethical, political, philosophical, scientific, and artistic reasons humans have created representations of animals and the potential repercussions of these representations.

RHE X09J.3. Rhetoric of the Essay.
Explore the different structures and rhetorical poses authors have taken across five hundred years of the essay form's contemporary existence.

RHE X09S. Critical Reading and Persuasive Writing.
A writing course designed to teach advanced rhetorical analysis and advocacy on public issues.

RHE X10. Intermediate Expository Writing.
An intensive writing workshop, focusing on style and readability.

RHE X12. Writing in Digital Environments.
A writing course focused on using, interpreting, and analyzing traditional and emerging technologies. Taught using networked computers.

RHE X14. Computer Programming for the Humanities.
Introduction to the fundamentals of computer programming and practice in computation as a rhetorical activity.

RHE X15. Introduction to Visual Rhetoric.
A writing course designed to teach students to analyze and produce visual and nonverbal forms of rhetoric.

RHE X17. Technical Writing.
Reading and writing in professional and technological environments.

RHE X19S. Topics in Rhetoric and Writing.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Rhetoric and Writing. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

RHE X21. Principles of Rhetoric.
Examine major terms, issues, and approaches in the discipline of rhetoric and writing. Practice analysis and application.

RHE X25M. Advanced Writing.
An advanced course designed to improve and refine writing.

RHE X28. Topics in Professional and Technical Writing for Liberal Arts Majors.
Examine genres, processes, contexts, and practices of technical and professional communication.

RHE X28.1. Magazine Writing and Publishing.
Introduction to magazine writing, editing, and publishing, with an emphasis on the nonfiction article.

RHE X28.2. Writing for Nonprofits.
Studies the writing genres and rhetorical strategies that are routinely used in nonprofit organizations. Covers business reports, grant writing, and feature writing.

RHE X28.4. Writing for Entrepreneurs.
Studies the genres and rhetorical strategies that entrepreneurs use to persuade stakeholders, including heuristics for developing business models, market reports, and pitches.

RHE X28.5. Writing for Digital Media.
Examine the concepts, practices, and technologies associated with composing in digital spaces.

RHE X28.6. Technical Communication and Wicked Problems.
Examine the nature of wicked problems and the roles for technical communicators, including effective strategies for engaging public audiences and facilitating stakeholder dialogue.

RHE X28.7. Nature, Travel, and Environmental Writing.
Examine nature, travel, and environment through writing that centers on social, environmental, and ecological justice.

RHE X29S. Topics in Rhetoric and Writing.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Rhetoric and Writing. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RHE X30C. Advanced Topics in Digital Rhetoric.
Examine the role of information technologies in communication and culture.

RHE X30C.10. Access Designed.
An introduction to disability studies and accessible design by reading, discussing, designing, and practicing with the technologies and techniques that compose accessible writing and devices.

RHE X30C.11. Mobile Environments.
Examine the principles of user experience (UX) design, specifically the creation of low-fidelity mobile application solutions, which are designed to help users explore and create meaningful and personally relevant experiences within their environments.

RHE X30C.12. Information Design.
Examine the fundamental principles of document and information design that inform practical and theoretical skills related to desktop publishing, visual communication, and publication production.

RHE X30C.13. Rhetoric and Data Visualization.
Explore the principles for designing tables, graphs, and figures that are accessible and persuasive to readers and that are accountable to the data. Examine and critique visualizations from academic and popular media. Create visualizations from real-world data sets.

RHE X30C.14. Rhetorical Metrics.
Explore an introduction to text analytics with a focus on computational and statistical methods within rhetorical studies.

RHE X30C.15. Rhetoric, Risk, and Environmental Justice.
Explore the intersection of rhetoric, social justice, and environment through the theoretical lens of environmental justice.

RHE X30C.16. Rhetoric and Algorithms.
Explore the nature of Artificial Intelligence (AI), its current and possible roles in society, and the rhetoric about it.

RHE X30C.17. Podcasts and Paradigm Shifts.
Explore storytelling's influence on public perceptions and policies via podcasting.

RHE X30C.18. Text Mediation and Time Management.
Examine how texts mediate human activity and how they can be used to manage time, effectiveness, and productivity at individual and group levels.

RHE X30C.19. Environmental Media.
Explore the relationship between rhetoric, digital storytelling, documentary, and environment. Learn basic skills in documentary filmmaking and produce a short video suitable for broadcast.

RHE X30C.2. Designing Text Ecologies.
Explores the function and interaction of texts in the workplace. Emphasis on research, analysis, and design of the strategic, tactical, and operational aspects of texts.

RHE X30C.20. User Experience Design.
Introduction to user experience (UX) design. Apply concepts of UX and usability to design, research, and testing practices in digital interfaces.

RHE X30C.4. Writing and Photography.
Examination of issues in the history of photography and how images and words work in combination. Emphasis on improving skills in analysis, writing, and photography.

RHE X30C.5. Ethics and New Media.
Exploration of contemporary ethical dilemmas and principles arising with emergent technologies, and their impact on rhetoric and writing.

RHE X30C.6. Networked Writing.
Examines how writers present themselves and their arguments across a range of media and genres. Practices rhetorical skills within digital networks.

RHE X30C.7. Digital Storytelling.
Examines and practices the development of narrative through multiple media (audio, visual, video, et al).

RHE X30C.8. Writing with Sound.
Introduces sound studies and practices techniques for recording, editing, and publishing writing for and with sound.

RHE X30C.9. Digital Self and Rhetoric.
Examines the pervasiveness of digital culture and cultivates strategies for presenting one's digital self through academic, professional, and civic venues.

RHE X30D. Topics in History of Rhetoric.
Geographically and historically situate and examine figures, movements, traditions, and productions in rhetoric and public argument.

RHE X30D.1. Sophistry and the Invention of Rhetoric.
Examines the role of sophists and sophistry in the development and practice of rhetoric as an art, from antiquity to modern times.

RHE X30D.10. Arguing with Liberals.
A survey of liberal political theory from the late seventeenth through the twentieth centuries with special attention to theories and practices of public argumentation.

RHE X30D.11. Cicero, Rhetoric, and Ancient Rome.
An exploration of Marcus Tullius Cicero's writings on rhetoric, his major political speeches, and his philosophical dialogues in the context of the late Roman republic and the Roman Revolution (ca. 133-40 BCE).

RHE X30D.12. Women's Rhetorical Traditions.
Examine how popular rhetorical theories and pedagogies were adapted to fit specific social, cultural, and political contexts and thus shaped the communication practices of girls and women in 19th and early 20th century America. Consider why females were excluded from the rhetorical tradition and the challenges scholars face in writing historical accounts.

RHE X30D.13. Augustine and Christian Rhetoric.
Study Augustine's writings on language, rhetoric, and epistemology with attention paid to contemporary Roman and Greek philosophical and rhetorical movements, such as skepticism, Platonic idealism, the second sophistic, and the Christian homiletic tradition.

RHE X30D.14. Rhetoric of Latinx Social Movement.
Examine Latinx social movements and their rhetorical features in the Americas from the nineteenth to the twenty-first centuries.

RHE X30D.15. Feminist Rhetoric.
Explore the intersection between feminism and rhetoric with emphasis on historical figures.

RHE X30D.16. Transgender Rhetorics.
Examine rhetorics that (re)shape normative and transgressive conceptions of gender, emphasizing their effects on the lives of transgender people

RHE X30D.17. Arguing with Conservatives.
Explore American conservative political tradition with special attention to the 1964 Barry Goldwater presidential campaign.

RHE X30D.18. Medical Rhetorics, Race, and Gender.
Examine how health and illness are defined through rhetorics about and within medicine. Focus on race and gender, consider how communication and language shape understandings of health, access to health care, and experiences of illness and disability.

RHE X30D.19. 1960s Liberation Rhetoric.
Explore the rhetoric of liberation in the United States in the 1960s, looking in detail at the words and actions of activists in the Civil Rights movement, the anti-war/anti-imperialist movement, Black Power, women's liberation, gay liberation, the Chicano movement/el movimiento, and other noteworthy phenomena of the era.

RHE X30D.2. Kairos and the Rhetorical Situation.
Introduction to kairos, a key concept in rhetorical theory from ancient to modern times, that focuses attention on making a text appropriate for its historical situation. Explores why some writing succeeds at attracting attention and inspiring action, while some writing fails.

RHE X30D.3. Deliberating War.
Studies the recurrent means of making arguments for and against war, and the role of rhetoric in public deliberation.

RHE X30D.4. Rhetoric and Racism.
Explores theories of rhetoric by examining arguments about group identity, from Athenian discussions of "barbarism" in the fourth century BC to nineteenth-century arguments about citizenship.

RHE X30D.5. History of Public Argument.
A survey of the practice and theory of argumentation, with particular attention to its civic and political uses and implications.

RHE X30D.6. Classical to Modern Rhetoric.
Surveys the works of major rhetorical theorists and practitioners in the Western tradition from the ancient Greeks to the present.

RHE X30D.7. Rhetoric Invented, Revised, Retold.
Survey of figures, movements, and debates in the history of rhetoric and exploration of the rise of revisionist historiography and comparative rhetoric in the twenty-first century.

RHE X30D.8. Philosophy Versus Rhetoric.
Study of the co-emergence and subsequent split between rhetoric and philosophy in the classical period and their potential reunification in a contemporary context.

RHE X30D.9. Rhetoric in the English Renaissance.
Examination of how the art of rhetoric, developed in ancient times by the Greeks and Romans, was understood and debated during the European Renaissance, particularly in England.

RHE X30E. Topics in Rhetorical Theory and Analysis.
Critically explore contemporary rhetorical theories and their analytical applications.

RHE X30E.10. Peacemaking Rhetoric.
Examine the nature, features, exigences, and functions of peacemaking rhetoric.

RHE X30E.11. Film as Rhetoric.
Examine films as rhetorical acts that serve a powerful function in American society.

RHE X30E.12. Rhetoric and Narrative.
Examine features, exigences, and functions of different types of rhetorical narratives.

RHE X30E.13. Divine Persuasion in Biblical Times and Place.
Explore the use of persuasive strategies in an ancient and non-Western culture, that of the Hebrew Bible. Using rhetorical techniques, analyze three types of texts: narratives of interactions between ordinary people and God; interactions between people, God, and authorized prophets; and prayers in prose and poetry.

RHE X30E.14. Animal Rhetorics.
Examine research on the diverse rhetorical practices of nonhuman animals and its implications for rhetorical theory.

RHE X30E.15. Rhetoric, Feminism, and Science.
Explore the rhetorical dimensions and tensions between feminism and science, focusing on feminist and scientific inquiry, interventions, and ethics.

RHE X30E.16. Disability Rhetorics.
Explore the role of communication in constructing disability and challenging ableism.

RHE X30E.17. Publics and Counterpublics.
Examine how the concept of the "public sphere" informs discussions of the generation, negotiation, and control of information, power, and community values.

RHE X30E.2. Demagoguery.
Examines material produced by rhetors commonly considered demagogues and assesses the scholarly discussions of these individuals.

RHE X30E.3. Democracy and the Media.
Rhetorical analysis, with particular attention to the effects of technologies and journalistic institutions on public deliberation.

RHE X30E.4. Modern Rhetorical Criticism.
Use of contemporary critical methods to investigate, interpret, and explain rhetorical acts and artifacts.

RHE X30E.5. Comparative Rhetoric.
Examination of rhetorical concepts and practices in various rhetorical traditions, and how they underline the functions of rhetoric in their different historical and cultural contexts.

RHE X30E.6. Nonargumentative Rhetoric in Zen.
Exploration of unconventional uses of language including contradiction, negation, story, surprise, gesture, and silence are used in Zen training as resources for transformational change.

RHE X30E.7. Psychology of Writing and Persuasion.

RHE X30E.8. Pathos.
Examines the persuasive power of emotion in critical thinking and prudent judgment.

RHE X30E.9. Rhetoric and the Law.
Examine legal rhetoric and how gender, race, class, ability, and nationality constitute the law and subjects before the law.

RHE X60M. Rhetoric and Writing for Teachers of English.
An advanced course that examines theories of writing and writing pedagogy.

RHE X66. Internship in Rhetoric and Writing.
Research and staff experience working in an appropriate nonprofit, public-, or private-sector entity.

RHE X67R. Conference Course in Rhetoric and Writing.
Supervised work on specific projects in rhetoric and writing.

RHE X68C. Writing Center Internship.
Intensive reading, writing, and discussion in writing center theory and philosophy, tutoring methods, and writing pedagogy, as well as a review of standard American English usage and mechanics; followed by a supervised apprenticeship as a peer consultant in the University Writing Center.

RHE X68E. Topics in Editing for Publication.
Advanced instruction in revising and editing for publication.

RHE X68E.1. The Book: Prospectus to Proofs.
Designed to make students better writers and more careful editors, the course includes creation of a simulated book from proposal stage to editing of final page proofs.

RHE X68E.2. Grammar for Writers, Editors, and Teachers.
Examines the grammar of written English by assessing grammatical issues, handbooks, and controversies.

RHE X75. Topics in Capstone Seminars in Rhetoric.
Allows the student to integrate the knowledge gained in rhetoric and writing through a major independent project.

RHE X79C. Advanced Topics in Rhetoric and Writing.
An advanced course focused on specific theories or practices of rhetoric and writing.

RHE X79H. Honors Tutorial Course.
Research and development of a thesis/project topic and proposal followed by the writing and defense of an honors thesis or development and defense of an honors project.

Graduate Courses

RHE X80. Conference Course in Rhetoric and Writing.
Explore specialized subject areas in rhetoric and writing studies in an individualized format.

RHE X81. Research Methods in Rhetoric and Writing.
Examine fundamental assumptions and procedures for conducting research in rhetoric and writing studies, including the links between theory and methods, qualitative, quantitative, archival, critical approaches, assessment, and research ethics.

RHE X82. Rhetoric and Writing Theory.
Examine major theoretical movements in rhetorical studies, writing studies, and related areas.

RHE X83. Histories of Rhetoric and Writing.
Explore persuasive traditions, disciplinary histories, and historiographic considerations in rhetoric and writing studies.

RHE X84. Public Rhetorics.
Examine the theory, practice, and study of public rhetorics, including social movement rhetorics, community advocacy, and professional/technical communication.

RHE X85. Digital Writing and Research Studio.
Examine and apply the tools, techniques, and theories of digital research and pedagogy in an experiential format.

RHE X89E. Area Exam and Prospectus Hours.
Prepare for required Field and Prospectus examinations under the supervision of a faculty member.

RHE X89R. Master's Report.
Prepare a report to fulfill the requirement for the master's degree under the report option.

RHE X91. Topics in Rhetoric and Writing.
Examine specialized topics in rhetoric and writing studies.

RHE X98T. Supervised Teaching in Rhetoric and Writing.

RHE X99W. Dissertation.

Professional Courses

RIM - Race, Indigeneity, and Migration

Race, Indigeneity, and Migration: RIM

Lower-Division Courses

RIM X01. Introduction to Race, Indigeneity, and Migration.
Conceptually explore key terms in the study of race, indigeneity and migration. Examine how race, indigeneity and migration have been central to the development of modern nations, economies and cultures through different epochs in United States history.

RIM X19S. Topics in Race, Indigeneity, and Migration.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

RIM X20C. Power and Place: Making Texas History.

RIM X29S. Topics in Race, Indigeneity, and Migration.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RIM X30N. Migration Crisis.

RIM X50. Contemporary Issues in Race, Indigeneity, and Migration.

Explore how race, indigeneity and migration function as ongoing "events which determine present-day governmental policies, markets and cultural logics.

RIM X78. Capstone Seminar.

Identify a research question and conduct a semester-long research project on a specific issue related to race, indigeneity and migration. Examine an overview of the major theoretical and methodological schools of thought across the fields of racial and ethnic studies, indigenous studies and migration studies.

Graduate Courses

Professional Courses

ROM - Romanian

Romanian: ROM

Lower-Division Courses

ROM X01. Topics in Romanian.

ROM X06. First-Year Romanian I.

ROM X07. First-Year Romanian II.

ROM X12K. Second-Year Romanian I.

ROM X12L. Second-Year Romanian II.

ROM X19S. Topics in Romanian.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

ROM X25. Third-Year Romanian I.

ROM X26. Third-Year Romanian II.

ROM X28. Topics in Advanced Romanian.

ROM X29S. Topics in Romanian.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

ROM X80. Topics in Advanced Romanian.

ROM X95. Conference Course.

Study of individual projects in Romanian language, literature, or culture.

Professional Courses

RTF - Radio-Television-Film

Radio-Television-Film: RTF

Lower-Division Courses

RTF X01C. Comics and Cartoons.

Explore techniques, conventions, history, and cultural space of comics and cartoons.

RTF X01D. Media Storytelling and Analysis.

Explore fundamentals of screenwriting and narrative storytelling form. Analyze media, such as film, television, and video games.

RTF X01I. Fundamentals of Filmmaking.

RTF X01N. Introductory Topics in Radio-Television-Film.

RTF X01R. Topics in Radio-Television-Film.

RTF X01S. Social Activism in Film.

Explores ways filmmakers express ideas about important movements and social issues.

RTF X02D. History of Media Industries.

Examine the historical development of the film, radio, television, and cable industries and roots of the digital. Investigate cultural, technological, and economic contexts to study production, distribution, and reception.

RTF X02I. Fundamentals of Producing Film and Television.

RTF X03C. Introduction to Media and Entertainment Industries.

Introduction to Media and Entertainment Industries provides a foundational social science understanding of media and entertainment industries. Drawing on insights from media studies, management, and sociology, uses social science theories, methods, and practices to examine social, political, and economic forces that shape and are shaped by media production, distribution, and monetization.

RTF X03D. Media and Culture.

Explore cultural values, beliefs, and ideologies that shape media. Examine how individuals and communities interpret media. Evaluate politics, economics, and social relationships that shape and reflect media, culture, and society.

RTF X04. Storytelling in Film and Television.

RTF X04D. Introduction to Film Production.

Explore the fundamentals of film, television, and digital production concepts and techniques.

RTF X06. Introduction to World Cinema History.

Survey of the aesthetic, cultural, economic, political, and technological trends impacting motion pictures around the world from their origins in the late nineteenth century through the present.

RTF X19S. Topics in Radio-Television-Film.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Radio-Television-Film. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RTF X29S. Topics in Radio-Television-Film.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Radio-Television-Film. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

RTF X19S. Topics in Radio-Television-Film.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser

in the Department of Radio-Television-Film. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RTF X20I. Film and Broadcasting History to 1975.

RTF X21C. History of American Television.

Survey of the evolution of United States television programming, aesthetics, production, and policy.

RTF X21D. Film History to 1960.

Introductory survey of the history of world cinema to 1960. Explores the development of film as a narrative medium, key filmmakers, films, and of the origins of the main elements of film grammar.

RTF X21I. Film and Broadcasting History 1975 to Present.

RTF X22D. Film History 1960 to Present.

RTF X22I. Producing Film and Television Fundamentals.

RTF X23C. Screening Race.

Introduction to the study of race and ethnicity in U.S. film, television, and new media. Includes focus on media histories, media criticism, production strategies, and U.S. audiences.

RTF X24C. Introduction to Global Media.

Introduces the role of global media as a set of texts, technologies, and industries that shape our identities, our social worlds, and our political practices.

RTF X24L. Topics in the Entertainment Professions.

Contemporary issues, practices, and skills related to communication and the entertainment industries, including studies in the business of entertainment, the entertainment professions, the creative process, and contemporary Hollywood cinema.

RTF X24L.5. Careers in Entertainment-Los Angeles.

Explores specific career interests with a focus on skills, experience, training, and contacts that are required in Los Angeles. Taught in Los Angeles, California.

RTF X27C. Digital Remix Cultures.

Introduction to the study of digital remix cultures. Subjects will include medium specific mash-up cultures and platforms (image, audio, video), authorship and ownership, political remix and culture jamming, and memes. Assignments will merge theory and practice.

RTF X28C. Gender and Media Culture.

Critical analysis of media and its interrelation with issues of gender.

RTF X29C. Digital Media Production.

Interactive course designed to teach foundational Digital Media Production tools. Apply digital media tools and techniques to a variety of tasks in the pipeline of production from concept, storyboard, layout to compositor, VFX, CG and interactive design.

RTF X29S. Topics in Radio-Television-Film.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Radio-Television-Film. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RTF X30C. Semester in Los Angeles: Principles of Production.

RTF X30N. Internship in Media Industries.

Practical work experience related to media industries. Internships to be secured by students.

RTF X30P. Topics in Radio, Film, and Television Career Exploration.

RTF X31C. Media Content Management.

RTF X31K. Topics in Film, Video, and Television Theory.

Survey of basic theories that seek to explain the relationships between film, video, television, and their respective audiences.

RTF X31K.7. Stardom and Celebrity Culture.

Survey of the construction and meanings of stardom in film, television, and new media. Subjects include links with the media industries; stardom and race, class, gender, and sexuality; and new permutations of celebrity culture.

RTF X31K.8. Transmedia Storytelling.

RTF X31P. Topics in New Communication Technologies.

Applications and potential effects of new telecommunications and information technologies in the home, workplace, and in education, social services, and politics.

RTF X31P.3. Internet Cultures.

RTF X31P.4. Video Game Culture and Criticism.

RTF X31P.5. Digital Media Platforms.

RTF X31P.6. Video Game Industry.

RTF X31Q. Topics in Digital Media.

Survey, analyze, and assess current and emergent digital and social media technologies and cultures.

RTF X31R. Topics in New Media.

Students produce projects in either film, video, computer animation, collage, sculpture, assemblage, soundscape, or performance. Prior experience in one or more media is helpful but not necessary.

RTF X33. Introduction to Screenwriting.

An introduction to screenwriting for features, short films, documentaries, and television. Lectures explore the basic theory of story, character, and structure. Students write original screenplays during workshop hours.

RTF X35. Topics in Television Analysis and Criticism.

Analysis of critical methods, selected television programs, and selected critics.

RTF X35.2. Race, Class, and Gender in American Television.

Surveys history and contemporary debates regarding the construction of race, class, gender and sexual orientation in U.S. television from the late 1940s through the present day and related issues of television aesthetics, production practices, audiences, and advocacy.

RTF X35.3. Contemporary Television Criticism.

RTF X35.4. Queer Television.

RTF X36. Special Projects in Radio-Television-Film.

Comprehensive research or creative projects in areas of special interest developed and executed by the student under faculty supervision.

RTF X37. Topics in Radio Fundamentals.

Fundamentals of audio program production. Students create either brief or long audio programs.

RTF X40. Topics in Studio Production.

Introduction to production of television programs, including the multicamera format.

RTF X40.4. Multi-Camera Television Directing.

RTF X40D. Topics in Design.

Explore the role of design and how the creation and selection of sets, locations, and environments contribute to the visual language of film. Analyze fundamental elements of story, production, critical analysis, and the collaborative process of film making from the design perspective.

RTF X40M. Music Video and Film Production.

RTF X41D. Advanced Topics in Design.

Develop designs that will contribute to effective storytelling, from conceptualization to execution based on the needs of a script.

RTF X42. Topics in Global Media.

Study of political, social, cultural, and economic factors affecting the use and impact of communication systems in an international context.

RTF X42.10. Digital Mainland China and Taiwan.

RTF X42S. Topics in Global Media.

Study of political, social, cultural, and economic factors affecting the use and impact of communication systems in an international context.

RTF X42S.1. Global Hollywood.

RTF X42S.2. Indian Cinema.

RTF X43. Topics in Advanced Video Production.

Advanced study in film, television, and media production.

RTF X43.1. Advanced Narrative Production.
Individual and group production of short films using high-definition video.
RTF X43.2. Advanced Documentary Production.
Individual and group production of a documentary, from research and preproduction to completion.
RTF X43.5. Developing Independent Feature Films.
Group research and lectures about producing an independent feature film.
RTF X43.8. Cinema Laboratory.
Explores the cinematic form on an elemental level through the making of several short films. Utilizes cinema-making skills through attention to process and experimentation in order to move to a higher level of precision.
RTF X43C. Acting for Filmmakers.
Explores core elements of acting technique through scene study, improvisation, and other exercises.
RTF X43D. Cinematography.
Visual storytelling and the art of cinematography through practice in a workshop environment.
RTF X43N. Advanced Three-Dimensional Production.
Carries the principles developed in Radio-Television-Film 366M into a variety of hands-on production settings and projects, including large-crew productions at Austin City Limits Live at the Moody Theater, as well as smaller shoots in a variety of other studios and locations.
RTF X44C. Topics in Animation.
RTF X44M. Topics in Special Applications of Digital Media Production.
Special topics in digital media theory, design, or development. May include visual effects and motion graphics or digital media and digital art.
RTF X44M.1. Interactive Digital Storytelling.
Use of digital tools to create original web-based audiovisual productions and the study of impact of digital media and technology on traditional film and video production.
RTF X44M.3. Introduction to Visual Effects and Motion Graphics.
Designed to introduce students to the core concepts and techniques used in visual effects and motion graphics. Subjects include, but are not limited to, compositing, animation, particles, and greenscreen.
RTF X44M.4. Interactive Media and Game Development.
RTF X44M.5. Writing for Interactive Games and Media.
Explores storytelling possibilities of interactive mediums. Develop the skills and knowledge necessary to create characters, storylines, and dialogue for digital mediums.
RTF X44M.6. Introduction to 3D Animation.
RTF X44M.7. Post Production Techniques.
RTF X44M.8. CGI for Film and Games.
RTF X44N. Topics in Advanced Applications of Digital Media Production.
Advanced topics in digital media theory, design, and development.
RTF X44N.4. Undergraduate Animation Thesis.
Each student will produce a two- to ten-minute animated short film.
RTF X44N.8. Immersive Filmmaking.
RTF X44N.9. Motion Capture Studio.
RTF X44T. Topics in Game Development Capstone.
Capstone courses in game development.
RTF X44T.1. Game Development Capstone: Two Dimensional Games.
RTF X44T.2. Game Development Capstone: Three Dimensional Games.
RTF X45. Topics in Film History.
Critical assessment of major genres, periods, movements, and personalities in United States and international film history.
RTF X45.10. Chinese Auteurs.
RTF X45.11. Contemporary Horror.
RTF X45.12. Screwball Comedy.
RTF X45.13. Landscape Cinemas.
RTF X45.14. Documentary and Creative Non-Fiction.
RTF X45.2. Israeli Cinema and Television.
RTF X45.3. History of Mexican Cinema.
RTF X45.4. Latin American Cinema.
RTF X45.5. Third World Cinema: Africa and the Americas.
RTF X45.6. Experimental Film and Video.
Critical assessment of the history and current trends in experimental film and video.
RTF X45.7. British Film and Television.
RTF X45.8. Social Documentary.
RTF X45.9. Women Behind The Camera.
RTF X46. Introduction to Editing.
Theory and practice of video and film editing techniques.
RTF X47C. Topics in The Business of Media.
Survey of business practices in film, television, music, and digital media industries: development, production, distribution, and exhibition.
RTF X47C.1. Semester in Los Angeles: How Hollywood Works.
Explores the commercial challenges that face producers and network and studio executives, and addresses the continual struggle between creativity and the bottom line. Taught in Los Angeles, California.
RTF X47C.2. Introduction to the Music Business.
RTF X47D. Advanced Topics in Media Industries.
RTF X47E. Advanced Editing.
In-depth look at the principles, techniques, and aesthetics of editing; building a broad background for students' future professional development. Designed to provide a basic-to-intermediate level of familiarity with Avid editing software, by discussing and working on provided narrative, documentary, and technical exercises; various approaches to editing style in each case.
RTF X47F. Topics in Media Studies.
RTF X47F.1. Indian Cinemas: Bollywood and Beyond.
Focus on Indian cinema, primarily Hindi popular cinema--many times known as Bollywood. Examine major works of Hindi cinema and explore independent film making and regional cinema.
RTF X47F.2. Cinematic Cities: Mumbai.
Explore political, social, and artistic transformations of the global city of Mumbai from the early 20th into the 21st century using cinema as the primary text complemented by theoretical, creative, and historical readings.
RTF X47G. Topics in Media Industries with Screening.
RTF X47P. The Business of Hollywood.
Explores contemporary media industries: how media industries operate,and the "big picture" of the contemporary film, television, and digital media landscape. Large-scale issues being faced by those working in the entertainment industry - including the impact of conglomerate ownership, regulation, globalization, and digitization on creative practices and work roles.
RTF X47S. Topics in Media Studies with Screening.
RTF X47S.1. Offbeat Asian Cinema.
Explore South Asian cinema, focusing on innovative and boundary-pushing films. Draw from a diverse range of countries including India, Afghanistan, Sri Lanka and Pakistan, and languages like Hindi, Urdu, Marathi, Tamil, Malayalam, and Dari.
RTF X48. Topics in Media Industries.
Examination of the economics and the production, research, management, and distribution practices of the film and electronic media industries.

RTF X48.1. Semester in Los Angeles: Telling and Selling the Story.
Explore the development of skills in the process by which literary material makes it from page to screens.

RTF X48.2. Semester in Los Angeles: Development Process of Film and Television.
Examines the development process in both film and television; preparing pitches, coverage, and development notes; identifying strengths and weaknesses of literary material typical of that submitted to studios, networks, and production companies. Taught in Los Angeles, California.

RTF X48.3. Semester in Los Angeles: Inside the Music Industry.
Examine how the music industry really works, how it relates to other divisions of the entertainment industry, and the effects that changing technologies have on it.

RTF X48.4. Semester in Los Angeles: New Media and Emerging Entertainment.
Explores burgeoning areas of digital entertainment including broadband, video-on-demand, interactive television, mobile entertainment, and interactive digital gaming. Taught in Los Angeles, California.

RTF X48.5. Semester in Los Angeles: Working Hollywood Writer.

RTF X48C. Introduction to Digital Production.
Introduction to fundamental production concepts and techniques through lectures, projects, and lab experiences. Develop a storyteller's point of view and explore the ability to create works with visual, aural, and narrative structures.

RTF X50L. Semester in Los Angeles Internship.
Practical work experience related to the study of film, television, radio, or other media. Students must make their own arrangements to secure relevant internships.

RTF X50N. Semester in New York Internship.
Internships to be arranged by student and approved by instructor.

RTF X52. Topics in Global Media and Area Studies.
Study of political, social, cultural, and economic factors affecting the use and impact of communication systems in selected regions, such as South Asia, Latin America, Middle East, Europe, East Asia, and Africa.

RTF X52.1. Media and the Middle East.
Addresses the role of media in the Middle East, considering communication texts, processes and industries in political, social, economic, and cultural contexts.

RTF X52.2. German Media: Print to Television.
Examine the history of media technology and its cultural and political implication in the German (speaking) context.

RTF X52.3. Modern Egypt in Film and Fiction.
Explore the history and culture of modern Egypt through selected readings in twentieth-century film and fiction.

RTF X59. Advanced Topics in Media and Culture.
Special topics related to the critical analysis of media in cultural contexts.

RTF X59.11. Apertures: Film and Photography Through Greater Mexico.
Exploration of the historical and aesthetic linkages and affinities between filmmakers and photographers working in greater Mexico, including prominent visitors and Americans of Mexican descent. Considers how Mexican culture is represented but also how borders between Mexico and the wider world--as well as among media--were blurred or brought into sharper focus by these exchanges.

RTF X59.3. Asian American Media Cultures.
Examine popular and critical roles, representations, and politics of Asian Americans in U.S. media including Hollywood cinema, U.S. network and cable television, Asian American independent film, and online media.

RTF X59.6. Gender, Race, and Sexuality in Sports Media.

RTF X59.7. Race and Digital Media Culture.

RTF X59.8. Women and Sports Media.

RTF X59C. Media Archaeology.
Exploration of the media as artifacts as opposed to narratives or texts. Focuses on the materiality of media within specific socio-cultural, economic, and technological time periods each with their own modes of historic and futuristic discourse.

RTF X59S. Topics in Media and Culture.
Special topics related to the critical analysis of media in cultural contexts.

RTF X59S.10. Gender and Media in the '60s.

RTF X59S.11. Brazilian Media.

RTF X59S.12. Gender and Fan Culture.

RTF X59S.13. Latin American Television.

RTF X59S.14. Latino Images in Film.

RTF X59S.15. Black Television Comedy.

RTF X59S.16. Fan Identities and Cultures.

RTF X59S.17. Chicana/o Cinema.

RTF X59S.18. Latina Filmmakers in the United States.

RTF X59S.5. Queer Media Studies.
Critical analysis of queer media. Read key queer (media) theory texts and explore dominant strategies used by the media industries, as well as those utilized by LGBTQ+ independents/subcultures, paying close attention to contested discourses of identity, politics, activism and desire. Explore historical shifts in the representation of LGBTQ+ individuals.

RTF X59S.7. Mixed Race US Film/Media.
An introduction to the evolving representation of mixed-race individuals, romance, and families and to mixed-race stars and producers in U.S. film, television, and new media since the silent film era.

RTF X59S.8. Latina/os and U.S. Media.
Survey of the representation and participation of Latinas and Latinos in U.S. English-language film and television from the silent film era to the present. Also focuses on issues Latina/os face as media producers, media consumers, and media activists.

RTF X59S.9. Latina Feminisms and Media.
Survey of Chicana and Latina feminist scholarship, activism, and creative expression with an emphasis on Latina media production and representation in U.S. entertainment media.

RTF X65. Topics in Media and Society.
Advanced topics addressing media, communication, and society.

RTF X65.10. Globalization and Social Media.
Issues surrounding the hype, myth, paradox, and reality of social media in a global context.

RTF X65.12. Mapping Latino Culture in East Austin.

RTF X65.13. Activist Media.

RTF X65.14. Queer Media and Activism.

RTF X65.15. Latinx Media, Arts, and Activism.
Investigate the ways in which Latinx activists have used mainstream, alternative, legacy, and new media (as well as other visual and performing arts), to affect social and political change in the United States.

RTF X65.4. History of United States Latino Media.

RTF X65.5. Latin American Media.

RTF X65.8. Migration and Media.
Advanced study of global media issues, including traditional and digital media use, social inclusion, and migration to the United States from Latin America, Asia, and elsewhere. Students conduct research on the relationships between media and migration.

RTF X65.9. Media Industries and Entrepreneurship.
Examination of the social, political, and economic contexts in which media and culture are produced, distributed, and monetized. Emphasis on new media and communication technologies.

RTF X65C. Topics in Media and Policy.
Advanced topics addressing media and policy in society.
RTF X66K. Topics in Introductory Production.
RTF X66K.2. Narrative Production.
A workshop in visual storytelling and non-dialogue filmmaking.
RTF X66K.3. Documentary Production.
Workshop in contemporary documentary practice, including directing, producing, cinematography, editing, sound recording, and distribution.
RTF X66K.4. East Austin Stories.
Students work in small production groups and make documentaries in and about East Austin for public screening at the end of the semester and for Webcasting.
RTF X66K.6. Experimental Film.
RTF X66K.7. Creating a Web Series.
RTF X66K.8. Collaborative Fan Content.
Meet creative and business executives from Rooster Teeth. Create original short content while learning how social media entertainment company Rooster Teeth thinks about the things they make. Examine how to bring an audience into the creative process from the start, learn from Rooster Teeth's success in emerging social media entertainment, and explore the role of community in the future of digital media.
RTF X66K.9. Latinx Filmmaking.
RTF X66S. Topics in Audio Production.
RTF X66S.1. Audio Production into Post.
RTF X66S.2. Sound Design and Mixing.
RTF X66S.3. Audio Storytelling.
RTF X67D. Directing Workshop.
Explores the role of the director, focusing on the director-actor relationship, narrative structure, and visual language.
RTF X67K. Producing Film and Television.
Examine the roles and responsibilities of a producer; including development, financing, pre-production, production, post-production, marketing, and distribution.
RTF X68. Advanced Production Topics.
Study production crafts in film, television, and other digital media.
RTF X68.3. Advanced Production.
RTF X68.6. Immersive Media Production.
Exploration of the theory and practice of immersive media: stereoscopy, artificial environments, and virtual reality.
RTF X68C. Advanced Directing.
Creation of collaborative, performance-based works that emphasize simplicity and ingenuity in image and sound choices. Works will adhere to a production code that is a modified version of the Dogme 95 Vow of Cinematic Chastity.
RTF X68D. Advanced Cinematography.
Study of the art of cinematography beyond the basic principles of camera and lighting. Group production of short films to explore the cinematic tools used to create an overall visual approach to storytelling. Examination of film genre, color, texture, lens continuity, aspect ratio, and practical on set strategies and challenges.
RTF X68P. Topics in Producing.
Explore various aspects of film and television producing.
RTF X68P.1. Producing Short Films.
RTF X68S. Topics in Undergraduate Thesis.
Advanced film production or media studies research.
RTF X68S.1. Film Production Thesis.
Intensive production workshop, designed for students who wish to produce a film for a portfolio.
RTF X68S.2. Media Studies Thesis.
An independent research project based on primary data, resulting in a written summary of theoretical foundations, methodological approach, results, and a discussion.
RTF X68S.3. Screenwriting Thesis.
Advanced screenwriting for film or television. Intensive writing workshop, designed for students who wish to produce a polished script suitable for submission to agents and competitions.
RTF X68S.4. Emergent Cinematic Arts Thesis.
RTF X69. Topics in Advanced Screenwriting.
Students develop and write original screenplays. Includes advanced study of screenplay structure, critical analysis of student and professional work, and intensive writing each week toward a completed script.
RTF X69.1. Advanced Screenwriting for Feature Films.
RTF X69.2. Advanced Screenwriting for Television.
RTF X69.3. Advanced Screenwriting: Television Pilots.
RTF X69.4. Advanced Screenwriting: Television Specs.
RTF X69.5. Advanced Screenwriting: Independent Films.
RTF X69.6. Advanced Screenwriting: Science Fiction and Horror.
RTF X69P. Topics in Advanced Producing.
Examine the behind-the-scenes production of feature films, commercials, and other media including scripts, shot lists, storyboards, shooting schedules, and visual effects.
RTF X69P.1. Script to Screen: Commercials.
Examine the behind-the-scenes creation and production of commercials for national brands including creative briefs, consumer insights, scripts, shot lists, storyboards, shooting schedules, visual effects, and behind-the-scenes footage.
RTF X69P.2. Script to Screen: Features.
RTF X69P.3. Script to Screen: Production.
Produce film projects developed in Radio-Television-Film 369P (Topic 1) or 369P (Topic 2).
RTF X70. Topics in Film Analysis and Criticism.
Analysis of critical methods, selected films, and selected critics.
RTF X70.1. Comedy in Film and Media.
RTF X70.10. Black Filmmakers after Blaxploitation.
RTF X70.11. Films of Billy Wilder.
RTF X70.2. Animation Studies.
RTF X70.3. Asian Horror Film.
RTF X70.4. Film Noir.
RTF X70.5. Films of Clint Eastwood.
RTF X70.6. Films of Alfred Hitchcock.
RTF X70.7. Films of Martin Scorsese.
RTF X70.8. Independent American Cinema.
RTF X70.9. Asian American Film.
RTF X77H. Advanced Topics in Media Studies.
Focus on specialized topics and issues in media history, theory, and criticism.
RTF X77H.1. Media and Popular Culture.
RTF X77H.3. Global Sports Media.
RTF X77S. Advanced Topics in Media Studies with Screenings.
Focus on specialized topics and issues in media history, theory, and criticism.
RTF X77S.1. Landscape and Cinema.
RTF X78H. Honors Tutorial Course.
Intensive reading, research, and/or production project.

Graduate Courses

RTF X19S. Topics in Radio-Television-Film.
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RTF X29S. Topics in Radio-Television-Film.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Radio-Television-Film. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RTF X80. Topics in Research Theory and Design.
Introduction to research theory and design. Designed to help students develop skills in understanding and critiquing current research, and in designing and proposing research projects.

RTF X80C. Screenwriting for Directors.
Introduction to the study and practice of writing for film and television.

RTF X80D. Topics in Media Industries.
Examine history, theory, and methods used in studying the media industries in different national and regional contexts.

RTF X80D.1. The Business of Hollywood.

RTF X80E. Topics in Media History.

RTF X80G. Topics in Research Practices.
Introduction to research implementation. Designed to help students develop skills in conducting a variety of research approaches.

RTF X80J. Topics in Theory and Principles of Dramatic Writing.
Introduction to theory and practice in narrative writing for film and electronic media.

RTF X80J.1. First-Year Screenwriting.

RTF X80J.2. First-Year Rewriting.

RTF X80M. Topics in Advanced Screenwriting.
Creation and development of written work for film and television production. Students will develop a major work, such as a full-length screenplay or television pilot.

RTF X80M.3. Advanced Screenwriting I.

RTF X80M.4. Advanced Screenwriting II.

RTF X80N. Screenwriting Topics.
Creation and realization of professional materials for film and television.

RTF X80N.1. Adaptation.
Covers adapting a screenplay from existing material. Write a film adaptation of a short story or similar source material, which will be assigned by the instructor. Create an outline or treatment, revise their writing extensively, and engage in weekly discussions of each other's work.

RTF X80N.2. Television Specs.
Introduction to the fundamentals of writing for television. Develop and write both a one-hour and half-hour television 'spec' based on an existing series.

RTF X80N.3. Writers Room Workshop.
Develop and write an entire season of an original television series. At the end of the semester, the show will be sent out for consideration by major networks and students will get full writing credit for their episodes.

RTF X80N.4. Writing for Series Television.
Covers how to write for both network and cable television. Analyze the dramatic elements of each genre, with each student completing a "spec script for a current sit-com and drama. Develop an original TV pilot as a class, from the original "franchise" premise through a completed story-outline for the pilot episode.

RTF X80N.5. Television Pilots.

RTF X80P. Production Workshop for Writers.
Exploration of cinematic storytelling through the production of short digital videos.

RTF X80S. Topics in Media History with Screening.

RTF X81K. Principles of Film and Television Production.
Study of film and video production aesthetics and techniques. Production costs borne by the student.

RTF X84I. Internship in Media Industries.
Participate in an internship at a media company or in an adjacent field.

RTF X85K. Topics in History of Film.
Survey of the history of the motion picture. Lectures and readings; screenings are required for some topics.

RTF X85K.1. Media, Memory, and the Archive.

RTF X85L. Topics in Seminar in Film History.
Advanced study and research in major directors, genres, periods, and movements of film history.

RTF X86. Topics in Analysis and Criticism of Film and Electronic Media.
Analysis and explication of representative critics, critical systems, genres, and artists.

RTF X86.2. Black Popular Culture.

RTF X86C. Topics in Seminar: Media Theory and Criticism.
Advanced study in media theory and criticism.

RTF X86C.1. Fan Identities and Cultures.

RTF X86C.2. Art and Activism.

RTF X86C.3. Race, Class, and Gender in American Television.

RTF X87C. Topics in Global Media.
Study of global media systems, theories, and processes.

RTF X87C.1. Media and Diaspora.

RTF X87C.2. Global Sports Media.

RTF X87D. Topics in Communication for Development and Social Change.
Study of how development institutions use communication strategies for social change, and how development discourse communicates assumptions about social change.

RTF X87W. Global Media: Study Abroad.
Research, analysis, and criticism of global media systems and issues. Students study at institutions outside the United States.

RTF X88. Research Problems in Specialized Fields of Radio-Television-Film.
Research project chosen from area of student's major interests.

RTF X88C. Research Problems: Doctoral Exam Preparation.
Research and reading in preparation for doctoral examinations.

RTF X88D. Research Problems in Specialty Fields of Radio-Television-Film.
Research project chosen from area of student's major interests.

RTF X88E. Research Problems in Specialized Fields of Radio-Television-Film.
Research project chosen from area of student's major interests.

RTF X88F. Topics in Radio-Television-Film Production.

RTF X88M. Topics in Practicum in Film and Television Production.
Production of projects in film and video. Production costs borne by the student.

RTF X88M.1. Pre-Thesis Production.

RTF X88M.3. Thesis Production.

RTF X88M.4. Thesis Postproduction.

RTF X88M.5. Pre-Thesis Film: Post-Production.

RTF X88P. Topics in Film and Video Production.
Production costs borne by the student.

RTF X88P.1. Cinematography.

