## The University of Texas <br> at Austin

## Undergraduate Catalog 2014-2016

THE UNIVERSITY OF TEXAS AT AUSTIN WHAT STARTS HERE CHANGES THE WORLD

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## 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

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 of new knowledge. The University preserves and promotes the arts, benefits the state's economy, serves the citizens through public programs, and provides other public service.

## 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.

## Officers of the Administration

## The University of Texas at Austin

William Powers Jr., JD, President<br>Gregory L. Fenves, PhD, Executive Vice President and Provost<br>Kevin P. Hegarty, MPA, CPA, Vice President and Chief Financial Officer<br>Gregory J. Vincent, JD, EdD, Vice President for Diversity and Community Engagement<br>Patricia C. Ohlendorf, JD, Vice President for Legal Affairs<br>Juan M. Sanchez, PhD, Vice President for Research<br>Gage E. Paine, PhD, Vice President for Student Affairs<br>Patricia L. Clubb, PhD, Vice President for University Operations<br>Stephen W. Patterson, JD, Athletic Director<br>Christine A. Plonsky, BS, Athletic Director<br>Nancy A. Brazzil, BS, Deputy to the President<br>Senior Associate Vice President for Development (vacant at time of publication)<br>Gwen W. Grigsby, MPA, Associate Vice President for Governmental Relations<br>Carlos E. Martinez, JD, Associate Vice President for Governmental Relations

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Andrew P. Dillon, PhD, Dean, School of Information
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Brent Iverson, PhD, Dean, School of Undergraduate Studies

## The University of Texas System

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Pedro Reyes, PhD, Executive Vice Chancellor for Academic Affairs
Scott C. Kelley, EdD, Executive Vice Chancellor for Business Affairs
Raymond Greenberg, PhD, Executive Vice Chancellor for Health Affairs
Dan Sharphorn, JD, Vice Chancellor and General Counsel
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Patricia Hurn, PhD, Vice Chancellor for Research and Innovation
Terry A. Hull, Associate Vice Chancellor for Finance

## Board of Regents

## Officers

Paul L. Foster, Chairman
Wm. Eugene Powell, Vice Chairman
R. Steven Hicks, Vice Chairman

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

## Members

Terms scheduled to expire February 1, 2015
Wm. Eugene Powell, San Antonio
R. Steven Hicks, Austin

Robert L. Stillwell, Houston
Terms scheduled to expire February 1, 2017
Alex M. Cranberg, Houston
Wallace L. Hall, Jr., Dallas
Brenda Pejovich, Dallas
Terms scheduled to expire February 1, 2019
Paul L. Foster, El Paso
Ernest Aliseda, McAllen
Jeffery D. Hildebrand, Houston
Student regent with term to expire May 31, 2015
Max Richards, The University of Texas at Austin
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.

## Directory of Offices

The following list includes some University offices of general interest. A complete directory of offices on campus is published at http://www.utexas.edu/directory/offices/.

## Academic Calendar

The academic calendar is published in General Information and at http:// The University of Texas at Austin, Office of the Registrar, PO Box 7216, registrar.utexas.edu/calendars/ Austin TX 78713-7216

## Admission

Undergraduate Admissions Center, John Hargis Hall, (512) 475-7440, fax The University of Texas at Austin, Undergraduate Admissions Center, PO (512) 475-7475; http://bealonghorn.utexas.edu/

## Catalogs and Course Schedules

Catalogs and Course Schedules are published at the registrar's Web site,
http://registrar.utexas.edu/

## Housing

Residence halls: (512) 471-3136, fax (512) 475-6532, e-mail housing@austin.utexas.edu; University apartments: (512) 232-5299, fax (512) 232-5353, e-mail dhfs.apartments@austin.utexas.edu; http:// www.utexas.edu/student/housing/

## International Students

International Office, 2400 Nueces Street, (512) 471-1211 http://
www.utexas.edu/international/

## Medicial Services

University Health Services, SSB 2.212, 100 West Dean Keeton Street, (512) 471-4955; 24/7 Nurse Advice Line (512) 475-6877; http:// healthyhorns.utexas.edu/

## Orientation

New Student Services, Student Services Building 3.410, (512)
471-3304, fax (512) 232-8211, e-mail nss@austin.utexas.edu; http:// deanofstudents.utexas.edu/nss/index.php

## Placement Tests

Center for Teaching and Learning, Student Testing Services, Graduate
School of Business Building 2.130, (512) 232-2662, e-mail ctl-
testing@utlists.utexas.edu; http://ctl.utexas.edu/

## Registration Information

Registration, MAI 1, (512) 475-7656, fax (512) 475-7515, e-mail registration@austin.utexas.edu; http://registrar.utexas.edu/students/ registration/

## Services for Students with Disabilities

Services for Students with Disabilities, Student Services Building 4.206, (512) 471-6259, video phone (866) 329-3986, fax (512) 475-7730, e-mail ssd@austin.utexas.edu; http://www.utexas.edu/diversity/ddce/ssd/

The University of Texas at Austin, Services for Students with Disabilities, 100 West Dean Keeton Street, Student Services Building 4.206, Austin TX 78712-1100

## Transcripts

Office of the Registrar, MAI 1, (512) 475-7689, fax (512) 475-7515, email transcripts@austin.utexas.edu; http://registrar.utexas.edu/students/ transcripts/
TSI
Texas Success Initiative, Carothers Dormitory 23 (512) 232-7146, fax (512) The University of Texas at Austin, Texas Success Initiative, 2501 Whitis 471-6464, e-mail tsi@austin.utexas.edu; http://www.utexas.edu/ugs/tsi/

The University of Texas at Austin, Division of Housing and Food Service, PO Box 7666, Austin TX 78713-7666

The University of Texas at Austin, The International Office, PO Box A, Austin TX 78713-8901, USA

The University of Texas at Austin, University Health Services, PO Box 7339, Austin TX 78713-7339

The University of Texas at Austin, New Student Services, 100 West Dean Keeton Street, Austin TX 78712-1100

The University of Texas at Austin, Office of the Registrar, Transcript Services, PO Box 7216, Austin TX 78713-7216
The University of Texas at Austin, Office of the Registrar, Registration, PO Box 7216, Austin TX 78713-7216

## The University

## Statement on Equal Educational 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 feels he or she has been subject to discrimination, harassment, or retaliation should contact the Office of Institutional Equity in person at NOA 4.302, Austin TX 78713; via e-mail at oie@austin.utexas.edu; or by phone at (512) 471-1849.

## Accreditation

The University of Texas at Austin is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's, first-professional, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur GA 30033-4097 or call (404) 679-4500 for questions about the accreditation of the University of Texas at Austin.

## The University of Texas at Austin

The University of Texas was established by the state legislature in 1881; by popular vote, the main University was located at Austin and the Medical Branch at Galveston. The Austin campus was opened in September, 1883, with a faculty of eight and a student body of 218; about three-quarters of the students were registered in the Academic Department and the remainder in the Law Department. In the intervening decades, the central campus has grown from forty to more than 360 acres, while the student body has increased to about 39,000 undergraduates and 11,000 graduate students. In 1967, with the creation of The University of Texas System, the name of the main University was changed to the University of Texas at Austin.

University students represent both the diverse population of the state and the full range of contemporary scholarship: an undergraduate may choose courses from more than 200 fields of study while pursuing any of more than 150 majors. Undergraduate study is supported by extensive computer facilities and by one of the largest academic libraries in the nation. Students also benefit from the broad range of scholarly and technical research conducted by the faculty and the research staff.

The city of Austin, with a population of about 1.8 million, is a relaxed and cosmopolitan setting for the University. The city is home to respected professional communities in theatre, dance, the visual arts, and classical and popular music that offer a wide range of cultural events. Students may also take part in recreational activities made possible by the temperate climate and Austin's location in the Hill Country of central Texas.

For further historical and current information about the University, see General Information (http://catalog.utexas.edu/general-information).

## The University of Texas System

The University of Texas at Austin is the largest component of The University of Texas System. The system is governed by a nine-member Board of Regents appointed by the governor with the advice and consent of the state Senate. In addition to the University, the system
consists of the following institutions. Information about the system and its components is published at http://www.utsystem.edu/.

- The University of Texas at Arlington
- The University of Texas at Brownsville
- The University of Texas at Dallas
- The University of Texas at El Paso
- The University of Texas - Pan American
- The University of Texas of the Permian Basin
- The University of Texas at San Antonio
- The University of Texas at Tyler
- The University of Texas Southwestern Medical Center at Dallas
- The University of Texas Medical Branch at Galveston
- The University of Texas Health Science Center at Houston
- The University of Texas Health Science Center at San Antonio
- The University of Texas M. D. Anderson Cancer Center
- The University of Texas Health Science Center at Tyler


## Organization of the University

## Academic Affairs

Subject to the supervision of the Board of Regents and to the authority the board has vested in administrative officers, the general faculty is responsible for the governance of the University. The president is the chief executive officer; the executive vice president and provost is the chief academic officer. The administration of each college or school is the responsibility of that division's dean; in most colleges and schools, an associate or assistant dean for academic affairs oversees the day-to-day academic life of the division. Several colleges are further divided into departments and academic centers; academic and administrative matters in these units are the responsibility of the department chair or center director. A list of the University's colleges and schools and their constituent departments and academic centers is given in General Information (http://catalog.utexas.edu/general-information).

## Student Services

Student services are provided by the Division of Student Affairs, under the direction of the vice president for student affairs. The division consists of several units, which administer the University's programs in such areas as financial aid, student record management, counseling and learning support, housing and food, recreation, health services, and student media. The services of these units are described in General Information (http://catalog.utexas.edu/general-information). Services provided by the colleges and schools are described in the college/school sections of this catalog.

## Undergraduate Degrees

The University offers the following undergraduate degrees.

| Bachelor of Architecture | BArch |
| :--- | :--- | :--- |
| Bachelor of Arts | BA |
| Bachelor of Arts in Art | BAArt |
| Bachelor of Arts in Geological Sciences | BAGeoSci |
| Bachelor of Arts in Music BAMusic <br> Bachelor of Arts in Theatre and Dance BATD <br> Bachelor of Business Administration BBA <br> Bachelor of Fine Arts BFA <br> Bachelor of Journalism <br> Bachelor of Music BJ <br>  BMusic |  |


| Bachelor of Science and Arts | BSA | Accounting | BBA |
| :---: | :---: | :---: | :---: |
| Bachelor of Science in Advertising | BSAdv | Integrated approach | BBA and MPA |
| Bachelor of Science in Aerospace Engineering | BSAsE | Department of Finance |  |
| Bachelor of Science in Applied Learning and | BSALD | Finance | BBA |
| Development |  | Department of Information, Risk, and |  |
| Bachelor of Science in Architectural Engineering | BSArchE | Operations Management |  |
| Bachelor of Science in Architectural Studies | BSArchStds | Management information systems | BBA |
| Bachelor of Science in Astronomy | BSAst | Science and technology management | BBA |
| Bachelor of Science in Athletic Training | BSAthITrng | Supply chain management | BBA |
| Bachelor of Science in Biochemistry | BSBioch | Department of Management |  |
| Bachelor of Science in Biology | BSBio | Management | BBA |
| Bachelor of Science in Biomedical Engineering | BSBiomedE | Department of Marketing |  |
| Bachelor of Science in Chemical Engineering | BSChE | International business | BBA |
| Bachelor of Science in Chemistry | BSCh | Marketing | BBA |
| Bachelor of Science in Civil Engineering | BSCE |  |  |
| Bachelor of Science in Communication Sciences and Disorders | BSCSD | Department of Advertising | NICAT |
| Bachelor of Science in Communication Studies | BSCommStds | Advertising | BSAdv |
| Bachelor of Science in Computer Science | BSCS | Public Relations | BSPR |
| Bachelor of Science in Electrical Engineering | BSEE | Department of Communication Scien |  |
| Bachelor of Science in Environmental Science | BSEnviroSci | Disorders |  |
| Bachelor of Science in Geological Sciences | BSGeoSci | Communication sciences and disorders | BSCSD |
| Bachelor of Science in Geosystems Engineering and Hydrogeology | BSGEH | Department of Communication Studies |  |
| Bachelor of Science in Human Development and | BSHDFS | Communication Studies |  |
| Family Sciences |  | School of Journalism | BJ |
| Bachelor of Science in Interdisciplinary Science | BSIntrdscSci | Repartment of Radio-Television-Film | BSRTF |
| Bachelor of Science in Interior Design | BSID | Radiotelevision-ilm |  |
| Bachelor of Science in Kinesiology and Health | BSKinHealth | COLLEGE OF EDUCATIO |  |
| Bachelor of Science in Mathematics | BSMath |  |  |
| Bachelor of Science in Mechanical Engineering | BSME | Early Childhood Through Grade Six ESL Generalist | BSALD |
| Bachelor of Science in Medical Laboratory Science | BSMedLabSci | All-level generic special education | BSALD |
| Bachelor of Science in Neuroscience | BSNeurosci | Youth and community studies | BSALD |
| Bachelor of Science in Nursing | BSN | Department of Kinesiology and Health |  |
| Bachelor of Science in Nutrition | BSNtr | Education |  |
| Bachelor of Science in Petroleum Engineering | BSPE | Applied movement science | BSKinHealth |
| Bachelor of Science in Physics | BSPhy | Athletic training | BSAthlTng |
| Bachelor of Science in Psychology | BSPsy | Exercise science | BSKinHealth |
| Bachelor of Science in Public Health | BSPublicHealth | Health promotion | BSKinHealth |
| Bachelor of Science in Public Relations | BSPR | Physical culture and sports | BSKinHealth |
| Bachelor of Science in Radio-Television-Film | BSRTF | Sport management | BSKinHealth |
| Bachelor of Science in Textiles and Apparel | BSTA |  |  |
| Bachelor of Social Work | BSW | COCKRELL SCHOOL OF ENGINEERING |  |
| Doctor of Pharmacy | PharmD | Department of Aerospace Engineering |  |
| Degrees Offered |  | Engineering Mechanics |  |
|  |  | Aerospace engineering | BSAsE |
| SCHOOL OF ARCHITECTURE |  | Department of Biomedical Engineering |  |
|  |  | Biomedical engineering | BSBiomedE |
| Architectural studies | BSArchStds | Department of Chemical Engineering |  |
| Architecture | BArch | Chemical engineering | BSChE |
| Interior Design | BSID | Department of Civil, Architectural, and Environmental Engineering |  |
| RED MCCOMBS SCHOOL OF BUSINESS |  |  |  |
|  |  | Architectural engineering | BSArchE |
| Business Honors Program | BBA | Civil engineering | BSCE |