RTF X88P.2. Acting for Filmmakers.
Explore core elements of acting technique through scene study, improvisation, and other exercises.

RTF X88P.3. Cinema Laboratory.

RTF X88P.4. Advanced Cinematography.

RTF X88P.5. Advanced Directing.
Create collaborative, performance-based works that emphasize simplicity and ingenuity in image and sound choices, adhering to a production code that is a modified version of the Dogme 95 Vow of Cinematic Chastity.

RTF X88P.6. Ears Only: Audio Storytelling.

RTF X88R. Project in a Specialized Field of Radio-Television-Film.

Completion of a research or creative project required for the report option of the master's degree.

RTF X88S. Research Problems in Specialized Fields of Radio-Television-Film: Production.

RTF X88T. Producing Film and Television.

Comprehensive consideration of the production process from the standpoint of fiscal and creative management; preproduction and production planning using computer budgeting and scheduling. Software costs borne by the student.

RTF X89. Topics in Media and Society.

Study of selected issues related to media and society.

RTF X89K. Topics in History of Broadcasting.

Principal eras of broadcast development, audience patterns, legal and industrial precedents of broadcast practices, contemporary industrial and institutional perspectives in radio and television.

RTF X89P. Topics in Producing.

Explore various aspects of film and television producing.

RTF X90C. Topics in Introduction to Editing Processes.

Introductory editing topics designed to build the foundation for later postproduction practice. Incorporates technical, aesthetic, and practical considerations into an overall view of editing as a process.

RTF X90C.1. Editing for Directors.

Introduction to editing designed to build the foundation for later postproduction practice and directorial work. Incorporate technical, aesthetic, and practical considerations into an overall view of editing as a process from the perspective of a director.

RTF X90E. Topics in Advanced Video Postproduction: Audio.

Theory and application of audio for screen image.

RTF X90F. Topics in Production Crafts.

Professional-level experiences in various topics in the production crafts.

RTF X90G. Introduction to Media Aesthetics and Techniques.

Introduction to physical and aesthetic aspects of sound, light, and image and to the science and technologies that record and reproduce them.

RTF X90N. Topics in Issues in New Media.

Issues in new media theory and practice.

RTF X93Q. Special Topics in Digital Media.

Applications and impact of digital media technologies.

RTF X95. Topics in Theory and Literature.

Advanced seminar surveying the literature of media and communication theories.

RTF X95.1. Theory and Literature for Doctoral Students: Social Science Approaches.

Surveys the literature of social science approaches to communication study.

RTF X95.2. Theory and Literature: Humanities Approaches.

Surveys the literature of humanities approaches to media studies.

RTF X95.3. Theory and Literature in Media Studies for Master's Students.

RTF X95.4. Theory and Literature I.

RTF X95.5. Theory and Literature II.

RTF X95C. Research Colloquium.

Lectures on subjects to be announced.

RTF X96. Portfolio in Media Production.

RTF X96P. Portfolio in Media Production.

RTF X98. Thesis.

RTF X98M. Master's Research and Writing.

Research and writing to complete masters thesis.

RTF X98R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option.

RTF X98T. Supervised Teaching in Radio-Television-Film.

Study of the teaching/learning process; practice in classroom presentation.

RTF X99W. Dissertation.

Professional Courses

RTF X19S. Topics in Radio-Television-Film.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Radio-Television-Film. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RTF X29S. Topics in Radio-Television-Film.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Radio-Television-Film. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RUS - Russian

Russian: RUS

Lower-Division Courses

RUS X01C. Intensive Russian I.

Emphasis on developing oral proficiency in Russian using intensive methods of instruction.

RUS X06. First-Year Russian I.

Emphasis on four-skills proficiency: listening, speaking, reading, and writing.

RUS X07. First-Year Russian II.

Emphasis on four-skills proficiency: listening, speaking, reading, and writing.

RUS X11C. Intensive Russian II.

Continuing intensive development of proficiency in Russian, with a focus on speaking and the reading of authentic texts.

RUS X12K. Second-Year Russian I.

Listening, speaking, reading, and writing at the second-year level.

RUS X12L. Second-Year Russian II.

Listening, speaking, reading, and writing at the advanced, second-year level.

RUS X19S. Topics in Russian.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RUS X29S. Topics in Russian.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

RUS X19S. Topics in Russian.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University

credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RUS X22C. Intermediate Russian Through Conversation.
Development of the basic skills of listening, speaking, reading, and writing, with special emphasis on oral communication.

RUS X22W. Intermediate Russian Through Writing.
Development of the basic skills of listening, speaking, reading, and writing, with a special emphasis on written expression.

RUS X26. Topics in Advanced Russian.
Designed to enhance the student's skills in a variety of functional areas. Topics may include advanced oral communication, stylistics, Russian for business, literary translation of legal and business documents, scientific and technical translation.

RUS X26.1. Vysotsky: His Life and Works.
An overview of the songs, films, and stage performances of Russia's premiere singer/song writer, Vladimir Vysotsky. Focus on his use of language and the cultural context of the times.

RUS X26.2. Russia at the Movies: 1936-1979.
Development of listening, speaking, and reading in Russian, while addressing stylistic shifts in the spoken language. Material will be drawn from a series of popular films from early to late Soviet cinema.

RUS X26.3. Russian Media, Business, and Public Policy.
Advanced writing and oral communication skills in the Russian language based on both tradition approach to grammatical and lexical studies of the language and innovative use of current Russian media, including newspaper and magazine articles, news programs, DVD clips, and short films. Development of ability to master both formal and informal knowledge of contemporary Russian and to discuss the most important issues of the Russian society.

RUS X26.4. Russia at the Movies since 1980.
Development of listening, speaking, and reading in Russian, while addressing stylistic shifts in the spoken language. Material will be drawn from a series of popular films from the late Soviet period to contemporary Russian cinema.

RUS X26.5. The Russian Short Story.
Introduction to short works of Russian literature by Pushkin, Gogol, Turgenev, Leskov, Dostoevsky, Tolstoy, Chekhov, Babel, Bulgakov, Solzhenitsyn, Tolstaya, Pelevin, and others. All readings and discussions are in Russian.

RUS X26C. Russian through Drama.
Focus on improving pronunciation, intonation, and public speaking skills in order to develop advanced proficiency in Russian. Explore an introduction to the life and works of Russian writer Anton Chekhov, and consider Chekhov's theater, the Stanislavsky method of acting, and the social context in which they developed.

RUS X26D. Russian through Global Debate.
Focus on developing an advanced level of spoken proficiency in Russian through the construction and delivery of arguments in a debate format. Explore the specialized lexicon and rhetoric of argumentation and debate discourse, while working within the subject frames of contemporary global issues: politics, economics, environment, social issues, and human rights.

RUS X26E. Advanced Russian Through History.
Practice Russian language skills in all areas of cultural and linguistic proficiency (speaking, listening, reading, and writing) while introducing major events and figures in Russian history from Kyivan Rus to the early twentieth century.

RUS X26F. Russian through Mass Media.
Examine societal, environmental, demographic and political issues in Russian-speaking countries.

RUS X29S. Topics in Russian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RUS X30D. Russian across Disciplines.
Read and discuss Russian language materials related to the subject matter of another designated course.

RUS X65T. The Art of Russian to English Translation.
Introduction to the art of translation from Russian to English and English to Russian. The focus is on translation of a variety of fiction and non-fiction texts, but instruction and practice in oral interpretation will also be available. Exposure to the variety of contemporary opportunities in the professional field of translation.

RUS X79. Conference Course in Russian Language or Literature.

RUS X79H. Honors Tutorial Course.
Supervised individual research on a literary or linguistic problem, which culminates in an honors paper of some length.

Graduate Courses

RUS X19S. Topics in Russian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RUS X29S. Topics in Russian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RUS X80E. Topics in Advanced Russian.

RUS X80E.1. Cultural Geography of Russia.
Culture, history, and traditions of diverse people and ethnic groups of Russia from a geographical perspective.

RUS X80E.2. Russian through Drama.
Focus on improving pronunciation, intonation, and public speaking skills in order to develop advanced proficiency in Russian. Explore an introduction to the life and works of Russian writer Anton Chekhov, and consider Chekhov's theater, the Stanislavsky method of acting, and the social context in which they developed.

RUS X80E.3. Russian through Global Debate.
Focus on developing an advanced level of spoken proficiency in Russian through the construction and delivery of arguments in a debate format. Explore the specialized lexicon and rhetoric of argumentation and debate discourse, while working within the subject frames of contemporary global issues: politics, economics, environment, social issues, and human rights.

RUS X80E.4. Vysotsky: His Life and Works.
Explore the songs, films, and stage performances of Russia's premiere singer-songwriter, Vladimir Vysotsky. Focus on his use of language and the cultural context of the times.

RUS X80E.5. Russian Media, Business, and Public Policy.
Explore advanced writing and oral communication skills in the Russian language based on both a traditional approach to grammatical and lexical studies of the language and innovative use of current Russian media, including newspaper and magazine articles, news programs, DVD clips, and short films. Build both formal and informal knowledge of contemporary Russian and discuss the most important issues of Russian society.

RUS X80E.6. Advanced Russian Through History.
Practice Russian language skills in all areas of cultural and linguistic proficiency (speaking, listening, reading, and writing) while introducing major events and figures in Russian history from Kyivan Rus to the early twentieth century.

RUS X85. Topics in Russian Linguistics.
Sample topics include Old Russian and the history of the Russian literary language, as well as more specialized topics in synchronic, historical, or applied perspective.

RUS X92. Topics in Slavic Languages and Literatures other than Russian.
Topics include Bulgarian, Macedonian, Serbian/Croatian, Slovenian, Czech, Sorbian, Polish, Slovak, Ukrainian, and Belorussian.

RUS X95. Conference Course.
Study of individual problems in Slavic languages.

RUS X97P. Topics in Applied Linguistics and Pedagogy.
Study of topics in applied linguistics related to the teaching of Russian and other Slavic languages.

RUS X98T. Supervised Teaching in Russian.
Principles and methods of teaching Russian. Analysis of relevant foreign language teaching theories and methodologies, curriculum and curricular materials development for university and secondary school teachers of Russian.

Professional Courses

RUS X19S. Topics in Russian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

RUS X29S. Topics in Russian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

S C - Serbian/Croatian

Serbian/Croatian: S C

Lower-Division Courses

Upper-Division Courses

Graduate Courses

Professional Courses

S S - Social Science

Social Science: S S

Lower-Division Courses

S S X02C. Honors Social Science: Methods and Theory.
An introduction to the study of the individual, society, or culture using the methods and theories of one of the Social Sciences.

S S X02D. Honors Social Science: Psychology.
An introduction to the study of the individual, society, or culture using the methods of the social science discipline of Psychology.

S S X02E. Honors Social Science: Anthropology.
An introduction to the study of the individual, society, or culture using the methods of the social science discipline of Anthropology.

S S X02F. Honors Social Science: Economics.
An introduction to the study of the individual, society, or culture using the methods of the social science discipline of Economics.

S S X19S. Topics in Social Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

S S X29S. Topics in Social Science.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

Professional Courses

S W - Social Work

Social Work: S W

Lower-Division Courses

S W X10. Introduction to Social Work and Social Welfare.
Introduction to the profession of social work including its fields of practice; values and ethics; its history and the social welfare policies that undergird it; its interactions with contexts which shape practice; and its promotion of social and economic justice to advance human rights, alleviate critical social problems, and promote wellbeing. Discuss engaging diversity and differences in social work practice.

S W X11. Introductory Topics in Social Work.
Selected introductory topics in the social work profession.

S W X11.3. Introduction to the Criminal Justice System.

S W X12. Generalist Social Work Practice: Knowledge, Values, and Skills.
Introduction to the fundamental values, ethics, skills, and knowledge relevant to generalist social work practice.

S W X13. Social Work Research Methods.
Introduction to social work values, the research process, problem formulation and conceptualization, measurement, research design and inference, single-subject design and practice evaluation, sampling, alternative data gathering techniques and analyses, and uses of research in social work.

S W X18. Social Work Statistics.
Introduction to the conceptual and quantitative tools used to describe and interpret data in the conduct of social work practice and research. Select, calculate, and interpret appropriate statistics applicable to common data analysis situations related to direct practice, administration and planning, and policy. Explore R statistical software to calculate statistics and present results.

S W X19S. Topics in Social Work.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Steve Hicks School of Social Work. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

S W X23K. Social Welfare Programs, Policies, and Issues.
Analyze contemporary social welfare policy issues and programs and discuss the relationship between social policy and social work practice. Explore the historical, political, economic, and social conditions that influence policy development in the United States. Use policy analysis

tools in order to examine how policy influences practice and planning decisions and how social workers can influence social welfare policy.

S W X27. Human Behavior and Social Environment.

Explore the biopsychosocial and cultural functioning of human beings across the life span using an ecological-systems lens and major developmental theories as a framework to guide the processes of assessment, intervention, and evaluation. Discuss the impact of the family, social groups, organizations, communities, and society on individuals during these stages of the life span. Examine empirically-based research reflecting a risk and resilience perspective in making client assessments and recommending appropriate interventions.

S W X29. Transformative Teams In Health Care.

Engage in interprofessional team work, including an examination of the backgrounds and contributions of different professions and teams. Identify examples of highly functional vs. dysfunctional team interactions. Explore integrated behavioral health for patient care.

S W X29S. Topics in Social Work.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Steve Hicks School of Social Work. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

S W X31. Applied Social Ethics.

Explore how membership in vulnerable population groups influences an individual's life experiences, world view, and increases risk factors for exposure to discrimination, economic deprivation, and oppression. Analyze human and civil rights and global interconnections of oppression. Examine the impact of discrimination and oppression by individuals and society on people of different backgrounds and orientations.

S W X32. Social Work Practice with Individuals and Families.

Examine the helping process within the context of an ecosystems developmental framework. Explore engaging clients in an appropriate working relationship; communication skills; identifying issues, problems, needs, resources, and assets; and planning for service delivery. Pay special attention to understanding, affirming, and respecting people from diverse backgrounds, including (but not limited to) groups distinguished by race, ethnicity, culture, class, gender, sexual orientation, religion, physical or mental ability, age, and national origin.

S W X33. Social Work Practice with Groups.

Explore group dynamics and effective leadership skills, through social work values and the ethical decision-making process. Discuss both task and treatment groups utilizing an ecosystems developmental framework. Pay special attention to understanding, affirming, and respecting groups with diverse backgrounds, including (but not limited to) race, ethnicity, culture, class, gender, sexual orientation, religion, physical or mental ability, age, and national origin. Explore social work group facilitation using empirically-based theories and interventions to achieve client goals.

S W X34. Social Work Practice in Organizations and Communities.

Examine the organizational context within which social services are delivered, including how funding, mandate, and organizational arrangements influence service delivery and factors to consider in efforts to modify existing organizational arrangements. Explore the interlocking and complex nature of culture and personal identity, discussing vulnerable populations and examining the factors that contribute to and constitute being at risk. Define, design, and implement strategies for effective practice with persons from diverse backgrounds.

S W X35. Facilitating Dialogues on LGBTQ Oppression: Peers for Pride in Action.

The second part of the Peers for Pride facilitation program; serves as a way for students in the program to use the information and skills learned in "Confronting LGBTQ Oppression." Students will continue to fine-tune their facilitation skills and continue learning about LGBTQ people on the UT campus and beyond.

S W X45. Social Work Applied Practice.

Explore the integration of theory and practice to strengthen the relationship between the classroom content and field. Examine the processes common to all social work practice, gender and cultural issues, and their impact on service delivery. Explore issues related to social and economic justice, vulnerable populations, cultural diversity, alleviating social problems, and the enhancement of human well-being.

S W X45F. Social Work Practicum Instruction I.

Participate in a practicum to apply knowledge and develop skills of social work practice.

S W X45G. Social Work Practicum Instruction II.

Apply knowledge and develop skills in social work.

S W X50. Special Topics in Generalist Social Work.

S W X55. Topics in Disability Studies.

S W X60K. Current Social Work Topics.

Designed to enable each student to undertake intensive study of selected aspects of social work practice.

S W X60K.10. Methods of Play Intervention.

S W X60K.11. Communication Skills in Interdisciplinary Settings.

S W X60K.12. Social Work in the Legal System.

S W X60K.13. Social Work in the School Setting.

S W X60K.14. Working with Youth Gangs.

S W X60K.16. Roots of Social and Economic Justice: An International Perspective.

S W X60K.17. Principles of Recovery and Relapse Prevention.

S W X60K.18. Mental Health Issues in Public Safety.

Designed to provide a basic understanding of mental health intervention and treatment related issues for students planning to work in the field of public safety.

S W X60K.21. Juvenile Justice: Systems, Policy, and Practice.

Introduction to the socio-historical context of the juvenile justice system and key micro, mezzo, and macro level issues for social service providers working with juvenile justice system-involved populations. Examine social theories used to explain why youth engage in behaviors deemed "delinquent;" social inequality in the juvenile justice system; juvenile justice system procedures; and practitioner and policy efforts to facilitate positive youth development within the juvenile justice system.

S W X60K.22. Parenting Interventions for Diverse Populations.

An overview of evidence-based interventions aimed at enhancing parenting across diverse populations. Explore advances and limitations in efforts to support parents in raising healthy and successful children from different backgrounds.

S W X60K.23. Introduction to Sport Social Work.

Examine social work practice in sporting environments and explore how to assist athletes at all levels of sports. Includes a focus on physical and mental health, parenting, youth, foster care, bereavement, and social services.

S W X60K.26. Death, Dying, and Practitioner Resilience.

Examine cultural, historical, and theoretical components of death, dying, and resilience in healthcare. Explore communicative, psychological, and sociological approaches to terminally ill patient communication and care. Discuss methods of achieving wellness and resilience in the face of adversity.

S W X60K.3. Treatment of Substance Use Disorders.
S W X60K.4. Social Work Practice with Abused and Neglected Children and Their Families.
S W X60K.5. Advanced Topics in Social and Economic Justice.
S W X60K.6. Contemporary Issues in Domestic Violence.
S W X60K.7. International Social Work.
S W X60K.8. Leadership in the Community.
S W X60K.9. Loss and Grief: Individual, Family, and Cultural Perspectives.
S W X67M. Social Justice and Change: A Critical International Perspective.
Explore the historical and contemporary contexts of the British welfare state, social work practice, and institutional efforts to address social injustice. Examine British culture and how the United Kingdom and the United States address pressing social issues. Discuss the rights, responsibilities, and actions of global citizenship in an increasingly global society.
S W X79H. Honors Tutorial Course.
Individual conference course in social work research and writing.

Graduate Courses

S W X81R. Human Behavior and the Social Environment.
Focuses on empirically based theories and conceptual approaches that form the foundation for social work practice and research with individuals and families in social systems.
S W X81S. Foundations of Social Justice: Values, Diversity, Power, and Oppression.
History, demographics, and cultures of various populations at risk with an emphasis on self-awareness and understanding the impact of discrimination and oppression by individuals and society on people of diverse backgrounds, abilities, and orientations.
S W X81T. Dynamics of Organizations and Communities.
The organizational and community context within which social services are delivered and the influence of funding, mandate, and organizational arrangements on service delivery, with attention given to populations at risk.
S W X82R. Social Policy Analysis and Social Problems.
Explore a historical perspective on the development of social welfare institutions, programs, and policies. Study current methods of policy analysis, evaluation of social problems, and advocacy for policy change.
S W X83C. Dual MSSW Program with Partner Institutions.
Social Work study at partner institutions.
S W X84F. Foundations of Social Work Practice I.
Introduction to social work practice methodology and the professional use of self in generalist practice with individuals, families, groups, organizations, and communities. Explore the generalist approach in social work practice in preparation for work with a variety of client systems including individuals, families, groups, organizations, and communities.
S W X84G. Foundations of Social Work Practice II.
Explore the application of theory and practice methods for effective and ethical service delivery to individuals, families, groups, organizations, and communities.
S W X85F. Generalist Practicum Instruction I.
Develop a social work perspective and skill in working with individuals, families, groups, organizations, and communities.
S W X85G. Generalist Practicum Instruction II.
Explore an advanced application of theory to practice and consider special issues.
S W X85R. Social Work Research Methods.
Examine and understand research processes and methods in social work, with the focus on consuming and analyzing research at all levels of social work practice.
S W X85T. Advanced Integrative Capstone in Social Work Knowledge and Practice.
Applies knowledge, skills, and theories to values and ethics, diversity, populations at risk, social and economic justice, human behavior and the social environment, social welfare policy, social work practice, research, and field education. Designed to be taken concurrently with Social Work 694R.
S W X87D. Direct Practice Immersion.
Learn through working in a professional agency and assisting clients.
S W X87G. Global Practicum Seminar: Critical Learning for Ethical Practice.
Explore foundational knowledge about global social work ethics, practice, and international dynamics.
S W X87R. Topics in Special Issues.
S W X87R.1. Loss and Grief: Individual and Family Perspectives.
S W X87R.13. Aging and Disability.
S W X87R.14. Family Support, Self-Determination, and Disability.
S W X87R.15. Introduction to Gerontology.
S W X87R.16. Developmental Disabilities and Self-Advocacy.
S W X87R.17. Making Systems Work for People with Disabilities.
S W X87R.18. The Social Construction of Disability.
S W X87R.19. Spirituality in Social Work Practice.
S W X87R.20. Dynamics of Substance Use Disorders.
S W X87R.22. Social Work in the School Setting.
S W X87R.23. Social Work Practice with Older Adults.
S W X87R.26. Spanish for Social Workers.
S W X87R.27. Women with Disabilities.
S W X87R.30. Contemporary Practice with Older Adults.
S W X87R.32. Psychosocial Oncology Practice and Research.
S W X87R.33. Child and Adult Attachment in Clinical Practice.
S W X87R.34. Introduction to Sport Social Work.
S W X87R.35. Ethical Dilemmas in Social Work Practice.
S W X87R.36. Social Work in Health Care.
S W X87R.38. Social Work with Military Personnel and Families.
S W X87R.39. Parenting Interventions for Diverse Populations.
S W X87R.40. Mindfulness and Social Work Practice.
S W X87R.42. Meaning Making and Resilience in Illness and Suffering.
S W X87R.43. Women's Health Policy.
S W X87R.44. Substance Use and Social Work Practice.
S W X87R.45. Suicide Prevention.
S W X87R.46. Incarceration and Disability.
S W X87R.47. Sexuality and Disability.
S W X87T. Transformative Teams in Health Care.
S W X88R. Topics in Advanced Research in Social Work: Seminar.
S W X88R.10. Quantitative Data Analysis I.
Introduction to fundamental concepts and statistical procedures used in social work research. Focus on computer applications for data analysis and development of basic skills in data file construction, management, and statistical analysis. Primary focus is on developing a conceptual and mathematical understanding of statistics needed for advanced work in research design, model development, model fitting and estimation, hypothesis testing, multivariate techniques, and interpretation of data.
S W X88R.11. Quantitative Data Analysis II.
Builds on the concepts and procedures introduced in Social Work (Topic 10). Designed to enable students to do a more thorough job of data analysis by introducing multivariate statistical procedures into their repertoire of statistical techniques. The primary focus is on using the

SPSS statistical package for calculating multivariate statistics, and the utilization of the statistical output in research findings.

S W X88R.12. Hierarchical Linear Modeling.

Provides an introduction to the basic concepts and applications of Hierarchical Linear Modeling (HLM). Subjects will include multilevel data structures, model building and testing, fixed and random effects, and interpretation of results.

S W X88R.13. Grant Writing For Prevention and Clinical Intervention Research.

Explore principles of grant writing with special focus on standards expected by leading federal funding agencies, e.g. National Institutes of Health. Conceptualize grant proposals according to social justice principles with the goal of benefiting under-served populations. Produce an exploratory/developmental grant proposal with an explicit focus on prevention or clinical intervention.

S W X88R.14. Research Methods in Minoritized Populations.

Examine scholarly discourse with respect to social science research methods that include race, ethnicity, and other minoritized identities as variables, or that is conducted in and with minoritized communities.

S W X88R.15. Quantitative Research Methods.

Introduction to the basic elements and process of quantitative research design in the social sciences, with particular attention to social work research.

S W X88R.16. Qualitative Data Analysis.

Focus on the epistemological and practical issues of analyzing qualitative data and writing up the results. Gain expertise in analyzing qualitative data through four major approaches: thematic analysis, phenomenological analysis, grounded theory, and narrative analysis.

S W X88R.17. Qualitative Research Methods.

Introduction to the philosophical and methodological issues of qualitative research which covers epistemologies, theoretical perspectives, mixed methods research, and systematic research approaches.

S W X88R.18. Policy Theories and Social Context: Applications for Research.

Explore policy theory, its application, and critique, being equipped with the conceptual and analytical tools necessary for policy-focused research. Focus on both skill development and the critical understanding of theoretical frameworks, preparing to engage in advanced research in public policy. Investigate the processes and mechanisms through which policies are developed, implemented, evaluated, and evolved.

S W X88R.19. Community Engaged Research Methods.

Introduction to the philosophical, methodological, and ethical issues of conducting community engaged research. Explore types of community-based participatory approaches to research, key methodological aspects of these approaches, and insights from projects across different cultural contexts and academic disciplines, showing ways in which community participants and citizen scientists can be involved in co-designing different stages of the research cycle. Examine key issues to consider when involving community participants at each step of the research process, including the voices of people with lived experience directly, and draw out conclusions and point ways forward for future research.

S W X88R.2. Research Methods II.

Designed to provide students with the knowledge and competence needed to successfully design, conduct and publish quantitative studies in peer-reviewed journals. Designed to be concrete and to use a "hands-on approach to gaining mastery over the technical, narrative, and strategic elements of conducting original research with quantitative data.

S W X88R.5. Structural Equation Modeling.

Introduction to the basic concepts and applications of Structural Equation Modeling (SEM) using the AMOS program. Explores conducting factor analysis, testing causal structures, testing model structure invariance and mean invariance through multigroup analyses, and examining change over time with growth curve modeling.

S W X88R.9. Secondary Data Analysis.

Introduction to the advantages and challenges of working with secondary data, involving hands on experience with the preparation and data analysis of large data sets. Subjects include the basics of Confirmatory Factor Analysis, Structural Equation Modeling, and Multi-group analyses using AMOS software.

S W X90N. Topics in Strategies of Intervention: Seminar.

A critical evaluation of social work intervention strategies in human services, using alternative theoretical perspectives.

S W X90N.2. Theories of Social Work Practice.

Conceptualization, development, and application of social work theories and major theoretical paradigms are covered. Examination of philosophical, theoretical, and empirical underpinnings of different social work practice theories with an emphasis on understanding and critically analyzing the philosophical assumptions and scientific basis of various theories. Explores the historical context of different theories covered and research on their effectiveness within social work. Discussion of major theories from diverse disciplines.

S W X92R. Topics in Social Welfare Policy Analysis.
S W X92R.1. Integrated Health Care Policy.
S W X92R.2. Children and Families.
S W X92R.3. Poverty and Public Policy.
S W X92R.4. Social Policy for the Aging Population.
S W X92R.5. Social Determinants of Health and Health Policy.
S W X93R. Topics in Advanced Clinical Practice.
S W X93R.1. Clinical Assessment and Differential Diagnosis.
S W X93R.13. Cognitive-Behavioral Therapy.
S W X93R.15. Couples Counseling.
S W X93R.16. Coexisting Psychiatric and Substance Use Disorders.
S W X93R.18. Grief Counseling.
S W X93R.20. Methods of Play Intervention.
S W X93R.21. Motivational Interviewing.
S W X93R.22. Neurobiology and Social Work Practice.
S W X93R.23. Treatment of Substance Use Disorders.
S W X93R.24. Treatment of Children and Adolescents.
S W X93R.26. Theories and Methods of Group Intervention.
S W X93R.29. Crisis Intervention.
S W X93R.3. Theories and Methods of Family Intervention.
S W X93R.30. Solution-Focused Brief Therapy.
S W X93R.31. Neurodevelopment and Trauma.
S W X93R.9. Assessment and Treatment of Traumatized Populations.
S W X93T. Topics in Advanced Macro Practice.
S W X93T.11. International Social Work.
S W X93T.14. Psychiatric Disabilities: From the Inside Out.
S W X93T.16. Social Work Leadership in Human Service Systems.
S W X93T.18. Nonprofit Management in Human Services.
S W X93T.20. Information Systems and Communication in Social Work.
S W X93T.22. Community Building.
S W X93T.23. Advanced Policy Practice.
S W X93T.25. Social Change and Community Practice.
S W X93T.26. Cross-Disciplinary Global Project Development in the United States and Abroad.
S W X93T.28. Program Evaluation.
S W X93T.29. Financial Management in Human Services.
S W X93T.30. Grant Writing and Resource Development.
S W X93T.31. Collaborative Leadership through Public and Private Partnerships.
S W X93T.32. Social Work Leadership for the Public Good.
S W X93T.8. Community Engagement and Management of Volunteers.
S W X93T.9. Community Organizing and Social Change.
S W X93U. Topics in Social Justice and Populations at Risk.
S W X93U.1. Social Work Practice with Abused and Neglected Children and Their Families.
S W X93U.10. Women and Substance Use Disorders: Contemporary Issues.
S W X93U.16. Assessment and Treatment of Juvenile Offenders.
S W X93U.18. Restorative Justice.
S W X93U.22. Contemporary Issues in Domestic Violence.
S W X93U.23. Contemporary Issues and Practice in Sexual Assault.
S W X93U.24. Advanced Issues in Social and Economic Justice.
S W X93U.32. Communication Skills in Interdisciplinary Settings.
S W X93U.33. Community Participatory Research on Health Disparities.
S W X93U.34. Mitigation Matters.
S W X93U.36. Juvenile Justice: Systems, Policy, and

S W X95F. Colloquium on Issues in Social Work Education and Research I.
Focus on professional development and program requirements and expectations. Explore core topics and cohort-specific sessions using readings, reflection exercises, and discussions.
S W X95J. Research in Social Work.
Individually supervised development of the comprehensive research paper.
S W X95K. Topics in Conference Course in Social Work.
Introduction to the diversity of topics and methods pursued by researchers and academicians in social work education and allied fields. Topics covered are broad and include information that facilitates the learning of research methods and the development of knowledge and skills needed to participate in the PhD program and within a community of scholars.
S W X95L. Research Practicum.
Individually supervised research experience.
S W X95N. Colloquium on Issues in Social Work Education and Research II.
Focus on the development of essential knowledge and skills in the social work field. Explore critical issues and diverse methodologies that enhance understanding of research practices pursued by researchers and academicians.
S W X95S. Area of Specialization Course.
Demonstrate knowledge in the substantive issues, key research questions, theory, empirical evidence, and implications in an area of specialization.
S W X95W. Writing Practicum.
Individually supervised development of publishable written material.
S W X97M. Social Justice and Change: A Critical International Perspective.
Explore the historical and contemporary contexts of the British welfare state, social work practice, and institutional efforts to address social injustice. Immerse in British culture and explore how the U.K. and the U.S. address pressing social issues. Discuss the rights, responsibilities, and actions of global citizenship in an increasingly global society.
S W X98T. Pedagogy in Social Work.
Focus on learning theory, the science of higher education teaching, social work curriculum and accreditation, course development, and creating supportive classroom environments.
S W X99W. Dissertation.

Professional Courses

SAL - South Asian Languages

South Asian Languages: SAL

Lower-Division Courses

SAL X06. Topics in First Year South Asian Languages I.
Emphasis on four-skills proficiency: listening, speaking, reading, and writing.
SAL X07. Topics in First Year South Asian Languages II.
Emphasis on four-skills proficiency: listening, speaking, reading, and writing.
SAL X12K. Topics in Second Year South Asian Languages I.
Listening, speaking, reading, and writing at the second-year level.
SAL X12L. Topics in Second-Year South Asian Languages II.
Listening, speaking, reading, and writing at the advanced, second-year level.
SAL X19S. Topics in South Asian Languages.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken

in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SAL X29S. Topics in South Asian Languages.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

Professional Courses

SAN - Sanskrit

Sanskrit: SAN

Lower-Division Courses

SAN X06. First-Year Sanskrit I.
Introduction to basic grammatical principles, with reading of Ramayana episodes as illustrations.

SAN X07. First-Year Sanskrit II.
Detailed study of problems of grammar and syntax; reading of extracts from Hitopadesha and the Bhagavad Gita.

SAN X12K. Second-Year Sanskrit I.
Introduction to classical Sanskrit prose literature; readings from the Epics and Kathasaritsagara.

SAN X12L. Second-Year Sanskrit II.
Introduction to classical Sanskrit poetry and philosophical literature; readings from the Upanishads and Kalidasa's Meghaduta.

SAN X19S. Topics in Sanskrit.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SAN X29S. Topics in Sanskrit.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

Upper-Division Courses

SAN X19S. Topics in Sanskrit.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SAN X25K. Advanced Sanskrit Readings and Composition I.

SAN X25L. Advanced Sanskrit Readings and Composition II.

SAN X29S. Topics in Sanskrit.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

SAN X30. Topics in Sanskrit Language and Literature.

SAN X30.1. Sanskrit Drama.
Provides students with a firmer foundation in Sanskrit grammar, syntax, and vocabulary; and an appreciation of the aesthetics of Sanskrit drama.

SAN X30.2. Vedic Poetry.
Religious and literary features of Vedic poetry, the development of Vedic Sanskrit, and the relation of Vedic to Classical Sanskrit.

SAN X30C. Bhagavata Purana.
Examine the famous Bhagavata-Purana, a collection of stories and theologies of Vaisnava Hinduism, with a focus on selected readings from the tenth book or canto of the text, which contains a theological biography of Krsna. Develop both broad and deep knowledge of the text, and explore its significance within Sanskrit intellectual, literary, and religious histories.

SAN X30D. Kumarasambhava of Kalidasa.
Focus on the third and fifth cantos of the Kumarasambhava of Kalidasa, a poetic masterpiece of Sanskrit literature. Consider the poetics and compositional style of the text, the style of Sanskrit commentary, and the translation of complex Sanskrit verse into English, as well as the mythological assumptions, social perspectives, and cultural concerns that inform the text.

SAN X30E. Dharmasastra.
Examine selected topical readings from the genre of Sanskrit literature called Dharmasastra, also known loosely as Hindu law, with focus on legal and religious topics of dharma from the earliest sutras to the smrtis to the later commentaries and digests.

SAN X30F. Buddhist and Jain Sanskrit.
Examine selections from important texts of Buddhist and Jain traditions with a focus on the Sanskrit vocabulary and style of these traditions, as well as their conceptual, doctrinal, and narrative foundations. Focus on both systematic expositions of religious doctrine (sastra, darsana), and on narrative theologies (katha, carita, avadana) to facilitate comparison between the two religious traditions.

SAN X30G. Purva-Mimamsa.
Examine the Purva-Mimamsa, the system of hermeneutics developed to interpret the intricate ritual prescriptions of the Brahmana texts in the Vedic corpus. Explore this system through study of a primer of Mimamsa hermeneutics in Sanskrit, and through secondary readings providing context and broader background to the influence of Mimamsa.

SAN X30J. Vedanta.
Explore the multiplicity of "Vedanta," the collection of philosophical and hermeneutic systems that became influential in India since the second millennium.

SAN X30U. The Upanishads.

SAN X60. Conference Course in Sanskrit Language and Literature.
Supervised individual study of selected problems in Sanskrit language or literature.

Graduate Courses

SAN X19S. Topics in Sanskrit.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SAN X29S. Topics in Sanskrit.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken

in residence. Transfer work is awarded for work in an affiliated studies program.

SAN X81. Conference Course in Sanskrit Language and Culture.

Supervised individual study in Sanskrit language or culture.

SAN X84S. Topics in Sanskrit Language and Culture.

Study of various aspects and periods of Sanskrit language and culture.

SAN X84S.1. Advanced Readings in Sanskrit.

SAN X84S.10. Purva-Mimamsa.

Examine the Purva-Mimamsa, the system of hermeneutics developed to interpret the intricate ritual prescriptions of the Brahmana texts in the Vedic corpus. Explore this system through study of a primer of Mimamsa hermeneutics in Sanskrit, and through secondary readings providing context and broader background to the influence of Mimamsa.

SAN X84S.11. Vedanta.

Explore the multiplicity of "Vedanta", the collection of philosophical and hermeneutic systems that became influential in India since the second millennium.

SAN X84S.2. Readings in Classical Sanskrit Prose and Literature.

SAN X84S.3. Sanskrit Drama.

Provides students with a firmer foundation in Sanskrit grammar, syntax, and vocabulary; and an appreciation of the aesthetics of Sanskrit drama.

SAN X84S.4. Vedic Poetry.

Religious and literary features of Vedic poetry, the development of Vedic Sanskrit, and the relation of Vedic to Classical Sanskrit.

SAN X84S.5. The Upanishads.

SAN X84S.6. Bhagavata Purana.

Examine the famous Bhagavata-Purana, a collection of stories and theologies of Vaisnava Hinduism, with a focus on selected readings from the tenth book or canto of the text, which contains a theological biography of Krsna. Develop both broad and deep knowledge of the text, and explore its significance within Sanskrit intellectual, literary, and religious histories.

SAN X84S.7. Kumarasambhava of Kalidasa.

Focus on the third and fifth cantos of the Kumarasambhava of Kalidasa, a poetic masterpiece of Sanskrit literature. Consider the poetics and compositional style of the text, the style of Sanskrit commentary, and the translation of complex Sanskrit verse into English, as well as the mythological assumptions, social perspectives, and cultural concerns that inform the text.

SAN X84S.8. Dharmasastra.

Examine selected topical readings from the genre of Sanskrit literature called Dharmasastra, also known loosely as Hindu law, with focus on legal and religious topics of dharma from the earliest sutras to the smrtis to the later commentaries and digests.

SAN X84S.9. Buddhist and Jain Sanskrit.

Examine selections from important texts of Buddhist and Jain traditions with a focus on the Sanskrit vocabulary and style of these traditions, as well as their conceptual, doctrinal, and narrative foundations. Focus on both systematic expositions of religious doctrine (sastra, darsana), and on narrative theologies (katha, carita, avadana) to facilitate comparison between the two religious traditions.

Professional Courses

SAN X19S. Topics in Sanskrit.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SAN X29S. Topics in Sanskrit.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

SCI - Science

Science: SCI

Lower-Division Courses

SCI X19S. Topics in Science.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Science Education Center. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SCI X29S. Topics in Science.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Science Education Center. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SCI X60. Topics in Recent Advances in Science: Seminar.

Recent advances in the life, earth/space, and physical sciences.

SCI X60.1. Life Science.

SCI X60.2. Earth Science.

SCI X60.3. Physical Science.

SCI X65. Physics by Inquiry.

Investigates two areas of natural sciences and technology: electric circuits, an engineered phenomenon, and optics, the interaction of light and vision, physical and biological natural phenomena.

Graduate Courses

Professional Courses

SDS - Statistics and Data Sciences

Statistics and Data Sciences: SDS

Lower-Division Courses

SDS X01. Elementary Statistical Methods.

Covers the fundamental procedures for data organization and analysis. Subjects include frequency distributions, graphical presentation, sampling, experimental design, inference, and regression.

SDS X02F. Foundations of Data Analysis.

Introduction to data analysis and statistical methods. Subjects include random sampling; principles of observational study and experimental design; data summaries and graphics; and statistical models and inference, including the simple linear regression model and one-way analysis of variance.

SDS X13. Introduction to Data Science.

Introduction to the principles and practice of data science. Explore R and reproducible data analysis; summarizing data using descriptive statistics; data visualization and storytelling; data wrangling and relational data; basic prediction and classification using regression models; and programming in R.

SDS X15. Statistical Thinking.

Introduction to the fundamental ideas of statistical thinking with R programming. Explore survey, experimental, and observational study design; common sources of random and systematic error in data; the

bootstrap as a tool for quantifying uncertainty; hypothesis testing; regression; and the role of statistics in an ethical and just society.

SDS X19S. Topics in Statistics and Data Sciences.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Statistics and Data Sciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SDS X20E. Elements of Statistics.

Introduction to statistics. Subjects include probability; principles of observational study and experimental design; statistical models and inference, including the multiple linear regression model and one-way analysis of variance. R programming is introduced.

SDS X20H. Elements of Statistics: Honors.

Introduction to statistics. Subjects include probability; principles of observational study and experimental design; statistical models and inference, including the multiple linear regression model and one-way analysis of variance. R programming is introduced.

SDS X21. Introduction to Probability and Statistics.

Covers fundamentals of probability, combinatorics, discrete and continuous random variables, jointly distributed random variables, and limit theorems. Using probability to introduce fundamentals of statistics, including Bayesian and classical inference.

SDS X22E. Elements of Data Science.

Explore data science tools and examine data wrangling; exploratory data analysis and data visualization; markdown and data workflow; simulation-based inference; and classification methods. R programming is emphasized and Python programming is introduced.

SDS X24E. Elements of Regression Analysis.

Explore the use of regression analysis in applied research and learn about multiple linear regression; ANOVA; logistic regression; random and mixed-effects models; and models for dependent data. Engage in the identification of appropriate statistical methods and interpretation of software output. R programming is introduced.

SDS X25H. Honors Statistics.

An introduction to the fundamental theories, concepts, and methods of statistics. Emphasizes probability models, exploratory data analysis, sampling distributions, confidence intervals, hypothesis testing, correlation and regression, and the use of statistical software.

SDS X26E. Elements of Statistical Machine Learning.

Introduction to the concepts and tools of data science, statistics, and machine learning used to draw inferences about large-scale and real-world data. Explore data visualization, linear and nonlinear models, regularization, classification, resampling, tree-based methods, support vector machines, and unsupervised learning.

SDS X29S. Topics in Statistics and Data Sciences.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Statistics and Data Sciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SDS X31. Probability and Statistical Inference.

Introduction to probability and statistical inference. Examine events and random experiments; basic rules of probability; joint, conditional, and marginal probability and independence; discrete and continuous random variables; random sampling and estimation; large-sample theory results and central limit theorem-based inferential summaries; and maximum likelihood estimation.

SDS X34. Intermediate Statistical Methods.

Introduction to applied regression analysis. Explore estimation and inference in multiple regression models; logistic regression; regression for count data; time-to-event models; and case studies in regression modeling in published work, emphasizing both the use and limitations of regression modeling in advancing scientific knowledge.

SDS X36. Practical Machine Learning.

Introduction to machine learning for data science with an emphasis on Python programming. Explore comparing algorithm performance; decision-tree algorithms; classification algorithms; model averaging; unsupervised learning; and neural networks.

SDS X54. Advanced Statistical Methods.

Explore advanced methods in statistics and data science. Examine modeling data with multilevel (hierarchical) structure and causal inference, including design and analysis strategies. Discuss smoothing methods; spatial and time series models; additive models; and models for network data.

SDS X57. Case Studies in Data Science.

Explore advanced case studies in data science, with an emphasis on the full data analysis pipeline. Examine data collection, identification of data limitations; data privacy; data preparation and exploration; building, using, and evaluating models; creating data products; and communication and persuasion with data.

SDS X64. Bayesian Statistics.

Introduction to the Bayesian approach for statistical inference. Explore prior, posterior, and predictive distributions: conjugate priors; informative and non-informative priors; models for normal, categorical, and count data; Bayesian computation, including MCMC and the Gibbs sampler; hierarchical models; and Bayesian model checking and model selection.

SDS X65. Special Topics in Statistics and Data Science.

Examine concepts of statistics and data science.

SDS X65.1. Sports Analytics.

Explore fundamental principles and methods of sports analytics. Participate in practical experience in collecting and analyzing sports data. Discuss data collection, metric estimation and evaluation, predictive modeling, match-up models, game simulation, and in-game decision making.

SDS X65.2. Data Product Development.

Learn the fundamentals of creating data products using technologies like Shiny, R packages, and interactive graphics tools. Explore interactive maps, machine learning application programming interfaces, dashboards, and data storytelling. Focus on both the statistical details and the design process for building effective data products.

SDS X66. Data Visualization.

Explore how to visualize data sets. Reason about, and communicate with, data visualizations.

SDS X68. Statistical Theory.