## Department of Accounting

| Department of Electrical and Computer |  |
| :--- | :--- |
| Engineering | BSEE |
| Electrical engineering | BSME |
| Department of Mechanical Engineering |  |
| Mechanical Engineering | BSPE |
| Department of Petroleum Engineering | BSGEH |
| Petroleum engineering |  |
| Geosystems engineering and hydrogeology |  |
| (offered jointly by the Department of Petroleum and |  |
| Geosystems Engineering and the Jackson School |  |
| of Geosciences) |  |
| COLLEGE OF FINE ARTS |  |
| Department of Art and Art History |  |
| Art history | BAArt |
| Design | BFA |
| Studio art | BFArt, BFA |
| Visual art studies | BMusic |
| Sarah and Ernest Butler School of Music | BMusic |
| Composition |  |
| Jazz (emphasis in Composition or Performance: |  |
| double bass, drum set, guitar, piano, saxophone, |  |
| trombone, and trumpet) | BAMusic |
| Music | BAMusic |
| Music business | BMusic |
| Music studies | BFA |
| Performance (Students may major in voice, piano, | BMusic |
| organ, harpsichord, harp, or one of the orchestral |  |
| instruments, including euphonium, guitar, and |  |
| saxophone) |  |
| Recording technology |  |
| Department of Theatre and Dance |  |
| Acting |  |
| Dance |  |
| Theatre and dance |  |

## JOHN A. AND KATHERINE G. JACKSON SCHOOL OF GEOSIENCES

| Department of Geological Sciences |  |
| :--- | :--- |
| Geological sciences | BAGeoSci, |
| BSEnviroSci |  |
| Geological Sciences |  |
| Option I: General geology | BSGeoSci |
| Option II: Geophysics | BSGeoSci |
| Option III: Hydrogeology | BSGeoSci |
| Option V: Teaching | BSGeoSci |
| Geosystems engineering and hydrogeology <br> (offered jointly with the Cockrell School of <br> Engineering) | BSGEH |

## COLLEGE OF LIBERAL ARTS

| Humanities | BA |
| :--- | :--- |
| International relations and global studies | BA |

International relations and global studies BA
Department of African and African Diaspora Studies

| Middle Eastern languages and cultures | BA | Option III: Advanced program | BSPublicHealth |
| :---: | :---: | :---: | :---: |
| Department of Philosophy |  | Department of Chemistry and Biochemistry |  |
| Philosophy | BA | Biochemistry | BA, BSA |
| Plan II Honors Program |  | Biochemistry |  |
| Plan II | BA | Option I: Biochemistry | BSBioch |
| Department of Psychology |  | Option III: Biochemistry honors | BSBioch |
| Psychology | BA, BSPsy | Chemistry | BA, BSA |
| Department of Religious Studies |  | Chemistry |  |
| Religious Studies | BA | Option I: Chemistry | BSCh |
| Department of Rhetoric and Writing |  | Option II: Computation | BSCh |
| Rhetoric and Writing | BA | Option III: Teaching | BSCh |
| Center for Russian, East European, and Eurasian Studies |  | Option IV: Chemistry honors | BSCh |
|  |  | Department of Computer Science |  |
| Russian, East European, and Eurasian studies | BA | Computer science | BA, BSA |
| Department of Sociology |  | Computer science |  |
| Sociology | BA | Option I: Computer science | BSCS |
| Department of Spanish and Portuguese |  | Option II: Turing Scholars honors | BSCS |
| Iberian and Latin American Languages and Cultures |  | Option III: Computer science honors | BSCS |
|  |  | Option IV: Integrated approach | BSCS and MSCS |
| Center for Women's and Gender Studies |  | Option V: Teaching (senior grades) | BSCS |
| Women's and gender studies BA |  | School of Human Ecology |  |
| COLLEGE OF NATURAL SCIENCES |  | Human Ecology | BA, BSA |
|  |  | Textiles and apparel |  |
| Interdisciplinary science |  | Option I: Apparel, Functional, and Technical | BSTA |
| Option I: Middle grades teaching in mathematics and science | BSIntrdscSci | Design | BSTA |
| Department of Astronomy |  | Option III: Textiles and apparel honors | BSTA |
| Astronomy | BA, BSA | Department of Human Development and Family |  |
| Astronomy |  | Sciences |  |
| Option I: Astronomy | BSAst | Human development and family sciences | BSA |
| Option II: Astronomy Honors | BSAst | Human development and family sciences |  |
| School of Biological Sciences |  | Option I: Early childhood | BSHDFS |
| Biological sciences |  | Option II: Human Development | BSHDFS |
| Option I: Biological sciences | BSEnviroSci | Option III: Families and personal relationships | BSHDFS |
| Option II: Biological sciences honors | BSEnviroSci | Option IV: Families and Society | BSHDFS |
| Biology | BA, BSA | Option V: Human development and family sciences | BSHDFS |
| Biology |  | honors |  |
| Option I: Ecology, evolution, and behavior | BSBio | Option VI: Honors in advanced human development and family sciences | BSHDFS |
| Option II: Human Biology | BSBio |  |  |
| Option III: Marine and freshwater science | BSBio | Department of Nutritional Sciences |  |
| Option IV: Microbiology and infectious diseases | BSBio | Nutrition | BSA |
| Option V: Cell and molecular biology | BSBio | Nutrition |  |
| Option VI: Neurobiology | BSBio | Option I: Dietetics | BSNtr |
| Option VII: Plant Biology | BSBio | Option II: Nutritional sciences | BSNtr |
| Option VIII: Teaching | BSBio | Option III: Nutrition and Public Health | BSNtr |
| Option IX: Biology honors | BSBio | Option IV: Honors in advanced nutritional sciences | BSNtr |
| Option X: Computational Biology | BSBio | Option V: Nutrition honors | BSNtr |
| Medical laboratory science | BSMedLabSci | Option VI: International nutrition | BSNtr |
| Neuroscience | BSA | Department of Mathematics |  |
| Neuroscience |  | Mathematics | BA, BSA |
| Option I: Neuroscience | BSNeurosci | Mathematics |  |
| Option II: Neuroscience Honors | BSNeurosci | Option I: Actuarial science | BSMath |
| Public health |  | Option II: Applied mathematics | BSMath |
| Option I: Public Health | BSPublicHealth | Option III: Mathematical sciences | BSMath |
| Option II: Public health honors | BSPublicHealth | Option IV: Pure mathematics | BSMath |
|  |  | Option V: Teaching | BSMath |

Option VI: Mathematics honors BSMath

| Department of Physics | BA, BSA |
| :--- | :--- |
| Physics |  |
| Physics | BSPhy |
| Option I: Physics | BSPhy |
| Option II: Computation | BSPhy |
| Option III: Radiation physics | BSPhy |
| Option IV: Space sciences | BSPhy |
| Option V: Teaching | BSPhy |
| Option VI: Physics honors | BSPhy |

## SCHOOL OF NURSING

Nursing
BSN

## COLLEGE OF PHARMACY

Pharmacy
PharmD

## SCHOOL OF SOCIAL WORK

Social work
BSW

## Simultaneous Majors

With proper approval, an undergraduate may pursue two majors simultaneously. The two majors may lead either to a single degree or to two degrees. For example, a student who majors simultaneously in history and government is awarded a single Bachelor of Arts degree; a student who majors simultaneously in journalism and government receives the Bachelor of Journalism and the Bachelor of Arts.

The student is admitted to the University with a single major. He or she may choose a second major after completing thirty semester hours of coursework in residence at the University. The student must follow any application procedures and meet any admission requirements that have been established for the second major; information about these and other relevant college policies is available from the dean. Approval of the student's application for simultaneous major will take into account the student's ability to graduate within four years ${ }^{1}$ of entering the university.

Students with simultaneous majors must pay all applicable major-related fees for both fields, and they have the right to use the advising and student services provided by both colleges. Decisions about admission to programs, honors, scholastic probation, and dismissal are based independently on the criteria for each major.

A student who chooses to pursue two majors simultaneously is expected to take responsibility for his or her educational development. The student must know and abide by all policies of each of the colleges in which he or she is enrolled. The student must also know and meet the requirements of both degree programs, enroll in courses appropriate to both, meet prerequisites and take courses in the proper sequence, and seek advice from both colleges about degree requirements and other University policies when necessary.
${ }^{1}$ For programs requiring more than four years, the projected length of the program will be used instead of the four-year standard.

## Interdisciplinary Opportunities

Several of the majors listed in the section "Degree Programs" above are interdisciplinary in nature. The Bachelor of Science in Biomedical

Engineering, for example, is offered by the Cockrell School of Engineering but involves substantial coursework in the life and physical sciences; in the various area studies programs in the College of Liberal Arts, such as Latin American studies and Middle Eastern studies, students examine a geographic area from the viewpoints of several traditional disciplines.

In addition to interdisciplinary majors, the simultaneous major option (p.13), and the formal dual degree programs described later in this catalog, the University provides various ways for students to add breadth and diversity to their studies. These include the transcript-recognized certificate programs (p.13); other concentrations, not reflected on the graduate's transcript, are described in the later chapters of this catalog. The Study Abroad program, described in General Information (http:// catalog.utexas.edu/general-information/student-services/international-office/study-abroad), allows students to consider their own field from the unique viewpoint of another culture. The Bridging Disciplines Programs and other initiatives of the School of Undergraduate Studies help students traverse the traditional boundaries between colleges and disciplines.

Cross-disciplinary initiatives of the colleges and schools are often described on their Web sites, which may be reached via http:// www.utexas.edu/dept/.

## Transcript-Recognized Certificate Programs

Transcript-recognized certificate programs offer interdisciplinary curricula that support and extend a student's major. Undergraduates who complete certificate requirements in conjunction with their degree requirements or within one year after earning the degree receive recognition on the University transcript; students in integrated undergraduate/graduate programs must complete certificate requirements within one year after they complete their undergraduate degree requirements. A maximum of nine hours of certificate coursework may be taken after the student has earned the undergraduate degree. At least half of the required certificate coursework must be completed in residence at the University.

A student may not earn a certificate in the same field as his or her major, and at least one certificate course must be outside the requirements of the major. However, certificate courses outside the major may be counted toward other degree requirements.

Students should apply for the certificate when they apply for graduation or when they complete the certificate program, whichever is later. Transcript recognition is awarded at the end of that semester or summer session.

Each of the following transcript-recognized certificate programs is described in the catalog section for the college that sponsors it. Certificate programs that do not lead to transcript recognition are also described in the following sections of this catalog.

- School of Undergraduate Studies
- Bridging Disciplines Programs (see Degrees and Programs (p. 23))
- McCombs School of Business
- Business Foundations
- Business and Public Policy
- Energy Management
- Global Management
- Real Estate
- Supply Logistics Optimization (see Degrees and Programs (p. 51))
- College of Communication
- Communication and Society: Science Communication
- Sports Media
- US Latino and Latin American Media Studies (see Academic Policies and Procedures (p. 78))
- School of Engineering
- National Academy of Engineering Grand Challenges
- College of Liberal Arts
- African Studies
- Core Texts and Ideas
- Creative Writing
- History and Philosophy of Science
- Indigenous Studies
- Lesbian, Gay, Bisexual, Transgender, and Queer/Sexualities Study
- College of Natural Sciences
- Elements of Computing
- Evidence and Inquiry
- Food and Society
- Forensic Science
- Pre-Health Professions
- Scientific Computation
- Textile Conservation and Museum Studies (see Degrees and Programs (p. 543))
- UTeach Natural Sciences Secondary Teaching Option


## Certificate in Computational Science and Engineering

The foundations of science and engineering are under rapid, dramatic, and irreversible change brought on by the advent of the computer. Steady growth in computer capabilities, and enormous expansion in the scope and sophistication of computational modeling and simulation, have added computation as the third pillar of scientific discovery and have revolutionized engineering practice. Computational science and engineering can affect virtually every aspect of human existence, including the health, security, productivity, and competitiveness of nations.

The Computational Science and Engineering Certificate program is sponsored by the Cockrell School of Engineering, the Jackson School of Geosciences, the College of Liberal Arts, and the College of Natural Sciences; it is administered by the Institute for Computational Engineering and Sciences (ICES). The program offers highly qualified upperdivision students an opportunity for in-depth study and research in computational science and engineering, including computational and applied mathematics, numerical simulation, scientific computation, and visualization. A student who completes the general requirements listed on Transcript-Recognized Programs (p. 13) and the specific requirements below receives recognition on his or her University transcript and a letter from the director of ICES that describes the program and the work completed. Along with supporting letters from supervising faculty and graduate mentors, these are valuable assets for students applying to graduate school and pursuing competitive job opportunities.

To apply for admission, students must have completed sixty semester hours of coursework and must have a grade point average of at least 3.00. Students are expected to have broad training in quantitative methods, comparable to that provided by Mathematics 408D or 408M, Computer Science 303E or Statistics and Data Sciences 222, Mathematics 427K, and Mathematics 340L.

Students must complete the following eighteen semester hours of coursework with a grade of at least $B$ in each course:

1. Three semester hours in numerical computing chosen from the following: Computer Science 323E, 323H, 367, Mathematics 348.
2. Three semester hours in numerical applications chosen from the following: Aerospace Engineering 347, Biology 337J, 342, 346, Chemical Engineering 348, Economics 363C, Geological Sciences 325K, Mathematics 374M, Mechanical Engineering 369L, Physics 329, Statistics and Data Sciences 339.
3. Nine semester hours chosen from the following: Computer Science 377, Engineering Mechanics 360, Mathematics 346, 368K, 372K, 376C, Statistics and Data Sciences 374C, 374E.
4. A scientific computing project supervised by a member of the computational science, engineering, and mathematics (CSEM) graduate program faculty. The research project is completed in a three-semester-hour research methods or individual instruction course, which the student should take during the senior year. The research project may include mentoring by ICES postdoctoral fellows and CSEM graduate students as part of a vertical instructional research team.

With the approval of the certificate program's faculty adviser, course substitutions may be made within the broad area of computational science and engineering.

More information about the certificate is available at http:// www.ices.utexas.edu/programs/cse-certificate/ and in the Institute for Computational Engineering and Sciences, ACE 4.110

## Preparation for Health Professions

The rapid expansion and diversification of services designed to meet the health needs of society provide students with a variety of career opportunities in health care. However, since competition for admission to professional school programs is keen, it is important to maintain a strong academic record.