Introduction to the mathematical theory of statistics. Explore maximum likelihood estimation, confidence intervals, hypothesis tests and statistical decision theory, tail and concentration bounds, concentration of measure, and nonparametric statistics.

SDS X74C. Parallel Computing for Science and Engineering.

Study of parallel computing principles, architectures, and technologies; and parallel application development, performance, and scalability. Designed to help prepare students to formulate and develop parallel algorithms to implement effective applications for parallel computing systems.

SDS X74E. Visualization and Data Analysis for Science and Engineering.

Scientific visualization principles, practices, and technologies, including remote and collaborative visualization. Introduces statistical analysis, data mining, and feature detection.

SDS X75. Special Topics in Scientific Computation.

SDS X78. Introduction to Mathematical Statistics.

Sampling distributions of statistics, estimation of parameters (confidence intervals, method of moments, maximum likelihood, comparison of estimators using mean square error and efficiency, sufficient statistics), hypothesis tests (p-values, power, likelihood ratio tests), and other topics.

SDS X78P. Decision Analytics.

Examine decision theory with utility functions, including the use of probability, optimization, constrained optimization, and linear algebra.

SDS X79H. Honors Undergraduate Research.

Design an individual research project under the supervision of one or more faculty members.

SDS X79R. Undergraduate Research.

Students work on an individual research project under the supervision of one or more faculty members.

Graduate Courses

SDS X80C. Statistical Methods I.

Introduction to the fundamental concepts and methods of statistics. Includes descriptive statistics, sampling distributions, confidence intervals, and hypothesis testing. May include simple and multiple linear regression, analysis of variance, and categorical analysis. Use of statistical software is emphasized.

SDS X80D. Statistical Methods II.

Continuation of Statistics and Data Sciences 380C (or Statistics and Scientific Computation 380C). Surveys advanced statistical modeling and may include random and mixed effects models, time series analysis, survival analysis, Bayesian methods, and multivariate analysis of variance. Use of statistical software is emphasized.

SDS X81M. Topics in Statistics and Data Science Foundations.

Examine core concepts of statistics and data science.

SDS X83C. Statistical Modeling I.

An introduction to core applied statistical modeling ideas from a probabilistic, Bayesian perspective. Topics include exploratory data analysis, programming in R, Bayesian probability models, an introduction to the Gibbs sampler, applied regression analysis, and hierarchical models.

SDS X83D. Statistical Modeling II.

Use of structured, probabilistic models that incorporate multiple layers of uncertainty to describe real-world systems. Topics include multivariate normal distribution, mixture models, nonparametric Bayesian analysis, advanced hierarchical models and latent-variable models, generalized linear models, and advanced topics in linear and nonlinear regression.

SDS X83K. Topics in Data Analysis Applications.

Introduction to the use of statistical or mathematical applications for data analysis.

SDS X84. Topics in Statistics and Probability.

Concepts of probability and mathematical statistics with applications in data analysis and research.

SDS X84.1. Applied Probability.

Basic probability theory, combinatorial analysis of random phenomena, conditional probability and independence, parametric families of distributions, expectation, distribution of functions of random variables, and limit theorems.

SDS X84.10. Stochastic Processes.

Concepts and techniques of stochastic processes, with emphasis on the nature of change of variables with respect to time. Includes characterization, structural properties, and inference.

SDS X84.11. Theoretical Statistics.

Examination of asymptotic theory and empirical processes. The former would include minimax theory, Bernstein von Mises theorem, and Bayesian asymptotics. The latter, would include U statistics and robust estimation.

SDS X84.2. Mathematical Statistics I.

The general theory of mathematical statistics. Includes distributions of functions of random variables, properties of a random sample, principles of data reduction, an overview of hierarchical models, decision theory, Bayesian statistics, and theoretical results relevant to point estimation, interval estimation, and hypothesis testing.

SDS X84.3. Mathematical Statistics II.

Continuation of Computational Science, Engineering, and Mathematics 384R and Mathematics 384C.

SDS X84.4. Regression Analysis.

Simple and multiple linear regression, inference in regression, prediction of new observations, diagnosis and remedial measures, transformations, and model building. Emphasis on both understanding the theory and applying theory to analyze data.

SDS X84.6. Design and Analysis of Experiments.

Design and analysis of experiments, including one-way and two-way layouts; components of variance; factorial experiments; balanced incomplete block designs; crossed and nested classifications; fixed, random, and mixed models; and split plot designs.

SDS X84.7. Bayesian Statistical Methods.

Fundamentals of Bayesian inference in single-parameter and multi-parameter models for inference and decision making, including simulation of posterior distributions, Markov chain Monte Carlo methods, hierarchical models, and empirical Bayes models.

SDS X84.8. Time Series Analysis.

Introduction to statistical time series analysis. Includes autoregressive integrated moving average (ARIMA) and more general models, forecasting, spectral analysis, time domain regression, model identification, estimation of parameters, and diagnostic checking.

SDS X84.9. Computational Statistics.

Modern, computation intensive statistical methods, including simulation, optimization methods, Monte Carlo integration, maximum likelihood estimation and expectation-maximization parameter estimation, Markov chain Monte Carlo methods, resampling methods, and nonparametric density estimation.

SDS X85. Topics in Applied Statistics.

Theories, models, and methods for the analysis of quantitative data.

SDS X86M. Topics in Statistics and Data Science Extensions.

Examine concepts of statistics and data science.

SDS X86M.1. Data Visualization.

SDS X87. Linear Models.

An exploration of practical applications of the projection approach to linear models, building from a review of essential linear algebra concepts to the theory of linear models from a projection-based perspective. Introduction to Bayesian ideas. Additional topics include analysis of variance, generalized linear models, and variable selection techniques.

SDS X89R. Graduate Research.

Individual research project supervised by one or more faculty members.

SDS X90. Readings in Statistics.

Faculty directed research seminar. Activities may vary, but will include readings of cutting-edge research papers, discussion of on-going student and faculty projects, and consulting projects.

SDS X91P. Topics in Statistics and Data Science Foundations.

Examine advanced core concepts of statistics and data science.

SDS X91P.1. Advanced Statistical Modeling and Applications I.

SDS X91P.2. Advanced Statistical Modeling and Applications II.

Examine the use of structured, probabilistic models that incorporate multiple layers of uncertainty to describe real-world systems. Analyze generalized linear models, Gaussian processes, advanced hierarchical models and latent-variable models, and advanced linear and nonlinear regression.

SDS X91P.3. Theory of the Linear Model.
Explore the mathematical underpinnings and theory of linear regression modeling in likelihood and assumption-lean settings. Discuss linear algebra, regularization, asymptotic statistics, and minimax optimality.

SDS X91P.4. Computational Inference.
Examine computational methods for inference in statistical models. Explore inference methods, their properties, and their applicability. Discuss deterministic and stochastic optimization, Monte Carlo methods, and variational inference.

SDS X91P.5. Concepts in Mathematical Statistics.
Examine key concepts and ideas behind the mathematics associated with statistical procedures. Analyze derivations of well-known practices, such as point estimation, uncertainty quantification, hypothesis testing, nonparametric methods, and the analysis of various types of models, and their asymptotic properties.

SDS X91P.6. Theoretical Statistics and Machine Learning.
Examine concentration inequalities and asymptotic theory. Explore Hoeffding, Chernoff, Bernstein, Martingale-based methods, the Efron-Stein inequality, the Gaussian Lipschitz theorem, U statistics, uniform laws of large numbers, VC dimension, covering and packing. Practice high-dimensional covariance estimation and resampling.

SDS X93C. Numerical Analysis: Linear Algebra.
Survey of numerical methods in linear algebra: floating-point computation, solution of linear equations, least squares problems, algebraic eigenvalue problems.

SDS X93D. Numerical Analysis: Interpolation, Approximation, Quadrature, and Differential Equations.
Survey of numerical methods for interpolation, functional approximation, integration, and solution of differential equations.

SDS X96P. Topics in Statistics and Data Science Extensions.
Examine advanced concepts of statistics and data science.

SDS X96P.1. Statistical Machine Learning Optimization.
Introduction to machine learning and optimization methods from a statistical perspective with an emphasis on mathematical theory and applications.

SDS X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

SDS X98T. Supervised Teaching in Statistics and Data Sciences.
Supervised teaching experience; weekly group meetings, individual consultations, and reports.

SDS X99W. Dissertation.

Professional Courses

SED - Special Education

Special Education: SED

Lower-Division Courses

SED X02. Topics in Special Education.

SED X03. Autism Spectrum Disorder: Truths and Consequences.
Focus on approaches and strategies that help improve the lives of people with ASD. Examines the role research plays in what people know about various claims. Explores how research findings are communicated, and how to best translate research findings into everyday language.

SED X19S. Topics in Special Education.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Special Education. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SED X97P. Graduate Internship.
Supervised practice in a professional position.

Upper-Division Courses

SED X22C. Individual Differences.
Explore individual differences among people through the life span. Examine areas of exceptionality within the context of typical development: current research trends; theoretical and legal considerations; and practice-related issues, including family involvement, cultural and linguistic diversity, and educational perspectives.

SED X27. Sociocultural Influences on Learning.
Discuss human learning in multisocial, multilingual, and multicultural contexts; realities of society and their impact on learning; and social concerns such as prejudice, stereotyping, cross-cultural attitudes, bilingual issues, and parent and community involvement.

SED X29S. Topics in Special Education.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Special Education. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SED X32. Field Experiences in Special Education.
Observation and participation in a variety of educational settings that serve children with disabilities.

SED X37. Intercultural Communication and Collaboration.
Basic principles of interpersonal and intergroup communication in culturally and linguistically diverse educational settings. Designed to help students understand the relationship between culture, language, and disability using a variety of formats, including discussion, dialogue, journals, simulations, case studies, and field-based assignments.

SED X60R. Teaching Residency and Seminar.
Participate in a supervised practicum in special education classroom teaching, conducted in cooperating schools, as part of the teacher preparation program including teaching, analysis, and evaluation.

SED X72. Assessment of Individuals with Mild to Moderate Disabilities.
Assessment and high-stakes testing policies, procedures, and practices in special education; curriculum-based measurement used to monitor academic outcomes for students with disabilities; and principles and procedures used to reduce misidentification of individuals from culturally and linguistically diverse backgrounds and with limited English proficiency. Assessment data and individualized education plan development is also covered.

SED X75E. Teaching Practicum and Seminar.
Explore instructional practices associated with improved outcomes for students with mild to moderate disabilities receiving services in general and special education classrooms. Focus on teaching reading in content areas, such as mathematics, science, and social studies.

SED X76. Foundations and Issues in Special Education.
Key issues affecting decision-making and practices by special education teachers, assessment personnel, and administrators related to the treatment and education of students with disabilities.

SED X77. Transition and the Exceptional Learner.
An overview of the transitions within the life span, particularly the transition to postsecondary school settings for individuals with disabilities. Designed to help students develop the ability to infuse transition-related topics into curricula, assess transition needs, develop transition plans, and become knowledgeable about existing vocational and community services.

SED X78C. Teaching Students with Intense Support Needs.
Explore assessment and instructional strategies for educating students with autism and other developmental and physical disabilities. Focus on implementation and evaluation of instructional procedures for teaching

a range of adaptive behaviors, such as self-care, and communication, social, and community living skills.

SED X78G. Teaching Reading and Writing II.

Explore the knowledge and skills associated with assessing, instructing, and monitoring the progress of students who experience mild to moderate difficulties with reading, as well as students with dyslexia. Focus on reading, spelling, and writing for kindergarten through grade five.

SED X78I. Advanced Early Childhood Special Education.

Acquire in-depth knowledge of early childhood intervention, particularly related to services within the state of Texas, including an understanding of the legal policies related to serving young children with disabilities and their families.

SED X78J. Assessment Practices.

Learn assessment practices for developing and evaluating educational programs for individuals with autism and developmental disabilities. Examine the theoretical orientations that underlie the major assessment strategies, including standardized, behavioral, and informal practices.

SED X78T. Topics in Special Education.

SED X78T.1. Language-Minority Students in Special Education.

SED X78T.10. Teaching Bilingual/Multilingual Learners.

SED X78T.11. Positive Behavior Supports.

SED X78T.12. Teaching Mathematics I.

SED X78T.7. Autism Spectrum Disorder.

Explore Autism Spectrum Disorder (ASD) including the nature and diagnosis of ASD, available resources, and evidence-based practice service. Examine strategies implemented by professionals to help families and children navigate their environment and create a more inclusive and supportive environment for persons with ASD. Conducted in Spanish.

SED X78T.8. Teaching Reading and Writing I.

SED X78T.9. Teaching Mathematics II.

SED X79. Seminar in Special Education.

Specialized study in an identified area of interest in education of the exceptional child.

SED X97P. Graduate Internship.

Supervised practice in a professional position.

Graduate Courses

SED X80. Topics in Multicultural Special Education.

Study of critical issues in culture, language, and disability.

SED X80.1. Language Acquisition and Assessment in Multicultural Special Education.

Language acquisition among culturally and linguistically diverse learners in general and special education, with emphasis on effective assessment and instruction.

SED X80.11. Educational Planning for Multicultural Special Education.

SED X80.12. Educational Leadership in Multicultural Special Education.

Overview of issues affecting equal access to quality education for culturally and linguistically diverse learners with disabilities.

SED X80.13. Sociocultural Foundations of Special Education.

An in-depth examination of key knowledge, including sociocultural theory and conceptual models, used in teaching culturally and linguistically diverse students with disabilities in special education and inclusive settings.

SED X80.15. Addressing Critical Questions in Special Education Using National Datasets.

Considers how the federal government and local educational agencies collect a range of data on the educational experiences of children, including those with disabilities and special needs. Analyzes how these large datasets provide a unique opportunity to examine not only macro-level trends in identification rates, racial disparities, and student achievement, but also the influence of school and home contextual factors. Examines how to use these datasets and address important questions in special education today. Explores how to access, prepare, and analyze these datasets.

SED X80.16. Second Language Literacy Development and Assessment.

Examines essential concepts related to language and literacy. Discussion of past and present sociocultural factors that impact research in terms of both what is researched and how it is researched and the implications of that research on instruction and assessment. Analyzes the socio-cultural foundations of schooling and society to better understand the complex, dynamic interrelationships between culture, language, literacy, and disability.

SED X80.17. Diversity and Disability: Contemporary Perspectives.

SED X80.18. Cultural and Linguistic Diversity.

An overview of issues, problems, and emerging practices related to culturally and linguistically diverse students served in special education.

SED X80.4. Assessment in Multicultural Special Education.

Cultural and linguistic factors related to the assessment of language-minority students; the best practices in psychoeducational procedures.

SED X80.6. Advanced Research Topics in Multicultural Special Education.

Current and emerging research on individuals with disabilities who are from culturally and linguistically diverse backgrounds. Provides students with opportunities to review research literature on topics of interest to them, and to explore their writing skills. A process approach to writing is used to familiarize students with the APA guidelines for preparing scholarly manuscripts.

SED X80.7. Cross-Cultural Interactions in Multicultural Special Education.

Introduction to principles of intercultural communication for educators. Emphasis on strategies for effective cross-cultural communication in a variety of educational settings, including general and special education.

SED X80.8. School-Community Relations in Multicultural Special Education.

Traditional methods of parent and school relations; emerging and innovative models for communication between the school and the community; the intent of the course is to explore school-community interactions in the context of the dynamics of culture, race, language, politics, history, economics, and religion.

SED X80.9. Development of Personnel Preparation and Programming in Multicultural Special Education.

Designed to prepare students to develop standards-based multicultural personnel preparation programs that emphasize research-based practices and that improve student outcomes and promote recruitment, retention, and quality of personnel for teaching culturally and linguistically diverse populations with disabilities in pluralistic settings.

SED X83. Topics in Learning Disabilities.

Nature of the characteristics of learning disabilities and their effect on learning; assessment and progress monitoring measures; and individualized, differentiated strategies, interventions, technologies, and materials.

SED X83.1. Introduction to Learning Disabilities.

Basic terms and definitions, the nature of specific learning disorders, theoretical models, and empirical classification systems.

SED X83.10. Intensive Interventions for Students with Reading Disabilities.

Design, implementation, and evaluation of instruction for elementary- and secondary-level students with mild to moderate disabilities who receive special education services for reading.

SED X83.11. Intensive Interventions for Students with Math Disabilities.

Issues in the education of students with mild to moderate disabilities, including assessing students, evaluating instruction and instructional

materials, and adapting and implementing instruction with an emphasis on math.

SED X83.12. Intervention Research in Learning Disabilities.

SED X83.6. Teaching Students with Dyslexia and Reading Difficulties.

Theories and practices associated with dyslexia; terminology, assessment, and remedial strategies are emphasized.

SED X83.7. Assessment in Special Education.

The basic concepts related to the assessment of exceptional individuals.

SED X83C. High Incidence Disabled Student Teaching.

Nature of the characteristics of learning disabilities and their effect on learning; assessment and progress monitoring measures; and individualized, differentiated strategies, interventions, technologies, and materials.

SED X84. Topics in Early Childhood Special Education.

Education variables related to educational services and research for young children are investigated in terms of etiology, assessment, curriculum models, educational settings, and interdisciplinary programming.

SED X84.1. Overview of Early Childhood Special Education.

The educational and emotional needs of young disabled children (birth to age six) and the techniques for implementing a "whole child educational approach to meet the needs of the child and the family.

SED X84.10. Medical/Educational Programming: Birth to Age Three.

Medical information on pre-, peri-, and postnatal effects of medical problems and extended hospital stays. Impact of medical intervention on the infant's and the family's development.

SED X84.11. Medical/Educational Practicum in Early Childhood Special Education.

Early intervention in a neonatal intensive care unit or on a follow-up team for medically fragile high-risk children.

SED X84.13. Early Language Intervention.

SED X84.14. Family Support and Intervention.

SED X84.16. Medical and Educational Assessment and Intervention.

SED X84.17. Functional Motor and Vision Assessment and Intervention.

SED X84.3. Parent Education Models.

The grief stages of parents; parent involvement models available to promote optimum parent-child and parent-professional relationships.

SED X84.4. Practicum in Early Childhood Special Education.

Teaching experience with disabled children in a center setting. Assessment and curriculum procedures are applied in developing an appropriate education for an individual child or small groups of children.

SED X84.5. Advanced Practicum in Early Childhood Special Education.

Teaching experience with a large group of children in a center setting. Program management and evaluation procedures are applied to a total curriculum, so that the student assumes a lead teacher and/or consultant role during training.

SED X84.6. Assessment and Programming of Early Childhood Special Education.

Experience in assessing a disabled child in a naturalistic setting. Formal and informal assessment procedures for children from birth through age six.

SED X84.7. Medical/Educational Overview: Birth to Age Three.

Overview of hospital-to-school early intervention techniques for meeting the medical and educational needs of preterm, low-birth-weight, and at-risk children and their parents.

SED X84.8. Medical/Educational Parent Education and Involvement: Birth to Age Three.

Research, design, and implementation of a functional child-parent program. Students develop their own programs for working with parents of children with specific problems or disabilities.

SED X84.9. Medical/Educational Assessment: Birth to Age Three.

Experience planning, assessing, and implementing educational programs for at-risk infants and toddlers. Emphasis is on interagency coordination and the use of the transdisciplinary team to meet the family's and the child's needs with a minimum of personnel.

SED X84T. Topics in Intervention Research in Learning Disabilities.

Examine the nature of the characteristics of learning disabilities and their effect on learning; assessment and progress monitoring measures; and individualized, differentiated strategies, interventions, technologies, and materials.

SED X86. Topics in Behavioral Disorders.

Discussion of behavioral disorders, contributory factors; psychological and educational diagnoses applied to educational programming.

SED X86.10. Introduction to Behavioral Disorders.

Introduction to the nature and needs of children with behavior disorders and to effective management methods and teaching strategies. The admission, review, and dismissal process is described and practiced so that students can work as members of an interdisciplinary team.

SED X86.11. Positive Behavioral Interventions Support and Classroom Management.

Study of the basic principles of human behavior, and the application of those principles to teaching positive behavior support and designing effective classrooms. Designed to prepare teachers and clinicians who will be in general and special education settings with children of all ages with and without disabilities.

SED X86.13. Educating Students with Significant Behavioral Support Needs.

Designed to provide students with an overview of promising and preferred practices for educating children and youth with emotional and behavioral disorders (EBD). Emphasis on children and youth whose behaviors challenge the prevailing social and educational traditions and values of schools, communities, and families.

SED X86C. Topics in Trends and Issues in Learning Disabilities and Behavioral Disorders.

An examination of current trends and issues in areas within special education and rehabilitation counselor education that influence policies and procedures in the public schools, teacher preparation programs, and community agencies.

SED X88. Topics in Autism and Developmental Disabilities.

An intensive study of the psychological, sociological, physiological, and educational factors relating to the assessment, learning, and teaching of children with autism and other developmental disabilities. Includes affective, cognitive, and psychomotor development of individuals with physical disabilities.

SED X88.10. Advances in the Understanding and Treatment of Autism.

Review of recent advances in the understanding and treatment of autism and related developmental disorders. The social forces that shape research and scientific understanding and the political forces that influence the delivery of education and related services, as well as implications for effective leadership in special education.

SED X88.11. Intervention Research in Autism and Developmental Disabilities.

How research is used to develop interventions for those with developmental disabilities. Students consider the role of basic research and theory in the development of interventions and the use of experimental design to demonstrate the effectiveness of an intervention program, explore the development of empirically validated intervention

programs, and undertake qualitative and quantitative reviews of intervention research.

SED X88.13. Practicum in Severe and Multiple Disabilities.

SED X88.14. Practicum in Professional Ethical Practices.

SED X88.3. Teaching Individuals with Autism and Developmental Disabilities.

Development of highly specialized skills needed to teach those with developmental disabilities. Emphasis is on the basic principles of learning that underlie effective instructional strategies and on ways to structure the environment to promote learning.

SED X88.5. Enhancing Communication Potential in People with Autism and Developmental Disabilities.

Communication intervention for those with developmental disabilities. Designed to help students learn to assess communication behavior and to create intervention programs that enhance existing communication skills and teach new skills. Hands-on experience with a variety of augmentative and alternative communication systems.

SED X88.6. Educational Implications of Autism and Developmental Disabilities.

Introduction to the learning and behavioral characteristics of those with developmental disabilities, including autism and related developmental disorders. Designed to give students an understanding of the educational needs of those with developmental disabilities and of ways to address those needs through special education and related services.

SED X88.7. Challenging Behavior and Developmental Disabilities.

The nature, assessment, and treatment of the challenging behaviors that are prevalent in individuals with developmental disabilities, such as aggression, self-injury, property destruction, tantrums, and stereotyped movements.

SED X88.8. Research on Inclusion for Students with Autism and Developmental Disabilities.

Literature relevant to the inclusion of students with developmental disabilities, including classic readings on the history and philosophy of inclusion; analysis of the evidence supporting current best-practice models. Emphasis on critical reading of empirical studies on the efficacy of inclusive education.

SED X88.9. Assessment Research in Autism and Developmental Disabilities.

Research related to the assessment of students with developmental disabilities, examined in the context of the theoretical orientations that underlie the major assessment strategies. Includes a review of studies related to the development and validation of contemporary assessment instruments and discussion of the scientific process involved in developing and validating assessment tools.

SED X89. Topics in Special Education Administration.

Study of the content and process of special education administration, including technological forecasting methods, case law as it applies to people with disabilities, management of problem employee styles, and related topics.

SED X89.1. Administration of Special Education Programs.

Application of principles of administration and leadership to problems associated with special education and instruction for special populations.

SED X89.2. Educational Futures.

Students are directed toward career goals: affective change toward the future and change processes; acquisition of knowledge about several technological forecasting methods and of skill in the use of one method.

SED X89.3. Special Education Administration Seminar: Current Issues in Special Education.

SED X89.4. Law and Disabilities.

An examination of case law that covers definitions, equal educational opportunity, employment, accessibility, freedom of choice, freedom from residential confinement, housing and zoning restrictions, equal access to medical services, procreation, marriage, children, contracts, ownership and transfer of property, voting, and holding public office.

SED X89.5. Special Populations.

Leadership issues associated with serving school-age children through federal and state "title" programs, including English as a second language, bilingual education, and Chapters I and II. Also covered are alternative schools; programs for juvenile offenders, pregnant students and young mothers, and at-risk students such as those who have potential for suicide; and services for the homeless, the abused, and chemical abusers. Students read the significant literature and develop knowledge and skill in planning and designing delivery models.

SED X93. Topics in Special Education: Graduate Seminar.

Discussion of critical issues; critiques of literature; development of theories and models regarding disabling conditions.

SED X93.17. Instructional Designs Using Assistive Technology.

The design of instruction for students with disabilities by using assistive and instructional technologies.

SED X93.18. Collaboration.

Strategies such as collaborative consultation and teamwork models, which are used to improve learning outcomes for students with diverse learning needs.

SED X93.20. Applied Research.

SED X94. Practicum in Special Education.

Supervised field placement in specialized settings serving exceptional children and youth.

SED X95. Topics in Independent Study.

Individual research planned, executed, and reported under supervision.

SED X95.1. Independent Study in Special Education Administration.

SED X95.15. Independent Study in Multicultural Special Education.

SED X95.2. Independent Study in Behavioral Disorders.

SED X95.4. Independent Study in Learning Disabilities.

SED X95.7. Independent Study in Early Childhood Special Education.

SED X95.8. Independent Study in Autism and Developmental Disabilities.

SED X95D. Topics in Special Education and Rehabilitation Counselor: Doctoral Seminar.

SED X95D.2. Seminar in Behavioral Disorders.

SED X95D.3. Seminar in Learning Disabilities.

SED X95D.5. Early Childhood Special Education.

SED X95D.6. Autism and Developmental Disabilities.

SED X95D.7. Multicultural Special Education.

SED X95S. Professional Seminar.

Forum for students to become familiar with the areas of study, research, and professional practice within special education. Students also refine their professional writing and communication skills, critically evaluate current and emerging research in the field, and examine the historical, legal, philosophical, and theoretical foundations of special education.

SED X96. Research Mentoring.

Designed to develop the knowledge and skills students need in order to conduct research. Under the supervision of a three-member committee, students develop a publishable-quality synthesis of the professional literature on a topic related to their research interests.

SED X96C. Topics in Trends and Issues in Special Education.

An examination of current trends and issues in areas within special education and rehabilitation counselor education that influence policies and procedures in the public schools, teacher preparation programs, and community agencies.

SED X96C.1. Trends and Issues in Early Childhood Special Education.
SED X96C.2. Trends and Issues in Learning Disabilities/ Behavioral Disorders.
SED X96C.5. Trends and Issues in Special Education Administration.
SED X96C.7. Trends and Issues in Autism and Developmental Disabilities.
SED X96R. Topics in Research Methods and Data Analysis.
SED X96R.1. Research Methodology in Special Education.
SED X96R.2. Single-Subject Research Design.
The use of single-subject research designs to make data-based decisions about program effectiveness and student outcomes; integration of applied research into classroom instruction as part of evidence-based professional practice in educating students with severe and multiple disabilities.
SED X96R.3. Advanced Data Analysis in Special Education.
SED X96T. Directed Research in Special Education.
SED X96T.1. Directed Research in Special Education Administration.
SED X96T.13. Directed Research in Multicultural Special Education.
SED X96T.2. Directed Research in Behavioral Disorders.
SED X96T.4. Directed Research in Learning Disabilities.
SED X96T.7. Directed Research in Early Childhood Special Education.
SED X96T.8. Directed Research in Severe and Multiple Disabilities.
SED X97C. Advanced College Teaching.
Supervised teaching experience at the college level.
SED X97P. Graduate Internship.
Supervised practice in a professional position.
SED X97S. Supervised Teaching in Special Education.
Instruction in the supervision of student teachers and observers at the undergraduate level.
SED X98. Thesis.
SED X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.
SED X98T. College Teaching in Special Education.
SED X99W. Dissertation.

Professional Courses

SED X97P. Graduate Internship.
Supervised practice in a professional position.

SEE - Subsurface Energy Engineering

Subsurface Energy Engineering: SEE

Lower-Division Courses

Upper-Division Courses

Graduate Courses

SEE X80. Topics in Subsurface Energy Engineering.
SEE X81K. Subsurface Water Management.
Examine methods for treating, utilizing and disposing of water produced from the subsurface. Discuss the chemistry and engineering principles involved in water treatment and reinjection.
SEE X81L. Nuclear Waste Storage.
Introduction to engineering and science of nuclear waste storage and disposal with emphasis on geological methods. Review current methods and new solutions to safely dispose of radioactive waste resulting from nuclear energy generation.
SEE X81M. Advanced Well Integrity.
Focus on the unique challenges in the construction and integrity of special purpose wells, such as geothermal wells, carbon capture and underground storage (CCUS) wells, and nuclear storage and waste injection wells. Consider the entire lifecycle of these wells, from initial drilling and well construction all the way to their long-term plugging and abandonment. Explore how to maintain well integrity to prevent premature failure of geothermal wells, CO2 leakage in CCUS wells, and nuclear and other waste leakage in waste injection/storage wells for an indefinite period.
SEE X82. Subsurface Energy Storage.
Introduction to hydrogen, compressed air, and carbon storage in geological formations as well as review of ongoing projects and their relations to net-zero greenhouse emission targets. Discuss flow, transport, and geochemical interactions of different gases with site minerals. Gain insights and quantify storage capacity, deliverability, dissolution, trapping, and other loss mechanisms, using hands-on numerical simulation training and exercises.
SEE X82K. Global Carbon Monitoring Systems.
Introduction to the myriad of ways we measure global greenhouse gas emissions, from ubiquitous ground sensors to low-earth orbit satellites. Explore how new technologies are revolutionizing our ability to monitor global energy flows, track progress on emissions reduction goals, and enable new policy approaches to addressing climate change.
SEE X88. Data Analytics and Geostatistics.
Examine fundamental probability and statistics to derive and demonstrate the fundamental deterministic and stochastic spatial modeling paradigms, including kriging, sequential Gaussian simulation, indicator methods, object-based processes, multiple point simulation and generative AI. Discuss uncertainty modeling, model diagnostics and checking, and decision making in the presence of uncertainty.
SEE X88K. Applied Reservoir Simulation for Low-Carbon Energy Projects.
Introduction to geothermal, hydrogen, and carbon capture-storage-utilization (CCUS) projects. Review the key physics, mathematics, and engineering for each process, such as thermal modeling, equation of state for gas projects, and storage and recovery mechanisms for CCUS. Focus on how to build a numerical model with geological description and proper gridding, fluid models based on the fluid types, and energy production mechanisms, followed by uncertainty analysis.
SEE X89. Legal and Technical Issues in Subsurface Trespass.
Examine legal and technical issues related to subsurface trespass on state and federal lands. Discuss how courts define actionable subsurface trespass and explore the implications of fluid injections that cross property boundaries.
SEE X98. Thesis.
SEE X98R. Master's Report.
Prepare a report to fulfill the requirement for the master's degree under the report option.

Professional Courses

SEL - Slavic and Eurasian Languages

Slavic and Eurasian Languages: SEL

Lower-Division Courses

SEL X01C. Topics in Intensive Slavic and Eurasian Languages I.
Emphasis on basic communication skills in Slavic and Eurasian languages: listening, speaking, reading, and writing. Includes introduction to Slavic and Eurasian cultures.

SEL X06. Topics in First-Year Slavic and Eurasian Languages I.
Emphasis on four-skills proficiency: listening, speaking, reading, and writing.
SEL X07. Topics in First-Year Slavic and Eurasian Languages II.
Emphasis on four-skills proficiency: listening, speaking, reading, and writing.
SEL X11C. Topics in Intensive Slavic and Eurasian Languages II.
Continuing intensive development of communication abilities in Slavic and Eurasian languages with emphasis on the four basic skills: listening, speaking, reading, and writing. Includes an introduction to Slavic and Eurasian cultures.
SEL X12K. Topics in Second-Year Slavic and Eurasian Languages I.
Listening, speaking, reading, and writing at the second-year level.
SEL X12L. Topics in Second-Year Slavic and Eurasian Languages II.
Listening, speaking, reading, and writing at the advanced, second-year level.
SEL X19S. Topics in Slavic and Eurasian Languages.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SEL X29S. Topics in Slavic and Eurasian Languages.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
SEL X30. Topics in Slavic and Eurasian Languages.
Intermediate or advanced language instruction in a range of individual Slavic and Eurasian languages. Slavic and Eurasian language texts in the original language, writing assignments, and conversation practice to improve language proficiency in all of these modes of communication.
SEL X79. Conference Course in Slavic and Eurasian Languages.

Graduate Courses

SEL X85. Topics in Slavic and Eurasian Languages.
SEL X85.1. Accelerated Romanian for Research.
Explore a variety of grammatical and idiomatic features of the Romanian language, and apply this knowledge to the translation of various representative literary, historical, and academic texts from Romanian into English. Survey Romanian history and a limited selection of significant Romanian texts in English translation.
SEL X95. Conference Course in Slavic and Eurasian Languages.

Professional Courses

SLE - Second Language Education

Second Language Education: SLE

Lower-Division Courses

Upper-Division Courses

Graduate Courses

SLE X80. Translation Theory and Practice and the Role of AI in Second Language Acquisition.
Explore the relationship between translation and language learning in today's AI-driven world. Examine how centuries-old translation theories intersect with new technologies, fundamentally changing how we understand language acquisition and intercultural fluency.
SLE X81. Proficiency-Based Language and Culture Instruction: Theory and Practice.
Learn about the proficiency movement in language teaching and the role of culture and technology in language instruction that promotes proficiency in L2 classrooms. Conduct an in-depth review of the ACTFL guidelines and Standards for Foreign Language Learning to establish the common ground for looking at proficiency from multiple angles: aspects, type of learner, and kinds of settings.
SLE X82. Effective Teaching and Learning Design in the Foreign Language Classroom.
Examine how, in foreign language classrooms, effective teaching and learning design centers around creating engaging, communicative, and learner-centered experiences. Explore backward design, design thinking, and Universal Design for Learning (UDL), all of which aim to foster deeper language proficiency and intercultural competence.

Professional Courses

SLH - Speech, Language, and Hearing Sciences

Speech, Language, and Hearing Sciences: SLH

Lower-Division Courses

SLH X06K. Introduction to Speech, Language, and Hearing Sciences.
Introduction to the study of processes and disorders of speech, language, and hearing.
SLH X08. Topics in Speech, Language, and Hearing Sciences.
SLH X08K. Perspectives on Deafness.
Examine deafness from a number of perspectives: social and psychological meanings of deafness, the deaf community, education of deaf children, sign languages, and historical trends.
SLH X11K. Phonetic Description of Speech.
Examine speech production, physiological analysis and description of speech sounds, voice quality, and voice dynamics; notation; phonetic theory; applications of phonetics.
SLH X12. Developmental Language Science.
Introduction to language and literacy development from birth through adolescence.
SLH X13L. Hearing Science.
Examine acoustical, physiological, and psychological bases of normal human hearing. Explore theories of audition.
SLH X13P. Hearing Science: Laboratory.
Examine laboratory techniques in hearing science research.
SLH X14L. Sociocultural Bases of Communication.
An introduction to the influences of social and cultural factors, such as ethnicity, socioeconomic status, and geographic region, on

communication acquisition and use, with a focus on cross-cultural communication issues in a diverse society.

SLH X15S. Speech Science.

Neurophysiological mechanisms underlying the encoding and decoding of speech.

SLH X18L. Development Language Science: Laboratory.

Examine child language in a clinical laboratory setting.

SLH X19S. Topics in Speech, Language, and Hearing Sciences.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SLH X29S. Topics in Speech, Language, and Hearing Sciences.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SLH X31E. Instructional Methods for Deaf Students.

Examine methods of assessment, curriculum organization, lesson planning, instruction, and classroom management in education of deaf children.

SLH X40P. Clinical Observation in Speech Language Pathology.

Explore evidence-based practice in speech and language pathology through guided observation.

SLH X41. Principles of Audiology.

Explore the causes of hearing disorders and examine diagnostic procedures and treatment.

SLH X50. Language and the Brain.

Explore the neuroanatomical and functional operations of the major brain structures that underlie speech/language. Examine hemispheric dominance for language, neurological and language breakdowns in aphasia, and brain imaging methods and studies of language representation.

SLH X52. Topics in Speech, Language, and Hearing Sciences.

SLH X52.1. Bilingualism: Language Development and Disorders.

Examine bilingual language development and the manifestation of speech and language disorders in bilingual children with a special focus on Spanish-English bilingualism. Explore disorder areas including developmental language disorders, speech sound disorders, fluency, and reading disabilities. Consider bilingual language development in cultural and linguistic contexts. Discuss communication disorders including evidence-based practices in interventions for bilingual children.

SLH X52.2. Augmentative and Alternative Communication.

Examine augmentative and alternative communication (AAC) approaches for individuals with severe communication impairments. Explore foundational information for providing or referring services in AAC.

SLH X52.3. Bilingualism Across the Lifespan.

Explore the consequences of bilingualism on brain and mind across the lifespan. Survey current issues related to bilingualism as they pertain to speech-language pathology.

SLH X58. Anatomy and Physiology of the Speech and Hearing Mechanism.

Examine the anatomy and physiology of structures involved in speech, language, hearing, and swallowing in-depth. Explore anatomical and physiological mechanisms of respiration, phonation, articulation, and hearing; and the central nervous system and blood supply to the speech and hearing mechanism.

SLH X58L. Anatomy and Physiology of Speech and Hearing: Laboratory.

Examine anatomy and physiology of structures involved in speech, language, hearing, and swallowing in a laboratory setting. Explore anatomical and physiological mechanisms of respiration, phonation, articulation, and hearing; and the central nervous system and blood supply to the speech and hearing mechanism.

SLH X60M. Communication and Deaf People.

Examine forms of face-to-face communication used with deaf people, including speech and listening, systems of manual communication, and natural sign language, with an emphasis on child development issues and the use of different methods in educational practice.

SLH X64. Deaf Education Internship.

Explore deaf education through field experience at the Texas School for the Deaf or public school programs including directed observation and participation with teachers and students in the instructional process.

SLH X67K. Introduction to Speech and Language Disorders Assessment and Treatment in Children.

Introduction to assessment procedures and treatment strategies for children with speech and language disorders.

SLH X67M. Clinical Practicum in Speech-Language Pathology and Audiology.

Engage in a supervised clinical practicum in speech-language pathology and audiology.

SLH X70. Clinical Research Internship.

Supervised participation in clinical research internships.

SLH X70N. Internship.

SLH X71. Introduction to Speech and Language Disorders Assessment and Treatment in Adults.

Introduction to assessment procedures and treatment strategies for adults with speech and language disorders.

SLH X73. Principles of Aural Rehabilitation.

Examine the rationale, methods, materials, procedures, and criteria for aural rehabilitation for hearing-impaired persons.

SLH X75N. Deaf Education Seminar.

Discuss social, political, and educational aspects of deafness.

SLH X78. Clinical Audiology.

Explore differential diagnostic procedures for evaluation of auditory disorders. Examine theoretical concepts and clinical applications.

SLH X78C. Experiential Learning in Clinical Research.

Explore experiential learning opportunities within the clinical environment observe clinical research, connect concepts, and reflect on processes that promote translation of theory to practice for stuttering and/or cluttering.

SLH X78D. Quality of Life in Clinical Care.

Engage in an intensive experiential learning opportunity that emphasizes the positive role of counseling, empathy, self-compassion, and the therapeutic alliance in clinical care for persons who stutter and/or clutter and their loved ones.

SLH X78K. Studies in Speech Language Pathology, Audiology.

Supervised individual research.

SLH X78L. Clinical Laboratory Experience in Audiology.

Examine audiology in a clinical laboratory setting.

Graduate Courses

SLH X80E. Conference Course.

Examine readings in the literature of speech, language, and hearing sciences designed to expand opportunity for individual consultation both in research and in informational aspects of the work.

SLH X81L. Clinical Practicum.

Engage in a supervised clinical practicum in speech, language, and hearing sciences.

SLH X83C. Augmentative and Alternative Communication.
Examine an overview and a critical analysis of augmentative and alternative communication approaches and how they can best be used for the benefit of individuals with severe communication impairments.

SLH X83N. Topics in Speech, Language, and Hearing Sciences for Doctoral Studies.
Selected topics on speech, language, and hearing sciences will be explored through reading of current research in the field. Topics include developmental language disorders, speech and language perception, speech production, fluency disorders, dysphagia, neural bases of adult communication disorders, bilingualism, advanced auditory research, and augmentative and alternative communication.

SLH X85F. Knowledge and Skills in Clinical Science I.
Develop the knowledge and skills needed in clinical areas across the scope of practice and lifespan.

SLH X85S. Knowledge and Skills in Clinical Science II.
Develop the knowledge and skills needed in clinical areas across the scope of practice and lifespan.

SLH X86F. Fundamental Principles in Clinical Practicum.
Practice the fundamental knowledge and skills in speech language pathology.

SLH X86R. Advanced Research Design and Statistics.
Explore various aspects of research design and analysis that are commonly practiced within the field of speech-language pathology and audiology.

SLH X86S. Advanced Applications in Clinical Practicum.
Apply the developed advanced knowledge and skills in speech language pathology.

SLH X91C. Cultural and Linguistic Diversity.
Explore current issues in provision of speech-language pathology services to children from bilingual backgrounds and adapting procedures to meet the needs of culturally and linguistically diverse families.

SLH X91D. Cognitive and Linguistic Foundations of Language Development and Disorders.
Examine a framework for understanding the cognitive and linguistic mechanisms that underlie language development and disorders, including linguistic and psycholinguistic theories of language development.

SLH X91E. Bilingualism: Typical and Disordered Communication in Adults.
Examine the characteristics, assessment, and treatment practices of bilingual adults with acquired cognitive-communication disorders.

SLH X91K. Bilingualism: Typical and Disordered Communication in Pediatrics.
Examine bilingual language development and speech and language disorders in bilingual children with a special focus on Spanish-English bilingualism. Explore disorder areas including developmental language disorders, speech sound disorders, and fluency. Consider bilingual language development in cultural and linguistic contexts. Explore current issues in provision of speech-language pathology services to children from bilingual backgrounds and adapting procedures to equitably meet the needs of culturally and linguistically diverse families.

SLH X91P. Anatomy and Physiology of the Auditory System.
Explore the structure and function of the auditory system, including hearing and balance mechanisms.

SLH X92C. Counseling.
Examine both speech-language pathology and audiology counseling roles when implementing patient-centered and family-centered care in a variety of settings.

SLH X93D. Dysphagia.
Examine anatomy and physiology relevant to normal swallowing in adults and pediatrics, as well as pathophysiology associated with dysphagia of differing etiologies. Explore various methods to evaluate swallowing function, and practice beginner-level clinical interpretation, with an emphasis on evidence-based practice for dysphagia management.

SLH X93F. Stuttering, Cluttering, and Typical Disfluency.
Review theories, research, and emerging evidence pertaining to stuttering, cluttering and typical disfluency and their translation to practice.

SLH X93G. Developmental Speech Disorders.
Examine research in articulation and phonological development and the application of theories of development to assessment and intervention procedures with children with deficits in articulation and/or phonology.

SLH X93J. Acquired Cognitive Communication Disorders II.
Examine the characteristics, assessment, and clinical management of acquired neurogenic disorders of cognition and communication, such as traumatic brain injury (TBI) and dementia.

SLH X93M. Acquired Cognitive Communication Disorders I.
Examine characteristics, assessment, and clinical management of acquired neurogenic disorders of cognition and communication, such as aphasia and right hemisphere disorders.

SLH X93P. Preschool Language Disorders.
Examine communication deficits unique to children from birth to age five.

SLH X93Q. Acquired Speech Disorders.
Examine the neurological foundations of speech, speech disorders that can develop as a result of damage to the nervous system, and the ways in which motor speech disorders can be diagnosed and managed.

SLH X93S. School-Age Language Disorders.
Examine communication deficits unique to children age five and beyond.

SLH X93V. Voice Disorders.
Examine normal and disordered voice production, as well as assessment and treatment of voice. Explore the anatomy and physiology of voice, pathologies of voice, instrumental and non-instrumental methods for voice assessment, and interdisciplinary voice management.

SLH X94C. Amplifying Systems in Aural Rehabilitation.
Examine the principles of hearing aid circuitry and looped systems, ear molds and their acoustic properties, and electroacoustic properties of hearing aids and selection procedures.

SLH X94D. Hearing Conservation.
Examine auditory and non-auditory effects of noise; damage-risk criteria; federal and state laws governing noise and noise control; acoustic measurement procedures; identification audiometry; ear protection; and non-organic hearing loss and evaluative procedures.

SLH X94E. Auditory Electrophysiology.
Review the auditory nervous system and evaluate electrodermal, electroencephalographic, and electrocardiographic audiometry in depth.

SLH X95M. Applied Machine Learning and Data Analytics.
Introduction to the fundamental concepts of machine learning with a focus on its practical use for those who have no engineering or computer science background. Explore basic mathematics (e.g., vector and matrix), specialized programming skills (e.g., Matlab for data processing, visualization, and analysis), and other data analysis techniques (e.g., principal component analysis).

SLH X95N. Neurobiological Perspectives on Speech and Language.
Explore an overview of sensory, motor, and neurophysiological correlates of speech and language. Examine neuroanatomy and neurophysiology of the human brain, with an emphasis on motor pathways, representation in the brain, neuroimaging, neurophonetic processing, and hemispheric specialization.

SLH X96C. Advanced Amplifying Systems.
Explore the fitting of advanced amplification systems, including digital hearing aids, frequency modulation and other wireless systems, and assistive listening devices.

SLH X96D. Auditory Processing Disorders.
Examine the assessment and treatment of disorders of the central auditory nervous system in children and adults.

SLH X96E. Advanced Auditory Electrophysiology.
Explore advanced diagnostic tools, including acoustic immittance, otoacoustic emissions, auditory evoked potentials, intraoperative monitoring, and vestibular function.

SLH X96M. Signals and Systems in Hearing and Speech.
Explore electrophysiological and electroacoustic procedures in the study of communication behaviors.

SLH X98. Thesis.

SLH X98T. Supervised Teaching.

SLH X99W. Dissertation.

Professional Courses

SOC - Sociology

Sociology: SOC

Lower-Division Courses

SOC X02. Introduction to the Study of Society.
The nature of human societies, social processes, social interaction, and the sociological approach.

SOC X02P. Physical Activity and Society.
Explores the way in which people are physically active in a social context - primarily in the United States. Examines how social forces influence physical activity including cultural, economic, historical, and demographic considerations. Examines physical activity on both the individual and population levels to better understand benefits and barriers to activity through the social context.

SOC X03S. Introduction to the Asian Diaspora.
Examine the global dispersal of Asian populations from the mid-1800s to the present.

SOC X04. Introductory Topics in Sociology.
A sociological perspective of contemporary social subjects.

SOC X07C. American Families Past and Present.
Examines trends over time in specific aspects of family life, including marriage, cohabitation, mate selection, divorce, parenthood, family structure, and work-family balance. Study of the methods that sociologists and demographers use to study the family.

SOC X07D. Capital Punishment in America.
Uses various historical, legal and social perspectives to examine the shifting rationales and nature of contemporary United States death penalty debates: public opinion; racial disparities and the historical legacy of lynching; United States Supreme Court decisions; the death penalty's efficacy as a criminal punishment, its personal impacts, and contemporary problems with its current application.

SOC X07E. Contemporary United States Social Problems.
Examines contemporary social issues confronting the United States, using sociological concepts and perspectives to analyze the nation's most pressing social problems, ranging from social inequality to crime, terrorism and war, and environmental degradation.

SOC X07F. Diversity in American Families.
Examination of the diversity of American families and current debates on family life from a sociological perspective with an emphasis on how diverse family forms came to exist and what these changes mean for adults and children in contemporary society. Study of recent trends in several aspects of family life, including dating and courtship, cohabitation, marriage, divorce, parenthood, family structure, and work-family balance. Overview of theoretical perspectives on family life with a focus on gender, race/ethnicity, and sexuality.

SOC X07G. Culture and Society in the United States.
Introduction to theoretical perspectives, methodological issues, and empirical work in the sociological study of culture. Examination of sociological accounts of the production, reproduction, and reception of culture, with an emphasis on a critical understanding of culture in relation to other sociological phenomena such as power, inequality, and identities.

SOC X07J. Education and Society.
Further study of the ways that schooling shapes the opportunities available to children and youth, and how educational attainment influences the lives and well-being of adults. Subjects include historical development and organization of the American educational system; factors that shape achievement and learning; differential access to educational opportunities along race, class, and gender lines; and the effects of educational stratification.

SOC X07K. Fertility and Reproduction.
Explores the when, why, how, and with whom Americans bear children, and how the United States compares to other developed and developing countries in the world. Subjects include infertility and its treatments, the ethics of surrogacy and international adoption, voluntary childlessness, the rapid rise of nonmarital childbearing in the United States and other countries, the politics of childbirth, the risks of maternal morbidity and mortality in developed and developing countries, and the declining populations and rapid aging of rich countries including Japan, Italy, and Spain where many women have stopped having children.

SOC X07L. Gender, Race, and Class in American Society.
Use of the sociological perspective to analyze how the structure of American society, individual life, and group life chances are shaped by broader structures of privilege and disadvantage based on gender, race, and class. Examination of these in institutional arenas such as work, the family, education, health, the criminal justice system, sexuality, popular culture, and more.

SOC X07P. Introduction to the Sociology of Health and Well-Being.
Examination of the social causes and context of illness, death, longevity, and health care today in the United States. Subjects include historical perspectives on health and mortality, social class, race/ethnicity, gender, religious involvement, marital status, family, age, and psychosocial factors. Emphasis on the tension between individualistic and public health perspectives on illness.

SOC X07Q. Environmental Inequality and Health.
Examines the social roots and impacts of environmental contamination and natural disasters, with particular focus on how environmental health inequalities are linked to race, class, gender, and nation, and how residents of areas prone to environmental risks respond to hazards.

SOC X07S. Judaism and Christianity in Sociological Perspective.
Study of Christianity's historic roots in Judaism, the texts that Jews and Christians share, what Jews believe, how and why the two faiths diverged and evolved, how institutionalized Christianity addresses its Jewish origins, and the relationship between Jews and Christians throughout history. Focus on the social, historical, and intellectual contexts and forces which have shaped these processes up to the present day, as well as religious evolution of how systems and ways of thought and action change, why, and how Christians and Jews have dealt with such changes.

SOC X07T. Punishment and Society.
Focus on society's responses to crime. Introduction to the sociology of punishment and the death penalty, the American model of criminal punishment, and contextualization of the United States system and critical analysis of penal systems in general. Special emphasis on the nature of penal control in contemporary America.

SOC X08D. Ethnicity and Gender: La Chicana.

SOC X08G. The Rich and the Poor in America: Sociological Perspective.
Review of classical and contemporary theories of inequality and stratification; examination of recent ethnographic accounts of experiences of the rich and poor in United States society. Development of critical thinking about social class in contemporary society, and study of how one's own experiences are both the products and producers of larger stratification systems.

SOC X08J. Romantic Relationships and Family Formation.
Examination of romantic relationships and family formation from a cultural framework. Subjects include: historical transformations of romance; socioeconomic perspectives on sexual relationships and family formation; the impact of demographic transitions on the emergence of cohabitation as a relationship form; the economics undergirding relationship decision making; common narratives, practices, and gender differences about entry into marriage in the West; and population-level implications of contemporary patterns.

SOC X08K. Social Change and the Future.
Study of the effects of conflict on society, culture, technology, and economy practices through comparative analysis and historical dimension with a focus on institutions responsible for managing and handling conflict such as warfare and the military. Conflict-related issues include social institutions, gender identities and roles, economy, health issues, technological changes, collective memory, and culture.

SOC X08L. Social Transformation of Love and Relationships.
Examination of the social, psychological, and spiritual perspectives toward the ideas of love and intimacy; how love and intimacy interact with rapid social, economic, and cultural change; and how the subsequent change transformed the social world and the meaning of love. Subjects include the aspects of self and identity; differentiation in the context of love in the modern age; the family and the individual; the impact of industrialization on private lives and the public order; gender, communication, love; intercultural love and intimacy; and personal choice and arranged marriages.

SOC X08M. Sociology of Identity.
Examination of the ways that identities are socially produced and the study of how that social construction results in power and privilege for some groups at the expense of others.

SOC X08N. Comparative Religion, Politics, and Culture.
Investigation of the relationship between religion and politics through the central concept of culture. Subjects include religion as a form of culture and its effect on political life, the impact of the local culture of a society on religion and politics, and how historical conditions affect the religion-culture-politics relationship.

SOC X08S. Introduction to Health and Society.
A broad, multidisciplinary overview that introduces students to the study of health and society.

SOC X09C. Creating the Sustainable Society.
Overview of sustainability as something human beings must strive to create in an era of global warming and ever greater social inequalities, both between and within countries.

SOC X09D. Black and Latinx Intersections.
Examine the complex relationships between and among Black and Latinx communities and the political and structural forces and contexts that shape their interactions. Explore Black identity within the Latinx population, racial politics, coalitions of Black American and Latinx groups, race among Latinxs, racial inequality, and the politics of immigration.

SOC X09G. The New Latinas/os/xs.
Explore the trajectories of various communities many have called the new Latinas/os/xs by identifying how race, gender, sexuality, class, indigeneity, language, migration, and geography influence the lives, identities, and sociopolitical incorporation of new Latinas/os/xs.

SOC X10S. Women's Reproductive Health for Nonscience Majors.
Overview of contemporary women's reproductive health issues, with emphasis on historical, physiological, psychosocial, and cultural influences that affect the reproductive health of women during adolescence, the childbearing years, and midlife.

SOC X11C. Social Determinants of Health.
Considers the social factors that influence health and longevity, including sex/gender, race and ethnicity, socioeconomic status, and social integration. Examines the link between social position and health patterns in the United States.

SOC X12S. Society, Health, and Happiness.
Examine the scientific study of happiness, integrating findings from a variety of fields, including psychology, sociology, neuroscience, and economics. Includes the nature and measurement of happiness, the bidirectional relationship between physical health and happiness, the social or collective dimensions of happiness, and the role of various institutions and the well-being of society.

SOC X13K. Introduction to the Sociology of Religion.
Introduction to sociological methods in the study of religion.

SOC X17L. Introduction to Social Statistics.
Measures of central tendency and dispersion, the binomial and chi-square distributions, tests of hypotheses and parameter estimation, and simple correlation and regression.

SOC X18. Juvenile Delinquency.
Environments in which juvenile delinquency develops; delinquent subcultures and peer groups; societal reactions in schools, courts, and other agencies.

SOC X19. Introduction to Social Demography.
Social consequences of changes in fertility, mortality, migration, population growth and composition.

SOC X19S. Topics in Sociology.
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SOC X29S. Topics in Sociology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Sociology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SOC X90K. Proposal Preparation.
Preparation of proposal for the doctoral dissertation.

Upper-Division Courses

SOC X19S. Topics in Sociology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Sociology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SOC X20C. Cancerland.
Explores the social and cultural terrain of cancer research, treatment, and public policy in the United States.

SOC X20K. Political Sociology.
A survey of approaches to the study of the state as a social structure; political power and power systems; ideology; political parties and elites.

SOC X20S. Soundtrack of Revolutions.
Examine the significance of music in the social and political uprisings of countries across the Middle East.

SOC X20T. Qualitative Methods for Social Research.
Explore hands-on training in qualitative methods used in mixed methods research in contemporary social science. Examine the application and use of case studies; archival analysis; content analysis; participant observation and ethnography; key informant ("elite") interviewing; focus groups; social psychological testing; and how to design and run surveys.

SOC X21C. Consumption in Latin America.
Study of the role consumption plays in social, economic, and political relations in Latin America, as well as contesting ideas about this role.

SOC X21D. Demography of Crime and Punishment.
Intensive seminar exploring data sources and conceptual and measurement issues surrounding the study of racial and ethnic differences in crime and punishment, with a particular focus on how the distinct neighborhood and school contexts in which different racial and ethnic groups participate explain variations in criminal outcomes. Special emphasis on the role of the criminal justice system in producing and eliminating disparities in criminal justice outcomes.

SOC X21E. Economy, Culture, and Society.
Introduction to sociological research and theories of culture and the economy, with a special focus on gift giving. Study of gift giving behaviors will explore the core issues of sociology: social organization and social structure, social norms, the relationship between individual and society, the nature of economic and noneconomic exchange, reciprocity, obligation, cultural meanings, and power, among others.

SOC X21F. Fundraising and Philanthropy.
Introduction to theories of the nonprofit sector and individual pro-social motivations and behavior, while also covering basic principles and techniques of fundraising. Receive practical instruction from fundraising professionals in the local nonprofit community on all aspects of a successful fundraising operation, from building a solid base of annual contributors to cultivating relationships with major gift prospects. Attention will be given to behind-the-scenes activities required to have a successful development program, including appropriate donor stewardship, prospect research, database maintenance, and donor analytics.

SOC X21G. Global Health Issues and Health Systems.
Overview of current global health challenges and issues from biological, cultural, and environmental perspectives. Examination, comparison, and contrasting of various health systems in the six World Health Organization geographic regions and countries within those regions, with regard to the specific health challenges they face.

SOC X21K. Contemporary Issues in Sociology: Special Topics.

SOC X21L. Sociology of Education.
Education as a societal institution, with emphasis on the United States educational system: how the system works; the effects of the system; recent changes.

SOC X21P. Politics and Society in Latin America.
Introduction to present-day Latin American politics and society with a focus on drug-trafficking and urban destitution in Brazil; party politics, protest, and collective violence in Argentina; the current political situation in Venezuela; and migration from Central America and the Caribbean to the United States. Also includes a general overview of revolutions and revolutionary movements in Latin America, and the effects of United States intervention in the region during the twentieth century.

SOC X21Q. Social Inequality.
Study of social inequality as the unequal distribution of scarce but commonly desired resources and the processes by which these resources are allocated to individuals and groups. Examination of income and wealth inequality, occupational and class hierarchies, inequality of educational opportunity, poverty, social mobility between and within generations, gender and racial/ethnic inequality, and the consequences of inequality. Overview of the concepts, theories, facts, and methods of analysis used by sociologists to understand the social production and reproduction of inequality.

SOC X21R. The Sociology of Race and Work.
Critical examination of work in the United States over the twentieth and twenty-first centuries through a gendered, Asian American lens, using a comparative race perspective. Subjects include the sociological examination of concepts such as labor markets, globalization, care work, and gender/racial segregation in the workplace along with the ways race and gender shape how and where individuals are fitted into the workplace, how skills are evaluated, and how labor markets emerge.

SOC X21S. Anti-Semitism.
Surveys trends in Judeophobia/anti-Semitism over 2,500 years in both Christian and non-Christian societies. Designed to use anti-Semitism as way to explore more general ideas in social theory such as boundary making; models of racial, ethnic, and cultural conflict; and the role of intellectual and scientific elites.

SOC X21T. Sociology of Africa.
An introduction to the sociological study of sub-Saharan Africa. Major themes include: sources of knowledge about Africa; characteristics of African states and societies, from origin to internal social boundaries (religion, ethnicity, class); kinship and family; and development and change.

SOC X21U. Urban Sociology.
Introduction to the study of the city and the suburbs. Specific focus on inequality in urban space, with emphasis on three major United States cities (New York, Chicago, and Los Angeles) and on several third world cities.

SOC X21V. Environmental Sociology.
Investigation of the ways human social patterns and ideologies shape the environment, how the environment shapes human lives, and the ways humans and the natural environment interrelate. The city of Austin will be used as a case study to examine the relationship between the natural and built environments (city space). Special emphasis on the process of global warming and its effects on human society and these relationships.

SOC X22C. Sociology of Creativity.
Introduction to varying aspects of creative insights, human consciousness, social processes, and the 'invention of reality.' Use of the elements of mindfulness, intuition, and creativity at individual, organizational, societal, and environmental levels, drawing on lectures, group discussions, books, articles, artistic films, and documentaries in order to better understand and appreciate the interconnectedness and interrelationship between 'inner' (personal) reality and 'other' (social) reality.

SOC X22D. Race and the Digital.
Review of theoretical developments in the sociological study of "race, including an examination of processes of racialization and cultural texts, in order to better understand the ways in which identities are socially produced. Attention will be placed on forms of popular culture, black cultural production, and political action to question how such practices are shaped by migrations within the African diaspora.

SOC X22F. Mental Health in Social Context.
Examines the social causes of mental health in the areas of social epidemiology of mental health; social and psychological factors in mental health; and treatment for psychological problems. Explores definitions of mental health and mental illness, and how they are measured. Contrasts the social view with the medical, psychiatric, and psychological views and explores social psychological factors in mental health, including perceived control over life, mastery, fatalism, social support, meaning, self-esteem, coping, trust, inequity, commitment, and flexibility.

SOC X22G. Politics, Power, and Society.
Explores the nature and dynamics of political life through classical works in political philosophy, contemporary sociological essays, fiction, and film. Discussion of the relationship between individual rights and state authority; what it means to belong to a group; the nature and dimensions of power and freedom; whether violence is compatible with democracy; and how and when revolutions take place.

SOC X22J. Economic Sociology of Health.
Provides a look at the economics of health and health care through a sociological lens. Examines how the multidimensional nature and distribution of health and healthcare are shaped by a variety of social

and economic factors. Gain an understanding of the power of incentives, markets, and cost-benefit analysis, as well as the limits of these tools, in creating effective health care policy.

SOC X22K. Race and Ethnicity Politics.

Explore racial and ethnic politics throughout the United States with a focus on Black and Latino politics. Examine group identity, racial inequality, policy making, activism, criminal justice system, and immigration.

SOC X22L. Law and Organizations.

Examine the intersection of law and organizational/workplace practices. Explore how law regulates the workplace (e.g., laws about sexual harassment), how organizations do or do not comply with the law, and the ways that organizational practices may affect legal standards.

SOC X22M. Sociology of Masculinities.

Sociological examination of the most important debates and discussions about men's experiences of masculinity in contemporary patriarchal societies. Exploration of social and individual meanings of masculinity, the dominant paradigms of masculinity that are taken as the norm, and the problems, contradictions, and paradoxes men experience in modern society.

SOC X22N. Race Politics and Caribbeans.

Examine racial and political themes among Spanish-speaking Caribbeans on the islands and in the United States. Explore racial politics in the three countries and compares notions of identity, experiences with racism and anti-racist protest with the United States

SOC X22P. Sex and Violence in Popular Culture.

Overview of the cultural framing of sex and violence through realistic and hyper-realistic representations of sex, love, violence, and war in popular culture. Examination of the ethical implications, including the ways in which these representations rely on and further social inequalities and the sociological concepts, methods, and theoretical approaches to understanding sex and violence in popular culture.

SOC X22T. Latino Migration and Human Trafficking.

Critically examine the complexity and intersectionality of Latino migration and human trafficking from global, regional, and local perspectives.

SOC X22U. United States Immigration.

Utilizes a sociological perspective to gain an understanding of what social forces drive migration to the United States, how migrants organize their migration, and how immigration affects United States' society.

SOC X22V. Race, Gender, and Surveillance.

Overview of theories in the sociology of social control, with a focus on risk, power, ethics, and surveillance. Examines historical transformations in social control and the distributions of power in the United States and global contexts, with attention to race, gender, and class. Subjects include: the transatlantic slave trade; prisons and punishment; the gaze, voyeurism, and reality television watching; the Internet; travel and state borders; privacy; and biometrics and the body.

SOC X23. The Family.

The American family in historical and comparative perspective. Family history and origins; comparative family systems; social antecedents of family structure and process; family formation and dissolution; family and society; recent family changes and prospects for the future.

SOC X23C. Policing.

Examines the purposes and structure of policing and the shifting roles and powers of police officers. Focuses on several critical issues in modern-day policing, including the effectiveness of various police strategies as well as their legitimacy. Considers limits on the ability of the police to control crime, and the ways in which individuals and communities work to police themselves.

SOC X23D. Border Control and Deaths.

Focus on enactment of border control policies, policy implementation and death patterns at the United States-Mexico border, patterns of unauthorized border crossings through dangerous border terrain, grassroots movements to support migrants and lessen deaths, and the ethics of coercive border control. Surveys the public sentiments and attitudes that support new border control policies, the patterns of migrant deaths in deserts and in the Rio Grande River associated with border control strategies, movements and community efforts to support migrants in the Arizona border area, and legal and ethical arguments and concepts that frame discussions of migrant deaths at the United States-Mexico border.

SOC X23E. Economic Sociology.

Examine sociological perspectives on a range of economic matters including money, activities of firms and corporations, consumption of goods and services, market behavior, organizational malfeasance and economic crisis, and the production of labor market inequality, as well as economic behavior in less traditional settings such as markets for intimacy and markets for human goods. Learn about some of the major economic transformations that have reshaped social life in recent decades, including financialization, rising income inequality, corporate decline, and shareholder value management. Consider how sociologists have contributed to understanding the causes or consequences of these trends.

SOC X23F. Food and Society.

Explores the social context of food; including food and identity, social class and culture, as well as who plans, purchases, and prepares food for our families. Food production and policies in the United States and government assistance for the hungry are also covered.

SOC X23G. Globalization and the Coronavirus Pandemic.

Examine the modern globalization process that also incorporates a description of the current Coronavirus pandemic as a phenomenon that is inextricably linked with modern globalization.

SOC X23L. Latina/o/x Citizenship.

Explore the concepts of membership, belonging, immigration and citizenship in the Latina/o/x experience. Examine how historically, politically, socially and culturally, Latinas/os/xs have been construed as belonging or not belonging members of the United States society.

SOC X23S. Building the Sustainable City.

SOC X24K. Social Change in Developing Nations.

Overview of changing social structure in the Third World.

SOC X24L. Latinx Sociology.

Explore how institutions have shaped the gendered, racial, and class-based experiences of Latinxs from a sociological perspective, including historical patterns of Latinx migration to the United States, contestations over racial classifications, and problematic issues surrounding the term Latino. Review more recent studies that show how different institutions shape the Latinx experience and demonstrate how gendered, racial, and classed forces have shaped various Latinx communities. Examine Latinx agency and how Latinx communities have sought to reconfigure and push back on these social forces.

SOC X24M. Sociology of Money.

Explore the social meanings of money, the distribution of economic resources, why some workers are paid more than others, how prices are determined, the modern financial system, unconventional markets, the connection between price and value, and money in personal relationships.

SOC X24P. International Political Economy of Lower-Income Countries.

Explore the ways that China, India, Brazil and other lower-income countries are transforming the patterns in global finance, trade, aid, women's empowerment, and the control or corruption.

SOC X25F. African American Family in Historical and Contemporary Contexts.

Examine how African Americans managed to maintain a sense of family from the time of slavery to the present trend of mass incarceration.

SOC X25K. Criminology.

An investigation into the nature of criminal events, including homicide, rape, robbery, property crimes, and white-collar crimes. Also examines the United States criminal justice system.

SOC X25L. Sociology of Criminal Justice.
Examination of the police, courts, and prisons: how they work, their impact on those who pass through them. Introduction to the American criminal justice system, its policies and procedures. The primary focus will be on the roles and functions of the police, the courts, and corrections, with a special emphasis on how well or not so well the system operates.

SOC X26D. Data Science for the Social World.
Introduction to data science for the political and economic world. Explore a variety of political and economic data and develop proficiency in R and Excel.

SOC X27M. Social Research Methods.
Collect data to answer research questions by focusing on the meaning of variables, understanding causation, study design, basic sampling, and modes and methods in data collection.

SOC X29. Social Stratification.
The types and levels of social inequality; the institutional and group processes that generate inequality; the interplay of social, organizational, economic, and political forces that affect the degree of differential opportunities and rewards in society.

SOC X29S. Topics in Sociology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Sociology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SOC X30C. Death and Dying: Sociological Perspectives.
Sociological perspectives on definitions of death; group differences in mortality rates and causes of death; social meanings of death and dying; treatment of the dying and the dead; and grief and bereavement.

SOC X30G. Food and Religion in Asia.
Use the lens of food to approach study of religious communities, values, and identity formation in Asia's past and present, covering South Asia, China, Japan, Taiwan, South Korea, and Southeast Asia. Explore questions involving what is eaten and what is not, taboo, hunger, anomaly, gender, food security, and recent ethical problems regarding bio-engineered foods (GMOs).

SOC X30P. Sociology and Social Psychology.
Examines how individuals perceive, interact with, and affect other individuals from the perspectives of both psychology and sociology.

SOC X33K. Sociology of Gender.
Inequality between the sexes; men's and women's changing roles in society.

SOC X35R. Reproductive Justice and Race.
Examine the links between reproductive care and social inequality, and explore reproductive outcomes for women in the context of social justice.

SOC X36C. American Dilemmas.
Examination of critical American social problems, including problems in the economic, political, and health care systems, as well as inequities based on income, gender, and race. Exploration of how these problems are a natural outgrowth of the existing social structure.

SOC X36D. Race, Class, and Health.
Designed to introduce students to the complex relationships among race, class, gender, and health status. Investigates how health is linked to individual behaviors and to the interaction between people and their social, cultural, and physical environments.

SOC X36G. Gender Politics in the Islamic World.
Study of the Islamic world and major sociological concepts such as gender, social organizations, culture, and politics. Examines how culture is mediated by politics, resulting in diverse interpretations of Islam and in different policies with respect to women's rights.

SOC X36P. Social Psychology and the Law.
How courts make use of social science, as well as how social scientists study the legal system. Considers the uses of social science across multiple types of legal domains, such as eyewitnesses to crime, jury trials, punishment, children in the courts, and a variety of public policy issues.

SOC X40C. Globalization.
A sociological analysis of the interrelated economic, political, and cultural aspects of globalization. Examines the consequences of globalization for nations around the world and for groups within these nations.

SOC X40D. Violence.
An overview of the different theories of interpersonal and group violence. Includes criminological theories of violent crime, as well as feuding, ethnic and nationalist violence, political violence, and aggression in intimate relations.

SOC X40G. Sociology of Sexualities.
Review of sociological perspectives on sexuality. Examines how social institutions in United States society shape sexual values, beliefs, and practices. Subjects include changing cultural images of sexuality, sexual identities, and social movements.

SOC X40L. Aging and the Life Course.
The biological, social, and psychological aspects of human aging from adolescence until death, with special emphasis on cultural norms and the social and demographic context in which aging occurs. Includes the challenges and problems of adjustment at each life stage, and the social, political, and economic consequences of increased longevity and changes in the age structure of the populations of modern societies.

SOC X40S. Race and United States Social Policy.
Examine the relationship between race and the development of United States social policy. Explore how specific social policies affect racial and ethnic inequality.

SOC X41C. Medical Sociology.
Explores the social context of health, illness, and the health care system in American society. Discussion of the processes of medicalization and demedicalization, social factors influencing health and health care, the organization of the health care delivery system and patient outcomes, and the social meaning and experiences of illness.

SOC X41D. The Politics and Art of Iran's Woman, Life, Freedom Uprising.
Analyze the politics and art of Iran's 2022 Woman, Life, Freedom Uprising movement. Develop a digital humanities resource on the movement through collaboration.

SOC X42N. Social Inequality and Health in the United States.
Examine how socioeconomic status and social inequality shape health and mortality across the United States. Consider various possible explanations including stress, health behaviors, violence, and other factors.

SOC X42S. Sex and Sexuality in the Muslim World.

SOC X43. Religion and Society.
The growth and decline of religious groups and traditions; "cults" and new religions; comparative sociology of religion; the United States religious landscape; religion and individual health and well-being; spirituality and other aspects of social life.

SOC X44. Racial and Ethnic Relations.
Contemporary racial and ethnic problems; emphasis on minority groups in the United States.

SOC X44C. Race, Science, and Race Science.
Explore the broad history of how race has shaped the development of science in the United States from the 1800s to the present, including medical treatments, diagnostic criteria, technological developments, and business ventures.

SOC X45D. Inequality in the United States Educational System.
Examine how inequality has developed and is maintained within the American public education system.

SOC X50G. Guns in America.
Examine firearms in the United States. Engage with literature drawn from the social sciences, law, medicine, and public policy to develop a holistic understanding of the historical and contemporary role of firearms in the cultural, social, and political landscape of the U.S.

SOC X50M. Sociology Internship Seminar.
Intern in an agency, organization, or business under supervision. Apply the knowledge and skills acquired in sociology courses.

SOC X52. Social Movements.
Characteristics of crowds, publics, and social movements; their role in social organization and social change.

SOC X52E. Media Industries and Entrepreneurship.
Examination of the social, political, and economic contexts in which media and culture are produced, distributed, and monetized. Emphasis on new media and communication technologies.

SOC X52S. Globalization and Social Media.
Issues surrounding the hype, myth, paradox, and reality of social media in a global context.

SOC X54K. Sociology of Health and Illness.
Application of sociological concepts and principles to the study of health professions, medical institutions, community medical organization, and the distribution of illness.

SOC X54L. Latinx Austin.
Explore the city of Austin, the city's importance for Latino communities, and the importance of Latinos for the city.

SOC X59. Labor and Labor Movements.
Overview of work organizations in the United States, with emphasis on globalization, inequality, and labor movements.

SOC X66. Deviance.
Analysis of social norms, conformity, and reactions to norm violations. Topics include behavioral forms of deviance such as suicide and drug abuse and nonbehavioral forms of deviance such as physical abnormality.

SOC X69K. Population and Society.
The study of populations, including their growth, age structure, and patterns of fertility, mortality, and migration; the social causes and consequences of these phenomena.

SOC X79H. Honors Tutorial Course.
Research into and development of a thesis topic and proposal followed by the writing and defense of a thesis.

SOC X79M. Sociological Theory.
Critical examination of major sociological theories and their relevance to current research and social conditions.

SOC X79N. Conference Course.
Supervised individual study of selected problems in sociology.

SOC X79P. Undergraduate Research Opportunity.
Perform research-related activities with faculty members in the sociology department. Collect interview or survey data, analyze statistics, synthesize research literature, and code qualitative data.

SOC X90K. Proposal Preparation.
Preparation of proposal for the doctoral dissertation.

Graduate Courses

SOC X19S. Topics in Sociology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Sociology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SOC X29S. Topics in Sociology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Sociology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SOC X80. Conference Course.
Sociological topics not otherwise offered at the graduate level.

SOC X83K. Topics in Seminars in Social Psychology.
Substantive issues and current topics in social psychology.

SOC X83K.1. History and Theories of Social Psychology.

SOC X84J. Special Topics in Social Statistics.

SOC X84L. Social Statistics: Basic Concepts and Methods.
Review of descriptive statistics; probability concepts; statistical inference, bivariate correlation and regression, multiple regression, dummy variables, analysis of variance, analysis of covariance; applications of statistical computing packages to social science data.

SOC X84M. Topics in Seminar in Data Analysis.
Quantitative sociological research integrating the use of statistical analysis with computer applications and survey data.

SOC X84M.1. Evaluation of Social Policy.

SOC X85K. Social Statistics: Discrete Multivariate Models.
Assumptions, estimation, testing, and parameter interpretation for models using categorical data; applications of statistical computing packages and programs to social science data.

SOC X85M. Social Statistics: Linear Models.
Explore model specification; a review of simple regression; scale construction; missing values; ordinary and generalized least squares; measurement error and unobserved variables.

SOC X85N. Causal Inference.
Analyze key concepts and methods of causal inference. Examine strategies for isolating the relationship between a given predictor and dependent variable of interest from potential confounders to determine whether any quantitative social science study is employing causal inference or naive" methods; articulate the pros, cons, and assumptions made by different causal inference strategies; and understand how to engineer a causal study.

SOC X86L. Social Statistics: Dynamic Models and Longitudinal Data Analysis.
Applications of dynamic models to data collected at successive points in time. Dynamic structural equation models; statistical time-series analysis; stochastic processes, panel, and event-history analysis.

SOC X87C. Special Topics in Social Research Methods.

SOC X87J. Fundamentals of Research Methods.
Fundamental assumptions and procedures for conducting sociological research, including the logic of science, the links between theory and methods, measurement, experiments, sampling, surveys, qualitative methods, and ethics.

SOC X87L. Qualitative Methods for the Social Sciences.
Qualitative survey research methods, approaches, and designs, including participant observational techniques, semistructured interviewing, and formal questionnaire and census-type surveys.

SOC X88J. Readings in Ethnography.
This reading-intensive seminar has four major objectives: 1) to become familiar with some classic and contemporary ethnographies, 2) to acquaint students with the methodological tenets of ethnography, 3) to consider theoretical and epistemological issues in ethnographic research, 4) to discuss narrative strategies in ethnographic writing.

SOC X88K. Field and Observational Methods.
Rationale and logic for field research; participant and nonparticipant observation; informant and conversational interviewing; personal documents, records, and physical traces; life histories; sources of error and bias; personal and ethical dilemmas; modes of analysis.

SOC X88L. Historical and Comparative Methods.
Scope and methods of historical and comparative sociology; application of historical sources to answer sociological questions; logic of comparative analysis in theory construction.

SOC X88N. Ethnographic Theory and Practice.
Explore the epistemology of ethnographic methods, crafting an ethnographic study, and conducting and analyzing field observations and in-depth interviews.

SOC X89E. Event History Analysis.
Evaluate survival methods for the analysis of change in time-dependent discrete dependent variables, drawing on methodological and empirical research from the social sciences. Explore the relationship between theories of social change, life course events, and dynamic models.

SOC X89K. Topics in Seminars in Demography.
Substantive issues and current topics in population studies and social demography.

SOC X89K.1. General Approaches to the Study of Population.

SOC X89K.12. Demography of Health and the Life Course.
An in-depth introduction to the major conceptual frameworks and empirical research that examine distal and proximate social factors influencing adult health. Includes the assessment of key social and biological pathways linking social conditions at particular points in the life course with adult health outcomes.

SOC X89K.14. Sociology of Families and Households.
Examine family research literature describing change and variation in family behavior. Explore cohabitation, marriage, divorce, kinship, parenthood, gender, and sexuality.

SOC X89K.2. Human Fertility.

SOC X89K.3. Human Mortality.

SOC X89K.4. International Migration.

SOC X89K.6. Training Seminar in Demography.

SOC X89K.9. Immigration Policy.

SOC X90K. Proposal Preparation.
Preparation of proposal for the doctoral dissertation.

SOC X91L. Basic Demographic Methods and Materials.
Population composition, change, and distribution; methods of standardizing and decomposing rates; life tables and population models; analysis of data from advanced and developing countries; applications of computer programs for demographic analysis.

SOC X94K. Topics in Seminars in Sociological Theory.
Development of social thought; the emergence of systematic sociological theory; interrelations with other social sciences.

SOC X94K.12. Sociology of Culture.
An overview of some of the major contemporary research in the sociology of culture. Includes discussion of meaning systems and their transformations; symbolic nature of consumption; relationship between culture and social stratification; cultural bases of power; culture industry; and sociology of the arts.

SOC X94K.13. Cultural Studies.
Examines the history, debates, and key developments within the trans-disciplinary field of cultural studies. Considers the significance of the intellectual work produced in Britain from the 1940s to the present and the relationship today between the sociology of culture and cultural sociology.

SOC X94K.14. Theories of Power.
Examines the social theory controversy over the definition of the terms power and domination. Considers the classical and contemporary theoretical understandings of power and domination and studies the diverse ways in which these concepts have been deployed in empirical research.

SOC X94K.2. Contemporary Sociological Theory.

SOC X94K.3. Classical Sociological Theory.
A review of classic works in sociological theory, focusing on the work of nineteenth-century and early twentieth-century theorists. Critically examines the historical and theoretical context of sociology's founding ideas. Explores the promises and problems of the relationship between sociological theory and the modern era.

SOC X95E. Topics in Seminars in Education.
In-depth theoretical and policy discussions designed to give students intensive exposure to specific issues in education.

SOC X95E.1. Sociology of Education.
Provides an overview of the field of sociology of education. Examines the ways in which schools reproduce, reinforce, and challenge the prevailing social, economic, and political relationships in society. Includes discussions of why people go to schools, who has access, and the effects of schools on individuals, communities, and society.

SOC X95E.2. Poverty, Race, and Schools.
Focuses on children's academic outcomes within the contexts of poverty, race, and schools in K-12 education. Includes an assessment of a number of student groups in an effort to understand why some children have higher quality schooling experiences than others. Considers the roles of teachers and parents in affecting children's academic outcomes, with primary emphasis placed on their importance in elementary and middle school.

SOC X95E.3. High School and Transition to Adulthood.
Focuses on how education is related to adolescents' transition to adulthood in modern society. Examines the structure of schooling and the life course stages of adolescence and early adulthood, societal stratification, and intergenerational mobility.

SOC X95E.4. International Issues in Education.
Introduction to key theoretical and empirical work on education and social stratification from an international perspective. Focuses on studies of school access, educational attainment and achievement, and inequality of educational opportunity in Africa, Asia, and Latin America. Includes discussion of comparative and case study readings that explore specific themes such as education and social mobility, gender, race and ethnicity, and school contexts.

SOC X95E.5. Social Contexts of Education.
Explores school as a social context by delving into the informal processes of education, such as socialization and the organization of social relations. Includes discussion of the school as a site of social relations, social psychological influences on educational trajectories, and the social psychological consequences of educational experiences.

SOC X95F. Topics in Seminars in Family.

SOC X95F.2. Marriage, Family, and Kinship.

SOC X95F.3. Family and Health.

SOC X95F.7. Aging and the Life Course.
Concepts and controversies about aging and the adult life course in the United States. Includes discussion of the biology of aging as it relates to current social issues and trends, population aging and related demographic trends, the economics and politics of aging, the trajectories and transitions of the adult life course, healthy aging, age as a social status, health care rights and responsibilities, retirement as a social institution, generational equity, and the conditions and choices at the end of life.

SOC X95F.8. Gender, Marital Status, and Well-Being.
Examines gender and relationships from social psychological perspectives. Considers how and why intimate relationships differ for men and women as well as the gendered consequences of relationships for mental and physical health.

SOC X95G. Topics in Seminars in Gender.

SOC X95G.10. Sociology of Sexual Violence.
Examines the different social forces and dynamics responsible for a variety of expressions of sexual violence existing in contemporary society. Designed to examine these processes promoting social violence from feminist-informed sociological perspectives; explore and analyze the historical, economic, and socio-cultural contexts responsible for these processes; study the issues and concerns with regard (but not limited) to gender, race and ethnicity, class, sexuality, and political activism associated with sexual violence research in the social sciences;

and discuss and critique published sexual violence research based on qualitative methodologies across disciplines.

SOC X95G.11. Qualitative Methods and Sexuality Research.
Examines major qualitative approaches to the study of sexuality from a sociological perspective; issues and concerns with regard to gender, race and ethnicity, class, same-gender sexualities, and activism associated with sexuality research in the social sciences; and published sexuality research based on qualitative methodologies.

SOC X95G.12. Women and the Changing World of Work.
Explores the nature and causes of gender stratification in industrial societies. Examines theoretical and empirical issues regarding gender inequality in the labor market. Includes changes in female labor force participation, gender segregation in the workplace, gender gaps in earnings and promotions, and gender differences in career processes. Addresses how social institutions that vary from one country to another shape men's and women's economic opportunities and the degree of gender inequality in the society.

SOC X95G.3. Gender and Family.
Review of basic theoretical perspectives and empirical evidence concerning gender and family relationships. Considers how and why family relationships differ for men and women as well as the gendered consequences of relationships for men's and women's well-being. Includes discussion of marital status, marital transitions, marital quality, same sex intimate relationships, cohabiting relationships, and parent/child relationships.

SOC X95G.4. Gender and Health.

SOC X95G.5. Gender and Development.

SOC X95G.6. Gender and Work.
Examines theoretical and empirical issues regarding gender inequality in the labor market. Includes discussion of changes in female labor force participation, gender segregation in the workplace, gender gaps in earnings and promotions, as well as gender differences in career processes.

SOC X95G.7. Feminist Theory.
Examines social categories such as the state, citizenship, nationalism, and globalization from a feminist perspective.

SOC X95G.8. Readings in Gender and Sexuality.
Presents an overview of sociological theories of sexuality and provides a forum for discussion of recently published works in the sociology of gender and sexuality.

SOC X95G.9. Gender and Society.
Examines the social construction of gender inequality, paying special attention to how divisions by race, class, and sexuality contribute to and occasionally undercut men's power and privilege over women. Emphasis is also placed on moments of resistance and change in gender arrangements.

SOC X95J. Topics in Seminars in Health.

SOC X95J.1. Sociology of Health and Illness.

SOC X95J.10. Structural Equations Modeling of Health and the Life Course.

SOC X95J.12. Education, Socioeconomic Status, and Health.
Examines why people with higher socioeconomic status have better health than lower status individuals. Explores the links between aspects of social status and health and how education influences health in ways that are varied, present at all stages of adult life, cumulative, self-amplifying, and uniformly positive.

SOC X95J.13. Gender, Health, and Society.
Focuses on the gender dimensions of health, illness, and the medical care industry in the United States, with some international comparisons. Examines the role of women as major actors in changing the health-care system, reducing health risks for themselves and their families, and their roles as health-care providers, public administrators, and leaders in the health-care establishment. Also examines the role of different levels and branches of government and the relative power of key nongovernmental actors and the media in the formation of public policy and the definition and framing of our health agenda.

SOC X95J.6. Sociology of Mental Health.
Examines the social causes of mental health. Explores what mental health and mental illness are and how they can be measured, contrasting the social view with the medical, psychiatric, and psychological views.

SOC X95J.7. Health and the Life Course.
Health across the life course; the timing and sequencing of life-course experiences and events with respect to health.

SOC X95J.8. Biosocial Approaches to Health.
Examines the relationships between the natural and social environments and human health and behavior. Explains how disease, functional problems, and disability are not simply biomedical problems but are reflective of a complex array of behavioral factors and social forces. Focuses on the biologically informed sociological models of health in order to understand how genetics and major biological systems interact with social conditions and experiences to influence health and health-related behaviors.

SOC X95J.9. Race and Health.
Study the links between social conditions, including racial discrimination, and objective indicators of health. Discover the new body of literature documenting how racism becomes embodied and requires new tools and vocabulary to explore such connections. Conduct a detailed survey of the interdisciplinary discrimination-health literature integrating sociological and biological understandings of discrimination exposure, stress physiology, and the links to morbidity and mortality over the life course.

SOC X95L. Topics in Seminars in Race and Ethnicity.
Sociological theories and findings concerning various aspects of race and ethnicity.

SOC X95L.1. Comparative Perspectives in Race and Ethnicity.

SOC X95L.10. Critical Theories of Race and Racism.
Introduction to global perspectives on race, ethnicity, and racism. Examines the historical relationship between the emergence of ideas about race and Western modernity: importance of slavery and European colonialism in producing modern understandings of race and racial difference; contemporary racial formation in the period after the anticolonial struggles of the mid-twentieth century.

SOC X95L.8. Race, Media, and Culture.

SOC X95L.9. Race and the Body.
Explores theories and research methodologies in the sociological study of the body, with a focus on race, racism, gender, and sexualities.

SOC X96L. Topics in Seminars in Work, Occupations, and Organizations.

SOC X96L.10. Stratification and Social Mobility.

SOC X96L.15. Nongovernmental Organizations in the Developing World.
Explores how nongovernmental organizations reflect local and international initiatives related to human rights, the environment, sustainable development, health, education, and much more.

SOC X96L.16. Sociology of Poverty in the United States.
Review of selected sociological literature on poverty and related aspects of inequality, mostly in the United States but with some comparisons made with other developed nations. Both quantitative and qualitative research on American poverty are considered.

SOC X96L.17. Entrepreneurship and Incubation.

SOC X96N. Topics in Seminars in Crime, Law, and Deviance.
Substantive issues and current topics in the study of crime, law, and deviance.

SOC X96N.1. Criminology.
Examines major topics in the social scientific study of crime, including the measurement of crime, profiles of criminals, criminal behavior across the life course, and public perceptions of and reactions to crime.