## Advisory Services

Students interested in a health career should contact Health Professions Advising, PAI 5.03, for course and career advising designed to prepare them for admission to professional schools. Health Professions Advising (http://cns.utexas.edu/health-professions) maintains a Web site, a reference collection of information on health careers, and an e-mail distribution list. The office sponsors a lecture series, an annual Health Professions Fair, and other programs.

In general, professional schools do not indicate a preferred undergraduate major, leaving the student free to choose a degree program suited to his or her interests and abilities. The student should complete minimum professional school course requirements before taking a nationally standardized admission test such as the Dental Admission Test, Medical College Admission Test, Pharmacy College Admission Test, or Graduate Record Examinations. Health Professions Advising provides guidance concerning courses that meet professional school admission requirements; advising for degree requirements is available in the student's major department. Students are encouraged to register using the special advising area code appropriate to the health career they are pursuing.

A student planning to pursue a degree in dietetics, medical laboratory science, nursing, or public health at the University should consult an adviser in the appropriate department or school.

## Transfer of Professional School Coursework Toward an Undergraduate Degree

All students preparing for graduate health professions schools should plan to complete a bachelor's degree in the field of their choice before entering professional school, since the number of students admitted without a degree is small. Most professional pharmacy programs, including those in Texas, do not require a bachelor's degree for admission.

If a preprofessional student undertakes work leading to an established undergraduate degree in the College of Liberal Arts or the College of Natural Sciences but is accepted into the professional school before finishing the degree, it may be possible by special petition for the student to use professional school coursework toward the degree as transfer hours. In this instance, to graduate the student must meet, without exception, all requirements for the degree. If the petition is approved, limited transfer of unspecified upper-division credit in chemistry and biology is allowed as applicable and necessary to the degree.

In a few cases in which a bachelor's degree is not required to enroll in a professional program, a student who completes his or her studies at a University of Texas System school of health professions may be either eligible or required to receive a bachelor's degree jointly awarded by UT Austin and the health professions school. If a student has received an undergraduate or graduate degree from a UT System general academic institution before enrolling at a UT System health science center to pursue a second bachelor's degree, the health science center awards the second degree. For more information, students should contact their college's advising office.

## Applying to Professional School

The Health Professions Advising Web site (http://cns.utexas.edu/healthprofessions) lists the minimum admission requirements for most dental, medical, occupational therapy, optometry, pharmacy, physical therapy, physician assistant, and veterinary programs in the state. Articles of current interest, admission statistics, and information on application procedures are available for reference in Health Professions Advising.

All applicants to health professions programs should consult the schools' Web sites and catalogs as well as the most recent editions of admissions guides such as Admissions Requirements of United States and Canadian Dental Schools, Medical School Admission Requirements, Veterinary Medical School Admission Requirements, and Pharmacy School Admission Requirements. These publications are available in the Health Professions Advising resource library.

## Preparation for Law

There is no sequential arrangement of courses prescribed for a pre-law program, nor is any particular major specified. For answers to specific questions about a pre-law program, the student should consult the pre-law adviser in his or her major department.

Services for pre-law students in the College of Liberal Arts are provided by Liberal Arts Career Services (LACS), Peter T. Flawn Academic Center 18. These include the annual fall law fair, information on how to research law schools, and assistance with the application procedure, including the personal statement. Pre-law students in all majors may consult the pre-law adviser in LACS. Additional information about preparation for law is available at http://www.utexas.edu/cola/orgs/lacs/Students/PL-GS/ PreLaw.php.

Information about admission to the School of Law at the University is given in General Information and in the Law School Catalog (http://
catalog.utexas.edu/law). Like most professional schools, the University's law school has a number of specific requirements and limitations. For example, the applicant must have completed a bachelor's degree. Students are admitted only at the beginning of the fall semester. Each applicant for admission must take the Law School Admission Test, administered by the Law School Admission Council. This is usually taken by December of the senior year. The applicant's test score and undergraduate academic performance are important in determining eligibility for admission to law school; but all law schools consider a variety of factors in their admission policies, and no single factor by itself will guarantee admission or denial.

## Preparation for Teacher Certification

Students who plan to teach in the early grades in Texas public schools must earn the Bachelor of Science in Applied Learning and Development in the College of Education and must meet the appropriate state certification requirements.

Students who plan to teach in Texas public middle schools or high schools must earn a bachelor's degree in the field they intend to teach and must meet the requirements for teacher certification. Students pursuing either middle grades or secondary math or science certification must follow the curriculum prescribed by the UTeach-Natural Sciences program. Students pursuing either middle grades or secondary certification in English language arts, social studies, or languages other than English must follow the curriculum prescribed by the UTeach-Liberal Arts program. Students pursuing other areas of certification should consult an adviser in the major department about degree requirements and an adviser in the College of Education about certification requirements.

## Coursework in the Graduate School and the School of Law

## Graduate Work for Undergraduate Credit

An undergraduate may enroll in a graduate course under the following conditions:

1. He or she must be an upper-division student and must fulfill the prerequisite for the course (except graduate standing).
2. He or she must have a University grade point average of at least 3.00.
3. He or she must receive the consent of the instructor of the course and of the graduate adviser for the field in which the course is offered. Some colleges and schools may also require the approval of the dean's office. Individual divisions may impose additional requirements or bar undergraduates from enrolling in graduate courses.
4. Students in most colleges must have their dean's approval before they register for a graduate course.

Undergraduate students may not enroll in graduate courses that have fewer than five graduate students enrolled.

A graduate course taken by an undergraduate is counted toward the student's bachelor's degree in the same way that upper-division courses are counted, unless the course is reserved for graduate credit as described in the next section. Courses reserved for graduate credit may not also be used to fulfill the requirements of an undergraduate degree.

An undergraduate student enrolled in a graduate course is subject to all University regulations affecting undergraduates.

## Reservation of Work by Undergraduates for Graduate Credit

Under the following conditions, a degree-seeking undergraduate may enroll in a graduate course and reserve that course for credit toward a graduate degree.

1. The student must have a University grade point average of at least 3.00 .
2. The student must have completed at least ninety semester hours of coursework toward an undergraduate degree.
3. The student may not register for more than fifteen semester hours in the semester or for more than twelve semester hours in the summer session in which the course is reserved.
4. No more than twelve semester hours may be reserved for graduate credit.
5. All courses reserved for graduate credit must be approved by the twelfth class day of the semester or the fourth class day of the summer session by the course instructor, the student's undergraduate adviser, the graduate adviser in the student's proposed graduate major area, the dean of the student's undergraduate college, and the graduate dean. A form for this purpose is available in the Office of Graduate Studies.

An undergraduate student enrolled in a graduate course is subject to all University regulations affecting undergraduates.

A student who reserves courses for graduate credit must be admitted to a University graduate program through regular channels before the credit may be applied toward a graduate degree. By allowing the student to earn graduate credit while still an undergraduate, the University makes no guarantee of the student's admissibility to any graduate program.

## Courses in the School of Law

Undergraduate students may not take courses in the School of Law.

## Honors

Honors programs and organizations are described in college/school sections of this catalog; the programs of the University Honors Center (http://www.utexas.edu/ugs/uhc) are described in the School of Undergraduate Studies ( p .22 ) section. General Information gives the requirements for recognition as a College Scholar or Distinguished College Scholar, inclusion on the University Honors list, and graduation with University honors.

## Academic Advising

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

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

The advising systems are described in the college/school sections of this catalog.

## Student Responsibility

While University faculty and staff members give students academic advice and assistance, each student is expected to take responsibility for his or her education and personal development. The student must know and abide by the academic and disciplinary policies given in this catalog and in General Information (http://catalog.utexas.edu/generalinformation), including rules governing quantity of work, the standard of work required to continue in the University, scholastic probation and dismissal, and enforced withdrawal. The student must also know and meet the requirements of his or her degree program, including the University's basic education requirements; must enroll in courses appropriate to the program; must meet prerequisites and take courses in the proper sequence to ensure orderly and timely progress; and must seek advice about degree requirements and other University policies when necessary.

The student must give correct local and permanent postal addresses, telephone numbers, and e-mail address to the Office of the Registrar and to the offices of the student's deans 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, he or she will not be relieved of responsibility on the grounds that the correspondence was not delivered.

The student must verify his or her schedule of classes each semester, must see that necessary corrections are made, and must keep documentation of all schedule changes and other transactions.

All students should be familiar with the following sources of information:

## The University Catalog

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 four issues: the Undergraduate Catalog, the Graduate Catalog, the Law School Catalog, and General Information. Each issue is published online by the Office of the Registrar at http:// registrar.utexas.edu/catalogs/.

The Undergraduate Catalog is published in August of even-numbered years; the Graduate Catalog is published in August of odd-numbered years; the Law School Catalog is published in February of even-numbered years. These issues contain regulations and degree requirements that apply to undergraduates, graduate students, and students in the School of Law. Regulations are valid only for the two 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 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 and summer session in the Course Schedule.

General Information, published every August, 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 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 University grade point average, credit by examination and correspondence, adding and dropping courses, withdrawal from the University, and scholastic probation and dismissal. General Information is meant to be used along with each of the other issues; each student must be familiar with the regulations given there and with those given in the issue that covers his or her degree program.

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 V. Shelby Stanfield, Vice Provost and Registrar, at (512) 475-7510 and at The University of Texas at Austin, Office of the Registrar, P.O. Box 7216, Austin TX 78713-7216.

## The Course Schedule

The Course Schedule is published by the Office of the Registrar and is available before registration for each semester and summer session at http://registrar.utexas.edu/schedules/. It includes information about registration procedures; times, locations, instructors, prerequisites, and special fees of classes offered; and advising locations.

## Dean's Offices

In each college, the office of the assistant or associate dean for student affairs serves as a central source of information about academic affairs and student services. The student should consult the dean's office staff for information not provided in the publications listed above; a student who is in doubt about any University regulation should always seek clarification in the dean's office before proceeding.

## Graduation

The University holds commencement exercises at the end of the spring semester. Each college and school also holds a commencement ceremony in the spring, and many hold graduation exercises in the fall. Graduating students are encouraged to participate. Those who graduate in the summer or fall may attend commencement the following spring. Each student should consult his or her dean early in the semester of graduation for information about commencement activities and procedures.

No degree will be conferred except on publicly announced dates.

## General Requirements

To receive an undergraduate degree from the University of Texas at Austin, a student must fulfill the Core Curriculum (p. 20) requirements and all requirements for the degree as set forth in a catalog under which he or she is eligible to graduate and any special requirements of the college or school and department offering the degree, as well as the following minimum general requirements:

1. The student must have a grade point average of at least 2.00 on all courses undertaken at the University (including credit by examination, correspondence, and extension) for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded. Additional requirements imposed by a college or school, if any, are given in the college's chapter of this catalog.
2. The student must fulfill the following requirements regarding coursework taken in-residence. Residence credit includes only courses taken at the University of Texas at Austin; it does not include
credit by examination, courses taken by extension or correspondence, and online courses that are recorded as transfer credit. Coursework in University-approved affiliated study abroad programs (international provider programs) is treated as residence credit for requirements 2a below. However, coursework in University-approved affiliated study abroad programs may not be used to fulfill requirement 2 b .
a. The student must complete in-residence at least sixty semester hours of coursework counted toward the degree. (This requirement is waived for students in the Associate Degree in Nursing to Bachelor of Science in Nursing (ADNBSN), a degree program for registered nurses who hold associate's degrees or diplomas in nursing.)
b. At least six semester hours of advanced coursework in the major must be completed in residence.

Additional requirements imposed by a college or school, if any, are given in the college/school sections of this catalog. Many degree plans include residence rules in addition to the above University-wide requirements; the appropriate academic units have the discretion to determine applicability of Universityapproved affiliated study abroad credit toward all college- and school-specific requirements for coursework in-residence. Course equivalency and University approval of study abroad courses are determined by the appropriate academic units.
3. Coursework in American government and American history (the legislative requirement):
a. Each student must complete six semester hours of coursework in American government, including Texas government. Because these courses are not electives, they may not be taken on the pass/fail basis at the University. Credit by examination may be counted toward the requirement.

The six hours of coursework used to fulfill the requirement must cover both the United States and the Texas constitutions. Texas colleges and universities differ in the way they include this material in the courses they offer. As a result, some combinations of government courses taken at different institutions do not fulfill the requirement, even though they provide six hours of credit. The following combinations of coursework, some of which include transferred work, fulfill the government requirement at the University:
i Government 310Land 312L
ii Government 310L and three hours of transfer credit in United States government (entered into the student's University record as "GOV 3 US")
iii Government 310L and three hours of transfer credit in Texas government ("GOV 3 TX")
iv Three hours of transfer credit in United States government ("GOV 3 US") and three hours of transfer credit in Texas government ("GOV 3 TX")

A number of sections of Government 312L are offered each semester. Because some of these sections deal with state government and some deal with federal government, credit for Government 312L in combination with transfer credit in United States government ("GOV 3 US") or in Texas government ("GOV 3 TX") may fail to fulfill the legislative requirement. If a student has such a combination of credit, his or her dean's office will evaluate the coursework to determine whether both the state and the federal components of the requirement have been met.
b. Each student must complete six semester hours of coursework in American history. Up to three hours in Texas history may be counted toward this requirement. Because these courses are
not electives, they may not be taken on the pass/fail basis at the University. Credit by examination may be counted toward the requirement.

ROTC courses may not be counted toward the legislative requirement in history or government. Policies about the use of ROTC courses are given in each of the college/school sections of this catalog.
4. A candidate for a degree must be registered at the University either in-residence or in absentia the semester or summer session the degree is to be awarded and must apply to the dean for the degree no later than the date specified in the official academic calendar. Some colleges require that their students be registered in that college the semester of graduation; these rules are given in the college/school sections of this catalog.

## Multiple Degrees

A student may not receive more than one degree with the same title.

## Graduation under a Particular Catalog

To receive a bachelor's degree, a student must fulfill all the degree requirements in a catalog under which he or she is eligible to graduate; the choices open to students in each college and school are explained below. The student must complete degree requirements within a specified time period; if he or she leaves school to enter military service during a national emergency, the time required to meet the military obligation is excluded from the time allowed for completion of the degree.

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

Since each college and school must retain the flexibility to improve its curriculum, course offerings may be changed during the student's education. If a course required under a previous catalog is no longer offered, students eligible to graduate according to that catalog should consult the dean of the college to learn whether another course may be used to fulfill the requirement.

## Catalog Choices

The catalog choices open to business, engineering, and pharmacy students are described below. In all other divisions, a student may graduate under the catalog covering any academic year in which he or she was enrolled at the University. Whichever catalog the student chooses, all degree requirements must be completed within six years (seven years for the Bachelor of Architecture) of the end of the two-year period covered by that catalog. For example, a student who chooses to graduate according to the requirements in the 2012-2014 catalog must do so by the end of the summer session 2020 (2021 for the bachelor of architecture).