SOC X96N.2. Theories of Crime Causation.
Focuses on the major theories of criminal behavior and whether and in what ways empirical data support or refute various theoretical perspectives.
SOC X96N.3. Criminal Justice.
Designed to provide an overview of research on how the penal system works in practice by examining the empirical literature on sentencing, prisons, recidivism, and evaluation research of penal programs.
SOC X96N.4. Introduction to Law and Society.
Focuses on the noncrime aspects of the legal system, especially civil justice; the pursuit of perceived legal entitlements and grievances; studies of legal professionals and legal decision makers; and the use of the legal system to advance social change.
SOC X96N.5. Law, Legitimacy, and Control.
Explores the interconnections between law, morality, and the sense of injustice. Examines the attributes of a moral system as they influence the collective assessment of legitimacy, the emergence of social movements for reform, and the resulting efficacy of law as an instrument of control.
SOC X96N.6. Deviance.
Examines the characteristics, causes of, and societal reactions to several types of deviant behavior.
SOC X96P. Topics in Seminars in Political Sociology, Development, and Globalization.
SOC X96P.1. Political Sociology.
SOC X96P.10. Introduction to the Sociology of Latin America.
SOC X96P.11. Mexican Political System in Transition.
SOC X96P.12. Gender and Politics.
Provides a comprehensive introduction to the history of women's entry into politics internationally, the current state of women's political representation across countries and regions, and contemporary debates on why and how women's access to political power varies across countries. May include discussion of the ways in which gender intersects with other social identities, such as race, ethnicity, class, and sexual orientation.
SOC X96P.13. Housing Practices and Public Policy in Latin America.
SOC X96P.14. Citizenship and Social Policy.
SOC X96P.15. Economic Sociology.
SOC X96P.16. Urbanization.
SOC X96P.17. Poverty and Marginality in the Americas.
Review of the past and present ethnographic analyses of the nature and experiences of poverty and marginality in Latin America and in the United States. Examines some of the most controversial issues and debates, and explores emerging research topics north and south of the border.
SOC X96P.19. Bourdieu and the Craft of Sociology.
Examines Bourdieu's key notions as they become articulated in the craft of research and writing in his work, and that of others, with an underlying objective of learning how to think and conduct sociological research with or against Bourdieu.
SOC X96P.2. Social Movements.
SOC X96P.20. Prosocial Behavior.
Instruction steers away from traditional focus of sociology and considers pro-social behavior - actions intended to help or benefit others. Similar to the "positive psychology" movement, which asks what makes individuals resilient and happy rather than abnormal or depressed, examines what makes individuals, groups, and communities sacrifice, trust, volunteer, and generally work together.
SOC X96P.3. Social Change.
SOC X96P.6. Elites.
SOC X96P.7. Peace, Conflict, and Violence.
SOC X96P.8. Cultural Sociology.
SOC X96P.9. Economic Development and Social Change.
SOC X96Q. Topics in Seminars in Law and Human Rights.
Theory and research on those instances in which legal regimes and/or legal institutions, such as prisons, raise human rights issues.
SOC X97D. Publishing Papers in Sociology.
SOC X97P. Proseminar.
A review of the requirements and responsibilities of professional sociologists.
SOC X98. Thesis.
SOC X98T. Supervised Teaching in Sociology.
Explore the purposes and significance of teaching, teacher identity, student perceptions, and working as a Teaching Assistant. Examine critical pedagogy such as cultural, disability, and classroom interventions. Identify your emerging "Teaching Philosophy".
SOC X99W. Dissertation.

Professional Courses

SOC X19S. Topics in Sociology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Sociology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
SOC X29S. Topics in Sociology.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Sociology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
SOC X90K. Proposal Preparation.
Preparation of proposal for the doctoral dissertation.

SPB - Sports Production and Broadcasting

Sports Production and Broadcasting: SPB Lower-Division Courses

SPB X01. Introduction to Sports Production and Broadcasting I.
Introduction to the foundational aspects of the sports broadcasting industry and the essential production skills required to be successful in the field.
SPB X02. Introduction to Sports Production and Broadcasting II.
Explore foundational aspects of sports broadcasting and production with an emphasis on editing.
SPB X10. Topics in Sports Production and Broadcasting.
Explore contemporary issues and practices in sports production and broadcasting.
SPB X19S. Topics in Sports Production and Broadcasting.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Texas Global Office. Credit is recorded as assigned by the study abroad advisor in Sports Production and Broadcasting. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SPB X20. Topics in Sports Production and Broadcasting.
Explore contemporary issues and practices in sports production and broadcasting.

SPB X21. Independent Study.
Pursue special supervised individual research studies.

SPB X22. Storytelling in Sports Production and Broadcasting.
Explore the art of storytelling in live and other forms of sports production.

SPB X29S. Topics in Sports Production and Broadcasting.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Texas Global Office. Credit is recorded as assigned by the study abroad advisor in Sports Production and Broadcasting. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPB X70. Topics in Advanced Sports Production and Broadcasting.
Discuss advanced skills and practice in production and/or broadcasting in a range of environments.

Graduate Courses

Professional Courses

SPC - Spanish Civilization

Spanish Civilization: SPC

Lower-Division Courses

SPC X19S. Topics in Spanish Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as cousework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPC X29S. Topics in Spanish Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SPC X19S. Topics in Spanish Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as cousework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPC X20C. Topics in Iberian or Latin American Studies.
Significant issues in Iberian or Latin American societies and cultures.

SPC X20C.10. Cuba in Question.
Explore Cuba's peoples, cultures, ethnicities, and the social and historical processes that go far beyond the common media stereotypes.

SPC X20C.11. History of Sephardi Jews.
Examine the early-modern networks established by the Sephardi Jews (Sephardim) across the Mediterranean and Atlantic, the rich Ladino Judeo-Spanish culture that thrived in the Ottoman Empire, and Sephardi encounters with the modern world.

SPC X20C.2. Mediascapes: Literature and Media in the Caribbean.
Analyzes the relationship between literature and media technologies in contemporary Caribbean cultures.

SPC X20C.4. Spanish Storytelling.
Explore the Spanish storytelling tradition, with a focus on famous Spanish language authors who have enjoyed a broad reception in the English-speaking world.

SPC X20C.5. The United States in Latin American Culture.
Explore how Latin American and Latinx writers and artists have used the United States and globalization tropes, not just to come to terms with politics, popular culture, crime, technology, gender, and race, but also to talk about themselves.

SPC X20C.6. Jews of the United States, Canada, and Latin America.
Explore the cultural history of Jews in the United States, Latin America, and Canada through a representative sample of short literary texts, film clips, and musical recordings.

SPC X20C.7. Latinx Caribbeans: Culture and Diaspora in the United States.
Explore prominent Latinx poets, writers, performers, and media artists connected to several diaspora communities from the Hispano-, Franco-, and Anglophone Caribbean in the United States.

SPC X20C.8. Music, Power, and Politics in Latin America.
Analyze how popular music and more sound-related media in Latin America have played central roles in the expression of global citizenship, national and transnational identities, social justice, race, gender, and sexuality.

SPC X20C.9. Indigenous Relations.
Explore the multi-layered relations of Indigenous Peoples to the land in the context of late twentieth- and early-twenty-first century Latin America.

SPC X29S. Topics in Spanish Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

SPC X19S. Topics in Spanish Civilization.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as cousework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPC X29S. Topics in Spanish Civilization.
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Professional Courses

SPC X19S. Topics in Spanish Civilization.
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cousework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPC X29S. Topics in Spanish Civilization.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPN - Spanish

Spanish: SPN

Lower-Division Courses

SPN X01. Spanish for Graduate Students in Other Departments.

Purpose: To introduce fundamentals of grammar and lexicon to enable students to read texts in their areas of specialization. Primary aim: To allow students to acquire reading proficiency. Also presents audio-aural aspect.

SPN X01D. First-Year Spanish I.

Explore the development of speaking, listening, reading, and writing skills; build vocabulary, review basic rules and terminology of grammar; and examine Spanish-speaking cultures.

SPN X04. Accelerated Introductory Spanish for Heritage Learners.

Designed primarily for students who have a cultural and linguistic connection to Spanish (i.e. native and near-native speakers, Spanish as home language).

SPN X10D. First-Year Spanish II.

Continue to explore the development of speaking, listening, reading, and writing skills; build vocabulary, review basic rules and terminology of grammar; and examine Spanish-speaking cultures.

SPN X11. Intermediate Spanish.

Focus on the development of speaking, listening, reading, and writing skills while building vocabulary. Review rules and terminology of Spanish grammar. Examine complex grammar structures and Spanish-speaking cultures.

SPN X11D. Second-Year Spanish.

Focus on the development of multilingual literacy through the analysis and use of Spanish to achieve linguistic competence (aspect, mood, compound tenses, passive voice), communication and interactional competence (pragmatics, cultural perspectives), and metalinguistic competence (critical analysis of oral and written texts, dialectal differences).

SPN X11J. Intermediate Spanish for Heritage Learners.

Designed primarily for students who have a cultural and linguistic connection to Spanish (i.e. native and near-native speakers, Spanish as home language).

SPN X14. Spanish Conversation and Culture.

Explore the development of oral skills and speaking strategies in different discourse genres including informal, formal, academic, and travel.

SPN X14J. Writing and Culture in Context for Heritage Learners.

Designed for students with a cultural and linguistic connection to Spanish (i.e. native and near-native speakers, Spanish as a home language). Examine Hispanic cultures and sociopolitical experiences and explore communicative abilities through a variety of interactive, student-centered activities.

SPN X19S. Topics in Spanish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPN X29S. Topics in Spanish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SPN X19S. Topics in Spanish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPN X27C. Advanced Grammar and Writing in Context.

Study and practice of Spanish grammar that includes reading exercises and guided composition designed to develop writing skills across styles. Students will be exposed to various topics in Spanish language, literature, and culture.

SPN X27N. Academic Writing for Heritage Speakers.

Designed specifically for heritage speakers of Spanish and includes a wide range of cultural readings and writing tasks. Aims to strengthen the clarity and organization of writing, promote critical thinking, and master grammar points of particular concern to heritage speakers.

SPN X27V. Advanced Writing and Service Learning.

Explore the ethical perspectives on issues in education, immigration, and community service.

SPN X28. Spanish Civilization.

A survey of the social, political, and cultural history of Spain.

SPN X28C. Introduction to Literatures and Cultures.

Overview of Iberian and/or Latin American literatures and cultures, including the arts and popular expressions, from a multidisciplinary perspective. Among the regions studied are Spain; North, Central, and South America; the Caribbean; and related areas in Africa.

SPN X29S. Topics in Spanish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPN X30D. Spanish across Disciplines.

Students read and discuss Spanish language materials related to the subject matter of another designated course.

SPN X30L. Introduction to Language and Linguistics in Society.

Examines the dynamics of language structure and use throughout the Spanish-speaking world, and covers topics such as sound systems, grammatical structures, historical developments, language learning and loss, and dialect differences and their social significance.

SPN X46C. Spanish Pronunciation.

Review Spanish pronunciation. Examine the fundamental principles of phonetic analysis in order to show how Spanish sounds are produced, how they fall into patterns, and how they change in different environments.

SPN X48V. Research through Community Engagement.
Reflect on issues of education, community, and the process of learning utilizing a mixture of volunteer and research work.

SPN X50C. Gender Issues in Contemporary Latin American Cinema.
Studies Latin American cinema as a device of gender system formation and reinforcement, and as criticism of patriarchal hegemony; discusses questions related to sexuality depicted in Latin American films. Subjects covered include: maternity, prostitution, machismo, children's sexuality, homosexuality, heterosexuality, and gender violence in films from the 1930s to present. Conducted in Spanish.

SPN X50D. Latin American Film and Culture.
Review Latin American cinema from the silent era to present, with an emphasis on the last forty years. Discuss the development of the film industry (particularly in Argentina and Mexico in the 1930s and 1940s), the "New Wave" of Latin American cinema in the 1960s, and contemporary trends.

SPN X50E. Mediascapes: Literature and Media in the Caribbean.
Analyze the relationship between literature and media technologies in contemporary Caribbean cultures. Examine the notion and uses of Caribbean mediascapes. Discuss the uses of media technologies derived from film, television, the internet and YouTube, and the ways they are used and read in the Spanish Caribbean.

SPN X50F. Latin Noir: Film and Crime in Latin America.
Examine the contributions of Latin America to film noir, in the context of criminality and urbanization in contemporary society.

SPN X50G. Cuban Revolution.
Explore diverse accounts and interpretations of the Cuban Revolution in fictional and documentary film and narrative produced in the island and abroad by pro-and counter-revolutionary, island and diaspora, Cuban and non-Cuban, local and international directors and writers.

SPN X50I. Latin American Literary and Artistic Environmental Activism.
Explore literary and artistic works that engage in questions of environmental care and justice in the context of twentieth- and twenty-first century Latin America.

SPN X51. Don Quijote and the Early Modern World.
Study of Cervantes's Don Quijote in depth in the original Spanish. Examines the author's views on artistic freedom, as well as his manipulation of literary genres and conventions, with his questions regarding the dominant political, religious, and literary discourses of early modern Spain.

SPN X51C. Globalization, Film, and Media in Latin America.
Explore globalization in Latin America through the lens of film and mass media.

SPN X51D. Spanish Cinema and Cultural Identity.
Explore how Spanish Cinema from the Francoist period until present-day enter a cultural dialogue with issues related to national identity, gender, class, and immigration.

SPN X52C. Contemporary Caribbean Literature.
Explore themes and major authors from the Spanish Caribbean, since 1980 to contemporary United States Caribbean authors (Cuba, Puerto Rico, Dominican Republic). Discuss themes such as national identities, history, intersectionality of race, gender and sexuality, exile and displacement, urban and city enclaves, and the richness and complexity of Caribbean cultures in the United States.

SPN X52D. History, Discourse, and Language in Latin America.
Explore the articulation between history and discourse in Latin American languages.

SPN X53. Sociolinguistics.
Explores the interrelationship of language and society, with reference to the Spanish-speaking world. Studies how socioeconomic, political, and anthropological factors like race, social class, gender, age, and identity influence linguistics forms.

SPN X53C. Journalism and Human Rights in Latin America.
Explore the traditional definitions of Human Rights and the way those definitions have taken shape in the last two decades in Latin America.

SPN X54C. Literature and Exile in the Spanish Caribbean.
Explore literary texts (e.g., poetry, chronicles, narratives, and short stories) that describe exile as a trope. Examine themes, such as literature, culture and colonialism, nationality and belonging (i.e., nation, transnation, and post-nation), nature, the sensorial and subjectivity, identity politics (i.e., race, gender, and sexuality), and the ethics of writing.

SPN X55C. Fantastic Fiction from Latin America.
Analyze short stories by Latin American writers that in some way represent an alternative to realism.

SPN X55D. Jewish Voices from Latin America.
Overview of popular Jewish writers from Brazil and Spanish America, with special emphasis on those who portray in their work the situation of the Jewish communities of their respective cities and countries. Conducted in Spanish.

SPN X55E. Revolutionary Imagination in Latin American Cultures.
Explore literary expressions in Latin America that reflect a dissident or transgressive imaginary published during the revolutionary period (1960-1990). Examine how different socio-historical experiences require new narrative forms, and innovative ways of exploring and codifying collective community identities.

SPN X55F. Violence in Contemporary Mexican Culture.
Studies the representation of violence in contemporary literary and cultural production in Mexico in order to understand social, political, and cultural implications of current violence there. Taught in Spanish.

SPN X55G. Memory and Writing in Caribbean Culture.
Examine literary works from the greater Caribbean basin (with a focus on Cuba and Puerto Rico) in which the act of remembering is emphatically dramatized and described.

SPN X55I. Migrations and Exiles in Latin American Literature and the Arts.
Explore how internal and international displacement and migration have been represented in Latin American arts.

SPN X55J. Cultures in Contact in Colonial Spanish America.
Explore how Indigenous and European cultures represent their often-unequal encounters in colonial Spanish America. Analyze alphabetic and visual texts to examine the complex issues of mapping and representations of self and others; intercultural interpretations and exchanges; rituals and performances of domination, subordination, and negotiation; and the construction of social identities in an evolving geographic and cultural space.

SPN X55K. Body Politics in Latin American Poetry.
Explore poetic discourse as it relates the experience of the body to social, political and cultural contexts.

SPN X55L. From El Che to Evita.
Explore approaches and views from disciplines such as literature, music, film, history, and politics, and fields such as cultural studies, media studies, performance, gender and queer politics, critical race theory, and indigenous studies. Analyze different technologies of representation, from writing and visual materials to voices and sounds.

SPN X55M. Garcia Marquez.
Examine the literary movement of magical realism from the 1940s through the 1960s when "Cien anos de soledad" by Garcia Marquez became a seemingly overnight sensation, through later writers such as Isabel Allende and Laura Esquivel. Explore the development of this Spanish American tradition.

SPN X55N. Hip Hop Culture in Latin America.
Examine the development of the culture of hip hop in Latin America. Utilize a variety of materials including rap lyrics, graffiti, urban muralism,

break dance, sound design, and entrepreneurship to discuss media and migratory factors of hip hop expansion in the region; the notions of youth culture conveyed by these expressions; aesthetic debates around hip hop; the public intervention of hip hop groups and their political influence.

SPN X55Q. Gender and Modernity in Mexican Literature and Culture.
Explore the representation of body in Mexico in the period comprehended between Porfirio Diaz's regime and the post-revolutionary era (1880s to 1930s).

SPN X55R. East, West, and New World Encounters.
Examine works mostly in the Latin American and Hispanic literary tradition in which images or themes related to the East (Asia, Eastern Africa, the Middle East) are developed.

SPN X56C. Indigenous Voices in Latin American Literature.
Examine how indigenous intellectuals and writers have creatively established their own voices in writing and other modern and contemporary media in Latin America over time. Discuss works by Guaman Poma, Tito Cusi Yupanqui, Nezahualcoyotl, Jose Maria Arguedas, Rigoberta Menchu, Pascual Cona, as well as contemporary Nahuatl, Mayan, Quechua, and Mapuche poetry and narrative, films and samples of radio programs.

SPN X56D. Indigenous Resurgence.
Analyze and discuss the ways in which re-telling, documentation and invocation of the past shapes different forms of self-representation by indigenous authors as a response to colonialism in late twentieth and early twenty-first century Latin American societies.

SPN X56E. Hispanic Short Films, Stories, and Poems.
Explore the work of Spanish-language filmmakers, prose writers, and poets who have faced the challenge of expressing themselves in very few words or minutes.

SPN X57C. Writing on the Edge: Literature and Incarceration.
Explore the critical potential of literature to interrogate mass incarceration and its relationship to systemic inequalities, including access to education, as well as the limits and possibilities of prison writing as a social and restorative endeavor to reimagine society.

SPN X57D. Cultures in Contact in Medieval Spain.
Explore works of literature that reflect the three cultures which coexisted for almost eight centuries in medieval Spain: the Islamic, the Jewish, and the Christian.

SPN X57E. Spanish Translation and the Social Sciences.
Explore the development of translation and interpretation skills, in speaking, reading, and writing, in the disciplines of the social sciences.

SPN X57F. Writing the Other in Spain and Latin American Texts.
Explore the subjective encounter with "the other" as expressed in literary and cultural texts of early modern Spain and Latin American texts directed toward or received by a transatlantic audience during the Colonial period.

SPN X57G. Spain on the Red Carpet.
Explore the intersections of cinema, celebrity glamour, and global politics by focusing on the case study of Spain and the projection of its film industry abroad.

SPN X58C. Brevity in Spanish-Language Literature and Film.
Explore the work of Spanish and Spanish American filmmakers, prose writers, and poets who have accepted the challenge of expressing themselves in a brief span of time.

SPN X58D. Spanish Creative Writing Fiction.
Explore the creative process in different genres to improve creative writing skills.

SPN X58E. Spanish Creative Writing Nonfiction.
Explore the methods for writing about issues studied as non-fiction works.

SPN X58F. The Imagined Andes.
Examine the ways in which the cultural, social, and geographical space of the Andes has been "imagined" through literary texts, visual and audiovisual artworks by writers and artists from Bolivia, Ecuador, Chile and Peru.

SPN X59. United States Latino Literatures and Cultures in Context.
Examines the United States Latino literary and cultural production from multidisciplinary perspectives, such as literature, film, music, and performance. Analysis of the literatures and experiences of United States Latino writers and artists in their historical and cultural specificities.

SPN X64L. Linguistics and the Spanish Learner.
Focuses on instructed and naturalistic second language (L2) development among adults. Subjects include: L2 acquisition theories, Spanish learners' difficulties, learners' and teachers' beliefs about L2, learners' motivations and needs, and heritage language learners.

SPN X65G. Conference Course in Hispanic Linguistics.

SPN X65L. Conference Course in Hispanic Literature.

SPN X67C. Spanish for Health Care Professions.
Explore both spoken and written language in health care situations. Focus on complex grammatical concepts and cultural issues that affect professional activities in Spanish-speaking communities.

SPN X67D. Business in Hispanic Life and Culture.
Explore business Spanish. Practice verbal communication in the context of meetings, exchanges, video conferences, presentations, and professional discussion, in Spanish and in areas related to finance, marketing, accounting, operations.

SPN X67T. Advanced Oral and Written Expression for Teachers.
Designed to help teacher candidates prepare to pass the state oral and written proficiency exams at the advanced level to obtain certification. Focus on oral proficiency for various genres of speaking with an emphasis on writing and reading of different genres.

SPN X68D. Contact Spanish in the United States.
Examine the linguistic situation of persons of Spanish language heritage in the United States. Focus on the social and cultural factors that are implicated in their language behaviors.

SPN X68E. Bilingualism.
Examine bilingualism in the Spanish-speaking world from the perspective of individuals in societies.

SPN X68F. Spanish in Mental Health Contexts.
Develop the Spanish language skills needed to perform multiple interventions in the mental health field when providing care to Hispanic/Latino limited English proficiency patients.

SPN X68G. Spanish for Law.
Explore Spanish skills oriented to the legal field to achieve confidence for communicating in Spanish in professional legal settings.

SPN X69C. African Diasporas.
Analyze the sociocultural contexts of the African diaspora in the Americas with particular focus on the Caribbean and Brazil. Explore the contributions of the African diasporic populations and the stylistic strategies through which they constructed their social, political, and cultural agency.

SPN X77C. Topics in Spanish.

SPN X77H. Honors Tutorial Course.
Supervised individual research on a literary, linguistic, or cultural problem, culminating in a written thesis.

SPN X79C. Capstone Seminar in Literatures and Cultures.
Brings together central issues, concepts, and themes that define Iberian or Latin American literatures and cultures, while focusing on a specific case-study or case-studies.

SPN X79H. Honors Tutorial Course.
Supervised individual research on a literary, linguistic, or cultural problem, culminating in a written thesis of fifty to eighty typewritten pages.

SPN X79L. Capstone Seminar in Linguistics.
Brings together central issues, concepts, and themes that define linguistics, while focusing on a specific case-study or case-studies, that allow for the necessary depth and rigor to produce a research paper on a particular topic of interest.

Graduate Courses

SPN X19S. Topics in Spanish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPN X29S. Topics in Spanish.
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SPN X80K. Topics in Spanish American Literature.
Topics include Modernismo; the short story; contemporary trends of the Spanish American novel; the literary prose of Sarmiento; gaucho literature; Ruben Dario; contemporary Argentine fiction.

SPN X80K.1. Comparative Studies in the Literatures of Brazil and Spanish America.

SPN X85L. Conference Course in Hispanic Literatures and Linguistics.
For students needing specialized courses not normally or not often included in the regular course offerings.

SPN X96K. Topics in Comparative Romance Linguistics.
General survey of the development of spoken Latin in Italy, Spain, Portugal, and France; main traits of phonology, morphology, and syntax of each modern derivative language.

SPN X96K.1. Comparative Romance Linguistics.

SPN X96K.2. Introduction to Romance Linguistics.

SPN X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

Professional Courses

SPN X19S. Topics in Spanish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SPN X29S. Topics in Spanish.
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SSE - Semiconductor Science and Engineering

Semiconductor Science and Engineering: SSE

Lower-Division Courses

SSE X01. Topics in Semiconductor Manufacturing.

SSE X03. Topics in Circuits and Systems.

SSE X05. Topics in Heterogeneous Integration.

SSE X07. Topics in Semiconductor Devices.

SSE X09. Digital Logic Design.
Explore semiconductor digital design and optimization.

SSE X10. Circuit Theory.
Explore circuit theory in semiconductors.

Upper-Division Courses

SSE X60. Introduction to Semiconductor Science and Engineering.
Introduction to semiconductor science and engineering.

SSE X60S. Advanced Packaging Manufacturing.

SSE X77K. Projects in Semiconductor Science and Engineering.
Produce an independent project carried out under the supervision of a faculty member in semiconductor science and engineering. Prepare a project proposal and a final report, each of which is evaluated by the faculty committee on individual projects.

Graduate Courses

SSE X80. Introduction to Semiconductors.
Survey fundamental and important areas in semiconductor science and engineering including semiconductor device design, semiconductor manufacturing techniques, metrology and process control.

SSE X80C. Topics in Semiconductor Science and Engineering.

SSE X81. Semiconductor Processes.
Explore a theoretical and practical introduction to contemporary fabrication techniques and methods.

SSE X82. Semiconductor Devices.
Examine the design and physics underlying modern semiconductor devices.

SSE X83. Topics in Semiconductor Manufacturing.

SSE X84. Topics in Semiconductor Circuits and Systems.

SSE X85. Topics in Heterogeneous Integration and Advanced Packaging.

SSE X85C. Microelectronics Packaging and Thermal Management.
Explore microelectronics packaging and thermal management in the semiconductor industry.

SSE X85D. Materials for Packaging and Heterogeneous Integration.
Explore techniques of applied aspects of materials used in packaging semiconductors including heterogeneous integration, reliability, cooling, and role of materials.

SSE X86. Topics in Semiconductor Devices.

SSE X90. Semiconductor Manufacturing Laboratory.
Explore how to operate fabrication tools in the cleanroom.

SSE X91. Semiconductor Metrology and Characterization Laboratory.
Explore various different metrology techniques for analyzing materials and structures.

SSE X95. Research.
Prepare for an independent research project in semiconductor science and engineering through developing literature review and technical writing skills.

SSE X97P. Projects in Semiconductor Science and Engineering.
Produce an independent project carried out under the supervision of a semiconductor science and engineering faculty member.
SSE X98R. Master's Report.
Prepare a report to fulfill the requirement for the master's degree.

Professional Courses

STA - Statistics

Statistics: STA

Lower-Division Courses

STA X01. Introduction to Data Science.
An introduction to the principles and practice of data science for business applications. Explore tidying, summarizing, and visualizing data; statistical computing in R; linear regression; introduction to predictive modeling and out-of-sample model validation; uncertainty quantification using resampling methods; basic probability models, including the normal and binomial distributions; and statistical hypothesis testing.
STA X01H. Introduction to Data Science: Honors.
An introduction to the principles and practice of data science for business applications. Explore tidying, summarizing, and visualizing data; statistical computing in R; linear regression; introduction to predictive modeling and out-of-sample model validation; uncertainty quantification using resampling methods; basic probability models, including the normal and binomial distributions; and statistical hypothesis testing.
STA X09. Elementary Business Statistics.
Training in the use of data to gain insight into business problems; describing distributions (center, spread, change, and relationships), producing data (experiments and sampling), probability and inference (means, proportions, differences, regression and correlation).
STA X09H. Elementary Business Statistics: Honors.
Training in the use of data to gain insight into business problems; describing distributions (center, spread, change, and relationships), producing data (experiments and sampling), probability and inference (means, proportions, differences, regression and correlation).
STA X19S. Topics in Statistics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
STA X87. Business Analytics and Decision Modeling.
Introduction to some of the basic concepts in quantitative business analysis that are used to support organizational decision making over various time frames. Explores methods that apply to all areas of an organization, with emphasis on financial decision making.

Upper-Division Courses

STA X29S. Topics in Statistics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
STA X35. Data Science for Business Applications.
Examine data science for business applications at the intermediate level. Explore building and validating predictive models; advanced regression modeling, including an in-depth treatment of regression; models for binary outcomes; and causal inference.
STA X35H. Data Science for Business Applications: Honors.
Examine data science for business applications at the intermediate level. Explore building and validating predictive models; advanced regression modeling, including an in-depth treatment of regression; models for binary outcomes; and causal inference.
STA X40S. Topics in Statistics.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence.
STA X71G. Statistics and Modeling.
Focuses on methods used to model and analyze data. Explores multiple regression models and their application in the functional areas of business, time-series models, decision analysis and the value of information, and simulation-based methods.
STA X71H. Statistics and Modeling: Honors.
Focuses on methods used to model and analyze data. Explores multiple regression models and their application in the functional areas of business, time-series models, decision analysis and the value of information, and simulation-based methods.
STA X72T. Topics in Statistics.
STA X72T.11. Computational Finance.
Introduction to the analysis and implementation of numerical methods used in finance. Explore numerical techniques in derivative pricing and optimal asset allocation, such as Monte Carlo and quasi-Monte Carlo simulation, methods for solving partial differential equations, and dynamic programming.
STA X72T.16. Optimization Method in Finance.
Explore quantitative methods and techniques in optimization and simulation, and their use in financial decision making. Discuss theory and application in portfolio selection, options and other derivative pricing, index tracking, risk measures, volatility estimating. Examine linear, quadratic, nonlinear, and integer programming; dynamic programming; robust optimization; Monte Carlo methods and variance reduction techniques. Emphasis will be placed on problem solving with advanced computational programming languages.
STA X72T.21. Time Series Forecasting.
Examine statistical forecasting methods used in business. Discuss Box-Jenkins models; exponential smoothing models; ARCH/GARCH models for varying volatility in financial returns; seasonal adjustment of time series; tests for nonstationary of time series; and modeling multiple time series.
STA X75. Statistics and Modeling for Finance.
Methods used to model and analyze data, especially as applied to problems related to finance. Explores regression models, time-series models, decision analysis and simulation-based methods.
STA X75H. Statistics and Modeling for Finance: Honors.
Methods used to model and analyze data, especially as applied to problems related to finance. Explores regression models, time-series models, decision analysis and simulation-based methods.
STA X76. Intermediate Statistics.
Analysis of forecasting techniques and theory; macroeconomic models; long-range and short-term forecasting; forecasting for the firm, using case material.
STA X87. Business Analytics and Decision Modeling.
Introduction to some of the basic concepts in quantitative business analysis that are used to support organizational decision making over various time frames. Explores methods that apply to all areas of an organization, with emphasis on financial decision making.

Graduate Courses

STA X80. Topics in Seminar in Business Statistics.
Selected topics in the applications of statistical methods to business problems.

STA X80.1. Correlation and Regression Analysis.

STA X80.10. Mathematical Statistics for Applications.
Applications-oriented treatment of mathematical statistics for graduate students who plan to use statistical methods in their research but do not need a highly mathematical development of the subject. Major focus on regression models and related methods. Extensive use of statistical software for data analysis and modeling. Emphasis on understanding how the mathematics of probability and statistics both enables and limits the data analysis that can be done.

STA X80.11. Analysis of Variance.

STA X80.12. Applied Multivariate Methods.

STA X80.13. Statistical Decision Theory.
Development of the mathematical basis of statistical decision theory from both the Bayesian and the frequentist point of view.

STA X80.14. Risk Analysis and Management.
The quantification and analysis of risk, considered from several perspectives: financial risk measures, strategic risk measures, stochastic dominance rules, chance constrained programming, and safety-first approaches.

STA X80.15. Research on Probabilistic Judgment.
Research training and experience for graduate students and advanced Canfield Business Honors Program undergraduate students who are interested in probabilistic judgment.

STA X80.16. Probability and Science in the Courtroom.
The role of probability and scientific reasoning in legal judgments: differences between probability evidence and other types of evidence; legal and psychological implications of these differences; the role of statistics, formal analyses, and expert opinions in legal decisions; their impact on judges and jurors.

STA X80.17. Predictive Modeling.
Introduction to statistical methods for prediction including regression analysis, logistic and multinominal regression, classification and regression trees, bias-variance trade-off, cross validation, variable selection, principal component regression and partial least squares regression.

STA X80.18. Learning Structures and Time Series.
Introduction to exploring data analysis, clustering, dimension reduction, networks, text timing, and time series.

STA X80.19. Time Series.

STA X80.2. Design of Experiments.

STA X80.3. Statistical Computing with SAS.

STA X80.4. Nonparametric Methods.

STA X80.5. Statistical Consulting.

STA X80.6. Survey Research Methods.

STA X80.7. Forecasting.
Development of forecasting techniques for use in business applications.

STA X80.8. Cybernetics and the Law: Societal, Economic, and Other Problems.

STA X80.9. Applied Linear Models.
Theory and application of linear models in empirically oriented research in business.

STA X80N. Topics in Statistics.

STA X80N.1. Advanced Statistics and Econometrics with R.

STA X81. Sampling.
Theory of sampling; sample design, including stratified, systematic, and multistage sampling; nonsampling errors.

STA X84N. Topics in Business Analytics.
Selected topics in business analytics.

STA X87. Business Analytics and Decision Modeling.
Introduction to some of the basic concepts in quantitative business analysis that are used to support organizational decision making over various time frames. Explores methods that apply to all areas of an organization, with emphasis on financial decision making.

STA X87C. Business Analytics and Decision Modelling for Executives.
Examine risky decision-making with an emphasis on case studies that show how Excel models can be used to improve decision-making.

Professional Courses

STA X87. Business Analytics and Decision Modeling.
Introduction to some of the basic concepts in quantitative business analysis that are used to support organizational decision making over various time frames. Explores methods that apply to all areas of an organization, with emphasis on financial decision making.

STC - Science and Technology Commercialization

Science and Technology Commercialization: STC

Lower-Division Courses

Upper-Division Courses

Graduate Courses

STC X80C. Assessing Technologies and Innovations.
Explore the first step in the commercialization process: generating or identifying ideas and technologies that have market potential. Apply multiple methodologies to assess the market potential of new ideas and technologies.

STC X81C. Strategic Career Planning.

STC X82. Marketing Technological Innovations.
Examine how taking a technology from idea to market requires persuasion and marketing skills. Develop a persuasive proposal and marketing plan for taking a product to market.

STC X83C. Art and Science of Negotiation.
Explore negotiation through the application of analytical frameworks in practical negotiation exercises.

STC X84C. New Venture Strategies.
Develop strategies for commercializing technologies as new ventures or within existing firms.

STC X85. Creative and Innovative Management.
Apply critical reasoning techniques to analyze, diagnose, and respond to organizational design and leadership issues in a new venture.

STC X86. Topics in Technology Commercialization.
The process of technology commercialization, managing technology, and other topics that include the commercialization of technology.

STC X86.1. Financing New Ventures.
Methods for determining capital requirements and ways of crafting financial and fund-raising strategies. Forms of financing, including angels and informal investors, venture capital, debt capital, and inside and outside equity.

STC X86.2. Managing Technology and Business Risks.
Explore decision and risk analysis, including methods for structuring and modeling decision problems. Apply methods to problems that involve risk and uncertainty in the commercialization of new technologies.

STC X87. New Venture Accounting.
Analyze and create financial statements as a critical tool in decision-making for a new venture.

STC X88. Financing New Ventures.
Prepare financial projections and develop a financial plan for funding a new venture.

STC X89. Problems in Specialized Fields.

STC X91C. Technology Commercialization in the Global Economy.
Examine technology commercialization in the global context, assessing global markets and positioning for competitive advantage within them.

Develop a plan for commercializing a technology within a foreign country.

STC X94C. Managing Product Development and Production.
Develop a plan for taking an innovation from idea to a product ready for market.

STC X95. New Venture Creation.
Explore how to raise capital, either from outside investors or internal corporate sources, by validating the market potential of the new technology, developing a business model, determining financial requirements, and communicating the opportunity convincingly. Develop a business plan to address these key elements.

STC X96. New Venture Design and Implementation.
Develop a business implementation plan for a technology enterprise or project by establishing operational roles and processes.

Professional Courses

STM - Science, Technology, Engineering, and Mathematics Education

Science, Technology, Engineering, and Mathematics Education: STM

Lower-Division Courses

Upper-Division Courses

Graduate Courses

STM X80. Topics in Teaching Science, Technology, Engineering, and Mathematics.
Classroom applications of research in science, technology, engineering, and mathematics education, and related policy issues.

STM X80.1. Quantitative Research Methods for STEM Educators.
Survey of quantitative research methods in STEM education with applications to critical issues in teaching and learning. Methods reviewed include t-test, ANOVA, Chi-squared, and correlation and regression.

STM X80.2. Qualitative Research Methods for STEM Educators.
Survey of qualitative research methods in STEM education with applications to critical issues in teaching and learning. Methods reviewed include grounded analysis, case studies, ethnographies, clinical interviews and surveys. Students read and critique examples from the published literature, and design (but do not necessarily implement) a study of their own.

STM X85. Knowing and Learning in STEM Education.
Different approaches to theorizing and studying science, technology, engineering, and mathematics (STEM) learning and epistemology and synthesis of the scientific basis of learning. A major research project will focus on studying students' thinking in a particular STEM related domain.

STM X85G. Topics in Program Development and Research: Seminar.
Advanced investigations of selected topics and problems in curriculum theory, program design, and research design at one of the following levels: elementary school, secondary school, higher education, all-level.

STM X86. Curriculum History and Development in STEM Education.
Historical development of school mathematics and science curricula in the United States in the last 150 years, and examination of current curricular trends. A summative project consisting of a research paper and a presentation will allow students to delve deeper into a topic of individual interest.

STM X90. Topics in Critical Issues in STEM Education.
In-depth study of issues that are central to understanding and improving STEM education at one of the following levels: elementary school, secondary school, higher education, or all-level.

STM X90.1. Equity in STEM Education.
Study of the meaning of equity in STEM education and how interpretations align with frameworks for viewing equity. Research, practice, and strategies designed to make STEM education equitable for students of diverse genders, ethnicities, linguistic and cultural backgrounds, socioeconomic status, and physical and learning abilities. History of multicultural education, mathematics, and science teaching for social justice.

STM X90.2. Research on Teaching and Teacher Development in STEM Education.
Scholarship related to STEM teaching and how it can be used to address problems in K-12 school instruction. Research on teaching, teacher knowledge and beliefs, and teacher education and professional development; relationships among research, theory, and practice; and consideration of a variety of critical issues, including the meaning of effective instruction and evidence-based arguments about teaching, and how research on student thinking and theories of learning inform our understanding of teaching.

STM X90.3. Systemic Reform in STEM Education.
Overview of the major efforts at systemic reform in STEM education. Development and testing of models of reform initiatives.

STM X90.4. Equitable and Inclusive Teaching in STEM Education.
Research and apply equitable and inclusive teaching practices in STEM Education.

STM X90T. Advanced Topics in STEM Education.
Advanced investigations of selected topics and critical issues in STEM education aligned with STEM education faculty research interests. Students will typically produce a product (paper, presentation, proposal) that can be submitted to professional or funding agencies.

STM X90T.1. Science, Technology, Engineering, Art, and Mathematics Content and Methods.
Focus on teaching of science and mathematics, as well as the arts; state standards for teacher preparation are covered.

STM X90T.2. Craft of Academic Writing.
Develop confidence in one's scholarly voice by assessing strengths and areas for improvement. Discover the varied ways in which the scholarly voice can be shared for Science, Technology, Engineering, and Mathematics Education academic publications.

STM X95. Classroom Interactions and Project Based Instruction.
Students are assigned to a mentor teacher classroom where they might continue as apprentice teachers the next semester. At least three hours a week of observation and teaching in the classroom, in addition to the six contact hours per week. Preparation, implementation, and assessment of inquiry- and project-based lessons, focusing on student thinking and participation, and meeting the needs of students with reading and writing difficulties, those learning in a second language, and those with behavioral and psychological issues.

STM X96. STEM Education Forum.
Seminar highlighting current research in STEM education.

STM X96T. Directed Research in Science, Technology, Engineering and Mathematics Education.

STM X97V. Independent Study.
Involves syntheses of literature, field investigations on selected topics, or other individual research topics.

STM X98. Thesis.

STM X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

STM X98T. Supervised Teaching in Science, Technology, Engineering, and Mathematics Education.
STM X99W. Dissertation.

Professional Courses

STR - Strategy and Statecraft

Strategy and Statecraft: STR

Lower-Division Courses

STR X01. Perennial Challenges in Strategy and Statecraft.
Examine diplomatic, military, and intelligence related responsibilities and challenges inherent in strategy and state leadership.

STR X02. Foundations of American Strategy and Statecraft.
Explore the history of diplomacy and war in the American regime. Examine the practice of American statecraft in relation to foreign affairs and the permanent principles of grand strategy.

STR X03. Classic Texts of Strategy and Statecraft I.
Examine the texts and ideas that shape foreign affairs and war in the preclassical era and antiquity through the European Renaissance. Explore issues such as the justice of war and peace, the relationship between the regime and strategic imperatives, the philosophic arguments for just war, and the ontological nature of conflict. Study sources such as Herodotus, Sun Tzu, Augustine, and Machiavelli.

STR X12. Topics in Strategy and Statecraft.
Examine one or more topics in foreign affairs, diplomacy, intelligence, and war.

STR X14C. American Military and Diplomatic History I.

STR X14D. European Military and Diplomatic History I.

STR X19S. Topics in Strategy and Statecraft.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the School of Civic Leadership. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

STR X23. Classic Texts of Strategy and Statecraft II.
Examine the texts and ideas that shape foreign affairs and war from the Reformation through the present. Explore questions such as the nature of victory, the relationship between politics, technology, and war in the modern state, the possibility of order during conflict, and the psychology of conflict. Study works such as Clausewitz, Tolstoy, Alfred Mahan, Reinhold Niebuhr, and contemporary reflections on grand strategy and war.

STR X24. Strategy, Statecraft, and Justice.
Examine problems of justice in the context of war, defense, and diplomacy. Explore the relationship between a society's moral foundations and foreign policy, questions of ethical conduct and warfare, and the challenges of citizenship with respect to foreign policy decisions. Discuss readings that may include Reinhold Niebuhr, Hans Morgenthau, Henry Kissinger, as well as memoirs and contemporary scholarship.

STR X25C. American Military and Diplomatic History II.

STR X25D. European Military and Diplomatic History II.

STR X29S. Topics in Strategy and Statecraft.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the School of Civic Leadership. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

STR X31. Topics in Classic Texts of Strategy and Statecraft.

STR X31C. Statecraft and War in Literature.
Discuss the challenges of strategy, statecraft, and war through literature. Explore issues such as the individual and society, narrative voice, historical memory, technology, and ethics. Discuss readings that may include works such as the Hebrew Bible, Homer, Shakespeare, Hugo, or Heinlein.

STR X31D. Grand Strategy in Theory and Practice.
Explore great power competitions of both the past and the present and the ways states seek to achieve their goals in the international system today. Evaluate how political regimes shape military and diplomatic policy. Analyze the role of economic power in the global system.

STR X32. Topics in Military and Diplomatic History.

STR X36. Topics in Practice of Statecraft.
Examine themes and case studies in war, defense, diplomacy, intelligence, or law.

STR X36.1. Practice of Statecraft.
Examine themes and case studies in war, defense, diplomacy, intelligence, or law.

STR X41. Advanced Topics in Military and Diplomatic History.
Analyze one or more eras in diplomatic and military history.

STR X41.1. Advanced Military and Diplomatic History.
Examine one or more eras in military and diplomatic history.

STR X43. Advanced Topics in Classic Texts in Strategy and Statecraft.

STR X43.1. Advanced Classic Texts in Strategy and Statecraft.
Discuss classic texts in war and foreign affairs at an advanced level.

STR X47. Advanced Topics in Practice of Statecraft.
Discuss themes and case studies related to war, defense, diplomacy, intelligence, and law at an advanced level.

STR X47.1. Advanced Practice of Statecraft.

STR X62. Strategic Analysis.

STR X63. Capstone in Strategic Analysis.

STR X64H. Honors Strategic Analysis.

STR X65H. Honors Capstone in Strategic Analysis.

STR X66. Advanced Topics in Strategic Analysis.

STR X66.1. Advanced Strategic Analysis.

STR X77I. Internship in Strategy and Statecraft.
Participate in a professional internship. Reflect on internship to improve ability to both articulate preferences and skills, and to match them with appropriate career-related choices.

STR X78H. Honors Thesis I in Strategy and Statecraft.

STR X78I. Internship in Strategy and Statecraft.
Participate in a professional internship. Reflect on internship to improve ability to both articulate preferences and skills, and to match them with appropriate career-related choices.

STR X79H. Honors Thesis II in Strategy and Statecraft.

Graduate Courses

Professional Courses

SUS - Sustainability Studies

Sustainability Studies: SUS

Lower-Division Courses

SUS X01. Introduction to Sustainability Studies.
Introduction to basic concepts in sustainability, including the varied disciplinary approaches used to theorize and practice sustainability. Explore these concepts through foundational sustainability scholarship, place-based experiential learning opportunities, and team-based projects.

SUS X19S. Topics in Sustainability Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's

Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SUS X20. The American Athlete: Dying to Compete.
Explore the environmental health issues affecting athletes, including toxic exposure in sports equipment, chemical-laden sports fields, and the broader impact of these substances, emphasizing the need for sustainable alternatives and ethical considerations in decision-making surrounding chemical exposure in sports.

SUS X29S. Topics in Sustainability Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SUS X30. Topics in Sustainability Studies.

SUS X74. Capstone Experience in Sustainability Studies.
Work independently to complete a research project that assembles and integrates knowledge and skills acquired across your university career. Current concerns and methodology in the field of Sustainability Studies; an introduction to theory and research in Sustainability topics.

SUS X79H. Honors Tutorial Course.
Read selected works individually for one semester, followed in the second semester by the writing of an honors thesis. Participate in regular conferences with the faculty supervisor.

SUS X79L. Directed Internships in Sustainability.
Experience working in an appropriate government agency, non-governmental organization, or private business.

Graduate Courses

Professional Courses

SWA - Swahili

Swahili: SWA

Lower-Division Courses

SWA X01C. Intensive Swahili I.

SWA X06. First-Year Swahili I.

SWA X07. First-Year Swahili II.

SWA X11C. Intensive Swahili II.

SWA X12. Accelerated Second-Year Swahili.

SWA X12K. Second-Year Swahili I.

SWA X12L. Second-Year Swahili II.

SWA X19S. Topics in Swahili.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SWA X29S. Topics in Swahili.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SWA X60. Conference Course in Swahili Language and Literature.
Supervised individual study of selected problems in Swahili language or literature.

Graduate Courses

Professional Courses

SWE - Swedish

Swedish: SWE

Lower-Division Courses

SWE X04. Accelerated First-Year Swedish.

SWE X12. Accelerated Second-Year Swedish.

SWE X19S. Topics in Swedish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

SWE X29S. Topics in Swedish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

SWE X19S. Topics in Swedish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

SWE X27. Advanced Swedish I.

SWE X28. Advanced Swedish II.

SWE X29S. Topics in Swedish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

SWE X30D. Swedish across Disciplines.
Read and discuss Swedish language materials related to the subject matter of another designated course.

SWE X79. Conference Course in Swedish Language or Literature.
Supervised individual study of selected problems in Swedish language or literature.

Graduate Courses

SWE X19S. Topics in Swedish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

SWE X29S. Topics in Swedish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Professional Courses

SWE X19S. Topics in Swedish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program.

SWE X29S. Topics in Swedish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

T C - Tutorial Course

Tutorial Course: T C

Lower-Division Courses

T C X02. First-Year Signature Course: Plan II.
Small-group seminar involving reading, discussion, writing, and oral reporting around a central interdisciplinary topic. Designed to introduce undergraduates to scholarly analysis from an interdisciplinary perspective. Includes an introduction to University resources, such as research facilities, museums, and attendance at University lectures or performances as assigned. Multiple sections may be offered in the fall and spring with various topics and instructors.

T C X03C. Plan II World Literature Part I.
Reading of masterpieces of world literature and intensive training in writing and in critical analysis of literature.

T C X03D. Plan II World Literature Part II.
Reading of masterpieces of world literature and intensive training in writing and in critical analysis of literature.

T C X10. Modes of Reasoning.
Introduction to forms of quantitative reasoning: computer science, game theory, operations research, or statistics and probability.

T C X19S. Topics in Tutorial Course.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

T C X25. Topics in the Arts and Sciences.
Analysis of various topics within the arts and sciences through reading, research, written reports, and discussion.

T C X25K. Subjects in the Arts and Sciences.
Analysis of subjects in the arts, sciences, and social sciences through reading, discussion, and lectures.

T C X26. Plan II/Knowledge Is Power Program Charter Schools Partnership.
Mentorship of younger students attending an Austin-area Knowledge Is Power Program (KIPP) school. Through mentoring and class meetings, students will be deeply immersed in issues related to education reform, (in)equality of educational opportunity, and in promising strategies, such as those used by KIPP, for addressing such issues.

T C X27. Civic Viewpoints.
Explores civic engagement and innovative solutions for societal justice.

T C X28K. Volunteer Service Orientation.
Designed for those who want to mentor or tutor a student at a school that serves first generation college-going students. Receive training to volunteer at one of the KIPP (Knowledge is Power Program) Texas-Austin schools, within one of the existing Plan II/KIPP Partnership service programs, KAL Mentoring or Plan Tutoring.

T C X29S. Topics in Tutorial Course.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Liberal Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

T C X30. Special Topics in Plan II.

T C X30K. College to Career Connections.
Connect with resources and create a plan to achieve academic and career goals.

T C X58. Topics in Plan II Junior Seminar.
Seminar sections of about fifteen students. The subjects vary, but in each the attempt is made through careful reading, discussion, and written work to analyze and compare varied approaches to topics of lasting importance.

T C X59T. Essay Course.
Directed reading followed by the writing of an essay.

T C X60H. Thesis Course: Honors.
Directed reading followed by the writing of a substantial essay.

Graduate Courses

Professional Courses

T D - Theatre and Dance

Theatre and Dance: T D

Lower-Division Courses

T D X01. Introduction to Theatre.
A study of theatrical texts and practices of the past and present.

T D X02S. Arts Integrations for Multidisciplinary Connections.
Through readings, videos, in-class activities, discussion, field trips, micro-teaching, and written reflection, designed to develop a practical understanding of the techniques and skills associated with integrating the arts into various contexts. Provides experience in each art content area (dance, music, theatre arts, and visual arts) to develop an introductory understanding of each of these disciplines.

T D X02T. Topics in Dance Technique.
Fundamental study of principles and vocabulary of dance.

T D X02T.1. Ballet I.
A study of the elements of classical ballet through exploration of movement principles as defined by traditional ballet technique.

T D X02T.10. Yoga: Moving into Stillness.
A study of yoga in order to develop the ability to coordinate movement and breathing in dance.

T D X02T.11. Hip-Hop for Beginners.

T D X02T.2. Ballet II.
A continuation of the study of the elements of classical ballet through exploration of movement principles as defined by traditional ballet technique.

T D X02T.3. Modern I.
A study of the multiple aspects of modern dance technique including Humphrey-Limon, Release Technique, Laban Movement Analysis, and Bartenieff Fundamentals.

T D X02T.4. Modern II.
A continuation of the study of the multiple aspects of modern dance technique as developed in Modern I.
T D X02T.5. Jazz I.
An introduction to four styles of twentieth and twenty-first century jazz dance through exploration of the fundamental principles of movement with a parallel study of the historical development of the jazz dance aesthetic.
T D X02T.6. Jazz II.
A continuation of the study of jazz dance as developed in Jazz I.
T D X02T.7. Afro-Contemporary Dance.
The study of contemporary dance informed by African aesthetics and vernacular movement found throughout the African diaspora.
T D X02T.8. Improvisational Dance.
The study and practice of improvisational dance.
T D X02T.9. Yoga for Dance.
The study of yoga as it pertains to movement in dance.
T D X03. Fundamentals of Acting.
Basic principles of acting and practical work in scenes from plays.
T D X03C. Training the Speaking Voice.
Exercising the fundamental principles of vocal production and speech.
T D X03V. Acting for Voice Performance Majors I.
Fundamental inquiry into the acting process.
T D X03W. Acting for Voice Performance Majors II.
Techniques for playing and shaping action within scene structures.
T D X05S. Topics in Black Theatre and Dance.
T D X05S.2. The Revolution Will Be Dramatized.
T D X05S.3. Toni Morrison and August Wilson.
T D X06. Introduction to Improvisational Drama.
General introduction to improvisational activities with application to the theatre.
T D X07K. Dance, Identity and Cultural Expression.
Analyze dance as a significant tool for defining and articulating the many varied and intersecting facets of identity such as gender, sexuality, race, class, and nationality among others. Examine many forms of dance occurring in diverse contexts from the modern dance innovators of the 1950s, to vogue and ballroom culture of the 1980s, to representations of dance across contemporaneous media platforms like Instagram. Explore how distinct dance communities enact a multicultural and non-static notion of identity in American culture.
T D X08K. Costume, Culture, and Change on Stage and Screen.
Explore costuming and costume design as an agent in our social reality, both reflecting and constructing the identities which we interact with daily. Engage with a wide range of archival materials, streaming video, live performances, creative group work, and interviews with locally and internationally renowned artists.
T D X09C. Musical Theatre Performing Ensemble.
Rehearsing and performing solo and group numbers from musical theatre and other genres in cabaret-style entertainment and musical revues for on- and off-campus events.
T D X09D. Studio Voice I.
Establishes foundational vocal technique for musical theatre singing. Develops successful vocal practice strategies and effective, healthy technique through the study of a comprehensive range of musical theatre styles including musical comedy, Golden Age musical drama, and concept and rock musicals.
T D X09E. Studio Voice II.
Continuation of Theatre and Dance 109D. Focus on vocal range, flexibility, and endurance. Text analysis through the study of music and lyrics, using these components as the basis of character development.
T D X09K. Musical Theatre on Stage and Screen.
Examine the various histories explored by musical theatre. Investigate the conventions utilized by musical theatre during their development and original productions. Consider the various types of musicals, and how these musicals explore historical and cultural events and persons through this unique medium.
T D X11. Languages of the Stage.
Introduction to the ways that performance communicates meaning, as a foundation for further study in theatre and dance.
T D X11C. Performance as Public Practice.
Examines current and historical performance policy in order to understand how the entertainment industry operates nationally.
T D X11D. Performance as a Collaborative Practice.
Explores and defines the creative process of performance collaboration.
T D X11T. Introductory Topics in Theatre and Dance.
Introductory topics in theatre and dance, including basic research methods, contemporary and local performance, the role of the artist in society, the philosophy of a fine arts education, and the exploration of campus resources.
T D X12. Freshman Movement and Physical Conditioning.
Principles and techniques of physical conditioning.
T D X12M. Movement Improvisation.
Exploration and study of elements of movement design.
T D X12N. Movement Composition.
Continuation of Theatre and Dance 312M.
T D X12P. Fundamental Projects in Dance Performance and Repertory.
Preparation and performance laboratory related to production.
T D X12T. Topics in Dance Technique.
T D X12T.1. Somatic Practice.
T D X13C. Acting I.
Approaches to incorporating Stanislavski-based principles in acting, including dramatic action, given circumstances, subtext, sense memory, the magic if, and tempo/rhythm.
T D X13D. Acting II.
Continuation of Acting I. Application of Stanislavksi-based principles to scene work selected from realistic genres.
T D X13E. Acting III.
Continuation of Acting II, with greater emphasis on personalization of character needs, given circumstances, actor-to-actor communication, and emotional life.
T D X13F. Voice and Movement I.
Understanding the relationship between voice and body in acting, with a focus on freeing tension, releasing vocal power, and enabling physical expression.
T D X13G. Voice and Movement II.
Continuation of Voice and Movement I. Deeper understanding of the vocal-physical connection as a means of playing dramatic action.
T D X13K. Voice Laboratory I.
Advanced voice and speech work in breath, support, placement, focus, range, resonance, articulation and endurance. Emphasis placed on personalization of language and text from selected plays.
T D X13L. Voice Laboratory II.
Continuation of Voice Laboratory I. Advanced voice and speech work connected to personalization and truth in classical and heightened text.
T D X13M. Movement Laboratory I.
Using the body as an instrument for playing action and bringing the actor to a deeper understanding of physical stage presence.
T D X13N. Movement Laboratory II.
Continuation of Movement Laboratory I. The practice of physical theatre disciplines as a means of deepening the actor's understanding of character and behavior.
T D X13P. Projects in Acting and Directing.
Preparation and performance laboratory related to production.
T D X14C. Design for Performance.
Introduction to the techniques, practices, and processes in costume, lighting, scenic, and sound design.

T D X14M. Technical Theatre.
Introduction to the technical aspects of theatrical performance–in costumes, lighting, scenery, and media.

T D X14P. Production Laboratory.

T D X14Q. Production Shop.
Assist in the creation of props, lighting, costumes, projection, audio, or scenery for department productions.

T D X15. Playwriting I.
The study and practice of writing plays.

T D X15C. Foundations of Narrative Design.

T D X16D. Directing I.
Study and practice of the fundamentals of stage directing: composition, dramatic action, movement, and textual analysis.

T D X17C. Theatre History through the Eighteenth Century.

T D X17D. Theatre History since the Eighteenth Century.

T D X17M. Dance History I.
An exploration of world dance as an expression of cultural identity and change.

T D X17N. Dance History II.
Continuation of Theatre and Dance 317M.

T D X19S. Topics in Theatre and Dance.
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T D X22P. Projects in Dance Performance and Repertory.
Preparation and performance laboratory related to production.

T D X23P. Advanced Projects in Acting and Directing.

T D X25P. Projects in Playwriting.

T D X26P. Projects in Theatre Studies.

T D X27P. Projects in History, Criticism, and Performance Studies.

T D X32P. Advanced Projects in Dance Performance and Repertory I.

T D X32Q. Advanced Projects in Dance Performance and Repertory II.

T D X52P. Projects in Dance Movement Studies.

Upper-Division Courses

T D X12P. Fundamental Projects in Dance Performance and Repertory.
Preparation and performance laboratory related to production.

T D X13P. Projects in Acting and Directing.
Preparation and performance laboratory related to production.

T D X20J. Introduction to Creating New Media.
Introduces student actors to strategies to grow as generative artists and master the basics of a few common media production tools to give their creative voice a broader reach in the world.

T D X22. Dance Pedagogy.
Techniques and materials used in the teaching of dance.

T D X22C. Contemporary Dance Technique.
Intensive study of principles, technique, and vocabulary of contemporary dance.

T D X22D. Intermediate Contemporary Dance Technique.
Intensive study of intermediate-level theory, technique, and vocabulary of contemporary dance.

T D X22F. Ballet Technique.
Intensive study of principles, technique, and vocabulary of ballet.

T D X22G. Intermediate Ballet Technique.
Study of intermediate-level theory, technique, and vocabulary of ballet as a supporting style.

T D X22P. Projects in Dance Performance and Repertory.
Preparation and performance laboratory related to production.

T D X23C. Directing I.
Study and practice of the fundamentals of stage directing: composition, picturization, movement, gesture, and unit structure.

T D X23D. Directing II.
Dramatic and environmental analysis of full-length plays.

T D X23E. Directing III.
Theory and techniques of play directing, with practical applications in projects and scenes.

T D X23F. Acting Shakespeare.
Incorporating language as action by applying basic acting principles to the demand of Shakespearean text.

T D X23G. Acting in Period Plays.
Exploration of classical and idiosyncratic texts to enable personal and artistic growth in actors.

T D X23P. Advanced Projects in Acting and Directing.

T D X24. Design and Technology for Performance.
Exploration of aspects of design and technology in performance, including costume, lighting, scenery, and sound.

T D X24E. Acting III.
Continuation of Acting II, with greater emphasis on personalization of character needs, given circumstances, actor-to-actor communication, and emotional life.

T D X24P. Advanced Production Laboratory.

T D X25. Playwriting II.
Emphasis on the form and writing of the full-length play or equivalent.

T D X25P. Projects in Playwriting.

T D X26. Dramatic Activities for the Classroom.
Theory, materials, and practice, including story dramatization, storytelling, puppets, pantomime, shadow plays, role-playing, and theatre games.

T D X26C. Theatre Studies: Creative Drama.
Theory and practice of creative drama for children, both as an art form and as a process for emphasizing creative expression and aesthetic growth.

T D X26D. Theatre Studies: Theatre for Young Audiences.
Theory and practice of all phases of play production for young audiences.

T D X26E. Theatre Studies: Directing the Young Performer.
Introduction to the theory and practice of directing and producing theatre with young performers, with emphasis on appropriate literature.

T D X26F. Creative Drama II.
Advanced investigation of drama and drama-based instructional strategies. Observation, teaching and/or co-teaching in one or more practical contexts during the semester as a way to hone skills needed to successfully plan, implement, and evaluate drama-based lessons.

T D X26P. Projects in Theatre Studies.

T D X26Q. Directing Project in Theatre Studies.
Producing and directing a play in an elementary or secondary school.

T D X27P. Projects in History, Criticism, and Performance Studies.

T D X29C. Musical Theatre Performance Workshop.
Private coaching, master classes, and small and large group rehearsals, culminating in staged public performances of musical revues and/or chamber musicals.

T D X29D. Studio Voice III.
Continuation of Theatre and Dance 109E. Emphasizes the synthesis of singing and acting skills.

T D X29E. Studio Voice IV.
Continuation of Theatre and Dance 129D. Refines, expands, and strengthens the specialized performance skills required of a musical theatre performer, including studio recording techniques.

T D X29S. Topics in Theatre and Dance.
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in the Department of Theatre and Dance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

T D X32M. Choreography.
Advanced study of the principles and practices of choreography.

T D X32N. Choreography: Design for Dance and Movement Theatre.
Continuation of Theatre and Dance 332M.

T D X32P. Advanced Projects in Dance Performance and Repertory I.

T D X32Q. Advanced Projects in Dance Performance and Repertory II.

T D X32R. Dance Pedagogy.
Principles, techniques, and materials used in the teaching of dance.

T D X32S. Dance Pedagogy Practicum.
Practical application techniques and materials used in the teaching of dance.

T D X40D. Advanced Techniques in Acting.
Explore advanced work with text and personal connection to character.

T D X50J. Topics in Performance Lab.
Subjects in acting including voice/speech, movement, character, composition and collaboration with directors.

T D X50J.1. Spectacle.

T D X50J.2. Classics.

T D X50J.3. Contemporary Plays.

T D X50J.4. Composition.

T D X50J.5. Actors.
Offers students experience and training in performance techniques and methods for working collaboratively with directors in rehearsal.

T D X50J.6. Language.
Offers students experience and training in performance techniques and methods for working collaboratively with directors in rehearsal.

T D X51F. Teaching Artists in Schools and Community Settings.
Explores how to use the arts to educate in arts and non-arts settings (professional arts organizations, after-school programs, schools, museums, and community sites). Engagement with a variety of local arts organizations that hire and train teaching artists including dancers, visual artists, and theatre professionals through service learning projects. Includes outside service learning projects with local community organizations or schools.

T D X51S. Seminar in Theatre and Dance.

T D X51T. Topics in Theatre and Dance.

T D X51T.2. Digital Storytelling with Youth and Communities.
Explores digital storytelling and applied theatre as tools for reflecting on self, building community, and fostering cultural engagement. Engagement in creative writing and devising through drama and digital technologies; collaborative development and documentation of digital stories and performance collages. Extra lab hours may be required for digital documenting and editing.

T D X51T.3. Drama and Theatre in Museums.
Explores the history and multiple contexts of drama/theatre applications in museum settings in the U.S. and international sites.

T D X51T.4. Immersive Theatre Lab Practice and Production.

T D X51T.5. Devised Theatre Lab.

T D X52. Experiential Anatomy.
Principles and techniques of physical conditioning with practical applications to injury prevention for dance and theatre practitioners.

T D X52P. Projects in Dance Movement Studies.

T D X52T. Topics in Dance and Movement.
Fundamental study of principles and vocabulary of dance.

T D X52T.1. Musical Theatre Dance I.
Explores original repertoire from a wide variety of musical theatre styles.

T D X52T.10. Intermediate/Advanced Hip-Hop.
Continued introduction to the foundation of street dance styles, specifically old school Hip Hop and House dance techniques. Exploration of these dance styles and their cultural origins through an investigation of movement principles, history, and philosophy of street dance.

T D X52T.11. Hip-Hop History.
Introduction to Hip-Hop dance as a culturally significant form. Explores history, the social and political forces at work, and the fundamental techniques (Campbell Locking, Popping, Breaking etiquette/movements, Hip-Hop Party Dance and House). Intellectual challenge is offered through the lens of critical race theory and historical context. Addresses the origin and evolution of American Hip-Hop dance rooted in a theoretical structure that springs from the elemental nature of the African Diaspora. Emphasis on the social, political, and economic environment in which it was fashioned.

T D X52T.12. Kinetic Storytelling.
Making use of tools found in Africanist performance traditions to explore issues and experiment with ways to craft a movement-based performance that expresses a specific point of view and draws out questions about our chosen issue or effort.

T D X52T.13. Advanced Tap.

T D X52T.14. Theory and Practice Pilates-Evolved Lab.
Explore daily mind/body practice of efficient alignment, core strengthening, movement re-education and execution using Pilates-evolved techniques, equipment, and readings to enhance movement expressivity in performance.

T D X52T.15. Yoga.

T D X52T.2. Musical Theatre Dance II.
Explores original musical theatre choreography from a variety of styles. Repertoire will require a higher level of skills.

T D X52T.3. Broadway Jazz I.
Refines and expands dance technique and skills essential to Broadway-style choreography. Original Broadway choreography requiring a high level of technique and character development.

T D X52T.4. Broadway Jazz II.
Continues to refine and expand dance technique and skills essential to Broadway style choreography. Original Broadway choreography requiring a high level of technique and character development.

T D X52T.5. Pointe.
A study and practice of classical and contemporary ballet pointe technique. Distinguishes between and practice various 'schools' of pointe technique, study its anatomical principles, and learn repertoire ranging from the nineteenth century to the current day. Increasingly complex combinations of movements, positions, and rhythms will be applied toward developing physical skills, cognitive skills, and performance quality. Individual expression and artistry is encouraged.

T D X52T.6. Tap.

T D X52T.7. Advanced Pilates: Evolved Lab.
Utilizes Pilates-evolved techniques, equipment, and readings to investigate a daily mind/body practice of efficient alignment, core strengthening, movement re-education and execution to enhance movement expressivity in performance.

T D X52T.8. Gyrokinesis.

T D X52T.9. Beginning Hip-Hop.
Introduction to the foundation of street dance styles, specifically old school Hip Hop. Exploration of the teachings of Philadelphia-born street dance pioneer, Rennie Harris, and his codification terminology and stylized movement vocabulary. Study of these dances and understand their cultural origins through an exploration of movement principles, history, and philosophy of street dance. Foundational House dance technique may also be introduced.

T D X53C. Devised Work.
A survey of contemporary devising techniques. Work explores present-day parallels for making performance for both individual and collaborative practices.

T D X53D. Acting and the Camera I.
Fundamentals of acting for the camera; adjusting from the stage to the demands of the camera.

T D X53E. Acting and the Camera II.
Advanced technique for the camera. Professional audition protocols and career preparation.

T D X53G. Application for Rehearsal.

T D X53K. Voice-Over and Narration.
Microphone technique and the use of the voice to create character in various media applications such as narration, video games, and commercial copy.

T D X53Q. Portfolio Preparation.
Selection and rehearsal of materials in preparation for professional acting interviews and auditions.

T D X53R. Business of Acting.
Survey of marketing oneself as an actor, the actor's relationship to agents and casting directors, and methods for initiating and maintaining a professional acting career.

T D X53T. Topics in Acting and Directing.
Topics in acting including voice/speech, movement, and directing.

T D X53T.1. Acting Shakespeare.
Incorporating language as action by applying basic acting principles to the demand of Shakespearean text.

T D X53T.11. Introduction to Creating New Media For Actors.
Introduces student actors to strategies to grow as generative artists and master the basics of a few common media production tools to give their creative voice a broader reach in the world.

T D X53T.2. Comedy Acting.
Focus on issues of acting in comedy. Address the problems that confront the actor when rehearsing and performing in extant comedy play scripts. Uses improvisational, non-theatrical, and original material for developing comedy skills. Participation as an actor is mandatory.

T D X53T.3. Dialects for the Stage.
Emphasizes dialect skills and good vocal production for actors pursuing professional work. Emphasis is placed on independent dialect study projects.

T D X53T.4. Advanced Singing in Musical Theatre.
Explore the significance of music, composers, shows, and singers as they relate to the use of voice.

T D X53T.5. Stage Combat for the Actor.
Introduction to theatrical fighting and violence. Explores the techniques used to create the illusion of stage fighting and violence both with and without weapons. Focus on the practical application of violence to tell stories on the stage and/or screen. An opportunity to have work observed in front of a Fight Master of the Society of American Fight Directors.

T D X53T.6. Audition Techniques.
Developing skills for bringing your personal self to acting and to the audition.

T D X54F. Foundations of Acting.

T D X54T. Topics in Design and Technology.

T D X54T.10. Costume Design Skills.
Fundamentals of research, drawing, rendering, and script/character analysis and critique for costume design.

T D X54T.11. Lighting Design Skills.
Fundamentals of research, paperwork communication, and technology for lighting designers.

T D X54T.12. Scenery Design Skills.
Fundamentals of designing, drafting, and model building of scenery for theatrical and film designers.

T D X54T.13. Stage Makeup.
Tools and products used by professional makeup artists. Includes techniques for natural, character, and special effects makeup in theatre, opera, dance, film, and TV.

T D X54T.14. Figure and Fabric Rendering.
Principles of figure and fabric painting from life.

T D X54T.15. Scene Painting.
Scene painting techniques for theatrical designers.

T D X54T.16. Automated Lighting II.
Advanced automated and computer-aided lighting theory and techniques.

T D X54T.17. Game Development Capstone: Two-Dimensional Games.
Participation in an interdisciplinary team to gain a thorough understanding of the two-dimensional game development process, through modeling of the environment and practices that are used in game studios.

T D X54T.18. Game Development Capstone: Three-Dimensional Games.
Participation in interdisciplinary teams to gain a thorough understanding of the three-dimensional game development process, through modeling of the environment and practices that are used in game studios.

T D X54T.19. Sound Design I.
Introduction to sound design for live performance.

T D X54T.2. Fabric Painting and Dyeing.
Fundamentals of textile surface design.

T D X54T.20. Sound Design II.
Advanced instruction in sound design for live performance.

T D X54T.21. Classical Tutu Design and Construction.
Fundamentals of classical tutu construction, including draping, pattern making, fitting techniques on a live model.

T D X54T.22. Puppet Design and Construction.
Theory and technique of puppet creation and performance. May include marionettes, hand and rod, and body puppets.

T D X54T.23. Armour and Fabrication.
Exploring the uses of leather as a medium for armour making. Shaping, tooling, coloring application for uses in theatre and film.

T D X54T.24. Design Skills: Scenic Renderings.
Fundamentals of drawing and color for renderings of scenery for theatre and film.

T D X54T.25. Portfolio for Designers.
Fundamentals of self-marketing for theatre artists.

T D X54T.26. Media Creation for Live Performance.
Introduction to the particulars of producing and integrating media into live performance environments.

T D X54T.27. Festival and Event Management.
Fundamentals of the stage management process for large public events.

T D X54T.28. Tailoring I.
Fundamental theory and techniques in tailoring for the live performer.

T D X54T.29. Tailoring II.
Advanced theory and techniques in tailoring for the live performer.

T D X54T.3. Mask Making.
Fundamentals of mask theory, design, and construction for theatre and live performance.

T D X54T.30. Wig Making and Styling.
Fundamentals of building and styling wigs for use in the theatre.

T D X54T.31. Scenic Design.
Introduction to the conceptualization and design of scenery for the theatre.

T D X54T.32. Stage Craft.
Fundamentals of scenery construction and assembly.

T D X54T.33. Projection Design.
Introduction to the field of projection design in live performance.

T D X54T.34. Entertainment Systems Design.
Explores interconnectedness between lighting, projection, and media that is commonly found in live entertainment environments.

T D X54T.36. Stage Management.
Fundamentals of the stage management process for theatrical production.

T D X54T.37. Advanced Stage Management.
Advanced instruction in stage management for theatrical production.
T D X54T.4. Millinery.
Fundamentals of hat design, fitting, and construction techniques.
T D X54T.5. Scenery Technology I.
T D X54T.6. Costume Rendering.
Fundamentals of costume research and drawing.
T D X54T.7. Drawing for Theatre Designers.
T D X54T.8. Painting.
T D X54T.9. Automated Lighting I.
Fundamentals of automated and computer-aided lighting for theatre and live performance.
T D X55. Playwriting III.
Focus on experiments in revising dramatic text in order to create a common vocabulary around narrative structure. Revision often includes the creation of multiple new drafts, digging through past drafts for abandoned themes, lost focus, and new inspiration as well as exploring character, narrative, and/or language.
T D X55T. Topics in Playwriting.
T D X56T. Topics in Theatre Studies.
Topics in theatre studies, including creative drama, theatre for children and youth, and theatre with young adults.
T D X56T.1. Puppetry.
T D X56T.2. Latino Theatre for Young Audiences.
T D X56T.3. Creative Drama in the Museum.
The application of creative drama methods in museum settings.
T D X57D. Dramaturgy.
T D X57T. Topics in History, Criticism, and Performance Studies.
T D X57T.1. Latin American Theatre and Drama.
T D X57T.11. Gwendolyn Brooks.
T D X57T.12. Reading Cannon.
T D X57T.14. Queer/Trans Performance.
Explore the ways performance serves as an alternative space of expression and worldmaking, a site of activism and resistance, and a creative outlet for queer and trans people in specific socio-cultural contexts.
T D X57T.2. Gender And Sexuality in Performance.
Consider what physical performance and dance tell us about gender, sexuality and the body. Previous knowledge of performance or gender studies is not required.
T D X57T.3. Theatre for Dialogue.
T D X57T.4. Confronting LGBTQ Oppression.
Serves two primary functions: to increase participant's knowledge on the issues facing the Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) community; and to learn facilitation skills in order to talk about these issues on campus. Enrolled students will become peer educators in a team, and will give workshops across campus around LGBTQ issues during the spring semester.
T D X57T.5. Writing for Black Performance.
T D X57T.6. Performing LGBTQ+.
T D X57T.7. African Religious Culture and Creativity.
Examine religion as an aesthetic practice and explore the inventiveness of the imagination that underlines African religious practices. Study religious practices spanning from the pre-colonial and post-colonial eras to the contemporary period particularly in urban centers.
T D X57T.9. Greek Tragedies and Postcolonial Dramas.
Study the adaptation of great dramatic literature of the Greek civilizations to their phenomenal evolution into popular African performances. Putting classical writings from Ancient Greek in dialogue with texts that formed the background of African anti-colonial revolutions, analyze how Africans have used these works to re-shape literary canon and given their world and their histories universal purchase.
T D X72. Industry Internship.
Professional internship position in business and/or production.
T D X75H. Honors Seminar.
Comprehensive introduction to research in the area of theatre and dance.
T D X76H. Reading Tutorial in Theatre and Dance Problems.
Individual projects to be completed under faculty supervision.
T D X79H. Thesis Course for Departmental Honors.

Graduate Courses

T D X12P. Fundamental Projects in Dance Performance and Repertory.
Preparation and performance laboratory related to production.
T D X13P. Projects in Acting and Directing.
Preparation and performance laboratory related to production.
T D X22P. Projects in Dance Performance and Repertory.
Preparation and performance laboratory related to production.
T D X23P. Advanced Projects in Acting and Directing.
T D X25P. Projects in Playwriting.
T D X26P. Projects in Theatre Studies.
T D X27P. Projects in History, Criticism, and Performance Studies.
T D X32P. Advanced Projects in Dance Performance and Repertory I.
T D X32Q. Advanced Projects in Dance Performance and Repertory II.
T D X52P. Projects in Dance Movement Studies.
T D X80G. Topics in Production Skills for Actors.
T D X80M. Performance Studio.
Exploration and practice in the skills and craft of acting, voice, dance, directing, and playwriting.
T D X80N. Topics in Acting.
Topics, restricted or broad in scope, related to the theory of acting, stage combat, movement, and voice.
T D X80P. Advanced Projects in Performance.
Projects inappropriate to organized courses but pertinent to students' training and development in acting, directing, dance, and playwriting.
T D X81D. Seminar in Directing Theory.
Application of aesthetic and creative principles to directing theory; application of directing theory to textual analysis and production concept.
T D X81E. Topics in Directing Theory.
Topics, restricted or broad in scope, related to the theory of directing.
T D X81F. Topics in Advanced Acting and Directing.
Problems in the theory and practice of acting and directing for the theatre.
T D X81F.1. Advanced Acting.
Full exploration of the sources of dramatic action that reside in the self.
T D X81F.2. Classical Acting.
Training in the acting skills needed for the performance of Shakespeare and other verse dramatists.
T D X81F.3. Voice Studies I.
Training the actor in vocal coaching, voice anatomy, muscularity of speech, and vocal health.
T D X81F.4. Voice Studies II.
Application of vocal techniques.
T D X81G. Topics in Advanced Acting and Directing Laboratory.
Practical application of acting and directing techniques for the theatre.
T D X81G.1. Voice, Speech, and Movement I.
The basics of speech, phonetics, and mind and body awareness for the actor.
T D X81G.2. Voice, Speech, and Movement II.
The physical side of acting, and articulation as it is applied to various types of text.
T D X81G.3. Voice, Speech, and Movement III.
Stage dialects and physical character development.

T D X81G.4. Voice, Speech, and Movement IV.
Individual research projects and advanced movement techniques.
T D X81G.5. Acting for the Camera.
Fundamentals of on-camera acting techniques.
T D X81G.6. Acting Showcase.
Scenes and monologues to be used in the New York and Los Angeles evaluation showcases.
T D X81G.7. Directing.
Practical application of directing techniques for the theatre.
T D X81J. Directing: Modern Drama.
Theory, analysis, and practice in directing plays from the modern period.
T D X81L. Directing: Period Drama I.
Theory, analysis, and practice in directing plays from historical periods of drama.
T D X81M. Directing: Period Drama II.
Continuation of Theatre and Dance 381L. Theory, analysis, and practice in directing plays from historical periods of drama.
T D X82K. Seminar in Secondary School Theatre Curriculum.
Theory and design of secondary school theatre curriculum.
T D X83M. Topics in Theatre Outreach.
Topics, restricted or broad in scope, related to the theory and practice of theatrical outreach.
T D X83M.1. Theatre Outreach Methods.
Theory and design of a variety of outreach offerings.
T D X83P. Topics in Drama and Theatre for Youth.
Topics pertinent to students' training and development in drama and theatre for youth.
T D X83P.1. Puppetry.
Design, construction, and performance of puppets in children's theatre.
T D X83P.10. Myth, Legend, and Tale.
T D X83P.11. Creative Drama in the Museum.
The application of creative drama methods in museum settings.
T D X83P.19. Digital Storytelling with Youth and Communities.
Explores digital storytelling and applied theatre as tools for reflecting on self, building community, and fostering cultural engagement. Engagement in creative writing and devising through drama and digital technologies; collaborative development and documentation of digital stories and performance collages.
T D X83P.2. Children's Dramatic Literature.
Comprehensive study of dramatic literature for children.
T D X83P.3. Children's Dramatic Literature--International.
Comprehensive study of international dramatic literature for children. Material is studied in translation.
T D X83P.4. Theatre in Education.
Theory and practice of interactive theatre in education.
T D X83P.5. Creative Drama.
Advanced theory and practice of creative drama in field and educational settings.
T D X83P.6. Practicum in Drama and Theatre for Youth.
Practical applications of approaches to drama and theatre for youth.
T D X83P.7. Youth Theatre Tour.
Rehearsal, production, and performance of theatre for children in schools.
T D X83P.8. Issues and Practices in Youth Theatre.
Issues in professional and community theatres for children.
T D X83P.9. Special Problems: Directing for Young Audiences.
Challenges in staging plays for young audiences.
T D X84. Topics in Special Problems in Theatre and Dance.
T D X85C. Topics in Theatre History.
Topics, restricted or broad in scope, chosen from the history of theatre, both Western and non-Western.
T D X85C.1. Theatre History, 1660-1900.
T D X85C.2. Medieval and Renaissance Theatre History.
European theatrical history from the medieval and Renaissance periods.
T D X85C.3. Classical and Asian Theatre History.
Survey of ancient Greek, Roman, and Asian theatrical history.
T D X85C.4. 20th-Century Theatre History.
T D X85C.5. French Theatre, 1945-2000.
T D X85C.6. Contemporary Theatre History.
T D X85D. Topics in Dramaturgy.
Topics pertinent to students' training and development in dramaturgical theory and practice.
T D X85D.1. Dramaturgy.
T D X85D.2. New Play Dramaturgy.
T D X85D.3. Production Dramaturgy.
T D X86. Topics in Dance.
Topics pertinent to students' training and development in dance and choreography.
T D X86.1. Dance in Academia.
T D X86C. Topics in the History, Theory, and Criticism of Dance.
Topics pertinent to students' training and development in the history and theory of dance and choreography.
T D X87D. Topics in Performance Studies.
Topics, restricted or broad in scope, related to performance studies.
T D X87D.1. Applied Drama and Theatre.
Survey of various applications of drama and theatre for communitarian and educational purposes.
T D X87D.10. Performance and Politics in the 1960s.
T D X87D.11. Performative Criticism.
T D X87D.12. Performing Black Feminisms.
T D X87D.13. Theatre of the Oppressed.
Overview of the movement inspired by Augusto Boal's Theatre of the Oppressed.
T D X87D.14. American Musical Theatre.
T D X87D.15. Body, Culture, and Performance.
T D X87D.16. Dance, Women, and Narrative.
T D X87D.17. Feminist Theory and Performance.
T D X87D.18. Performance and Activism.
T D X87D.19. Performance and Cultural Studies.
T D X87D.2. Performance Analysis.
T D X87D.20. Performance Theory Analysis.
T D X87D.21. Performative Writing.
T D X87D.22. Performing America, 1840-1940.
T D X87D.23. Queer Performance and Theory.
Current theories and practices of queer performance.
T D X87D.3. Performance Ethnography.
T D X87D.4. Performing Autobiography.
The overlapping territory between performing the self and performing the biographical other.
T D X87D.5. Seminar in Theatre History and Performance Studies.
T D X87D.6. Historical Case Studies.
T D X87D.8. Women and American Performance.
T D X87D.9. Adaptation for Stage and Screen.
T D X87M. Topics in Dramatic Theory and Criticism.
Topics, restricted or broad in scope, concerning theory and criticism as they relate to drama or theatre.
T D X87M.1. Dramatic Theory and Criticism, Ancient Greece to the Eighteenth Century.
T D X87M.2. Dramatic Theory and Criticism, the Eighteenth Century to 1960.
T D X87M.3. World Theatre in Context.
Practical application of dramaturgical case study for the actor.

T D X87N. Topics in Dramatic Form and Structure.
T D X87N.2. Devised Work.
T D X87P. Playwriting Workshop.
Theory and practice of dramatic writing.
T D X87R. Playwriting For Youth.
Advanced study and practice of writing plays for children and youth.
T D X88. Research Methods and Resources.
Theory and practice of academic research for theatre artists.
T D X88J. Topics in Advanced Design and Technology Studio.
Problems in the theory of scenic design, costume design, lighting design, and theatre technology.
T D X88J.1. Costume Design.
T D X88J.2. Costume Technology.
T D X88J.3. Lighting Design.
T D X88J.4. Scenic Design.
Fundamentals of scenic design.
T D X88J.5. Theatre Technology.
Theory and application of the technical direction process.
T D X88K. Topics in Advanced Design and Technology Laboratory.
Practical applications of production theory for theatrical designers and technicians.
T D X88K.1. Lighting Laboratory.
Practical and individual design experience in lighting.
T D X88K.2. Technology Laboratory.
Practical and individual design experience in theatrical technology.
T D X88K.3. Scenery Laboratory.
Practical and individual design experience in scenery.
T D X88K.4. Costuming Laboratory.
Practical and individual design experience in costuming.
T D X88L. Advanced Topics in Design and Technology.
Topics that are related to and support the study of theatrical design and technology.
T D X88L.1. Costume Rendering.
Fundamentals of costume research and drawing.
T D X88L.10. Draping II.
Advanced clothing construction for theatrical productions.
T D X88L.11. Mask Making II.
Mask theory, design, construction for theatrical and live productions.
T D X88L.12. Automated Lighting II.
Advanced automated and computer-aided lighting theory and techniques.
T D X88L.13. Scenic Rendering.
T D X88L.14. Millinery I.
Fundamentals of hat design, fitting, and construction techniques.
T D X88L.16. Rigging for the Theatre.
Historical and modern practices of theatrical rigging systems.
T D X88L.17. Tailoring I.
Fundamental theory and techniques in tailoring for the live performer.
T D X88L.18. Tailoring II.
Advanced theory and techniques in tailoring for the live performer.
T D X88L.19. Concert Lighting.
Use of automation, computers, and remote control in lighting for live performance.
T D X88L.2. Drawing for Theatre Designers.
Fundamentals of drawing and drafting for theatrical designers.
T D X88L.23. Fabric Painting and Dyeing II.
Advanced textile surface design.
T D X88L.24. Millinery II.
Advanced hat design, fitting, and construction techniques.
T D X88L.25. Audio Production.
Fundamentals of audio production for the stage and other live performances.
T D X88L.26. Costume Design Skills.
Fundamentals of research, drawing, rendering, and script and character analysis and critique for costume design.
T D X88L.27. Lighting Design Skills.
Fundamentals of research, paperwork communication, and technology for lighting designers.
T D X88L.28. Scenery Design Skills.
Fundamentals of drawing, drafting, and model building for theatrical designers.
T D X88L.29. Figure and Fabric Rendering.
Principles of figure and fabric painting from life.
T D X88L.3. Painting.
Painting techniques for theatrical designers.
T D X88L.30. Scene Painting.
Scene painting techniques for theatrical designers.
T D X88L.4. Automated Lighting I.
Fundamentals of automated and computer-aided lighting for theatre and live performance.
T D X88L.5. Mask Making I.
Fundamentals of mask theory, design, and construction for theatre and live performance.
T D X88L.6. Advanced Makeup.
Advanced theatrical makeup theory and techniques.
T D X88L.7. Fabric Painting and Dyeing I.
Fundamentals of textile surface design.
T D X88L.9. Draping I.
Basic clothing construction for theatrical productions.
T D X88R. Topics in Research and History for the Visual Theatre.
Study of the development of dress and decor, as seen in a general historical context, with an introduction to research methods appropriate for theatrical designers and technicians.
T D X90C. Professional Development Workshop.
New project development workshop for second year Playwrights and Directors who will collaborate with other students in teams to explore and develop new works.
T D X90K. Play Readings.
Weekly readings of plays in various stages of development.
T D X90L. New Playwriting Studio.
T D X91. Topics in Performance as Public Practice.
Topics, restricted or broad in scope, related to performance as public practice.
T D X91.1. Historiography.
The history of history, in practice, as a discipline, and in writing.
T D X91.2. Proseminar: Performance as Public Practice.
T D X91.3. Public Intellectuals and the Arts.
T D X91.4. Community-Based Theatre.
The practice of theatre as a tool for community and social change.
T D X91.5. Cultural Policy and the Arts.
T D X93. Topics in Seminar in Theory, Criticism, and Analysis.
T D X95. Topics in Readings in History, Theory, Criticism, and Performance Studies.
In-depth exploration of literature in specialized areas of interest, primarily as preparation for doctoral examinations and dissertation proposals.
T D X98. Thesis.
T D X98T. Supervised Teaching in Theatre and Dance.
Theory and practice of pedagogy in theatre and dance.
T D X99W. Dissertation.

Professional Courses

T D X12P. Fundamental Projects in Dance Performance and Repertory.
Preparation and performance laboratory related to production.
T D X13P. Projects in Acting and Directing.
Preparation and performance laboratory related to production.