## McCombs School of Business

A business student may graduate under the catalog covering any academic year in which he or she was enrolled at the University. A business honors student who adds a second business major must graduate under the same catalog for both majors.

Whichever catalog the student chooses, all degree requirements must be completed within six years of the end of the two-year period covered by that catalog. For example, a student who chooses to graduate according
to the requirements in the 2012-2014 catalog must do so by the end of the summer session 2020.

## Cockrell School of Engineering

An engineering student may graduate under the catalog covering any academic year in which he or she was enrolled in the school. Whichever catalog the student chooses, all degree requirements must be completed within six years of the end of the two-year period covered by that catalog. For example, a student who chooses to graduate according to the requirements in the 2012-2014 catalog must do so by the end of the summer session 2020.

Course substitutions in the degree program are permitted only with the approval of the departmental undergraduate adviser and the dean.

## College of Pharmacy

A pharmacy student may graduate under the catalog in effect immediately preceding the student's admission to the college or the catalog covering any academic year in which he or she was enrolled in the professional curriculum in the college. Whichever catalog they choose, students must complete all degree requirements within seven years of the end of the two-year period covered by that catalog. For example, a student who chooses to graduate according to the requirements in the 2012-2014 catalog must do so by the end of the summer session 2021.

## School of <br> Undergraduate Studies

Brent Iverson, PhD, Dean<br>Lawrence D. Abraham, EdD, Associate Dean<br>Jeanette M. Herman, PhD, Assistant Dean, Academic Initiatives<br>David B. Spight, MA, Assistant Dean,<br>Strategic Advising \& Career Counseling<br>http://www.utexas.edu/ugs/

## General Information

## Mission

The School of Undergraduate Studies oversees the components of a college education that are shared by all undergraduates at the University. The mission of the school includes the responsibility for sustaining a dynamic common curriculum and enriching the undergraduate experience through innovative advising, career counseling, academic assistance, learning communities, interdisciplinary programs, and undergraduate research. The overall functions of the school are organized as follows:

## Common Curriculum

- To instill in each student the distinctive traits of a University of Texas at Austin graduate and broadly educated person.
- To ensure a high-quality core curriculum by working closely with the other colleges and schools to set and enforce standards for the courses required of all undergraduate students.
- To develop and maintain innovative classes for first-year students.
- To set standards for and to evaluate courses that satisfy campus-wide requirements in writing and speaking, ethics and leadership, global cultures, cultural diversity, quantitative reasoning, and independent inquiry.
- To assess and support ongoing curricular innovation and teaching excellence in these courses and throughout the undergraduate curriculum


## Strategic Advising \& Career Counseling

- To offer advising services that help students find coherent paths through the University that suit their academic and career interests focusing on students who are unsure of their majors or who are considering a change.
- To provide training and resources for advisers from every college and school.
- To prepare students for graduate school or their careers with the workplace knowledge needed for making sound choices.


## Academic Assistance

- To provide multiple avenues by which students can develop the ability to succeed academically.
- To help students improve performance inside and outside traditional classrooms.


## Learning Communities

- To support student success by cultivating community-based academic experiences, especially for first-year students.
- To foster leadership among students in these communities.


## Interdisciplinary Programs

- To create and coordinate interdisciplinary certificate and degreegranting programs, working closely with the other colleges and schools.
- To develop integrated strands of courses for satisfying campus-wide requirements.


## Undergraduate Research

- To foster undergraduate participation in the University's creative activity and research.


## Admission and Registration

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. Students who wish to explore more than one field of study before choosing a major are encouraged to apply for admission to the School of Undergraduate Studies. Students who are not admitted into their desired major in another college or school may also be offered admission into the School of Undergraduate Studies.

Detailed information about the admission process is provided in General Information (http://catalog.utexas.edu/general-information), which also includes information about registration, adding and dropping courses, transferring from one division of the University to another, and the academic calendar. The Course Schedule (http://registrar.utexas.edu/ schedules), published before registration each semester, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and General Information are available through the registrar's Web site, http://registrar.utexas.edu/.

## Academic Policies and Procedures

## Basic Education Requirements

The University strives to enroll exceptionally well-prepared, highly motivated students and to produce self-reliant graduates who will become leaders in both their chosen professions and their communities. The University must not only equip its graduates with occupational skills, but also educate them broadly enough to enable them to adapt to and cope with the accelerated process of change occurring in business, professional, and social institutions today. Students must be exposed to a broad spectrum of arts and science so that they may be educated beyond vocational requirements and thus be prepared for responsible citizenship in an increasingly complex world.

All graduates of the University are expected to

- communicate clearly and accurately, defend an idea on the basis of evidence, draw conclusions, and evaluate the arguments of others;
- have a critical understanding of the society in which we live and the ways it has evolved through time;
- be able to analyze ethical issues and their possible resolutions;
- understand facets of science and the ways in which knowledge of the universe is gained and applied;
- understand aspects of mathematics and apply quantitative skills to problem solving;
- have a critical understanding of how human cultures are expressed in literature, philosophy, or language;
- participate in and/or critically analyze some area of the visual and performing arts; and
- participate in the process of inquiry through research, creative endeavors, or related activities.

To help students in all majors acquire the traits of an educated person, the general faculty of the University has adopted the core curriculum outlined below. All students, regardless of major, must complete the core curriculum prior to earning an undergraduate degree.

Often, courses required by the student's degree program may be used concurrently to fulfill one or more of the core curriculum requirements listed below. When possible, students should select core courses that also satisfy specific requirements of their intended degrees. For more information, students should consult their advisers and the degree requirements given in the college/school sections of this catalog.

## Core Curriculum

All students pursuing an undergraduate degree at the University must complete the following required coursework. These requirements are consistent with statewide core curriculum guidelines; the area of the statewide core that each requirement meets is given in parentheses in the following table. A single course may not be counted toward more than one core area.

Courses used to fulfill core curriculum requirements must be taken for a letter grade; the minimum acceptable grade is $D$-. Individual degree plans may not require a higher minimum standard for core courses in general. However individual degree plans may set a higher minimum grade standard for core courses that are also required in the major field or are required as prerequisites for courses in the major

State law requires that courses fulfilling a core component area (including the institutionally designated option) at one Texas public institution must transfer and substitute for the receiving institution's requirements. However, this only applies to courses taken when a student does not hold degree-seeking status at UT Austin. While a student holds degreeseeking status at UT Austin, courses taken to fulfill core curriculum requirements must meet UT Austin core definitions in the relevant UT Austin undergraduate catalog, regardless of where they are taken.

## Core Area

First-year signature course (Texas Core Code 090)
One of the following courses, completed during the student's first year in residence.
> Undergraduate Studies 302, 303
Students in the Plan II Honors Program may complete this requirement by taking Tutorial Course 302
English Composition and Writing Flag (Texas Core Code 010)
> Rhetoric and Writing 306
Nonnative speakers of English may complete three hours of this requirement by taking Rhetoric and Writing 306Q. Students in the Plan II Honors Program may complete three hours of this requirement by taking English 603A or Tutorial Course 603A. $>$ A three-hour course with a writing flag designation The writing flagged course counted toward this area of the core may also be used to satisfy other flag and major requirements outside the core, but may not be used to satisfy any other requirement of the core.
Humanities (Texas Core Code 040)
> English 316L, 316M, 316N, 316P
Students in the Plan II Honors Program may complete this requirement by taking English 603B or Tutorial Course 603B.

American and Texas Government (Texas Core Code 070)
Six hours are required. This coursework partially fulfills the legislative requirement (p. 17). ROTC courses may not be substituted for the core courses in government.
>Government 310L is required for all students and >Government 312L or 312P may be used to satisfy the second half of this requirement.
Transfer students with five or more hours of coursework in American government may complete this requirement of the core by taking Government 105, which includes Texas government content that is consistent with the legislative requirement (p. 17).
U.S. History (Texas Core Code 060)

Six hours are required; three hours may be in Texas history. This coursework partially fulfills the legislative requirement (p. 17).
ROTC courses may not be substituted for the core courses in history.
The following courses may be counted:
History 314K, 315G, 315K, 315L, 317L, 320L, 320P, 320R, 333L,
333M, 334L, 340S, 345J, 345L, 350R, 351P, 355F, 355M, 355N, 355P, 355S, 356G, 356K, 356P, 356R, 357C, 357D, 365G, 376F

Social and behavioral sciences (Texas Core Code 080)
One of the following courses:
> African and African Diaspora Studies 324E
> Anthropology 302, 305, 307, 318L
> Core Texts and Ideas 302, 365
> Economics 301, 304K, 304L
> Geography 305, 306C, 307C, 319
> Health and Society 301
> History 329U
> Human Development and Family Sciences 304, 304H
> Linguistics 306, 312D, 312E
> Psychology 301
> Religious Studies 310
> Sociology 302, 307C, 307D, 307E, 307F, 307G, 307J, 307K, 307L, 307M, 307N, 307P, 307S, 307T, 308D, 308E, 308F, 308G 308J, 308K, 308L, 308M, 308N, 309, 313K, 318, 319
Students in the Plan II Honors Program may complete this requirement by taking Social Science 301

Mathematics (Texas Core Code 020)
One of the following courses:
> Mathematics 302, 305G, 408C, 408K, 408N, 408R, 316
> Statistics and Data Sciences 302, 303, 304, 305, 306, 328M
Students in the Plan II Honors Program may complete this requirement by taking Mathematics 310P.

Natural Science and Technology Part I (Texas Core Code 030)
Six hours in a single field of study.
The following courses may be counted and should be paired as indicated below:
> Astronomy 301, 307, 309G, 309L, 309N, 309R, 309S
Choose either Astronomy 301 or 307 and one course from Astronomy 309G, 309L, 309N, 309R, and 309S.
> Biology 301D, 301E, 301L, 301M, 311C, 311D, 315H, 325H, 326M, 446L, 365S
Choose two courses chosen from Biology 301D, 301L, and 301M; or complete one of the following recommended pairs: Biology 311C and 311D, Biology 311C and 326M, Biology 311C and 446 L , Biology 311C and 365S, or Biology 315H and 325H. Students in the Plan II honors program may pair Biology 301E with Biology 301D, 311C, or $315 \mathrm{H}^{*}$.
> Chemistry 301, 301H, 302, 302H, 304K, 305
Students should complete one of the following pairs of courses: Chemistry 301 and 302; Chemistry 301H and 302H; Chemistry 304K and 305.*
> Geological Sciences 401, 302C, 302D, 302E, 302M, 303, 303C, 404C, 405
Only one of the following may be counted: Geological Sciences 401 or 303. Geological Sciences 404C may not be paired with Geological Sciences 405.*
> Marine Science 307, 308
> Natural Sciences 306J, 306K, 306L, and 306M
Students who use Natural Sciences 306J and Natural Sciences 306 K to fulfill Natural Science and Technology, Part I may also use either Natural Sciences 306L or Natural Sciences 306M to fulfill the requirements for Natural Science and Technology, Part II.
>Physics 301, 302K, 302L, 303K, 303L, 309K, 309L, 316, 317K, 317L, 321; Physical Science 303, 304
Students should complete one of the following pairs of courses: Physics 301 and 316; Physics 302K and 302L; Physics 303K and 303L; Physics 309K and 309L; Physics 317K and 317L; Physical Science 303 and 304. Physical Science 303 may not be counted with Physics 301, 302K, 303K, 309K, and 317K to complete Science and Technology, Part I; Physical Science 304 may not be counted with Physics 302L, 303L, 309L, 316, and 317L to complete Science and Technology, Part I. Students in the Plan II Honors Program may pair Physics 321 with any of the Physics or Physical Science courses listed above.*
If Plan II students do not use Biology 301E or Physics 321 to fulfill Natural Science and Technology, Part I, they may use one of them to fulfill the Natural Science and Technology, Part Il requirement as long as the two parts are in different fields of study.
Students who take the Natural Sciences 306J and 306K sequence to complete Natural Science and Technology, Part I may not use physical science or physics coursework to satisfy Natural Science and Technology, Part II. Students who use physical science or physics coursework to satisfy Natural Science and Technology, Part I may not use Natural Sciences 306J to complete Natural Science and Technology, Part II.
*See http://www.utexas.edu/ugs/core/sciencepairings for complete listing of allowed 6 hour pairing.

Natural Science and Technology, Part II (Texas Core Code 031)

Three hours in a field of study different from the field counted toward the preceding requirement.
Courses listed under Natural Science and Technology, Part I, may be counted toward this requirement; the following courses may also be counted:
> Anthropology 301, 304, 304T
> Biology 305E, 305F, 307D, 309D, 309F
> Computer Science 302, 312
> Geography 301C, 301K, 304E
> Natural Sciences 306J, 306K, 306L, 306M
Students who use Natural Sciences 306J and 306K to fulfill
Natural Science and Technology, Part I may also use either
Natural Sciences 306L or 306M to fulfill the requirements for Natural Science and Technology, Part II.
> Nutrition 306
Students who take the Natural Sciences 306J and 306K sequence to complete Natural Science and Technology, Part I may not use physical science or physics coursework to satisfy Natural Science and Technology, Part II. Students who use physical science or physics coursework to satisfy Natural Science and Technology, Part I may not use Natural Sciences 306J to complete Natural Science and Technology, Part II.
Visual and Performing Arts (Texas Core Code 050)
One of the following courses:
> African and African Diaspora Studies 311C, 356C, 356D, 356E
> American Studies 330
> Architecture 308, 318K, 318L
> Art History 301, 302, 303, 325, 327N, 327R, 327S, 328J, 329J,
329N, 329R, 330G, 331J, 331K, 332K, 332L, 333L, 335J, 337K,
338L, 338M, 339J, 339K, 339L, 339M, 339P, 341K, 341L, 342J,
345J, 346L, 347K, 347L, 347M, 347N, 349K
> Classical Civilization 301, 302, 303, 307C, 307D
> Core Texts and Ideas 350, 351
> Design 308
> English 321P, 379P
> Fine Arts 308, 311, 330, 331, 332, 333
> Music 302L, 303M, 306M, 307, 313, 334
> Philosophy 317K, 346K
> Radio-Television-Film 305, 314, 316
> Theatre and Dance 301, 317C, 317D
Total 42

## Signature Courses

The Signature Courses at The University of Texas at Austin connect students with distinguished faculty members in unique learning environments. By way of this rigorous intellectual experience, students develop college-level skills in research, writing, speaking, and discussion through an approach that is both interdisciplinary and contemporary. As of the 2010 Undergraduate Catalog, all students are required to take a Signature Course to fulfill university core requirements.

The Signature Courses (Undergraduate Studies 302 and 303) introduce students to college-level learning through a myriad of subjects and topics. These classes range from the arts and humanities to the hard sciences, but every class has unique components that help students throughout their college career and beyond. The Signature Courses:

- put new students in contact with top faculty from across the University;
- help guide students as they strive to become better writers, speakers, and problem solvers;
- assist students in using research methods and critical thinking skills that are necessary to perform well in all of their other courses;
- familiarize students with the gems of the University; and
- engage students in a university-wide academic event.

More information about signature courses is available at http:// www.utexas.edu/ugs/sig/.

## Additional Basic Education Requirements Skills and Experience Flags

In the process of fulfilling the core curriculum and other degree requirements, all undergraduates are expected to complete courses with content in the following six areas:

- Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent
- Quantitative reasoning: one flagged course
- Global cultures: one flagged course
- Cultural diversity in the United States: one flagged course
- Ethics and leadership: one flagged course
- Independent inquiry: one flagged course

Courses used to fulfill flag requirements must be taken for a letter grade unless the flagged course is only offered on a pass/fail basis; the minimum acceptable grade is $D$-. Individual degree plans may not require a higher minimum standard for flagged courses in general. However, individual degree plans may set a higher minimum grade standard for flagged courses that are also required in the major field or are required as prerequisites for courses in the major.

Courses with sufficient content in these areas will be identified in the Course Schedule by the appropriate flags. The School of Undergraduate Studies monitors flagged courses to ensure that they meet the guidelines set by the general faculty. When a course is approved to carry more than one flag, enrolled students may use all of those flags to fulfill degree requirements, except that the global cultures flag and the cultural diversity in the United States flag must be earned in separate courses.

While many degree programs require all of these flags, some are still in the process of implementing selected flag requirements. Students who choose to graduate according to the requirements of the 2014-2016 Undergraduate Catalog should consult their advisers and the degree requirements listed in chapters 3 through 16 of this catalog to determine which of the flag requirements apply to them.

## Foreign Language

In addition to the core curriculum requirements above, undergraduates are expected to have completed two years in a single foreign language in high school. Students without at least two years of high school foreign language coursework in the same foreign language must earn credit for the beginning level proficiency course or sequence in a foreign language; this credit does not count toward the student's degree. For the description of beginning level proficiency in a specific foreign language, please see http://www.utexas.edu/cola/student-affairs/Majors-and-Degrees/foreign-language-requirement.php. Students should consult their advisers and the degree requirements listed in chapters 3 through 16 of this catalog to determine whether additional foreign language requirements apply to them.

## Programs and Centers

## James W. Vick Center for Strategic Advising \& Career Counseling

The James W. Vick Center for Strategic Advising \& Career Counseling in the School of Undergraduate Studies provides learning-centered, developmentally based academic advising and career counseling services to students in the School of Undergraduate Studies and students interested in changing majors at The University of Texas at Austin.

The Vick Center is an integrated advising and career counseling center in which students are assigned both an academic adviser and career counselor and is the only place on campus to assist students with major and career exploration. Academic advisers and career counselors serve on cross-functional teams who bring knowledge and expertise about major and career exploration together to better assist students with educational and career planning.

Academic advisers and career counselors help students define short and long term goals and identify satisfying and fulfilling major and career options. Through purposeful and intentional interaction with academic advising and career counseling professionals, students learn about themselves, their skills, their personalities, and their values on the path to determining a choice of major and career.

After a period of exploration and strategic advising, students enrolled in the School of Undergraduate Studies choose a major in one of the University's other colleges or schools. Students have up to four semesters to select a major. More information about the James W. Vick Center for Strategic Advising \& Career Counseling is available at http:// www.utexas.edu/ugs/csacc/.

## Sanger Learning Center

The Sanger Learning Center is the primary provider of academic assistance to University students. To help students reach their highest potential in their personal and academic development, the center provides a variety of services and resources in the areas of mathematics, science, learning strategies, and graduate and professional school planning and preparation. The center also offers content-based discussion sections, study groups, and tutoring for difficult courses. Services are free to currently enrolled students in all schools and colleges (some restrictions may apply).

## Programs

- Appointment Tutoring provides one-on-one tutoring for more than 70 courses as well as writing consultation for graduate students. Appointments help students tackle difficult homework problems and review course concepts in one-hour sessions. Tutors work with students on a consultancy-basis after passing a rigorous hiring and training process certified by the College Reading and Learning Association (CRLA).
- Drop-in Tutoring provides tutoring for lower-level math, physics, and chemistry courses without the need to make an appointment. Tutors assist students in a small group setting in the David Drum Tutoring Center during designated hours. Sanger's Tutorial Services also creates small group tutoring opportunities by request.
- Supplemental Instruction is a nationally recognized program aimed at improving student performance, increasing retention, and enhancing teaching. The program targets historically difficult entry-level courses by offering students regularly scheduled discussion sections led by trained undergraduate and/or graduate students.
- The Sanger Learning Center's classes and workshops also meet a broad spectrum of student needs, ranging from mathematics
and science reviews to general study strategies as well as writing consultation for graduate students.
- Peer-Led Undergraduate Studying (PLUS), a program that aims to support student performance and motivation in historically difficult courses by offering class-specific weekly study groups. Group leaders offer a collaborative group study experience tailored to the needs of their classmates.
- In addition to managing its programs, Sanger Learning Center's professional staff members take individual appointments assisting students with study-related questions or concerns.
- Peer Academic Coaching, a program certified by the CRLA at the master tutor level, offers structured guidance over time to students needing assistance with skills such as reading efficiency, note-taking, time and project management, test taking, and test preparation.

More information about the Sanger Learning Center is available at http:// lifelearning.utexas.edu/.

## 360 Connections

The 360 Connections initiative strives to help first-year students integrate socially, academically, and developmentally to ensure a smooth transition to college life on our campus, leading to academic success and on-time graduation. By participating in a 360 Connection (which may be a cohort, program, community, group, class, or similar group), students receive a holistic, $360^{\circ}$ view of life as a Longhorn.

More information about the 360 Connections is available at http:// www.utexas.edu/ugs/360.

## First-year Interest Groups

A First-year Interest Group (FIG) is a group of 18-25 first-year students who take two to four classes together during their first fall semester at UT. Each group attends a weekly seminar led by a peer mentor and a staff facilitator. FIG students develop a sense of community as they attend classes, study, and participate in various activities and events with their mentor and fellow first-years.

More information about FIGs is available at http://www.utexas.edu/ugs/ fig/.

## Bridging Disciplines Programs

The Bridging Disciplines Programs (BDPs) support students in becoming versatile thinkers with the skills to collaborate across disciplines and cultures. The BDPs are designed to complement a student's major with an individualized plan of study leading to an interdisciplinary certificate in one of the following areas:

- Children and Society
- Conflict Resolution and Peace Studies
- Cultural Studies
- Digital Arts and Media
- Environment
- Ethics and Leadership
- Film Studies
- Global Studies
- Human Rights and Social Justice
- Innovation, Creativity, and Entrepreneurship
- Public Policy
- Social Entrepreneurship and Nonprofits
- Social Inequality, Health, and Policy

Each BDP is overseen by an interdisciplinary faculty panel that sets policy, approves courses, and selects students. Within each broad area, students choose a strand of specialized courses drawn from disciplines across the University. Students are encouraged to use the BDP theme to select courses and integrate degree requirements; to this end, courses taken to fulfill core curriculum requirements, courses fulfilling major requirements, and electives may also be counted toward a BDP. Participation in undergraduate research and internships is also central to the design of the BDPs.

All degree-seeking undergraduates at the University are eligible to apply for the BDPs. With careful planning, a BDP can complement most degree plans. However, because the BDPs build on core requirements and electives, students are encouraged to start early in their University careers.

Undergraduates who complete BDP requirements in conjunction with their degree requirements or within one year after earning the degree receive a certificate and recognition on the University transcript; students in integrated undergraduate/graduate programs must complete certificate requirements within one year after they complete their undergraduate degree requirements. A maximum of nine semester hours of the certificate coursework may be taken after the student has earned the undergraduate degree. At least half of the required certificate coursework must be completed in residence at the University.

A student may not earn a certificate in the same field as his or her major, and at least one certificate course must be outside the requirements of the major. However, certificate courses outside the major may be counted toward other degree requirements.

Students should apply for the certificate when they apply for graduation or when they complete the certificate program, whichever is later. Transcript recognition is awarded at the end of that semester or summer session.

In order to earn a BDP certificate, students must satisfy the following requirements:

1. At least nineteen semester hours of coursework. The distribution of coursework varies by specialization, and students should consult the BDP office for the requirements of each program. For all specializations, the coursework requirements consist of the following:
a. Foundation Courses: One to ten hours in foundation courses that introduce key concepts and methodologies related to the interdisciplinary concentration.
b. Connecting Experiences: Three to nine hours in undergraduate research, internships, and/or independent creative project courses that connect students' interdisciplinary concentration to their major.
c. Courses in a Strand: Six to twelve hours in courses in a strand, which allows students to focus their remaining BDP coursework. Course listings for BDP strands are located on the BDP Web site at http://www.utexas.edu/ugs/bdp/.
2. A three- to four-page integration essay in which students reflect on what they have learned and accomplished through their BDP experience. These essays will be reviewed by members of a BDP faculty panel. Additional guidelines are available from the BDP advisers.
3. Students must earn a grade of at least $C$ - in each of the courses taken to fulfill BDP requirements and the cumulative grade point average in all courses counting toward a student's BDP certificate must be at least 2.00. All but one of the courses taken to fulfill BDP requirements must be taken on the letter-grade basis.
4. At least half of the required course work in the BDP certificate must be completed in residence at The University of Texas at Austin.
5. Completion of the requirements of a major.

More information about BDPs is available at http://www.utexas.edu/ugs/ bdp/.

## Office of Undergraduate Research

The Office of Undergraduate Research (OUR) supports student engagement in the research and creative activity of the University. We foster undergraduate participation in research across the disciplines by raising the visibility of undergraduate research on campus, facilitating students' searches for research opportunities related to their interests and goals, and helping students share their work with others.

Services offered through the Office of Undergraduate Research include weekly information sessions on how to get involved in research, individual advising sessions, and workshops on a variety of topics tailored to the needs of student groups and advisers. The office also offers a workshop series that guides students through the process of designing and presenting a poster about their research, and it coordinates the University's annual Research Week, a week-long celebration of undergraduate research and creative activity across the disciplines.

To facilitate involvement in undergraduate research, the Office of Undergraduate Research offers several courses that students may take to receive credit for research experiences with University faculty members: Undergraduate Studies 310, and 320, and Undergraduate Studies 320F. Undergraduate Studies 320F satisfies the Independent Inquiry flag requirement. Enrollment in these courses is coordinated through the Office of Undergraduate Research.

The Office of Undergraduate Research also oversees EUREKA (http:// www.utexas.edu/research/eureka), a Web site devoted to undergraduate research resources and opportunities at the University. The site provides a searchable database of about three thousand faculty research profiles and a list of faculty projects with opportunities for undergraduates.

More information on the Office of Undergraduate Research is available at http://www.utexas.edu/ugs/ugr/ or by phone at (512) 471-7152.

## University Honors Center

The University Honors Center in the School of Undergraduate Studies is a focal point for interdisciplinary honors activities at the University. The center offers a variety of enrichment programs for undergraduate honors students and support to the campus activities of several national honor societies including: Alpha Lambda Delta, Phi Eta Sigma, National Society of Collegiate Scholars, Phi Beta Kappa, and Phi Kappa Phi.

More information about the University Honors Center is available at http:// www.utexas.edu/ugs/uhc/.

## Discovery Scholars Program

The Discovery Scholars Program (DSP) is a four-year, learning community program for select students in the School of Undergraduate Studies. Students are invited to participate, and the DSP staff provides support for their transition from high school to college and connects them to campus resources. Students are also encouraged to take responsibility for their individual educational journey. Benefits include individualized educational planning and advising, small-section course options, tutoring, mentoring, community programming, and a focus on academic and civic development.

More information about the Discovery Scholars Program is available at http://www.utexas.edu/ugs/dsp.

## Texas Success Initiative

The Texas Success Initiative is a state-legislated program designed to improve student success in college. The two components of the program are:

- Assessment of each student's basic skills in reading, mathematics, and writing, and
- Developmental instruction to strengthen academic skills that need improvement.

More information about the Texas Success Initiative is available in the General Information Catalog (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/the-texas-successinitiative) and at http://www.utexas.edu/ugs/tsi.

## Courses

## Bridging Disciplines: BDP Lower-Division Courses

## BDP 101, 201, 301. Forum Seminar Series.

Restricted to freshmen and sophomores, and to students in the Bridging Disciplines Programs. Discussion of various contemporary issues, with an emphasis on interdisciplinary perspectives and critical discourse. For 101, two lecture hours a week for eight weeks; for 201, two lecture hours a week for one semester; for 301, three lecture hours a week for one semester. Some topics are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## BDP 306. Fundamentals of Ethical Leadership.

Restricted to freshmen and sophomores, and to students in the Bridging Disciplines Programs. Discussion of various contemporary issues related to ethical leadership, with an emphasis on interdisciplinary perspectives and critical discourse. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

## BDP 306C. Principles of Business.

Restricted to nonbusiness students. 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. Three lecture hours a week for one semester. Bridging Disciplines 301 (Topic: Principles of Business) and 306C may not both be counted. Offered on the letter-grade basis only.

## BDP 110, 210, 310. Connecting Research Experience.

Restricted to students in the Bridging Disciplines Programs. Supervised research with a faculty member, related to the interdisciplinary themes of a Bridging Disciplines Program. Research may consist of an individual project or assisting a faculty research project. Individual instruction. With consent of the Bridging Disciplines research coordinator, may be repeated for credit. Prerequisite: Consent of the Bridging Disciplines research coordinator.

## BDP 310S. Connecting Research Experience: Service Learning.

Restricted to students in the Bridging Disciplines Programs. Supervised research with a faculty member, related to the interdisciplinary themes of a Bridging Disciplines Program and including an academic servicelearning component. Research may consist of an individual project involving service to the community or assisting a faculty research project with a community service component. Individual instruction. With consent of the Bridging Disciplines research coordinator, may be repeated
for credit. Prerequisite: Consent of the Bridging Disciplines research coordinator.