T D X22P. Projects in Dance Performance and Repertory.
Preparation and performance laboratory related to production.
T D X23P. Advanced Projects in Acting and Directing.
T D X25P. Projects in Playwriting.
T D X26P. Projects in Theatre Studies.
T D X27P. Projects in History, Criticism, and Performance Studies.
T D X32P. Advanced Projects in Dance Performance and Repertory I.
T D X32Q. Advanced Projects in Dance Performance and Repertory II.
T D X52P. Projects in Dance Movement Studies.

TAM - Tamil

Tamil: TAM

Lower-Division Courses

TAM X04. Accelerated First-Year Tamil.
Designed for students who understand or speak but do not read or write Tamil.
TAM X06. First-Year Tamil I.
TAM X07. First-Year Tamil II.
TAM X12. Accelerated Second-Year Tamil.
Continuation of Tamil 604. Designed for students who understand or speak but do not read or write Tamil.
TAM X12K. Second-Year Tamil I.
TAM X12L. Second-Year Tamil II.
TAM X19S. Topics in Tamil.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
TAM X29S. Topics in Tamil.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

TAM X20K. Advanced Tamil I.
TAM X20L. Advanced Tamil II.
TAM X29S. Topics in Tamil.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
TAM X30. Topics in Tamil Language and Literature.
Study of specific subjects related to South Asian culture as reflected in Tamil literary productions and other modes of expression.
TAM X60. Conference Course in Tamil Language and Literature.
Supervised individual study of selected problems in Tamil language and literature.

Graduate Courses

TAM X29S. Topics in Tamil.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
TAM X81. Conference Course in Tamil Language and Culture.
Supervised individual study in Tamil language or culture.
TAM X84. Topics in Tamil Language and Culture.
Study of various aspects and periods of Tamil language and culture.

Professional Courses

TAM X29S. Topics in Tamil.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

TEL - Telugu

Telugu: TEL

Lower-Division Courses

TEL X04. Accelerated First-Year Telugu.
TEL X06. First-Year Telugu I.
TEL X07. First-Year Telugu II.
TEL X12. Accelerated Second-Year Telugu.
Continuation of Telugu 604.
TEL X12K. Second-Year Telugu I.
TEL X12L. Second-Year Telugu II.
TEL X18K. Practice in Spoken Telugu.
Instruction and practice in conversation for intermediate-level students.
TEL X18L. Practice in Spoken Telugu II.
Instruction and practice in conversation for intermediate-level students.
TEL X19S. Topics in Telugu.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
TEL X29S. Topics in Telugu.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

TEL X29S. Topics in Telugu.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

TEL X30. Telugu Language and Literature.
TEL X60. Conference Course in Telugu Language and Literature.

Graduate Courses

TEL X29S. Topics in Telugu.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
TEL X81. Conference Course in Telugu Language and Literature.
Supervised individual study in Telugu language or literature.
TEL X84. Topics in Telugu Language and Culture.

Professional Courses

TEL X29S. Topics in Telugu.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

TUR - Turkish

Turkish: TUR

Lower-Division Courses

TUR X01C. Intensive Turkish I.
First semester of intensive Turkish language instruction.
TUR X06. First-Year Turkish I.
Modern Standard Turkish.
TUR X07. First-Year Turkish II.
Modern Standard Turkish. Continuation of Turkish 506.
TUR X11C. Intensive Turkish II.
Second semester of intensive Turkish language instruction.
TUR X12K. Second-Year Turkish I.
Conversational Turkish and readings in contemporary Turkish literature and newspapers. Review of the grammar covered in Turkish 506 and 507, and introduction of more complex grammatical patterns.
TUR X12L. Second-Year Turkish II.
Continuation of Turkish 412K.
TUR X19S. Topics in Turkish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
TUR X29S. Topics in Turkish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

TUR X19S. Topics in Turkish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
TUR X20K. Intermediate Turkish I.
Intermediate to high-level Turkish in four basic language skills: speaking, listening, reading, and writing. Turkish culture.
TUR X20L. Intermediate Turkish II.
Continuation of Turkish 320K.
TUR X25K. Advanced Turkish I.
TUR X25L. Advanced Turkish II.
Advanced Turkish language instruction.
TUR X29. Topics in Turkish Language, Literature, and Culture.
Conducted in Turkish.
TUR X29C. Turkish Cinema.
TUR X29D. Turkish Society and Culture.
Explore aspects of contemporary Turkish society and culture while building intercultural communicative competence in modern Turkish through listening, speaking, reading, and writing activities in and outside of class. Focus on daily life and material culture, and guides students to develop efficient reading, listening, and viewing strategies.
TUR X29S. Topics in Turkish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
TUR X30D. Turkish across Disciplines.
Students read and discuss Turkish language materials related to the subject matter of another designated course.
TUR X69. Conference Course in Turkish Language and Literature.
Supervised individual study of selected problems in Turkish language or literature.

Graduate Courses

TUR X19S. Topics in Turkish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
TUR X29S. Topics in Turkish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
TUR X80. Topics in Turkish Language and Literature.
Study of various aspects or eras of Turkish language and literature.
TUR X81H. Intensive Graduate Language Instruction I.
Intensive cultural and literacy-focused training in Turkish at the beginning level in preparation for research in the Turkic-speaking world or with Turkish sources. Incoming students are placed in the appropriate level by means of a departmental placement test.
TUR X81J. Intensive Graduate Language Instruction II.
Intensive cultural and literacy-focused training in Turkish at the low-intermediate level in preparation for research in the Turkic-speaking

world or with Turkish sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

TUR X81K. Intermediate Graduate Language Instruction I.
Intensive cultural and literacy-focused training in Turkish at the intermediate level in preparation for research in the Turkic-speaking world or with Turkish sources. Includes an independent project component. Incoming students are placed in the appropriate level by means of a departmental placement test.

TUR X81L. Intermediate Graduate Language Instruction II.
Intensive cultural and literacy-focused training in Turkish at the high-intermediate level in preparation for research in the Turkic-speaking world or with Turkish sources. Includes an independent project component. Incoming students are placed in the appropriate level by means of a placement test.

TUR X81M. Advanced Language Instruction I.
Intensive cultural and literacy-focused training in Turkish at the advanced level in preparation for research in the Turkic-speaking world or with Turkish sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

TUR X81N. Advanced Language Instruction II.
Intensive cultural and literacy-focused training in Turkish at the advanced level in preparation for research in the Turkic-speaking world or with Turkish sources. Incoming students are placed in the appropriate level by means of a departmental placement test.

TUR X82. Topics in Turkish Culture.

TUR X89. Conference Course in Turkish Studies.
Supervised individual study of selected problems in Turkish studies.

TUR X90K. Advanced Turkish I.
Intermediate to high-level Turkish in four basic language skills: speaking, listening, reading, and writing. Turkish culture.

TUR X90L. Advanced Turkish II.
Continuation of Turkish 390K.

Professional Courses

TUR X19S. Topics in Turkish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

TUR X29S. Topics in Turkish.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

TXA - Textiles and Apparel

Textiles and Apparel: TXA

Lower-Division Courses

TXA X01. Clothing the Planet.
Study of the role textiles and apparel play in human lives. Introduction to the textile and apparel industries, and the broad perspective and core skill sets that characterize the field. Subjects include terminology, fibers and fabrics, textile technology, product development through fashion design and retail merchandising, global sourcing and manufacturing, international promotion and marketing, and textile conservation, exhibition, and collection management.

TXA X01C. Introduction to the Fashion Industry.
Explore the apparel and textiles industry with an emphasis on ethical and sustainable issues related to the industry. Examine a broad view of the interrelated fields of design, merchandising, product development, and textiles alongside emerging themes in the field.

TXA X03. Topics in Textiles and Apparel.

TXA X05. Textiles.
Chemical and physical properties of fibers and yarns, fabric construction, and finishes.

TXA X05L. Textiles Laboratory.

TXA X12K. Apparel Industry.
Introduction to the integrated apparel design industry from the creative and merchandising perspective.

TXA X12L. Apparel Product Development and Design Laboratory.

TXA X13. Aesthetics: Theory and Practice.
Introduction to the theoretical and practical aspects of the principles of design and visual literacy in the field of textiles and apparel. Introduction to the principles and theories that define what is aesthetically pleasing and the vocabulary necessary to identity, describe, and critique them.

TXA X14C. Computer-Aided Design for Apparel.
Explore computer technology used to create textile prints, weaves, illustrations, flat patterns, promotional pieces, and pattern markers.

TXA X14K. Product Development.
Introduction to all stages of product development involved in fashion and functional design with an emphasis on target market identification, cost analysis, material selection, and the organization of product development within the industry structure. Apply product development skills and strategies involved in fashion and functional design.

TXA X14L. Product Development Laboratory.
Application of product development skills and strategies involved in fashion and functional design. Emphasis on target market identification, cost analysis, material selection, and the position of product development within the industry structure.

TXA X16L. Apparel I.
Industrial techniques of pattern design and garment construction.

TXA X16Q. Sewn Products Analysis.
Evaluation of soft goods, including materials, quality of work, and costs.

TXA X16R. Sewn-Product Analysis and Manufacturing.
Explore apparel production and manufacturing processes, including an evaluation of soft goods, materials, quality of work, and costs. Examine conceptual framework of the manufacturing process for future apparel professionals. Discuss the apparel production cycle: how apparel products are designed, created, and distributed. Analyze garment design and construction features to understand their relationship to apparel cost and quality.

TXA X17D. Fashion Design Thinking.
Introduction to the process of primary and secondary research, design, and construction.

TXA X17R. Merchandising Math I.
Explore foundational concepts in retail math using Excel. Build analytical skills and a foundation in merchandising systems.

TXA X17T. Textiles Fabrication.
Apply textile theory and properties to create yarn and fiber based materials such as woven, knit, and non-woven textiles.

TXA X18E. Fashioning America.
Explore the history of the United States from pre-Civil War to contemporary society as reflected through targeted as well as changing styles in costume and dress. Examine the ability of dress as a device that can communicate political, social, economic, aesthetic and cultural change. Analyze clothing choices as related to exterior motivations including protection, gender, status and decoration. Relate the power of dress to particular demographic groups throughout history. Acquire a vocabulary with which to describe apparel and related items.

TXA X18T. Medical Textiles.
Explore special and functional textiles to address medical applications and public health challenges such as artificial organs and tissue

scaffolds, medical aid devices, the use of antiviral and antibacterial materials, and personal protection equipment.

TXA X19C. Applied Art in Visual Presentation.
Explore the principles and elements of design as related to merchandising presentation, display planning, execution, and coordination.

TXA X19L. Applied Art in Visual Presentation Laboratory.
Application of the principles and elements of design as related to merchandise presentation, display planning, execution, and coordination.

TXA X19R. Merchandise Presentations in Retail Environments.
Explore an integrated approach to communicating, presenting and evaluating two-and three-dimensional design strategies for merchandise presentation (both digital and brick and mortar environments). Examine components of both design and execution rooted in a foundation of visual merchandising theory, skills, and terminology.

TXA X19S. Topics in Textiles and Apparel.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

TXA X52D. Field Experience in Apparel Design.
Application of apparel design techniques and principles in a professional environment.

TXA X65. Advanced Topics in Textiles and Apparel.

Upper-Division Courses

TXA X03. Topics in Textiles and Apparel.

TXA X25K. Culture, Gender, and Appearance.
Social, economic, aesthetic, and political aspects of historic costume and of the evolution of modern dress.

TXA X25L. History of Dress and Cultural Change I.
Social, economic, aesthetic, and political aspects of costume evolution from ancient times through the Renaissance.

TXA X25M. History of Dress and Cultural Change II.
Social, economic, aesthetic, and political aspects of costume evolution from the Baroque period through modern times.

TXA X26. Apparel II.
Advanced apparel construction techniques using industry standards and portfolio development.

TXA X26L. Apparel II Laboratory.
Advanced apparel construction techniques using industry standards and portfolio development.

TXA X27. Clothing and Human Behavior.
The social, psychological, and nonverbal significance of clothing and the influence of clothing on behavior.

TXA X27C. Social Psychology of Dress and Appearance.
Explore cultural, social, and psychological significance of dress and appearance. Examine theories related to the ways individuals communicate and interpret the self, identity, and social roles through dress and appearance in contemporary society.

TXA X28. Research Methods in Textiles and Apparel.
Basic research methodology and academic writing.

TXA X29S. Topics in Textiles and Apparel.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

TXA X31. Textiles and Apparel in a Global Market.
Overview of the textiles and apparel industry including apparel industry standards, labor costs, economics, distribution, and structure in the modern global marketplace. Subjects include the analysis of consumption patterns and retailing systems to inform product development; exploring cross-cultural comparisons between global consumer markets; understanding importing and exporting systems and other procedures involved in modern supply chain activities; and grasping the collaborative nature of innovation and design, manufacturing and distribution, retailing, and customer satisfaction leading to sales in the global market.

TXA X31E. Textiles and Apparel in the Global Marketplace.
Explore global textile and apparel industries and the factors affecting global sourcing from product concept to distribution with an emphasis on global issues. Examine the textile and apparel complex and its history, international trade and the effects of trade policy, the sourcing process, selection of sourcing locations and partners, sourcing regions of the world, and current trends.

TXA X40E. Paris: Fashion, History, and Techniques.
Explore workshops and tours focused on fashion, its history, and techniques.

TXA X40T. Sustainable Textile Manufacturing.
Explore sustainable textile manufacturing practices including renewable fiber manufacturing, textile circular manufacturing, and apparel recycling.

TXA X41E. Accessory Design, Product Development, and Merchandising.
Connect with industry partners to explore design and product development processes through the brand's commercial lens.

TXA X42E. New York: Apparel Industry.
Explore significant apparel-related businesses such as major retailers, fashion designers, lifestyle brands, apparel and beauty product manufacturers, and licensing firms. Interact with industry leaders such as C-Suite Leaders, Directors, Presidents, VP's Merchants, and museums such as The Metropolitan Costume Institute.

TXA X50. Advanced Apparel Design Portfolio.
Extensive sociological, cultural, and historic visual research for apparel design. Through a range of projects that incorporate computer-aided design, product illustration, technical packets, proposed production plans, and target market identification, students will produce a professional level, hard copy and online, portfolio that will help prepare them for a career in the apparel industry.

TXA X50D. Advanced Apparel Portfolio.
Examine sociological, cultural, and historic visual research for apparel design. Explore a range of projects that incorporate computer-aided design, product illustration, technical packets, proposed production plans, and target market identification.

TXA X51. Pre-Internship Seminar.
Preparation course for students seeking internships. Subjects include application, internship interview process, effective professional communication, ethical decision making, leadership development, site expectations, and the impact of business environments on personal and career effectiveness in the field of textiles and apparel.

TXA X51D. Advanced Apparel Design.
Expand range of expertise in developing design proposals to include knitted or printed textiles, other apparel categories, menswear, size inclusivity, children's wear, and accessories. Focus on expanding depth and breadth of skills as relevant to career opportunities.

TXA X51R. Merchandising Technology.
Examine various technologies relevant to merchandising and retailing.

TXA X52C. Field Experience in Textile Conservation Internship.
Participation in an approved internship after completion of all conservation science stream coursework. Students will be placed in an appropriate site under the supervision of an available professional such that students may experience collection management, artifact

storage and conservation, exhibit planning/installation, environmental monitoring, and/or other museum or conservation activities. A formal agreement between the faculty supervisor and internship sponsor will govern activities and be monitored throughout the experience through assignments, regular electronic communication, and a site visit.

TXA X52D. Field Experience in Apparel Design.
Application of apparel design techniques and principles in a professional environment.

TXA X52E. Historic Apparel Collections and Exhibit Management.
Explore the history of fashion, design thinking, visual display design, and execution.

TXA X52M. Field Experience in Retail Merchandising.
Application of merchandising techniques and principles in a professional environment.

TXA X53. Field Experience I.
Application of merchandising strategic planning in a professional environment with faculty and site director supervision.

TXA X53D. Apparel Design Mentorship.
Connect with a Textiles and Apparel design alum - a professional designer- as a mentor. Build awareness of current apparel industry practices and standards expected for entry level design positions.

TXA X54C. Material Properties and Deterioration.
Overview of the major mechanisms of textile deterioration from a variety of sources including light, dirt, various insects and microorganisms, as well as mechanical wear and tear. Examination of the peculiarities of these deterioration phenomena through the study of the basic chemical and physical properties of the fibers constituting the textiles.

TXA X54D. Instrumental Methods for Conservation Assessment.
Overview of primary instrumental methods for evaluating historical textiles in terms of physical characteristics, chemical content, strength loss, structural deterioration, color change, and overall structural integrity and status of impact of environmental factors. Focus on instrumental features, measuring procedures, and interpretation of instrumental data.

TXA X54E. Conservation Planning and Preventive Treatments.
Implementation and management of textile conservation. Subjects include general requirements for preserving historical textiles, procedures for planning textile conservation projects, and major physical and chemical methods of preventive and postdamage treatments for historical textiles.

TXA X54F. Advanced Exhibit Planning and Installation.
Planning and implementation of a full museum exhibit including budget, selection and preparation of artifacts, prop construction, signage, educational and promotional materials, donor/supporter communication, and opening event. Serves as a pre-internship/capstone course for conservation science majors.

TXA X55. Topics in Problems Course.
Intensive study of selected problems of an interdisciplinary nature.

TXA X55C. Computer-Aided Design for Apparel.
Computer technology used to create textile prints, weaves, illustrations, flat patterns, promotional pieces, and pattern markers.

TXA X55D. Textiles Artifact Management and Conservation.
Principles and techniques in the identification, documentation, conservation, and exhibition of textile-based artifacts.

TXA X55K. Textile and Apparel Economics.
Economic and regulatory aspects of the textile and apparel industries.

TXA X55N. History of Textiles.
Role of textiles in the social, economic, aesthetic, and technological development of society; including production and design of textiles throughout history.

TXA X55P. Problems in Retail Merchandising.
Intensive study of selected problems related to field experience; development of analytical and problem-solving skills for retailing.

TXA X56. Internship.
Reflect on the internship and faculty mentorship.

TXA X59H. Honors Reading Course.
Supervised individual reading on special subjects.

TXA X60. Textile Testing.
Analyze and evaluate textile performance.

TXA X60L. Advanced Textiles.
Composition, structure, and properties of textile products; contributions of textile research.

TXA X61. Consumer Behavior in the Marketplace.
Internal and external factors that influence consumer behavior in the marketplace. Application of concepts and theories from the social sciences to the areas of textiles, clothing, and appearance; experience in conducting market and consumer research.

TXA X61T. Biopolymers and Biomaterials.
Examine bio-fibers, bio-materials, and membrane formation and applications from a textile foundation.

TXA X62D. CLO 3D.
Explore technology, pattern-making and garment construction intertwined with a modern approach to garment design. Utilize CLO 3D software for 3D rendering and flat pattern design on a virtual croquis.

TXA X62T. Smart Textiles and Apparel Systems.
Explore advanced technologies of conductive yarns, e-textiles and wearable technology integration.

TXA X63D. Jewelry Design and Technology.
Explore 3D CAD software, such as Fusion 360 to create renderings and models. Utilize technology equipment such as 3D printing and laser cutting to create a real life sample of original designs.

TXA X63T. Nanotechnologies in Textiles.
Examine the role of nanotechnology in the evaluation, development and fabrication of textiles and fibers. Explore characterization tools used in nanotechnology, general chemistry employed in fabrication, and properties found in different nano-materials, nano-fibers, nano-coatings. Discuss products in the market and functionality. Propose potential innovations with nanotechnologies in textiles.

TXA X64K. Topics in Advanced Problems in Clothing.
Creative application of flat pattern or draping processes.

TXA X64L. Topics in Advanced Problems in Apparel Laboratory.

TXA X65. Advanced Topics in Textiles and Apparel.

TXA X66D. Flat Pattern.
Explore the creative application of flat pattern processes.

TXA X67D. Draping.
Examine advanced apparel design. Explore the creative application of draping processes.

TXA X68D. Capstone Collections.
Examine advanced apparel design. Explore the creation of an apparel collection.

TXA X70. New York City Fashion and Sustainability.
Examine multiple facets of the apparel industry in New York City, including fashion design, manufacturing processes and technology, retailing and sales, marketing, and post-consumer services. Explore the industry through the lens of sustainability highlighting current innovations for the purpose of reducing fashion's environmental impact.

TXA X76. Principles of Retail Merchandising.
Retail strategic planning and implementation for soft goods and apparel.

TXA X76R. Concepts and Innovations in Retailing.
Develop understanding of retail strategy, channels of distribution, private labels, innovation in retail, and the key issues impacting growth in retail firms including exposure to issues facing retailers in international settings.

TXA X77. Merchandising Systems.
Application course focusing on the calculation and analysis of the selling price, profitability, assortment planning, purchasing, and inventory control. Includes spreadsheet application and exercises.

TXA X77R. Merchandising Math II.

TXA X78H. Topics in Textiles and Apparel: Honors Seminar.

TXA X79H. Honors Tutorial Course.

Supervised individual research on a special topic in textiles and apparel; oral presentation and preparation of a scholarly paper covering the research. May be based on laboratory, library, or field research.

TXA X79R. Strategic Brand Management.

Examine strategic brand management and trademark protection. Explore the process of how an institution strategically manages a product category and grants rights to a specific group of licenses.

Graduate Courses

TXA X03. Topics in Textiles and Apparel.

TXA X52D. Field Experience in Apparel Design.

Application of apparel design techniques and principles in a professional environment.

TXA X65. Advanced Topics in Textiles and Apparel.

TXA X92. Topics in Research Problems in Textile and Apparel Technology.

Directed research in various topics in the area of textile and apparel technology.

TXA X94. Topics in Recent Advances in Textile and Apparel Technology.

An in-depth study of textile and apparel topics. Students may read original research papers and carry out fieldwork assignments.

TXA X94.1. Advances in Product Development and Technical Design.

Development of specification, sizing, grading systems, and quality control methodology.

TXA X94.10. Global Textile and Apparel Business Dynamics.

Elements of competitive strategy and planning methods within the textile complex, with an emphasis on the concepts of strategy in a mature industry, defining business in a global industry, allocating resources through strategic planning methods, and implementing strategy in single- and multi-business firms.

TXA X94.11. Market Research in Textiles.

Study and analysis of quantitative methods employed in market research in the textile industry, including the function of market research and its proper orientation to management and decision making.

TXA X94.12. Color Science.

The basis of modern techniques for color specification, measurement, control, and communication. Applications of color science to textiles, plastics, color reproduction, computer-based imaging, and display systems. Basic concepts are taught using computer color graphics.

TXA X94.2. International Sourcing and the Global Economy.

Economic, social, and public issues related to international production and sourcing of textiles and apparel.

TXA X94.3. E-Commerce and Direct Marketing.

Recent developments and evaluation of nontraditional retailing of apparel.

TXA X94.4. Textile Instrumentation.

Application of image analysis, neural networks, and wavelet transforms to textile and apparel products.

TXA X94.5. Digital Design and Printing.

Principles and elements of digital design and printing. Recent developments in digital knits, weaves, prints, and nonwoven textiles.

TXA X94.6. Textile Functional Finishes.

Study of the application and adaptation of functional finishes to textiles.

TXA X94.7. Textile Microscopy and Image Analysis.

Basic techniques for characterizing fiber properties visually with a microscope and using technology and computer analysis.

TXA X94.8. Digital Modeling of Textiles.

Recent developments in two- and three-dimensional modeling.

TXA X94.9. Production Mechanics and Properties of Woven Fabrics.

The relationship between the mechanics of production and mechanical properties of woven fabric; the unit operations required to prepare yarns for weaving and the mechanisms employed in weaving; fabric structure, geometry, and mechanical properties; designing for specific fabric properties.

TXA X95. Topics in Textiles and Apparel: Seminar.

Lectures and discussions on current topics in textiles and apparel.

TXA X95.1. Mass Customization of Apparel.

The principles and implementation of newly developed three-dimensional technology for apparel mass customization.

TXA X95.2. Advanced Functional Textiles.

Current science and technology concerning functional textiles. Emphasis is on the relationship between materials, development, structure, and properties.

TXA X98. Thesis.

Professional Courses

TXA X03. Topics in Textiles and Apparel.

TXA X52D. Field Experience in Apparel Design.

Application of apparel design techniques and principles in a professional environment.

TXA X65. Advanced Topics in Textiles and Apparel.

U D - Urban Design

Urban Design: U D

Lower-Division Courses

Upper-Division Courses

Graduate Courses

U D X80C. Topics in Visual Communication and Representation.
U D X80C.1. Diagramming the City.
U D X80C.2. Reality Capture for Architecture.
U D X80C.3. Rendering and Animation in the Built Environment.
U D X80C.4. Photography and the Urban Landscape.
U D X80C.5. Geographic Information Systems in Planning.
U D X80C.6. Urban Geographic Information Systems.
U D X80Q. Topics in Urban Design.
U D X81E. Topics in Landscape and Ecology.
U D X81E.1. History and Theories of Landscape Architecture I.
U D X81E.2. History and Theories of Landscape Architecture II.
U D X81E.3. Introduction to Urban Ecology.
U D X81E.4. Latin American Landscapes.
U D X82M. Topics in Urban Development and Real Estate.
U D X82M.1. Financing Real Estate Development.
U D X82M.2. Real Estate Practicum.
U D X82M.3. Urban Land Institute Workshop.
U D X83M. Topics in Urban Geography.
U D X83M.1. The Modern American City.
U D X83M.2. The Healthy, Livable City.
U D X83M.3. Smart, Green, and Just.
U D X83M.4. Sustainable Development.
U D X84M. Topics in Urban Housing.
U D X84M.1. Housing Practice and Policy in Latin America.
U D X84M.2. Urban Housing: Typology and Invention.
U D X84M.3. Affordable Housing Planning and Policy.
U D X85M. Topics in Transportation Planning.
U D X85M.1. Land Use and Transportation Planning.
U D X85M.2. Bicycle and Pedestrian Transit Planning.
U D X85M.3. Transit-Oriented Development.
U D X85M.4. Transportation Planning and Policy.
U D X86M. Topics in Community and Regional Planning.
U D X86M.1. Race and the Built Environment.
U D X86M.2. Design and Informal City.
U D X86M.3. Race and Urban Development.
U D X86M.4. Migratory Urbanism.
U D X86M.5. Nature of Public Spaces.
U D X86M.6. Disasters and Resilience: Planning and Response.
U D X86M.7. Foundations of Planning Law.
U D X86M.8. Readings in International Planning.
U D X86M.9. Smart Cities.
U D X87C. Urban Design Independent Research.
U D X87D. Urban Design Honors Research.
U D X88. Urban Design History, Theory, and Criticism.
Examine critical theories and practices that affect the built environment.
U D X88K. Post-Professional Seminar Readings.
U D X88R. Topics in Urban Design History and Theory.
U D X88R.1. Futures and Cities.
U D X88R.2. Design of New Communities.
U D X88R.3. Mexican Architecture and Urbanism.
U D X88R.4. Architecture Computation.
U D X89K. Post-Professional Seminar.
U D X89R. Topics in Historic Preservation.
U D X89R.1. History of American City Building.
U D X90. Urban Design Planning Project.
Complete the terminal research project in urban design.
U D X96. Topics in Urban Design Studio.
U D X96.1. Advanced Urban Design Studio I.
U D X96.2. Advanced Urban Design Studio II.
U D X96.3. Advanced Urban Design Studio III.
U D X96C. Urban Design Options Studio.
U D X96D. Urban Design Terminal Studio.
U D X96E. Urban Design Honors Project.
U D X98. Thesis.

Professional Courses

UGS - Undergraduate Studies

Undergraduate Studies: UGS

Lower-Division Courses

UGS X02. First-Year Signature Course.
Seminar class focusing on a contemporary issue. Designed to introduce undergraduates to scholarly analysis from an interdisciplinary perspective. Includes an introduction to University resources, such as research facilities, museums, and attendance at University lectures or performances as assigned. Multiple sections may be offered in the fall and spring with various topics and instructors.
UGS X02D. Topics in Undergraduate Studies.
UGS X03. First-Year Signature Course.
Large-group lecture and discussion class focusing on a contemporary issue. Designed to introduce undergraduates to scholarly analysis from an interdisciplinary perspective. Includes an introduction to University resources, such as research facilities, museums, and attendance at University lectures or performances as assigned. Multiple sections may be offered in the fall and spring with various topics and instructors.
UGS X04. First-Year Interest Group Mentor Seminar.
Issues and research in various areas of leadership, communication, student development, and the transition from high school to college.
UGS X04R. First-Year Interest Group Returning Mentor Seminar.
Explore issues and research in various areas of leadership, communication, student development, and the transition from high school to college.
UGS X04T. Transfer Year Interest Group Mentor Seminar.
Issues and research in various areas of leadership, communication, student development, and transfer student success.
UGS X06C. DSP Spring Seminar.
Basic issues in various interdisciplinary fields of study.
UGS X07D. Topics in Undergraduate Studies.
Topics in undergraduate major and course exploration.
UGS X07D.1. Spatial Visualization.
Research has shown that students with developed spatial visualization skills are more successful in physics, chemistry and calculus courses. Focus on how to 'see' things in 3-D, improving their success in these subjects and their ability to problem solve.
UGS X07D.2. Exploring Careers and Majors.
Aimed at undeclared students who are choosing a major or in the early stages of career exploration. Learn skills to make an informed and meaningful career decision and begin the process of career development. Use self-exploration activities and learn about resources

to identify majors and careers that fit with their values, interests, personality and skills. Explores professional skills such as resume writing and internship planning to continue career development strategies.

UGS X08. Undergraduate Research Experience.
Supervised research with a faculty member. Research may consist of a student-led project or assisting a faculty research project.

UGS X09. Analytical Reading and Writing.
Examine fundamental concepts in analytical reading from different disciplinary perspectives, with an emphasis on sociocultural influences on comprehension and writing styles.

UGS X10K. Undergraduate Research Experience.
Supervised research with a faculty member. Research may consist of an individual project or assisting a faculty research project.

UGS X12. Topics in Research Methods.
Interdisciplinary introduction to research methods, designed to lead students through the process of designing an undergraduate research project.

UGS X14M. Fundamentals.
Learn skills to increase academic potential. A specialized course facilitated by a Learning Specialist from the Sanger Learning Center designed to support students experiencing academic difficulty by providing structured academic support.

UGS X16. First-Year Interest Group Seminar.
Explore basic issues in various interdisciplinary fields of study.

UGS X16C. First-Year Connection Seminar.
Explore basic issues in various interdisciplinary fields of study.

UGS X16S. Sophomore Interest Group Seminar.
Explore basic issues in various interdisciplinary fields of study.

UGS X16T. Transfer-Year Interest Group Seminar.
Explore basic issues in various interdisciplinary fields of study.

UGS X19. Topics in International Learning Seminar.
Discussion of various issues related to the academic, cultural, and personal aspects of studying abroad in particular locations.

UGS X19S. Topics in Undergraduate Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Undergraduate College. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

UGS X20K. Undergraduate Research Experience.
Supervised research with a faculty member. Research may consist of an individual project or assisting a faculty research project.

UGS X20L. Undergraduate Research Experience.
Supervised research with a faculty member. Research may consist of an individual project and must meet the criteria for the independent inquiry flag.

UGS X21C. Topics in Research Skill Development and Support.
Introduction to research skills and professionalization.

UGS X21C.1. Project development.
Match with a mentor and develop research subjects.

UGS X21C.2. Research communication.
Communicate research and next steps in professionalization.

UGS X23. Organized Group Research.
Supervised research with a faculty member as part of an organized research program. Research may consist of a student-led project or assisting a faculty research project.

UGS X29S. Topics in Undergraduate Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Undergraduate College. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

UGS X30. Topics in Undergraduate Studies.

Graduate Courses

Professional Courses

UKR - Ukrainian

Ukrainian: UKR

Lower-Division Courses

UKR X06. First-Year Ukrainian I.
Explore listening, speaking, reading, and writing.

UKR X07. First-Year Ukrainian II.
Continue to explore listening, speaking, reading, and writing.

UKR X08. Ukrainian for Slavic Learners I.
Introduction to the Ukrainian language for those with a very basic background in one or more Slavic languages, who can read Cyrillic, and are familiar with some grammatical concepts. Explore listening, speaking, reading and writing skills, and integrate information on Ukrainian culture and life.

UKR X09. Ukrainian for Slavic Learners II.
Continued introduction to the Ukrainian language for those with a very basic background in one or more Slavic languages. Continue to explore listening, speaking, reading and writing skills, as well as grammar. Read authentic texts and write responses to them, while integrating information on Ukrainian culture and life.

UKR X12K. Second-Year Ukrainian I.
Explore listening, speaking, reading, and writing at the second-year level.

UKR X12L. Second-Year Ukrainian II.
Explore listening, speaking, reading, and writing at the advanced second-year level.

UKR X19S. Topics in Ukrainian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

UKR X25. Third-Year Ukrainian I.
Explore oral expression, reading, and composition.

UKR X26. Third-Year Ukrainian II.
Continue to explore oral expression, readings, and composition.

UKR X29S. Topics in Ukrainian.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

Professional Courses

URB - Urban Studies

Urban Studies: URB

Lower-Division Courses

URB X01. Introduction to Urban Studies.
A multidisciplinary study of cities and complex urban environments; historical and contemporary issues from both national and international perspectives.

URB X04M. Ancient Cities.
Introduction to the urban centers of the ancient Mediterranean world.

URB X05. Introductory Topics in Urban Studies.
An introduction to urban studies within the framework of different disciplines. Topics include urban history, urban education, politics and governance, economics, design and planning, and society and culture.

URB X15. Urban Studies Research Methods.
An introduction to urban studies research methodologies. Includes sources of urban data, the use of the library in urban research, formulating research questions, research design, methods commonly used in urban research, the use of computers to store and manipulate quantitative urban data, and an introduction to data analysis and theoretical and practical applications of urban research.

URB X19S. Topics in Urban Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

URB X20E. Sensing: Elemental Media.
Explore a sensory ethnographic investigation of urban ecology, organized around air, water, earth, and fire as themes for engaging with the city through media and the senses.

URB X20F. Latinx Austin.
Explore the city of Austin, the city's importance for Latino communities, and the importance of Latinos for the city.

URB X20M. Modernism in American Design and Architecture.
A historical survey of artifacts, buildings, and urban environments, focusing on responses to machine-age civilization.

URB X20T. The Culture of Cities.
Examines the social, geographical, and cultural evolution of the United States from a rural and small-town society to an urban and suburban nation. Subjects may include the segregation of public and private space; the formation of urban subcultures organized by gender, work, race, religion, and sexuality; social and spatial divisions between rich and poor and native-born and immigrant; and the increasing importance of cultural capital" in reshaping urban politics and in conflicts over revitalization and gentrification.

URB X21D. Development Economics.
Introduction to theories of economic development. Economic analysis of leading issues.

URB X21G. African Cities Since 1500.
Explore Africa's past through the story of urbanization beginning with an overview of African cities around 1500--a time of increasing human migration and global trade. Assess African cities in the modern period, focusing on the advent of European colonialism in the 1800s and its aftermath.

URB X21M. Urban Imaginaries.
Use science fiction literature, film, and other cultural artifacts as a platform to launch an examination into the central concept of urban imaginaries. Discuss the politics (and potential) of urban representation as well as understand how urban imaginaries influence everyday urban life and the ongoing production of urban space and place.

URB X21R. Introduction to Risk Management.
Principles of risk management for individuals and organizations, financial aspects of insurance companies and markets, industry structure, managerial aspects of underwriting and pricing, and public policy issues.

URB X21U. Urban Sociology.
Introduction to the study of the city and the suburbs. Specific focus on inequality in urban space, with emphasis on three major United States cities (New York, Chicago, and Los Angeles) and on several third world cities.

URB X22C. Vienna: Memory and the City.
Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria.

URB X22E. Urban Economics.
Economic analysis of urban areas, emphasizing current problems, such as spatial concentration of poverty, lack of access to jobs and financial services, and transportation systems. Examines the role of policy in addressing these problems.

URB X22P. Anthropology of Infrastructure.
Explore how infrastructure creates relationships between resources, energy, built form, information, and people.

URB X22R. Race, Social Justice, and the City.
Examine the way that race and inequality are built into the structures and ideas surrounding urban life through the spatial and racial structures of capitalist development, racialized migration, and redevelopment and gentrification campaigns. Analyze how United States cities are racial geographies.

URB X22T. Texas, 1900 to the Present.
Examine the steady dissociation of Texas from its Old South status to a transitional state and a power in national politics.

URB X22U. Negotiating Urbanization: Case Studies in Turkey.
Examines local and transnational forces that have driven and continue to drive contemporary urbanization in Turkey. Focuses on key issues that emerge in rapidly growing cities of the developing world, such as growing income inequality and socioeconomic exclusion, environmental challenges, and rising violence.

URB X23S. Building the Sustainable City.

URB X24C. Urban Publics.
The concept of the public in the city and how it has shifted over time along the lines of gender, ethnicity, race, and class. Examines contemporary struggles over defining the urban public and how those struggles are linked to social, cultural, political, and economic forces. Subjects include uses of public space, the public sphere, eminent domain, urban politics, civic engagement, and political participation.

URB X24G. Global Cities in the United States.
Engage with the history of the global city at various levels, using text from disciplines including history, geography, anthropology, and sociology, as well as primary sources, images, readings, and films. Define the global city in the past and present and explore questions of race, class, gender, the politics of space, the culture of empire, and the changing shape of U.S. capitalism.

URB X25. Special Topics in Urban Studies.

URB X25E. The Healthy, Livable City.
Explore the design of the built environment and its potential for addressing and preventing many childhood and adult health concerns in the United States. Examine how to create healthy, walkable, vital communities for all.

URB X25L. Sociology of Criminal Justice.
Examination of the police, courts, and prisons: how they work, their impact on those who pass through them. Introduction to the American criminal justice system, its policies and procedures. The primary focus will be on the roles and functions of the police, the courts, and corrections, with a special emphasis on how well or not so well the system operates.

URB X25R. Introduction to Real Estate and Urban Land Development.
An examination of the principles of real estate and urban land economics. Subjects include investment, valuation, financing, and public policy in real estate and mortgage markets.

URB X26F. Berlin.

URB X27D. African American History since 1860.
Survey of the history of African Americans in the United States from 1860 to the present: Emancipation, Reconstruction politics, migration and urbanization, and the evolution of African American culture; kinds of

sources and methods valuable for analyzing African American life and culture.

URB X27U. Urban Unrest.
Analysis of the roots of urban unrest, exploring a range of origins: joblessness, state violence, white flight, backlash against civil rights gains, new immigration, and interracial strife. Beyond race and class, subjects include exploring unrest as a mode of pushing the normative boundaries of gender and sexuality in public space. Course material will draw from film, literature, history, geography, and anthropology.

URB X28C. Principles of Physical Planning.
Introductory course in the physical dimension of urban planning.

URB X28E. Environmental History of North America.
The history of humanity's influence on the plants, animals, microlife, soils, water, and air of North America, and vice versa, from the arrival of the proto-Indians to the contemporary environmental crisis.

URB X28L. Latino Urbanism in the United States City.

URB X29S. Topics in Urban Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

URB X30F. Urban Experiences In East Asia.
Explores the process of urbanization in East and Southeast Asia focusing on the politics of capital accumulation and distribution.

URB X30G. The Global City.

URB X32D. Human Health and the Environment.
Introduction to environmental health concepts. Examine current events to explore the relationship between environment and health and whether an environmental condition is or is not an important threat to health. Discuss the complexity of determining "proof" in this field.

URB X35F. City Architecture.
Introduction to city architecture, urban design, and planning.

URB X37. The Modern American City.
Issues facing residents of United States cities, such as transportation and housing, poverty and crime, metropolitan finance, environmental and architectural design; historical/comparative urban evolution.

URB X40. Contemporary Cultural Geography.
Recent theoretical developments in cultural geography, with a focus on landscapes and the everyday practices that imbue them with meaning; the ways those meanings are contested and are the foci of struggle; and how the relationship between culture and space plays a central role in the social construction of identity.

URB X42C. Water and the Roman City.
Examine Roman urban development, design, and adaption from the perspective of hydrology, hydraulics, and cult and culture.

URB X52C. American Dilemmas.
Examination of critical American social problems, including problems in the economic, political, and health care systems, as well as inequities based on income, gender, and race. Exploration of how these problems are a natural outgrowth of the existing social structure.

URB X55U. Urban Politics.
Examine politics in American cities.

URB X60. Internship and Service Learning.
Internship experience in an urban studies-related public or nonprofit agency. The opportunity to apply the knowledge, theory, and understanding gained from courses in areas of specialization to urban issues in a professional setting. Includes an academic service-learning component.

URB X70. Senior Project.
Students identify an urban issue, develop a position paper, and work closely with a faculty adviser on a project. Students may use text or other media (such as video or portfolio) to present their arguments.

URB X79. Conference Course.
Supervised individual study of selected problems in urban studies.

URB X79H. Honors Tutorial Course.
Directed reading and research or creation of an honors project, followed by the writing of a thesis.

Graduate Courses
Professional Courses

URD - Urdu

Urdu: URD

Lower-Division Courses

URD X04. Accelerated First-Year Urdu.
Designed for students who have some knowledge of spoken Urdu but have not studied Urdu formally.

URD X06. First-Year Urdu I.

URD X07. First-Year Urdu II.

URD X12. Accelerated Second-Year Urdu.
Continuation of Urdu 604.

URD X12K. Second-Year Urdu I.
Introduction to the Urdu script, followed by Urdu reading, composition, and conversation.

URD X12L. Second-Year Urdu II.
Continuation of Urdu 312K.

URD X18K. Practice in Spoken Urdu I.
Instruction and practice in conversation for intermediate-level students.

URD X18L. Practice in Spoken Urdu II.

URD X19S. Topics in Urdu.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

URD X29S. Topics in Urdu.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

URD X29S. Topics in Urdu.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

URD X30. Topics in Urdu Language and Literature.
Study of specific subjects related to Urdu culture as reflected in literary productions and other modes of expression.

URD X30.1. Female Voices in Urdu Literature.
Survey of prose and poetry written in Urdu by women during the last three centuries.

URD X30.2. Love and Devotion in Urdu Literature.
Examination of various literary genres that are shaped by discourses on the love of God and devotion to the prophet Muhammad.

URD X30.3. Philosophy and Poetry of Iqbal.
Explores the prose and poetry written by the most influential twentieth-century Muslim reformer in South Asia, Muhammad Iqbal.

URD X30.4. Urdu Aesthetics.
Intensive overview of the most popular lyrical genre of Urdu poetry, the ghazal, and the standards used to judge a good ghazal.
URD X30.5. Urdu Short Stories: Manto.
Survey of the writings of Sadat Hasan Manto. Primary texts in Urdu, secondary materials in English.
URD X30.6. Qawwali Aesthetics.
Examination of the devotional currency of Qawwali, and issues of gender, class, religious differences, and nationalism. Explores the relationship between oral and written literature and tensions between local aesthetics and the process of globalization.
URD X30.7. Partition in Literature and Film.
URD X30D. Urdu Across Disciplines.
Reading of Urdu language materials related to the subject matter of another designated course in Asian studies.
URD X30G. Gender and Sexuality in Urdu-Hindi.
URD X32. Style and Register in Urdu.
Practice of skills in reading, listening, writing, and speaking for everyday social situations and some formal situations. Relevant to students working toward the "Advanced" level on the American Council for the Teaching of Foreign Languages (ACTFL) proficiency scale, equivalent to level 2 on the Interagency Language Roundtable (ILR) scale.
URD X60. Conference Course in Urdu Language and Literature.
Supervised individual study of selected problems in Urdu language or literature.