BDP 111, 211, 311. Connecting Internship Experience.
Restricted to students in the Bridging Disciplines Programs. Supervised internship experience related to the interdisciplinary themes of a Bridging Disciplines Program. Internships may be paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. For 111, three hours of fieldwork a week for one semester; for 211, six hours of fieldwork a week for one semester; for 311, ten hours of fieldwork a week for one semester. With consent of the Bridging Disciplines research coordinator, may be repeated once for credit. Prerequisite: Consent of the Bridging Disciplines research coordinator.

## BDP 311S. Connecting Internship Experience: Service Learning.

Restricted to students in the Bridging Disciplines Programs. 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. Ten hours of fieldwork a week for one semester. With consent of the Bridging Disciplines research coordinator, may be repeated once for credit. Prerequisite: Consent of the Bridging Disciplines research coordinator.

## BDP 119, 219, 319. Specialized Forum Seminar Series.

Restricted to freshmen and sophomores. Discussion of various contemporary issues, with an emphasis on multidisciplinary perspectives and critical discourse. For 119, two lecture hours a week for eight weeks or one lecture hour a week for one semester; for 219, two lecture hours a week for one semester; for 319, three lecture hours a week for one semester; additional hours may be required for some topics. Some topics are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## BDP 319D. 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. Three lecture hours a week for one semester. Bridging Disciplines 319 (Topic: Introduction to Digital Media Production) and 319D may not both be counted.

## Upper-Division Courses <br> BDP 120, 220, 320. Connecting Research Experience.

Restricted to students in the Bridging Disciplines Programs. Supervised research with a faculty member, related to the interdisciplinary themes of a Bridging Disciplines Program. Research may consist of an individual project or assisting a faculty research project. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. With consent of the Bridging Disciplines research coordinator, may be repeated for credit. Prerequisite: Consent of the Bridging Disciplines research coordinator.

## BDP 320F. Connecting Research Experience.

Restricted to students in the Bridging Disciplines Programs. 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.
The equivalent of three lecture hours a week for one semester. With consent of the Bridging Disciplines research coordinator, may be repeated for credit. Prerequisite: Consent of the Bridging Disciplines research coordinator.

## BDP 320S. Connecting Research Experience: Service Learning.

Restricted to students in the Bridging Disciplines Programs. Supervised research with a faculty member, related to the interdisciplinary themes of a Bridging Disciplines Program and including an academic servicelearning component. Research may consist of an individual project involving service to the community or assisting a faculty research project with a community service component. Individual instruction. With consent of the Bridging Disciplines research coordinator, may be repeated for credit. Prerequisite: Upper-division standing and consent of the Bridging Disciplines research coordinator.

## BDP 121, 221, 321. Connecting Internship Experience.

Restricted to students in the Bridging Disciplines Programs. Supervised internship experience related to the interdisciplinary themes of a Bridging Disciplines Program. For 121, three hours of fieldwork a week for one semester; for 221, six hours of fieldwork a week for one semester; for 321 , ten hours of fieldwork a week for one semester. With consent of the Bridging Disciplines research coordinator, may be repeated once for credit. Prerequisite: Consent of the Bridging Disciplines research coordinator.

## BDP 321S. Connecting Internship Experience: Service Learning.

Restricted to students in the Bridging Disciplines Programs. 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. Ten hours of fieldwork a week for one semester. With consent of the Bridging Disciplines research coordinator, may be repeated once for credit. Prerequisite: Upper-division standing and consent of the Bridging Disciplines research coordinator.

## BDP 322. 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. Individual instruction. With consent of the Bridging Disciplines research coordinator, may be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of the Bridging Disciplines research coordinator. Additional prerequisites may vary with the topic.

## BDP 126, 226, 326. 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. For 126, two lecture hours a week for eight weeks or one lecture hour a week for one semester; for 226, two lecture hours a week for one semester; for 326, three lecture hours a week for one semester; additional hours may be required for some topics. Some topics are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic.

## BDP 129, 229, 329. 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. For 129, two lecture hours a week for eight weeks or one lecture hour a week for one semester; for 229, two lecture hours a week for one semester; for 329, three lecture hours a week for one semester; additional hours may be required for some topics. Some topics are offered on the letter-grade basis only. May be repeated
for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

## Developmental Studies: DEV

## Lower-Division Courses

DEV 000M. Basic Mathematics and Algebra Skills.
Developmental mathematics instruction. Emphasis on fundamental mathematics, including computation skills, graphing, and solving word problems, and on algebraic graphing, equations, operations, and quadratics. Three lecture hours a week for one semester. Offered on the satisfactory/unsatisfactory basis only. With consent of the Texas Success Initiative office, may be repeated for credit. May not be counted toward any degree.

## DEV 000R, 300R. Basic Reading Skills.

Developmental reading instruction, with emphasis on strategies for improving vocabulary, reading comprehension, and reading study skills. Three lecture hours a week for one semester. Offered on the satisfactory/ unsatisfactory basis only. With consent of the Texas Success Initiative office, may be repeated for credit. May not be counted toward any degree.

## DEV 000W, 300W. Basic Writing Skills.

Developmental writing instruction, with emphasis on the elements of composition, sentence structure, and standard English usage and mechanics. Three lecture hours a week for one semester. Offered on the satisfactory/unsatisfactory basis only. With consent of the Texas Success Initiative office, may be repeated for credit. May not be counted toward any degree.

## DEV 301M. Developmental Mathematics I.

The first of a two-course sequence. Combines arithmetic skills, including operations with whole numbers, fractions, and decimals, and ratios, proportions, and percents; with beginning algebra, including variables, straight-line graphs, setting up and solving word problems, and relating simple algebraic concepts to geometry. Three lecture hours a week for one semester. Offered on the satisfactory/unsatisfactory basis only. With consent of the Texas Success Initiative office, may be repeated for credit. May not be counted toward any degree.

## DEV 302M. 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. Three lecture hours a week for one semester. Offered on the satisfactory/unsatisfactory basis only. With consent of the Texas Success Initiative office, may be repeated for credit. May not be counted toward any degree.

## DEV 303M. Basic Mathematics and Algebra Skills Review.

Three lecture hours a week for one semester. Offered on the satisfactory/ unsatisfactory basis only. With consent of the Texas Success Initiative office, may be repeated for credit. May not be counted toward any degree.

## Upper-Division Courses

## Undergraduate Studies: UGS

Lower-Division Courses
UGS 302. First-Year Signature Course.
Restricted to first-year students. 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. Three lecture hours a week for one semester. Some sections may require additional meeting times; these are identified in the Course Schedule. Only one of the following may be counted: Tutorial Course 302, Undergraduate Studies 302, 303.

## UGS 303. First-Year Signature Course.

Restricted to first-year students. 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. Three lecture hours a week for one semester. Some sections may require additional meeting times; these are identified in the Course Schedule. Only one of the following may be counted: Tutorial Course 302, Undergraduate Studies 302, 303.

## UGS 104. First-Year Interest Group Mentor Seminar.

Restricted to students selected as mentors for the First-Year Interest Group program. Issues and research in various areas of leadership, communication, student development, and the transition from high school to college. One lecture hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Consent of the program coordinator of the First-Year Interest Group program office.

## UGS 309. 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. Three lecture hours a week for one semester. Prerequisite: Consent of the Texas Success Initiative coordinator.

## UGS 110, 210, 310. Undergraduate Research Experience.

Restricted to freshmen and sophomores. Supervised research with a faculty member. Research may consist of an individual project or assisting a faculty research project. Individual instruction. With consent of the undergraduate studies research coordinator, may be repeated for credit. Prerequisite: Consent of the undergraduate studies research coordinator.

## UGS 111, 211, 311. Undergraduate Internship Experience.

Supervised internship experience. Internships may be on or off campus, be paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. For 111, three hours of fieldwork a week for one semester; for 211, six hours of fieldwork a week for one semester; for 311, ten hours of fieldwork a week for one semester. With consent of the undergraduate studies research coordinator, may be repeated once for credit. Prerequisite: Consent of the undergraduate studies research coordinator.

## UGS 312. Research Methods.

Interdisciplinary introduction to research methods, designed to lead students through the process of designing an undergraduate research project. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of the undergraduate research coordinator.

## UGS 017. First-Year Connection Seminar.

Restricted to students in a First-Year Connection seminar program. Basic issues in various interdisciplinary fields of study. One lecture hour a week for one semester. May not be counted toward any University of Texas at Austin degree. May be repeated for credit.

UGS 018. First-Year Interest Group Seminar.
Restricted to students in the First-Year Interest Group Program. Basic issues in various interdisciplinary fields of study. One lecture hour a week for one semester.

## UGS 018S. Sophomore Interest Group Seminar.

Restricted to students in the Sophomore Interest Group program. Basic issues in various interdisciplinary fields of study. One lecture hour a week for one semester. May not be counted toward any University of Texas at Austin degree. May be repeated for credit.

## UGS 018T. Transfer Interest Group Seminar.

Restricted to students in the Transfer Interest Group Program. Basic issues in various interdisciplinary fields of study. One lecture hour a week for one semester. May not be counted toward any University of Texas at Austin degree. May be repeated for credit.

## UGS 119. International Learning Seminar.

Restricted to students registered in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of studying abroad in particular locations. Two lecture hours a week for eight weeks, or as required by the topic. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Upper-Division Courses

## UGS 120, 220, 320. Undergraduate Research Experience.

Supervised research with a faculty member. Research may consist of an individual project or assisting a faculty research project. Individual instruction. With consent of the undergraduate studies research coordinator, may be repeated for credit. Prerequisite: Upper-division standing and consent of the undergraduate studies research coordinator.

## UGS 320F. 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. The equivalent of three lecture hours a week for one semester. With consent of the undergraduate studies research coordinator, may be repeated for credit. Prerequisite: Upper-division standing and consent of the undergraduate studies research coordinator.

## UGS 121, 221, 321. Undergraduate Internship Experience.

Supervised internship experience. Internships may be on or off campus, be paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. For 121, three hours of fieldwork a week for one semester; for 221, six hours of fieldwork a week for one semester; for 321, ten hours of fieldwork a week for one semester. With consent of the undergraduate studies research coordinator, may be repeated once for credit. Prerequisite: Upper-division standing and consent of the undergraduate studies research coordinator.

## UGS 122. DemTex.

Student-facilitated research and discussion-based course, under the supervision of a faculty adviser. One lecture hour a week for one semester. With the consent of the research coordinator in the School of Undergraduate Studies, may be repeated for credit when the topics vary. May not be counted toward any degree. Offered on the pass/fail basis only. Prerequisite: Consent of the research coordinator in the School of Undergraduate Studies.

## School of Architecture

Frederick R. Steiner, PhD, Dean<br>Elizabeth Danze, MArch, Associate Dean, Graduate Programs Michael Oden, PhD, Associate Dean, Research and Operations Juan Miro, MArch, Associate Dean, Undergraduate Programs http://soa.utexas.edu/

## General Information

## Accreditation

The School of Architecture is a member of the Association of Collegiate Schools of Architecture and the Association of Collegiate Schools of Planning. The Bachelor of Architecture and Master of Architecture are accredited by the National Architectural Accrediting Board and satisfy the registration requirements of the Texas Board of Architectural Examiners. The Bachelor of Science in Interior Design satisfies the interior design registration requirements of the Texas Board of Architectural Examiners; it is accredited by the Council for Interior Design Accreditation and the National Association of Schools of Art and Design. The Master of Science in Community and Regional Planning is accredited by the American Planning Association.

## Mission

The School of Architecture seeks to assist those who wish to develop knowledge, sensitivity, and skill in design, planning, and construction, so that as architects, interior designers, and planners they may improve the human environment. The curriculum offers opportunities for a broad education in professional subjects and in the arts and the humanities. Through avenues that stress solving actual and theoretical problems, the school seeks to enhance the knowledge and skill necessary to link understanding to experience, theory to practice, and art to science in ways that respond to human needs, aspirations, and sensibilities. Through its consortium of architects, interior designers, planners, and educators and scholars in these fields, the school provides a service to society and to the architecture, interior design, and planning professions by advancing the state of the art in design and technology.

## History

The University began offering professional degrees in architecture in 1910 within the Department of Engineering. The School of Architecture was established in 1948 as a division of the College of Engineering and became an autonomous school of the University in September 1951. Graduate study in architecture began at the University in 1912. More than five thousand undergraduate and graduate degrees in architecture and planning have been conferred.

Education in community and regional planning was first offered as an undergraduate study option in the School of Architecture from 1948 to 1957. The Master of Science in Community and Regional Planning was formally approved in October 1959; the Doctor of Philosophy, in April 1995.

Education in interior design was first offered in 1939 within the degree of Bachelor of Science in Home Economics. In 1992 the College of Natural Sciences created the Bachelor of Science in Interior Design degree program; in the fall of 1998 this program was transferred to the School of Architecture. The first interior design degrees were conferred by the school in May 2001.

## Facilities

The School of Architecture is centrally located on campus in four adjacent buildings: the historically significant Battle Hall (1911); Sutton Hall (1918, renovated in 1982), designed by distinguished American architect Cass Gilbert; Goldsmith Hall (1933, expanded and renovated in 1988), designed by noted architect Paul Philippe Cret, one of the primary planners of the forty-acre campus; and the West Mall Office Building (1961).

The Architecture and Planning Library, a branch of the top-tier University of Texas Libraries system, provides reference and instructional services through expert staff to researchers who have access to over 100,000 volumes, including 20,000 rare volumes in Special Collections; 300 periodicals; and a wealth of online resources.

The Alexander Architectural Archive joins the library as a research center of national importance with nearly half a million drawings, 1,800 linear feet of papers, photographs, and other formats acquired, preserved, and made available for scholarship.

The Visual Resources Collection (VRC) curates a growing collection of over 130,000 digital images of the built environment including significant works of architecture, art, interior design, and landscape architecture. The VRC manages a fully equipped black-and-white darkroom for use by students and faculty.

The University Co-op Materials Resource Center offers an inspirational environment of material systems and technologies. The more than 25,000 material samples include traditional as well as smart, innovative, emerging, and sustainable design materials.

Digital Fabrication includes both digital input and output tools such as 3-D scanners, 3-D printers, CNC routers, and laser cutters, enabling students to utilize modern technology in architecture and design.

IO Central and Computer Lab is the technological environment for individual, group, and classroom work. The laboratory has computer work stations formatted with the most up-to-date software as well as largeformat color scanners, laser-jet printers, and high-resolution plotters.

The Thermal Lab is the testing facility of the Center for Sustainable Development that simulates a full-scale room with a south-facing façade, allowing for the thermal experiments which include innovative applications in the fields of light-control, ventilation, and the direct and indirect use of solar energy.