Graduate Courses

URD X29S. Topics in Urdu.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.
URD X81. Conference Course in Urdu Language and Culture.
Supervised individual study.
URD X84. Topics in Urdu Language and Culture.
Study of various aspects and periods of Urdu language and culture.
URD X84.1. Advanced Reading, Composition, and Conversation I.
URD X84.10. Qawwali Aesthetics.
Examination of the devotional currency of Qawwali, and issues of gender, class, religious differences, and nationalism. Explores the relationship between oral and written literature and tensions between local aesthetics and the process of globalization.
URD X84.11. Gender and Sexuality in Urdu-Hindi.
URD X84.2. Advanced Reading, Composition, and Conversation II.
URD X84.3. Readings in Urdu.
URD X84.4. Female Voices in Urdu Literature.
Survey of prose and poetry written in Urdu by women during the last three centuries.
URD X84.5. Love and Devotion in Urdu Literature.
Examination of various literary genres that are shaped by discourses on the love of God and devotion to the prophet Muhammad.
URD X84.6. Philosophy and Poetry of Iqbal.
Explores the prose and poetry written by the most influential twentieth-century Muslim reformer in South Asia, Muhammad Iqbal.
URD X84.7. Urdu Aesthetics.
Intensive overview of the most popular lyrical genre of Urdu poetry, the ghazal, and the standards used to judge a good ghazal.
URD X84.8. Style and Register in Urdu.
Practice of skills in reading, listening, writing, and speaking for everyday social situations and some formal situations. Relevant to students working toward the "Advanced" level on the American Council for the Teaching of Foreign Languages (ACTFL) proficiency scale, equivalent to level 2 on the Interagency Language Roundtable (ILR) scale.
URD X84.9. Urdu Short Stories: Manto.
Survey of the writings of Sadat Hasan Manto. Primary texts in Urdu, secondary materials in English.

Professional Courses

URD X29S. Topics in Urdu.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

UTL - UTeach-Liberal Arts

UTeach-Liberal Arts: UTL

Lower-Division Courses

UTL X01. Introduction to the Teaching Profession.
Weekly seminar with a University faculty member plus a field experience in an area elementary school under the supervision of a cooperating teacher. Course readings and instruction complement the field experience. Seminar topics include basic classroom management, lesson design, assessment, technology, diversity, and special student populations.
UTL X02. Introduction to Teaching in the Middle School.
Weekly seminar with a University faculty member plus a field experience in an area middle school under the supervision of a cooperating teacher. Course readings and instruction complement field experience. Seminar topics include classroom management, lesson design, assessment, technology, diversity, special student populations, conferencing techniques, and school organization.
UTL X03E. Teaching English in the High School.
Weekly seminar with a University faculty member, plus field experience in an area high school under the supervision of a cooperating teacher. Course readings and instruction complement field experience. Seminar topics include state and national standards, curriculum design and implementation, the role of technology in education, and teaching strategies with a special focus on innovative strategies for teaching literature and writing.
UTL X03L. Teaching Languages Other Than English in the High School.
Weekly seminar with a University faculty member, plus field experience in an area high school under the supervision of a cooperating teacher. Course readings and instruction complement the field experience. Seminar topics include state and national standards and their implementation, teaching for proficiency, curriculum design, assessment, best practices, the instructional environment, and the role of technology in teaching languages other than English.
UTL X03S. Teaching Social Studies in the High School.
Weekly seminar with a University faculty member, plus field experience in an area high school under the supervision of a cooperating teacher. Course readings and instruction complement the field experience. Seminar topics include social studies topics, standards, curriculum design and implementation, teaching strategies, technology, and vertical and horizontal teaming in social studies.
UTL X04. Middle School Teaching for Postbaccalaureate Certification.
Designed for college graduates seeking teacher certification. Students observe and teach in a middle school under the supervision of a mentor teacher, and participate in a weekly seminar. Seminar topics may include classroom management, lesson design, assessment, technology,

diversity, special student populations, conference techniques, and professional development.

Upper-Division Courses

UTL X20. Topics in Teaching the Liberal Arts.
Introduction to various topics related to middle grades, secondary, and all-level teaching certification. Topics may include history, social studies, English language arts, and languages other than English.

UTL X40. Teaching in Secondary Schools.
Course readings and instruction complement the field experience. Seminar topics include theoretical foundations for subject-specific methods, state and national standards and their implementation, teaching for proficiency, curriculum design, assessment, best practices, the instructional environment, and the role of technology in teaching.

UTL X41R. Overcoming Reading Difficulties.
Subjects may include the basic terminology related to special needs students, recognizing differences in learning disabilities, evaluating teaching methods and materials, and teaching strategies that address the needs of special needs students, with a special focus on reading strategies.

UTL X60. Problems and Principles of Secondary Education.
Draws upon resources found in the directed-teaching environment; considers problems and issues in four broad areas: students in the school, the teacher's professional responsibilities, curriculum understandings, and administrative and organizational problems.

UTL X70. Directed Teaching in Secondary Schools.
Observation and teaching in secondary school classrooms as well as an exploration of other roles of the secondary school teacher, under the joint supervision of University and public school personnel.

Graduate Courses

Professional Courses

UTS - UTeach-Natural Sciences

UTeach-Natural Sciences: UTS

Lower-Division Courses

UTS X01. Secondary Teacher Education Preparation: Step 1.
Introduction to mathematics, computer science, and science teaching as a career. Discussions include standards-based lesson design and various teaching and behavior management strategies. Fieldwork consists of five visits to a local elementary school, including planning and teaching three inquiry-based lessons to students in grades three to six.

UTS X06J. Hands-On Science I.
The first of an integrated sequence of laboratory-based courses. Subjects include energy and motion, electrical circuits, atomic theory, waves, and sound.

UTS X06K. Hands-On Science II.
The second of an integrated sequence of laboratory-based courses. Subjects include physical and chemical properties of matter, Earth's building blocks, plate tectonics, landforms, weathering, and geologic time.

UTS X06L. Hands-On Science III.
The third of an integrated sequence of laboratory-based courses. Subjects include properties of life, compartments of living organisms, inheritance, adaptations, variations, and disease.

UTS X06M. Hands-On Science IV.
The fourth of an integrated sequence of laboratory-based courses. Subjects include astronomy and the earth's climate.

UTS X10. Secondary Teacher Education Preparation: STEP 2.
Topics may include routes to teacher certification in mathematics, computer science, and science teaching; various teaching methods that are designed to meet instructional goals; and learner outcomes. Students develop and teach three inquiry-based lessons in their field in a middle school, and participate in peer coaching.

UTS X11. Secondary Teacher Education Prep: Advanced Steps.
Accelerated introduction to mathematics, computer science, and science teaching as a career. Discuss standards-based lesson design and various teaching and behavior management strategies. Plan and teach inquiry-based lessons to students in grades three to eight while visiting local elementary and middle schools.

UTS X14F. Topics in Teaching Math and Science.

UTS X18. Introduction to Making: STEM, Design, and The Arts.
Introduction to the philosophical and historical origins of making and maker-centered education. Use a variety of tools to bring unique creations to life.

Upper-Division Courses

UTS X20. Pedagogy for Inquiry-Based, Hands-on-Science Instruction.
Integrate educational theory, pedagogy, and practice. Explore a wide body of science education literature, pedagogy application, and social and ethical issues.

UTS X20F. Topics in Teaching Math and Science.

UTS X21F. Explorations in STEM Education.
Earn independent field hours through classroom observations, watching and reflecting on teaching videos, and teaching or tutoring students in the schools.

UTS X50. Knowing and Learning in Math and Science.
Psychological foundations of learning; problem solving in mathematics and science education utilizing technology; principles of expertise and novice understanding of subject matter; implications of high-stakes testing; and foundations of formative and summative assessment.

UTS X55. Classroom Interactions.
Principles of delivering effective instruction in various formats (lecture, lab activity, collaborative settings); examination of gender, class, race, and culture in mathematics and science education; overview of policy related to mathematics and science education.

UTS X60. Project-Based Instruction.
Foundations of project-based, case-based, and problem-based learning environments; principles of project-based curriculum development in mathematics and science education; classroom management and organization of project-based learning classrooms.

UTS X70. Student Teaching Seminar.
Discussions include student teaching experiences, contemporary critical issues in education, and preparation for the state certification exam.

UTS X70F. Undergraduate Reading and Research.
Participate in supervised study of selected problems in STEM, by individual arrangement with supervising instructor.

UTS X71. UTeach Induction Support.
Engage in individualized, job-embedded activities to support student learning and analyze the impact of their work.

UTS X75. Student Teaching for Secondary and Middle Grades.
Closely supervised field coursework in a cooperating school. Experience includes carrying out the duties of a secondary or middle grades teacher.

UTS X75C. Computer Science Pathways.
Prepare for the subjects of computer science certification exams that are not covered by other computer science courses. Review existing high school computer science curriculum. Create or find a computational thinking exercise in order to lead the class through the activity.

Graduate Courses

Professional Courses

WGS - Women's and Gender Studies

Women's and Gender Studies: WGS

Lower-Division Courses

WGS X01. Introductory Topics in Women's and Gender Studies.

WGS X01.11. United States Women, Sexuality, and Gender to 1865.

WGS X01.12. Gay and Lesbian Literature and Culture.
American writing by gay, lesbian, bisexual, transgender, or queer authors and/or with gay, lesbian, bisexual, transgender, or queer themes.

WGS X01.13. Mexican American Women, 1910-Present.
Examines the history of Mexican and Mexican American women in the United States from the twentieth century to the present.

WGS X01.14. Performance, Feminism, and Social Change.
Exploration of the ways that engaged performance and feminist practice generate space for social change, including the basic principle that social transformation requires individual awareness, and that awareness necessitates a rigorous examination of race, gender, class, and sexuality.

WGS X01.16. Introduction to Black Women's Studies.
Interdisciplinary examination of the complexities of black womanhood in America through an investigation of history, identity, popular culture, and black feminism/womanism, as well as social and political activism.

WGS X01.17. Black Queer Art Worlds.
Exploration of over two decades of work produced by and about black queer subjects throughout the circum-Atlantic world. Provides an introduction to various artists and intellectuals of the black queer diaspora, as well as an examination of the viability of black queer aesthetic practice as a form of theorizing.

WGS X01.19. Diversity in American Families.
Examination of the diversity of American families and current debates on family life from a sociological perspective with an emphasis on how diverse family forms came to exist and what these changes mean for adults and children in contemporary society. Study of recent trends in several aspects of family life, including dating and courtship, cohabitation, marriage, divorce, parenthood, family structure, and work-family balance. Overview of theoretical perspectives on family life with a focus on gender, race/ethnicity, and sexuality.

WGS X01.20. Fertility and Reproduction.
Explores the when, why, how, and with whom Americans bear children, and how the United States compares to other developed and developing countries in the world. Subjects include infertility and its treatments, the ethics of surrogacy and international adoption, voluntary childlessness, the rapid rise of nonmarital childbearing in the United States and other countries, the politics of childbirth, the risks of maternal morbidity and mortality in developed and developing countries, and the declining populations and rapid aging of rich countries including Japan, Italy, and Spain where many women have stopped having children.

WGS X01.21. Gender, Race, and Class in American Society.
Use of the sociological perspective to analyze how the structure of American society, individual life, and group life chances are shaped by broader structures of privilege and disadvantage based on gender, race, and class. Examination of these in institutional arenas such as work, the family, education, health, the criminal justice system, sexuality, popular culture, and more.

WGS X01.24. Race, Immigration, and Family.
Introduction to family systems in the United States in a post-WWII framework with a central focus on Asian Americans. Students will investigate how gender, race, and ethnicity intersect and inform our understanding of the institution of the family.

WGS X01.25. The Revolution Will Be Dramatized.

WGS X01.26. Toni Morrison and August Wilson.

WGS X01.27. Women, Gender, Literature, and Culture.
An introduction to literary analysis focusing on women's and gender studies.

WGS X01.28. History of Human Sexuality.
The history of human sexuality is approached from four angles: sexual behaviors; sexual consequences; sexual regulation, and sexual science.

WGS X01.29. Latina Performance: From Celia to Selena.

WGS X01.3. Introduction to Latinx Body Art.
Examine the social, historical, economic, and commercial contexts influencing the production, display, and circulation of Latinx body art.

WGS X01.30. Latina and Latino Media and Popular Culture.
Explore Latina/o media and popular culture from 1950 to the present.

WGS X01.31. Introduction to Gender and Sexuality.
Explore social, emotional, cognitive, and physical aspects of gender and sexuality within the contexts of individual human development, families, and cultures.

WGS X01.32. Rights in Modern America.

WGS X01.33. Female Voices in China.
Introduction (in translation) to the most important texts and other sources by, for, and about women in Chinese intellectual, political, social, and cultural history.

WGS X01.34. Introduction to African American Women's History.

WGS X01.35. Introduction to Yoruba Religions.
Introduction to the cosmological world of the Yoruba of southwestern Nigeria, covering history, societal organization, myths, legends, customs, and cultural traditions.

WGS X01.36. Police, Prisons, and Inequality.
Explore the ethical issues related to inequality and the United States criminal legal system. Examine the experiences of the poor, Indigenous people, immigrants, racial minorities, women, sexual minorities, and gender-nonconforming people.

WGS X01.6. Ethnicity and Gender: La Chicana.

WGS X01.7. Women's Reproductive Health for Nonscience Majors.
Overview of contemporary women's reproductive health issues, with emphasis on historical, physiological, psychosocial, and cultural influences that affect the reproductive health of women during adolescence, the childbearing years, and midlife.

WGS X03. Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies.
Explore concepts of gender and sexuality, race, class, religion, and nation; as well as skills in theory, history, and research methods relevant to LGBTQ studies. Survey the making of modern understandings of sexual and LGBTQ identities in the last one hundred years and the implications of this history for broader understandings of gender and sexuality.

WGS X05. Introduction to Women's and Gender Studies.
Introduction to the role of gender identity and representation in key social institutions and processes, including borders, displacements, and diasporas. Analysis of the social narratives of gender, race, and sexuality.

WGS X19S. Topics in Women's and Gender Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Women's, Gender, and Sexuality Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

WGS X22C. Sociology of Gender.
Inequality between the sexes; men's and women's changing roles in society.

WGS X22D. Population and Society.
The study of populations, including their growth, age structure, and patterns of fertility, mortality, and migration; the social causes and consequences of these phenomena.

WGS X22E. Sociology of Masculinities.
Sociological examination of the most important debates and discussions about men's experiences of masculinity in contemporary patriarchal societies. Exploration of social and individual meanings of masculinity, the dominant paradigms of masculinity that are taken as the norm, and the problems, contradictions, and paradoxes men experience in modern society.

WGS X22F. The Sociology of Race and Work.
Critical examination of work in the United States over the twentieth and twenty-first centuries through a gendered, Asian American lens, using a comparative race perspective. Subjects include the sociological examination of concepts such as labor markets, globalization, care work, and gender/racial segregation in the workplace along with the ways race and gender shape how and where individuals are fitted into the workplace, how skills are evaluated, and how labor markets emerge.

WGS X22G. Race and the Digital.
Review of theoretical developments in the sociological study of "race, including an examination of processes of racialization and cultural texts, in order to better understand the ways in which identities are socially produced. Attention will be placed on forms of popular culture, black cultural production, and political action to question how such practices are shaped by migrations within the African diaspora.

WGS X22I. Sociology of Sexualities.
Review of sociological perspectives on sexuality. Examines how social institutions in United States society shape sexual values, beliefs, and practices. Subjects include changing cultural images of sexuality, sexual identities, and social movements.

WGS X22J. Race, Gender, and Surveillance.
Overview of theories in the sociology of social control, with a focus on risk, power, ethics, and surveillance. Examines historical transformations in social control and the distributions of power in the United States and global contexts, with attention to race, gender, and class. Subjects include: the transatlantic slave trade; prisons and punishment; the gaze, voyeurism, and reality television watching; the Internet; travel and state borders; privacy; and biometrics and the body.

WGS X22K. Sex and Violence in Popular Culture.
Overview of the cultural framing of sex and violence through realistic and hyper-realistic representations of sex, love, violence, and war in popular culture. Examination of the ethical implications, including the ways in which these representations rely on and further social inequalities and the sociological concepts, methods, and theoretical approaches to understanding sex and violence in popular culture.

WGS X23. Topics in Introduction to Women's and Gender Studies in the Natural Sciences.
Examination of gendered constructs such as gender and sexual development, male and female differences and similarities, and feminist or alternative scientific epistemologies using approaches from the natural sciences.

WGS X23C. Primate Social Behavior.
Studies primate behavior and why primates do what they do, including basic theoretical principles and the models used to explain primate behavior.

WGS X23D. Sex and Human Nature.
Provides an introduction to the scientific study of sexual behavior, mate choice, and reproduction in humans from the perspective of evolutionary biology; examines a wide range of genetic, ecological, social, physiological, and behavioral aspects of human sexuality.

WGS X24. Topics in Introduction to Women's and Gender Studies in Communication.
Multidisciplinary course examining issues of women, gender, and sexuality in media industries, texts, and audiences.

WGS X24C. Gender and Media Culture.
Critical analysis of media and its interrelation with issues of gender.

WGS X24D. Race, Class, and Gender in American Television.
Surveys history and contemporary debates regarding the construction of race, class, gender and sexual orientation in U.S. television from the late 1940s through the present day and related issues of television aesthetics, production practices, audiences, and advocacy.

WGS X24E. Gender and Fan Culture.

WGS X24F. Gender, Race, and Sexuality in Sports Media.

WGS X24G. Gender and the News.
Historical and contemporary exploration of gender and the news. Examination of the role of marginalized gender groups in producing news and the construction of gender within news texts.

WGS X24J. Stardom and Celebrity Culture.
Survey of the construction and meanings of stardom in film, television, and new media. Subjects include links with the media industries; stardom and race, class, gender, and sexuality; and new permutations of celebrity culture.

WGS X25. Special Topics in Women's and Gender Studies.
Analysis of special topics in women's and gender studies through reading, discussion, and lectures.

WGS X29S. Topics in Women's and Gender Studies.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Women's, Gender, and Sexuality Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

WGS X33D. Introduction to Developmental Psychology.
Physical, social, and cognitive development in humans.

WGS X33R. Social Development in Children.
Development of social behavior (for example, sex typing and aggression) and social relationships.

WGS X35. Topics in Lesbian, Gay, Bisexual, Transgender, and Queer Studies.
The perspectives, experiences, and cultural contributions of lesbian, gay, bisexual, transgender, and queer people, examined from different disciplinary and/or interdisciplinary perspectives according to the topic.

WGS X35.1. Confronting LGBTQ Oppression.
Serves two primary functions: to increase participant's knowledge on the issues facing the Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) community; and to learn facilitation skills in order to talk about these issues on campus. Enrolled students will become peer educators in a team, and will give workshops across campus around LGBTQ issues during the spring semester.

WGS X35.10. HIV and AIDS Activism and the Healing Arts.

WGS X35.11. Beyonce Feminism and Rihanna Womanism.

WGS X35.12. Transgender Feminisms.

WGS X35.13. Queer Art and Activism.

WGS X35.14. Sexuality in Global Perspective.
Explore the ways in which sexuality intersects with money, intimacy, power, and labor in the context of global economic processes.

WGS X35.15. Queer Migrations.

WGS X35.17. Disability, Race, and Sexuality in Literature and Culture.

WGS X35.18. Twentieth-Century United States Lesbian and Gay History.
Examines classic texts and recent and varied writings on LGBT history, focused on experiences, ideas, and conflicts that have shaped modern LGBT identities.

WGS X35.2. Facilitating Dialogues on LGBTQ Oppression: Peers for Pride in Action.
The second part of the Peers for Pride facilitation program; serves as a way for students in the program to use the information and skills learned

in "Confronting LGBTQ Oppression." Students will continue to fine-tune their facilitation skills and continue learning about LGBTQ people on the UT campus and beyond.

WGS X35.20. Sex and Sexuality in the Muslim World.

WGS X35.22. Queer Visual Culture.

WGS X35.23. Performing LGBTQ+.

WGS X35.24. United States Masculinities.

WGS X35.25. Queering Black Religions.

Explore the ways Africana religion practitioners disrupt and reframe dominant western discourses of gender and sexuality. Examine concepts of temporality, spirit manifestation, subjectivity, corporeality, and Africana religious epistemologies.

WGS X35.26. Queer Eastern Europe.

Explore LGBTQI stories and political struggles in Eastern Europe with a focus on the region's queer culture: literature, cinema, and the arts.

WGS X35.28. Race, Gender, Sex, and Religion.

Use an intersectional feminist framework to examine the construction and maintenance of normative categories of race, gender, sex, and sexuality within United States religious discourse.

WGS X35.29. Medical Rhetorics, Race, and Gender.

Examine how health and illness are defined through rhetorics about and within medicine. Focus on race and gender, consider how communication and language shape understandings of health, access to health care, and experiences of illness and disability.

WGS X35.3. African Queer Studies.

Examines the development of African queer studies as the interdisciplinary study of sexuality on the African continent, and its impact on the academic and activist realm. Focus on intersectional feminist and queer theory and how this field offers tools that can be used to rethink issues of oppression and domination in relationship to race, nation, sex, gender, and sexuality on the African continent. Of particular interest will be LGBTQ activism and the ways in which queer Africans engage and shape their sexuality, and create forms of belonging in their countries and their communities.

WGS X35.30. Queer of Color Critique.

WGS X35.32. Queer/Trans Performance.

Explore the ways performance serves as an alternative space of expression and worldmaking, a site of activism and resistance, and a creative outlet for queer and trans people in specific socio-cultural contexts.

WGS X35.6. Gender Issues in Contemporary Latin American Cinema.

Studies Latin American cinema as a device of gender system formation and reinforcement, and as criticism of patriarchal hegemony; discusses questions related to sexuality depicted in Latin American films. Subjects covered include: maternity, prostitution, machismo, children's sexuality, homosexuality, heterosexuality, and gender violence in films from the 1930s to present. Conducted in Spanish.

WGS X35.7. Queer Study in Low Culture.

Examines representations of sexual and gender non-conformity in popular culture since the mid-twentieth century in the United States.

WGS X35.9. Movements for Sexual and Reproductive Justice.

Charts the historical development of various struggles for sexual and reproductive justice in the United States since the nineteenth century.

WGS X35C. Queer Media Studies.

Critical analysis of queer media. Read key queer (media) theory texts and explore dominant strategies used by the media industries, as well as those utilized by LGBTQ+ independents/subcultures, paying close attention to contested discourses of identity, politics, activism and desire. Explore historical shifts in the representation of LGBTQ+ individuals.

WGS X35D. Queer Television.

WGS X35J. Latinx Sexualities.

Examine Latinx sexualities from a historical perspective to comprehend the social, cultural, political, and economic factors, which have shaped these experiences.

WGS X35L. The Black Figure in American Art and Popular Culture.

Examine how popular culture and artistic practices facilitate or challenge social constructions of "Blackness" in the United States.

WGS X35P. Preserving Austin's Queer History.

Explore Austin's queer history since World War II and write on the practice of oral history and LGBTQ oral history in particular. Build the foundation for an ongoing Austin LGBTQ Oral History Project to be housed at the Briscoe Center for American History.

WGS X40. Cross-Cultural Topics in Women's and Gender Studies.

Multidisciplinary course examining experiences and issues of gender in different cultures.

WGS X40.1. Contemporary Latinx Visual and Performance Art.

Explore contemporary visual and performance art by Latinx artists working since the 1970's to the present. Examine artists who began to engage with and in civil rights discourse to intervene through their art-making practices; and to align with contemporary trends in the art world that began to expand in the 1970's, such as performance art, installation art, video art, and, later, digital art.

WGS X40.11. Veiling in the Muslim World.

WGS X40.13. Law and Society in Early Modern Europe.

Research seminar on how historians have explored the significance of law, criminal and civil, in the lives of early modern Europeans. Topics include infanticide, fornication, drunkenness, theft, debt, slander, and family disputes.

WGS X40.20. Violence in Contemporary Mexican Culture.

Studies the representation of violence in contemporary literary and cultural production in Mexico in order to understand social, political, and cultural implications of current violence there. Taught in Spanish.

WGS X40.25. Gender, Sexuality, and the Family in Indian Religions and Cultures.

A comprehensive historical overview of gender issues as they are represented in the textual traditions of South Asia.

WGS X40.27. Islamic Law.

Designed to give students a foundation in the substantive teachings of the shariah, which comprises not only what we normally think of as law, but also ethics and etiquette.

WGS X40.29. Contemporary African American Women's Fiction.

WGS X40.30. Goddesses in World Religions and Cultures.

Historical and cross-cultural overview of the relationship between feminine and religious cultural expressions through comparative examinations and analyses of various goddess figures in world religions.

WGS X40.35. South Asian Migration to the United States.

Examine the South Asian diaspora in the United States.

WGS X40.37. Tolerance in Dutch Culture.

The historical roots of Dutch "tolerance" and how it plays a role in current Dutch culture and attitudes towards religious, gender, and sexual differences, as well as drug use, prostitution, and euthanasia. Exploration of the stereotypes and the actuality of these Dutch attitudes and policies from an international comparative perspective.

WGS X40.4. 21st Century Latinx Literature.

Explore Latinx literature from the past two decades including both literary form and political engagement, with an emphasis on Latina, queer, and nonbinary writers.

WGS X40.40. Historical Imagining of Africa in Films.
WGS X40.44. Gender Politics in the Islamic World.
Study of the Islamic world and major sociological concepts such as gender, social organizations, culture, and politics. Examines how culture is mediated by politics, resulting in diverse interpretations of Islam and in different policies with respect to women's rights.
WGS X40.45. Feminist Interventions in Borderlands History.
Provides an in-depth understanding of the social, economic, and spatial transformations of the United States/Mexico borderlands in the nineteenth and early twentieth centuries.
WGS X40.46. Africana Women's Art.
Analysis of the diverse modes of presentation, mediums, definitions, and influences of Africana women artists in the diaspora. Designed to use critical theory and art history found in oral and written literatures, music, films, and other formal and informal documents.
WGS X40.48. Diaspora Visions.
An exploration of border crossing by cultures and groups including Yorubas, Jews, Armenians, Tibetans, Hamish, Pakistanis, and Indians and the production of images by immigrants, exiles, and nomads in alien lands.
WGS X40.49. Contemporary African Popular Culture.
WGS X40.51. Medieval Women Mystics.
The life and writings of Saint Birgitta of Sweden, fourteenth-century visionary, religious reformer, and pilgrim, examined and compared with her predecessor Hildegard of Bingen (Germany), her successor Margery Kempe (England), as well as Margery's mentor, Julian of Norwich. Social and historical contexts for all four of these women mystics will be explored in depth.
WGS X40.52. Sex and Power in the African Diaspora.
Exploration of various experiences and theories of sex, intimacy, and desire alongside intellectual and artistic engagements with power hierarchies and spirituality across transnational black communities. Subjects include the concept of "erotic subjectivity" from various theoretical and methodological angles, principally within African diasporic contexts.
WGS X40.53. Women and Social Movements in the Twentieth-Century United States.
Examines women's participation in well-known and lesser-known social movements during the twentieth century.
WGS X40.54. The Qur'an.
Explore the history, language, style, and themes of the Qur'an.
WGS X40.56. Muslim Women in Politics.
WGS X40.58. Queer Ethnographies.
Anthropological analysis of gender and sexuality that critically evaluates formative concepts and theories that have been subject to recent debates within anthropology, gender studies, and queer theory.
WGS X40.60. Women and Resistance in Contemporary Eastern Europe.
WGS X40.62. Gender and Art in the Muslim World.
WGS X40.66. Holocaust Aftereffects.
Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States.
WGS X40.67. Graffiti and Poster Art in the Islamic World.
WGS X40.69. Black Women on Trial.
Using press coverage of historical and contemporary court cases and trials of women ranging from Angela Davis to Marissa Alexander, explores how media shapes public and popular perceptions of race, class, gender, sexuality, and the law.
WGS X40.7. Black Women and the State.
Surveys black women's experiences living with and confronting state oppression around the world. Takes an historical, social, and theoretical look at the roots of this oppression and inequality, and how black women have chosen to respond to it locally and globally.
WGS X40.74. Bad Language: Race, Class, and Gender.
WGS X40.75. Gender and Modern India.
Examine gender and the shifting nature of modernity between precolonial and colonial periods in the Indian subcontinent.
WGS X40.77. Theorizing the Human.
Trace the continuities and transformations in constructions of populations as more or less human, from settler-colonial conquest to the post-Trump era. Examine what logics mark racialized populations as disposable during the colonization of the Americas, and which systematically condition racialized subjects to a state of enduring siege.
WGS X40.78. Reproductive Justice and Race.
Examine the links between reproductive care and social inequality, and explore reproductive outcomes for women in the context of social justice.
WGS X40.81. Iranian and Iranian-American Identity.
WGS X40.82. Race, Capitalism, and the Environment.
WGS X40.83. Black Middle Class.
WGS X40.84. Fashion And Desire.
WGS X40.85. Technologies of United States Empire.
Investigate the various technologies that the United States has used to maintain imperial geographies at "home" and abroad. Focus on imperial entanglements of global capital, liberalism, and technological systems.
WGS X40.86. Julia Alvarez and Sandra Cisneros.
WGS X40.87. Chicana Feminisms.
WGS X40.89. Transnational Latinx Popular Culture.
WGS X40.9. Black Women in America.
Uses primary sources, historical monographs, and essays to provide a chronological and thematic overview of the experiences of black women in America from their African roots to the circumstances they face in the present era.
WGS X40.90. Latinx Short Story.
WGS X40.91. Sexuality and Gender in Latin America.
Explore gender as a broad analytical tool to understand key problems concerning social organization, power relations, and inequality in contemporary Latin America.
WGS X40.92. Italian Television Advertising.
Analysis of Italian television commercials in order to identify changes that have taken place at the level of language, with some attention to socio-cultural dynamics.
WGS X40.94. African-American Women's Political Activism.
Explore Black feminism and African-American women's political participation.
WGS X40.95. Policing Latinidad.
WGS X40.96. Latinx Legend Tripping.
Explore narrative folklore from diverse traditions across the United States based Latinx diaspora. Focus on supernatural legends and the creation of the female "monster".
WGS X40.97. Tejana Cultural Studies.
Investigate the history of Tejanas to reaffirm and reclaim their place and role in the histories of Native Americans, women, Chican@/Chicanxs, Greater Mexico, and the United States. Explore how transborderism and transregionalism complicate this history. Contemplate how Tejanas' stories are fundamental to illuminating the struggles, resistance, and liberation of Chicanas, mestizas, and afromexicanas from precontact to decolonization.
WGS X40F. Latina Feminism and Health.
WGS X40L. Black Queer Literature and Film.
Analyzes written works, films, and videos by and about lesbians, bisexual, transgender, and gay black people, with an emphasis on understanding the historical and theoretical construction of sexual and gender identities and sexual/cultural practices in black communities.
WGS X40N. Native American Women's History.
Investigate the histories of Native American women to reaffirm and reclaim their place and role in the histories of Native Americans, indigenous peoples, women, Chican@/xs, Greater Mexico, and the United

States. Contemplate how many understandings that center colonization, settler colonialism, genocide, race, and environmentalism are essential to examining Native American women's history. Explore the stories, struggles, and ideas of community-building, sovereignty, and liberation as integral to their genders and sexualities as Native American, Indian, First Nations, indigenous, and red and brown women.

WGS X40S. Topics in Cross-Cultural Feminisms.
Examine experiences and issues of gender in different cultures.

WGS X40S.1. Gender and Translation in the Arab World.
Examine complex politics and poetics behind the translation and marketing of Arab women's writing in the West.

WGS X40S.2. Black Women and Mass Incarceration.
Examine the history of Black women and mass incarceration in America. Explore how race, class, and gender have historically influenced the production of crime and unfair criminal justice policies. Investigate why mass incarceration matters, what its historical legacy is, and how it impacts Black women today.

WGS X40S.3. Slavery and Its Legacies.
Explore how slavery has evolved in the United States since the end of the Civil War.

WGS X40S.4. Black Digital Feminisms in Brazil.
Explore online expressions of Black feminisms in Brazil, highlighting transnational resonances with other Black cultural movements while examining the socio-political particularities of Brazil's current digital landscape.

WGS X40S.5. The Politics and Art of Iran's Woman, Life, Freedom Uprising.
Analyze the politics and art of Iran's 2022 Woman, Life, Freedom Uprising movement. Develop a digital humanities resource on the movement through collaboration.

WGS X40S.6. Central Americans in the United States.
Examine the extensive and diverse histories, cultures, social and political movements of Central Americans in the United States, particularly through a Black, Indigenous, and Ethnic Studies framework.

WGS X40W. Writing Slavery.
Explores the controversial rewriting of slavery in a presentist context by contemporary authors. Addresses challenges that archival limitations and revisionist writings about slavery pose for academic disciplines, literary instruction, and/or pedagogy.

WGS X41. The Roots of Social and Economic Justice.

WGS X45. Topics in Women's and Gender Studies.

WGS X45.21. Male-Female Communication.
Studies of speech patterns related to the concepts of male and female, including sexism in speaking, patterns of male and female speaking, patterns of listening to males and females, speech in courtship and family, speech and sexual discrimination in careers.

WGS X45.26. American Dilemmas.
Examination of critical American social problems, including problems in the economic, political, and health care systems, as well as inequities based on income, gender, and race. Exploration of how these problems are a natural outgrowth of the existing social structure.

WGS X45.27. Southern Cultures.
Investigation of multiple, fluid, and diverse southern cultures through topics such as NASCAR, biscuits and cornbread, mega-churches, beauty pageants, jazz, country music, southern hip hop, migrant farm cultures, matzo ball soup with collards, the Trail of Tears, Gullah, Tara, Graceland, and more. Includes discussion of stereotypes and the individual truths about women, men, and southern in the context of this discussion.

WGS X45.29. Witches, Workers, and Wives.
Explores the role of families and concepts of gender as expressed in key economic, social, political, and cultural patterns in early modern Europe.

WGS X45.3. Women in Sickness and Health.
Explores medical and biological views throughout the nineteenth and twentieth centuries of women and women's health, the social context of those views, the development of medical practices, and the treatment of illness and debility.

WGS X45.31. Gender and Slavery in the United States.
Examines the gendered experience of chattel slavery in the United States. Includes critical analysis of classic and contemporary texts, films, and songs that focus on slave labor, family, community, sexuality, and the economy.

WGS X45.36. Feminist Media Theory.
Survey of basic theories related to the structure and process of film and video communication.

WGS X45.38. History of Sexuality in America.

WGS X45.41. American Food.
Studies diverse American food cultures from a humanities perspective, exploring connections between global, national, and local communities. Uses scholarship in the field of food studies as well as cookbooks, novels, poetry, photographs, songs, documentaries, and oral histories to investigate the past and present of American food communities.

WGS X45.42. Nature and Gender in America.
Study of the connections between nature and gender in American national narratives. Explores how Americans of differing classes, races, genders, sexual orientations, and ages have shaped and experienced changing ideas of America, wilderness, domestication, and society over time and in different regions of the country.

WGS X45.44. Women Radicals and Reformers.
Traces traditions of women's radical activism and reform beginning with the Enlightenment and the American Revolution and continuing to the present, with concentration on the twentieth century.

WGS X45.49. History of American Feminism.

WGS X45.56. Gender And Sexuality in Performance.
Consider what physical performance and dance tell us about gender, sexuality and the body. Previous knowledge of performance or gender studies is not required.

WGS X45D. Punks and Divas in Southeast Europe.
Examine popular music and its role in political struggle and collective identity formation in the Balkans. Analyze music genres in this region in the context of the historical changes it underwent in the twentieth and twenty-first centuries, including the fall of Communism and -- in the case of former Yugoslavia -- the formation of seven new nation-states through a series of bloody and brutal wars.

WGS X45E. Lesbian, Gay, Bisexual, Transgender, and Queer Literature and Culture.

WGS X45G. Virginia Woolf.
Examines critical and fictional works of Virginia Woolf and the author's continuing legacy and influence. Explores the value and limitations of high modernism; English literary heritage and tradition; feminism; creative and critical definitions of gender and sexuality; intellectual activism, including Woolf's critiques of patriarchy, war, and fascism; and Woolf and imperialism and colonialism.

WGS X45I. Toni Morrison.
An examination of select novels by the Nobel Laureate and Pulitzer Prize-winning novelist focuses on the positional uniqueness that womanism shares with a predominant feminism, which surfaces in historicized familial relationships.

WGS X45J. Women's Autobiographical Writing.
Examines the autobiographical impulse in women's writing by exploring the concept of the individualistic self versus the sense of self as a part of community and duty, and the way in which that communal self can both partake of humankind and participate in self-actualization.

WGS X45K. American Literary Masculinities.
Explores constructions of masculinity in American literature from a generally, but not exclusively, feminist perspective. Subjects include what masculinity has meant at different times in United States history, and how it has varied in meaning and significance according to broad categories of identity such as social class, race, region, and queerness.

WGS X45M. Gender and Politics in a Comparative Perspective.
Examine the patterns of women's representation over time, and in different regions of the world. Explore why gender equality in political institutions is important, tracing the evolution of feminism over time.

WGS X45N. Women and Sports Media.

WGS X45O. Gender and Speculative Fiction.
Examine how writers have used speculative fiction--including science fiction, utopia, and dystopia--as a tool to explore gender, race, sexuality, humanity, ethics, disability, and the environment.

WGS X45P. American Women Writers.

WGS X45Q. Displacement and Resistance.
Explore technologies of displacement, as well as tactics, digital media work, mapping projects, and activism that communities engage with to resist dispossession. Examine, locally and globally, the displacement and resistance effects of various events including infrastructure projects and gentrification.

WGS X45R. Bradstreet and Wheatley.
Explore the works of Anne Bradstreet and Phillis Wheatley.

WGS X45S. Elena Ferrante: Politics and Passion.

WGS X45T. Race, Gender, and Political Economy in United States Literature.
Explore the intersection of race, class, and gender relations, gender expression, and gender norms as constitutive of real and imagined political economies in literature and films by black, indigenous, and Latine authors and producers in the United States.

WGS X45U. Women and Sport.
Examine the role sport and exercise has played in the lives of women since ancient times with an emphasis on events influencing American women in sport, their fight for access to sport, and the International Olympic Games.

WGS X45W. Women in Postwar America.

WGS X46C. Animals and American Culture.
Explores the role of animals in American history, culture, and society.

WGS X46G. American Popular Culture, 1682-Present.
Explores the evolution of American popular culture and its relationship to national consolidation, and at times, disunion, over the last 330 years.

WGS X46J. Gender and Labor in Global Asia.

WGS X46K. Women and the Holocaust.
Introduction to both the history of Jewish and German women during World War II and the Holocaust, and to women's narratives and self-representations of this period. Historical sources, memoirs, films, and interviews will be used as source material.

WGS X46L. Arendt and de Beauvoir.

WGS X46M. Social Dramas of Henrik Ibsen.
A detailed introduction to Ibsen's social dramas (1877-1899), emphasizing their unity as a prolonged commentary on the society of his era and the variety of its human problems. Special emphasis on subjects such as: the family and the home; the public world of reputation, work, and citizenship; the predicaments of men and women in a male-dominated society; and the motives of our interventions into the lives of others.

WGS X50. Feminist Theory.
Feminist theory with selections from women's and gender studies scholars. Recommended feminist theory course for women's and gender studies majors.

WGS X52R. Rhetoric of Ethnic Studies.
Study the histories of ethnic (and gender) studies in both higher education and K-12 institutions, and the rhetoric of attacks on, and defenses of, ethnic and gender studies through an examination of primary and secondary source materials.

WGS X56. Introduction to Feminist Research Methods.
Introduction to feminist research methods across a range of traditional disciplines. Designed to prepare students to analyze research within gender studies and to develop their own research skills.

WGS X58Q. Supervised Research.
Supervised individual research on an issue in women's and gender studies.

WGS X60. Research and Thesis in Women's and Gender Studies.
Individual project or paper to be completed under the direction of a women's and gender studies faculty member.

WGS X79H. Honors Tutorial Course.
Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis.

WGS X79L. Internship in Women's and Gender Studies.
Experience working in the community or for a nonprofit agency.

WGS X79S. Senior Seminar.
Intensive study of selected topics in women's and gender studies.

Graduate Courses

WGS X81. The Roots of Social and Economic Justice.

WGS X84N. Internship in Women's and Gender Studies.
Practical working involvement with participating nonprofit and research agencies.

WGS X90. Introduction to Women's and Gender Studies.
Introduction to the interdisciplinary women's and gender studies graduate program.

WGS X90W. Writing Workshop.
Introduction to feminist writing practice.

WGS X91. Feminist Theories.
Selected readings of feminist theories from an interdisciplinary perspective.

WGS X92. Research Methods Seminar in Women's and Gender Studies.
Introduction to select feminist research methods used in various disciplines and how these methods inform interdisciplinary perspectives in the student's own field of study in preparation for a report, thesis, or dissertation.

WGS X93. Seminar: Topics in Women's and Gender Studies.

WGS X93L. Topics in International Women's and Gender Studies.
Explore intersectional and interdisciplinary topics in women's and gender studies. Conducted in languages other than English.

WGS X93S. Topics in Specialized Women's and Gender Studies.

WGS X94. Conference Course in Women's and Gender Studies.
Individual directed readings and conferences on selected problems or topics in women's and gender studies.

WGS X95. Special Projects in Women's and Gender Studies.
Interdisciplinary projects to support the women's and gender studies graduate student coursework.

WGS X98. Thesis.

WGS X98R. Master's Report.
Preparation of a report to fulfill the requirement for the master's degree under the report option.

Professional Courses

WRT - Writing

Writing: WRT

Lower-Division Courses

WRT X82. Independent Projects.

Upper-Division Courses

WRT X82. Independent Projects.

Graduate Courses

WRT X80. First-Year Seminar.

WRT X80S. Studies in Creative Writing.

Subjects include the study of literature, creative theory, and criticism in the genres of fiction, nonfiction, poetry, playwriting, and screenwriting.

WRT X80W. Workshop in Creative Writing.

Subjects include writing fiction, writing poetry, playwriting, and screenwriting.

WRT X82. Independent Projects.

WRT X90. Master's Report.

WRT X98. Thesis.

Professional Courses

WRT X82. Independent Projects.

YID - Yiddish

Yiddish: YID

Lower-Division Courses

YID X04. Accelerated First-Year Yiddish.

YID X06. First-Year Yiddish I.

Introduction to the spoken and written language, the literature, and the culture of the East European Jews and their descendants.

YID X07. First-Year Yiddish II.

Examine the spoken and written language, the literature, and the culture of the East European Jews and their descendants.

YID X12. Accelerated Second-Year Yiddish.

Speak, listen, read, and write at the second-year level. Focus on authentic texts and oral communication.

YID X19S. Topics in Yiddish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

YID X29S. Topics in Yiddish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

YID X79. Conference Course in Yiddish Language or Literature.

Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Yiddish language or literature.

Upper-Division Courses

YID X19S. Topics in Yiddish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

YID X27. Advanced Yiddish I.

YID X28. Advanced Yiddish II.

YID X29S. Topics in Yiddish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

YID X30D. Yiddish across Disciplines.

Read and discuss Yiddish language materials related to the subject matter of another designated course.

YID X79. Conference Course in Yiddish Language or Literature.

Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Yiddish language or literature.

Graduate Courses

YID X19S. Topics in Yiddish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

YID X29S. Topics in Yiddish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

YID X79. Conference Course in Yiddish Language or Literature.

Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Yiddish language or literature.

Professional Courses

YID X19S. Topics in Yiddish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

YID X29S. Topics in Yiddish.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

YID X79. Conference Course in Yiddish Language or Literature.

Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Yiddish language or literature.

YOR - Yoruba

Yoruba: YOR

Lower-Division Courses

YOR X01C. Beginning Yoruba.
An intensive beginning course with an emphasis on basic skills: listening, speaking, reading, and writing.

YOR X06. First-Year Yoruba I.
Standard Yoruba of southwest Nigeria.

YOR X07. First-Year Yoruba II.
Continuation of the study of standard Yoruba of southwest Nigeria.

YOR X11C. Intermediate Yoruba.
An intensive intermediate course with emphasis on basic skills: listening, speaking, reading, and writing.

YOR X12K. Second-Year Yoruba I.
Oral expression, reading, and comprehension.

YOR X12L. Second-Year Yoruba II.
Continuation of the study of oral expression, reading, and comprehension.

YOR X19S. Topics in Yoruba.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Upper-Division Courses

YOR X29S. Topics in Yoruba.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program.

Graduate Courses

YOR X82. Yoruba Language Studies.

Professional Courses

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