The Wood Shop plays an integral role in the creation of design, ranging from models to full-scale applications, by providing equipment and training, primarily in wood, but also in metal, plastic, and glass.

The Center for American Architecture and Design regularly stages symposia; publishes CENTER, Centerline, and the O'Neil Ford Monograph and Duograph book series; and supports independent research and scholarship in architecture and design. In addition, the center hosts the bi-weekly Friday Lunch Forum Series.

The Center for Sustainable Development supports the study and practice of sustainable development in Texas, the nation, and the world through complementary programs of research, education, and community outreach. Associated faculty and students strive to better understand the connections between the environment, economic prosperity and social justice.

The Lady Bird Johnson Wildflower Center exists to introduce people to the beauty and diversity of wildflowers and other native plants. The mission
of the center is to increase the sustainable use and conservation of native wildflowers, plants, and landscapes.

The Harry Ransom Center, one of the world's foremost institutions for literary and cultural research, houses a large collection of rare architecture books, including the classics of architectural literature.

The Teresa Lozano Long Institute of Latin American Studies and the Benson Latin American Collection provide exceptional opportunities for the study of Latin American architecture.

## Financial Assistance Available through the School

Scholarship funds established by individuals, foundations, and the University are available to current undergraduates in the School of Architecture. These include:

## Scholarships

ARCHITEXAS Endowed Scholarship
Yvette Atkinson Memorial Scholarship in Architecture
Snøhetta Endowed Scholarship in Architecture established by Craig Dykers and Elaine Molinar
Matt Casey Memorial Scholarship in Architecture
Dick Clark Student Travel Fund
Marvin E. and Anne Price Beck Endowed Scholarship
Carl O. Bergquist Endowed Scholarship
Myron Geer Blalock Endowed Presidential Scholarship
Hal Box Endowed Scholarship in Architecture
C. William Brubaker/Perkins+Will Endowed Presidential Scholarship John Buck Company and First Chicago Investment Advisors for Fund F Endowed Scholarship in Architecture
John S. Chase Endowed Presidential Scholarship
Fred W. and Laura Weir Clarke Endowed Presidential Scholarships in
Architecture Honoring Carl Bergquist and Alan Y. Taniguchi
Fred Winfield Day, Jr. Endowed Scholarship in Architecture
Jorge Luis Divino Centennial Scholarship in Architecture
Amy Dryden Endowed Scholarship
William H. Emis III Traveling Scholarship in Architecture
Ford, Powell and Carson Endowed Scholarship
Ted Freedman Endowed Scholarship
Suzie Friedkin Endowed Scholarship in Interior Design
Lily Rush Walker and Coulter Hoppess Scholarship in Architecture
the HDR Architecture Endowed Scholarship
the Janet C. and Wolf E. Jessen Endowed Presidential Scholarship
Henrietta Chamberlain King Endowed Scholarship
Lake/Flato Endowed Scholarship
Lynne Brundrett Maddox Scholarship in Interior Design
Mike and Maxine Mebane Endowed Traveling Scholarship in Architecture
Jack H. Morgan Endowed Scholarship; the Charles M. Nettles Endowed
Presidential Scholarship
Oglesby Prize Endowment
Overland Partners Endowed Presidential Scholarship
Barbara and Donald Pender Endowed Scholarship
Edward J. Perrault Endowed Presidential Scholarship in Interior Design
Alma Piner Scholarship in Architecture
Brandon Shaw Memorial Endowed Scholarship
Debbie Ann Rock Scholarship in Interior Design
School of Architecture Scholarship and Fellowship Award Endowment

Louis F. Southerland Endowed Scholarship
Lance Tatum Endowed Scholarship
University of Texas at Austin School of Architecture's Advisory Council Women's Endowed Scholarship
Wilmont "Vic" Vickrey Endowed Scholarship
Robert Leon White Memorial Fund-Architecture
Roxanne Williamson Endowed Scholarship
Additionally, there are several scholarships provided by the American Institute of Architects, the American Architectural Foundation, the Texas Society of Architects, the Texas American Planning Association, and the Texas Architectural Foundation. Additional information is available in the Office of the Dean.

Incoming students may wish to contact local chapters of the American Institute of Architects, the American Society of Interior Designers, the International Interior Design Association, and the University's Texas Exes, as well as other civic organizations, for information about locally sponsored scholarships. Students are also encouraged to contact the University's Office of Student Financial Services for information about other merit- and need-based scholarships.

## Student Services

## Academic Advising

In the School of Architecture, the undergraduate dean's office, located in Goldsmith Hall 2.116, and the academic adviser's office, located in Goldsmith Hall 2.118, are responsible for providing information and advice to undergraduate students. An important aspect of the advising system is the third-year portfolio requirement described in the section Third-year Portfolio Review Requirement (p. 31) later in Admission and Registration. The student should also consult Degree Audit in the Graduation (p. 32) section.

## Career Services

The Career Services Center, located in Sutton Hall 2.126, serves the students and alumni of the School of Architecture by offering career development and job search resources, connecting them to employers, mentors, and key professionals.

## Student Organizations

The Undergraduate Architecture Student Council (UASC) represents all School of Architecture undergraduate students through the promotion and development of an awareness of the built environment and serves as a nucleus for student activities. The UASC acts as a liaison between students and faculty members as well as administrators.

Alpha Rho Chi (APX) is a professional/social co-ed fraternity for architecture and the allied arts that promotes the artistic, scientific, and practical proficiency of its members and the profession. The Dinocrates Chapter at The University of Texas at Austin unites students from various years and studies through philanthropic and professional activities.

American Institute of Architecture Students (AIAS) is a professional organization whose mission is to promote excellence, appreciation, and advancement of architecture, and to enrich communities in a spirit of collaboration. AIAS strives to provide a sense of community and a forum for sharing different views.

Ampersand is a student organization that combines the student chapters of the International Interior Design Association (IIDA) and the American Society of Interior Designers (ASID), provides students with networking
opportunities, and promotes involvement within the interior design community.

Global Architecture Brigades, University of Texas at Austin Chapter, is a student-led design/build organization that seeks to improve the quality of life in developing nations through the design of sustainable, socially responsible solutions to architectural problems.

The National Organization of Minority Architecture Students (NOMAS) is The University of Texas at Austin Student Chapter of the National Organization of Minority Architects. The organization strives to enhance education and professional networking as well as engage solutions to ensure a healthy living and working environment for the community at large.

Tau Sigma Delta is an honors society for advanced students pursuing architectural study and the allied arts. The national chapter originated in 1913, and the School of Architecture established its own chapter, Mu, in 1931. In 2013, the 100th year anniversary of the original honors society, the School of Architecture reactivated the Mu chapter. This organization recognizes the significant level of academic achievement present in The University of Texas School of Architecture.

## Study Abroad and Internship Opportunities

The School of Architecture encourages first-hand experiences of diverse peoples, places and cultures, nationally and internationally, so that we might better engage the world in which we live. Educational travel experiences can be integrated into degree plans in several ways, including, but not limited to, the following:

Study in Italy is a semester at the Santa Chiara Study Center in Tuscany, approximately an hour's drive from Florence. The program allows for an intensive study of design, history, and visual communication, while the center's historic structure provides a congenial campus environment and a base for travel throughout Italy.

The Europe Program is a semester of study that emphasizes a broad and integrated experience covering the buildings and landscapes as well as the urban fabric across Europe. With a unique itinerary every fall, the program gives students special study opportunities with regard to design, history, and visual communication in each city visited.

Studio Mexico is an advanced studio for architecture and landscape architecture students that explores the rich cultural and built environment of Mexico. During a nine-day trip to Mexico, students visit a project site and other significant places, and enjoy rich interaction with Mexican students working on the same project. Students participating in the studio are required to take the Mexican architecture class taught by Professor Juan Miro, either concurrently with the studio or in the previous year.

The professional residency program provides upper-level architecture students with a unique opportunity to expand their education through work experience in the architectural profession. The program has provided work experience to honors students in the school since 1974, and over the past twenty years our students have been linked with 260 firms in twenty-nine countries.

## Admission and Registration

## Admission

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. Information about admission to the University is given in General Information.

Students who are not admitted to the School of Architecture may not pursue any degree offered by the school. Information about admission is published by the school at http://soa.utexas.edu/.

The School of Architecture is one of the smallest academic units at The University of Texas at Austin. Our undergraduate student body exemplifies the diverse constitution of the communities we strive to serve. In support of unique perspectives and experiences, all applications are reviewed with an understanding that excellence may manifest itself in many areas and may be expressed in different forms, such as compelling essays, strong academic preparation, extracurricular activities, excellent test scores, life experiences, as well as other accomplishments.

## Freshman Admission

The School of Architecture is unable to accommodate all qualified applicants, and preference is given to candidates considered to have best demonstrated the interest, aptitude, and dedication to pursuing a design education. All applicants are evaluated with emphasis on the following areas: SAT or ACT scores, class rank, essays, academic preparation, extracurricular activities, and other achievements. Texas-resident high school students have priority over nonresidents in admission decisions. All applicants must fulfill the high school unit requirements given in General Information.

To be considered for admission to the School of Architecture, applicants should select the appropriate degree program on the ApplyTexas application: architecture, interior design, the architecture/architectural engineering dual degree program, the architecture/Plan II dual degree program, architectural studies, or architectural studies with an emphasis on architectural history. All application materials must be submitted to the Office of Admissions by the deadline to apply for admission to the University for the fall semester; this date is given in General Information. Applicants to the dual degree program offered with the Plan II Honors Program must submit an additional application; more information about Plan II (p. 308) is provided within the Liberal Arts section of the Undergraduate Catalog.

## Transfer

## Internal Transfer

Students currently or formerly enrolled in other University degree programs who wish to enroll in a degree program in the School of Architecture must submit an Internal Transfer Application to the undergraduate dean's office in the School of Architecture by March 1 to be considered for admission for the following fall semester. To request a major change, students applying for internal transfer must have completed a minimum of twenty-four semester hours of credit in residence (excluding credit-by-exam) by the end of a spring semester, with a University grade point average of at least 3.25 . Emphasis is given to strong performance in University courses, especially courses relevant to the degree program to which the applicant is applying. Meeting these requirements is no guarantee for admission.

## External Transfer

Transfer applicants from architecture and interior design programs in other universities will be evaluated with emphasis given to excellence in design (portfolio required), academic preparation, essays, and other achievements. Course credit and placement in studio sequence is determined upon acceptance. External transfer admission is offered to a few qualified applicants each year.

Students applying to transfer from another university to the School of Architecture should select the appropriate degree program on the ApplyTexas application. All application materials must be submitted to the Office of Admissions by the deadline to apply for admission to the

University for the fall semester; this date is given in General Information. To be considered for transfer admission to the School of Architecture, the applicant must have completed at least thirty semester hours of transferable college coursework with a grade point average of at least 3.25 , and must submit a portfolio which includes architecture or interior design studio work from another university; information about the portfolio is given on the University's transfer admission Web site (http:// bealonghorn.utexas.edu/transfer/admission/majors/architecture). All admission decisions are made before the end of the spring semester; the Office of Admissions cannot consider spring coursework in progress.

## Transfer Credit

External transfer students with credit from another school must submit samples of their design work and, if applicable, visual communication work, transcripts, course descriptions and/or syllabi for courses in their majors. On the basis of the information submitted, the undergraduate dean's office determines the level at which students enter the design sequence and assigns credit toward the degree if appropriate.

## Registration

General Information gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The online Course Schedule, published before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and General Information are published on the registrar's Web site (http://registrar.utexas.edu).

Students should carefully verify that they have completed all course prerequisites, should consult the undergraduate dean's office, and should be sure to include in each semester's work the courses that are prerequisites for those to be taken in later semesters.

## Minimum Number of Hours in the Long Session

Students must register each semester for at least twelve semester hours of coursework prescribed for the degree. Registration for fewer hours must be approved by the undergraduate dean's office.

## Third-Year Portfolio Review Requirement

On the first day of class in the second semester of the third year, students entering Architecture 530T, Design VI, are required to submit a portfolio that summarizes the work completed in all the previous design and visual communication courses. Guidelines for submission of the portfolio, including deadline, are available from the undergraduate dean's office.

A successful completion of the Architecture 530T, Design V/ studio and a satisfactory Third-Year Portfolio Review are required for entry into Architecture 560R, Advanced Design. The portfolio provides critical information to the reviewing committee in evaluating the student's progress toward the degree. The reviewing committee, at its discretion, may require the student to complete additional work, including courses prior to or after registering for advanced studios.

## Academic Policies and Procedures

## Equipment and Supplies

Students are responsible for their own tools and supplies, which include, but are not limited to, laptop computer and software, hand drawing and
modeling equipment, and materials. More information on the Student Computer Policy is available at http://soa.utexas.edu/.

## Academic Standards

To progress in all degree programs offered by the School of Architecture and to qualify for graduation, a student must earn a grade of at least $C$ in all architecture, interior design, and community and regional planning courses. In a case where a student earns a grade below $C$, the course may only be repeated once.

In the process of fulfilling the requirements for degrees in the School of Architecture, including the core curriculum, students must earn credit for one flag in cultural diversity in the United States, one flag in ethics and leadership, one flag in global cultures, one flag in independent inquiry, one flag in quantitative reasoning, and three flags in writing beyond Rhetoric and Writing 306 or its equivalent. Courses used to fulfill flag requirements may be used simultaneously to fulfill other degree requirements. Courses with flags are identified in the Course Schedule. Students should consult with their academic adviser to determine how to fulfill flag requirements in the process of fulfilling other degree requirements.

## Honors

## University Honors

The designation University Honors, awarded at the end of each longsession semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered. Criteria for University Honors are given in General Information.

## Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in General Information.

## School of Architecture Recognition Awards

Award: Alpha Rho Chi Medal
Donor. Alpha Rho Chi, professional architectural fraternity Eligibility: Graduating student who has shown an ability for leadership, has performed willing service to the school, and gives promise of professional merit through attitude and personality.

Award: American Institute of Architects' Medal
Donor. American Institute of Architects
Eligibility: Graduating student, in recognition of scholastic achievement, character, and promise of professional ability.

Award: Boone Powell Family Prize in Urban Design
Donor. Boone Powell, Leilah Powell, and the Catherine H. Powell Family Trust
Eligibility: Non-graduating undergraduate or graduate student pursuing a degree in architecture or planning from The University of Texas at Austin; based on merit in urban design.

Award: The Oglesby Traveling Fellowship
Donor: Oglesby Family
Eligibility: Students graduating from The University of Texas at Austin with either a Bachelor of Architecture or Master of Architecture; based on merit in architectural design.

## Graduation

All students must fulfill the general requirements ( p .17 ) for graduation given in The University section. Students in the School of Architecture must also fulfill the following requirements.

1. The University requires that the student complete in residence at least sixty semester hours of the coursework counted toward the degree. In the School of Architecture, thirty of these sixty hours must be in the major or in a field closely related to the major as approved by the dean.
2. A candidate for a degree must be registered at the University either in residence or in absentia the semester or summer session the degree is to be awarded, and must file an application for the degree in the undergraduate dean's office. Students are encouraged to file the application at the beginning of the semester or summer session in which they intend to graduate; they must file it by the deadline given in the official academic calendar.

## Degree Audit

The undergraduate dean's office prepares a degree audit for each currently enrolled student each semester. The degree audit lists the courses the student has taken, the degree requirements he or she has fulfilled, and the requirements that remain to be met. The student may also use the University's interactive degree audit system, IDA, at any time. IDA is available at http://registrar.utexas.edu/students/degrees/ida/. It is the student's responsibility to know the requirements for the degree as stated in a catalog under which he or she is eligible to graduate and to register so as to fulfill those requirements.

## Degrees and Programs

## Degrees Offered

Five undergraduate degree programs are offered by the School of Architecture: Bachelor of Architecture; Bachelor of Architecture/Bachelor of Science in Architectural Engineering; Bachelor of Architecture/Bachelor of Arts, Plan II; Bachelor of Science in Architectural Studies; and Bachelor of Science in Interior Design. Specific requirements and suggested arrangement of courses for each degree program are given under individual major degree requirements.

## Applicability of Certain Courses

## Extension Courses

A student in residence may be allowed to take coursework by extension. Credit that the student in residence earned by extension will not be counted toward the degree unless it is approved in advance by the undergraduate dean's office. No more than 30 percent of the semester hours required for any degree may be taken by extension.

## Courses Taken on the Pass/Fail Basis

An undergraduate may count toward the degree up to fifteen hours of coursework in electives completed on the pass/fail basis; credit earned by examination is not counted toward the fifteen hours. If a student chooses to major in a subject in which he or she has taken a course pass/fail, the major department decides whether the course may be counted toward the student's major requirements. Complete rules on registration on the pass/ fail basis are given in General Information.

## Physical Activity Courses

Physical activity (PED) courses are offered by the Department of Kinesiology and Health Education. They may not be counted toward
the number of hours required for a degree in the School of Architecture. However, they are counted among courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

No more than six semester hours of air force science, military science, or naval science coursework may be counted toward any degree in the School of Architecture. These courses may be used only as lower-division electives (in degree programs that have such electives) and only by students who complete the third and fourth years of the ROTC program.

## Admission Deficiencies

Students admitted to the University with deficiencies in high school units must remove them as specified in General Information. Course credit used to remove deficiencies may not be counted toward the student's degree.

## Bachelor of Science in Interior Design

As a four-year professional degree, the Bachelor of Science in Interior Design (BSID) is a rigorous design-oriented curriculum with a strong theoretical basis to integrate creative problem-solving skills with an understanding of the aesthetic, technological, and behavioral aspects of design.

## Curriculum

A total of at least 126 hours of coursework is required for the Bachelor of Science in Interior Design.

All students must complete the University's Core Curriculum (p. 20) as well as the courses listed in the following table. In some cases, a course that is required for the BSID degree may also be counted toward the core curriculum; these courses are identified below.

| Requirements <br> Architectural <br> Interior Design, Architecture <br> Design |  | Hours |
| :--- | :--- | ---: |
| ARI 310K | Design I |  |
| ARI 310L | Design II | 3 |
| ARI 320K | Design III--Interiors | 3 |
| ARI 520L | Design IV--Interiors | 3 |
| ARI 530K | Design V--Interiors | 5 |
| ARI 530T | Design VI--Interiors | 5 |
| ARI 560R | Advanced Interior Design (taken twice) | 5 |
| Visual communication | 10 |  |
| ARI 311K | Visual Communication I |  |
| ARI 311L | Visual Communication II | 3 |
| ARI 221K | Visual Communication III | 3 |
| Design theory |  | 2 |
| ARI 350R | Topics in Interior Design Theory | 3 |
| Interior building systems and construction |  |  |
| ARI 434K | Construction II--Interior Materials and Assemblies | 4 |
| ARC 415K | Construction I | 4 |
| Professional practice |  |  |
| ARI 362 | Interior Design Practice | 3 |
| History |  |  |
| ARI 318K | Interiors and Society | 3 |
| ARI 318M | Interior Design History | 3 |


Community and regional planning
CRP 369K Principles of Physical Planning

| Other required courses |  |  |
| :--- | :--- | :--- |
| M 408C | Differential and Integral Calculus (mathematics) | 4 |
| PHY 302K | General Physics--Technical Course: Mechanics, <br> Heat, and Sound (physics sequence meets part I <br> science and technology) | 3 |
| PHY 102M | Laboratory for Physics 302K |  |
| PHY 302L | General Physics---Technical Course: Electricity and <br> Magnetism, Light, Atomic and Nuclear Physics | 3 |
|  | (physics sequence meets part I science and <br> technology) | 1 |
| PHY 102N | Laboratory for Physics 302L | 1 |

Electives approved by the undergraduate dean's office 15
Core curriculum
Additional coursework to satisfy the core curriculum

Total Hours27

## Suggested Arrangement of Courses

| First Year |  |  |
| :---: | :---: | :---: |
| First Term | Hours Second Term | Hours |
| ARC 310K | 3 ARC 311L | 3 |
| ARC 311 K | 3 PHY 302K | 3 |
| M 408C | 4 PHY 102M | 1 |
| UGS 302 or 303 | 3 RHE 306 | 3 |
| ARC 308 | 3 ARC 310L | 3 |
|  | ARC 318K | 3 |
|  | 16 | 16 |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| ARC 221 K | 2 ARC 520L | 5 |
| ARC 415K | 4 ARC 415L | 4 |
| ARC 320K | 3 ARC 333 | 3 |
| PHY 302L | 3 HIS 315K | 3 |
| PHY 102N | 1 |  |
| ARC 318L | 3 |  |
|  | 16 | 15 |
| Third Year |  |  |
| First Term | Hours Second Term | Hours |
| ARC 520M | 5 ARC 530T | 5 |
| ARC 435K | 4 ARC 334L | 3 |
| ARC 334K | 3 Social and behavioral sciences core course | 3 |
| ARC 368R | 3 ARC 435L | 4 |
|  | 15 | 15 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| ARC 560R | 5 ARC 560T | 5 |
| ARC 368R | 3 ARC 361T | 3 |
| GOV 310L | 3 CRP 369K | 3 |
| Science and technology, part II, core course | 3 GOV 312L | 3 |
| Elective | 3 Elective | 3 |
|  | 17 | 17 |
| Fifth Year |  |  |
| First Term | Hours Second Term | Hours |
| ARC 560R | 5 ARC 560R | 5 |
| ARC 335M | 3 ARC 362 | 3 |
| E 316L, 316M, 316N, or 316P | 3 ARC 368R | 3 |
| HIS 315L | 3 Electives | 6 |

Elective

## Bachelor of Architecture/Bachelor of Science in Architectural Engineering Dual Degree Program

As a six-year dual professional degree program, the Bachelor of Architecture/Bachelor of Science in Architectural Engineering is founded upon the mutual interests of both architecture and architectural engineering.

For admission to the dual degree program, a student must meet the Admission Requirements ( p .30 ) of the School of Architecture and the requirements given in Admission and Registration (p.150) for the Cockrell School of Engineering. Students are advised to contact both the School of Architecture and the Cockrell School of Engineering for specific information about the dual degree program.

Students in the dual degree program complete the requirements of the Bachelor of Architecture and the Bachelor of Science in Architectural Engineering degrees. See the descriptions for the the five-year Bachelor of Architecture (p. 33) degree program and the Bachelor of Science in Architectural Engineering (p. 160) for more information.

The following outline of courses is the suggested method for completing the requirements for both degrees simultaneously. Dual degree students must also consult the additional requirements of the Bachelor of Science in Architectural Engineering (p. 160) degree. Dual degree students are responsible for fulfilling the requirements of both degrees.

A student who follows the suggested arrangement of courses completes all requirements for both degrees at the end of the spring semester of the sixth year.

## Curriculum

A total of at least 197 hours of coursework is required for this dual degree program.

All students must complete the University's Core Curriculum (p. 20) as well as the courses listed in the following table. In some cases, a course that is required for the dual degree program may also be counted toward the core curriculum; these courses are identified below.

| Requirements <br> Architecture | Hours |  |
| :--- | :--- | ---: |
| Design |  |  |
| ARC 310K | Design I | 3 |
| ARC 310L | Design II | 3 |
| ARC 320K | Design III | 3 |
| ARC 520L | Design IV | 5 |
| ARC 520M | Design V | 5 |
| ARC 530T | Design VI | 5 |
| ARC 560R | Advanced Design (taken twice) | 10 |
| ARC 560T | Advanced Design | 5 |

## Visual communication

ARC 311K Visual Communication I 3
ARC 311L Visual Communication II 3
ARC 221 K Visual Communication III 2
ARC 361T Technical Communication 3

Professional practice

| ARC 362 | Professional Practice | 3 |
| :---: | :---: | :---: |
| Site design |  |  |
| ARC 333 | Site Design | 3 |
| Construction |  |  |
| ARC 335M | Construction V | 3 |
| History |  |  |
| ARC 308 | Architecture and Society (visual and performing arts) | 3 |
| ARC 318 K | World Architecture: Origins to 1750 | 3 |
| ARC 318L | World Architecture: The Industrial Revolution to the Present | 3 |
| ARC 368R | Topics in the History of Architecture (taken three times) | 9 |
| Core Curriculum Requirements |  |  |
| CRP 369K | Principles of Physical Planning | 3 |
| ARE 102 | Introduction to Architectural Engineering | 1 |
| ARE 217 | Computer-Aided Design and Graphics | 2 |
| ARE 323K | Project Management and Economics | 3 |
| ARE 335 | Materials and Methods of Building Construction | 3 |
| ARE 346N | Building Environmental Systems | 3 |
| ARE 346P | HVAC Design | 3 |
| or ARE 370 | Design of Energy Efficient and Healthy Buildings |  |
| ARE 465 | Integrated Design Project | 4 |
| ARE 366 | Contracts, Liability, and Ethics | 3 |
| CH 301 | Principles of Chemistry I (part II science and technology) | 3 |
| C E 311K | Introduction to Computer Methods | 3 |
| C E 311S | Probability and Statistics for Civil Engineers | 3 |
| C E 324P | Properties and Behavior of Engineering Materials | 3 |
| C E 319F | Elementary Mechanics of Fluids | 3 |
| C E 329 | Structural Analysis | 3 |
| C E 331 | Reinforced Concrete Design | 3 |
| or C E 335 | Elements of Steel Design |  |
| C E 333T | Engineering Communication | 3 |
| C E 357 | Geotechnical Engineering | 3 |
| E M 306 | Statics | 3 |
| E M 319 | Mechanics of Solids | 3 |
| GEO 303 | Introduction to Geology | 3 |
| M 408C | Differential and Integral Calculus (mathematics) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| M 427K | Advanced Calculus for Applications I | 4 |
| M E 320 | Applied Thermodynamics | 3 |
| PHY 303K | Engineering Physics I (physics sequence meets part I science and technology) | 3 |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 303L | Engineering Physics II | 3 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| Approved mathematics or science elective |  | 3 |
| Approved technical electives |  | 9 |
| Additional coursework to satisfy the core curriculum |  | 24 |
| Total Hours |  | 197 |

## Suggested Arrangement of Courses

First Year

| First Term | Hours Second Term | Hours |
| :--- | :---: | ---: |
| ARC 310K | 3 ARC 310L | 3 |
| ARC 311K | 3 ARC 311L | 3 |
| ARC 308 | 3 ARC 318K | 3 |
| ARE 102 | 1 M 408D | 4 |
| M 408C | 4 PHY 303K | 3 |
| UGS 302 or 303 | 3 PHY 103M | 1 |
|  | $\mathbf{1 7}$ | $\mathbf{1 7}$ |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| ARC 320K | 3 ARC 520L | 5 |
| ARC 221K | 2 ARC 333 | 3 |
| ARC 318L | 3 C E 311K | 3 |
| E M 306 | 3 CH 301 | 3 |
| PHY 303L | 3 E M 319 | 3 |
| PHY 103N | 1 |  |
| RHE 306 | 3 | 17 |

Third Yea
First Term
ARC 520M
C E 311S
C E 329
C E 324P
M E 320
Hours Second Term
Hours
5 ARC 530T
5
3 ARE 217
3 ARE 335 3
3 ARE 346N 3
3 M 427K
17
17
Fourth Year
First Term
ARC 368R
C E 319F
E 316L, 316M, 316N, or 316P
Approved mathematics or science elective

Social and behavioral sciences core
Hours Second Term
3 ARE 323K
3 C E 331 or 335 3
3 CE357 3
3 CRP 369 K

3 GOV 310L 3
15 15
Fifth Year
First Term
ARC 560R
ARE 346P or 370
Hours Second Term Hours
5 ARC 335M 3
3 ARE 3663
3 ARE 4654
3 Approved technical electives 6
3
17
Sixth Year
First Term
ARC 560T
ARC 361T
ARC 368 R
GEO 303
HIS 315L
Hours Second Term

3 ARC 362

3 GOV 312L

## Bachelor of Architecture/Bachelor of Arts, Plan II Dual Degree Program

The Bachelor of Architecture/Bachelor of Arts, Plan II, dual degree program is sponsored jointly by the School of Architecture and the College
of Liberal Arts. The five-year program, which includes summer sessions, offers the academic and professional advantage of a strong liberal arts background.

Students interested in this program should consult the Plan II Program (p. 308) description given in the College of Liberal Arts.

The following outline of courses is a suggested method for simultaneously completing the requirements for both degree programs. Students should consult their advisers, the lists below, and the Bachelor of Arts, Plan II (p. 308) degree program given in the College of Liberal Arts to ensure that their coursework plans will fulfill all requirements of both degrees.

## Curriculum

A total of at least 186 hours of coursework is required for this dual degree program.

All students must complete the University's Core Curriculum (p. 20) as well as the courses listed in the following table. In some cases, a course that is required for the dual degree program may also be counted toward the core curriculum; these courses are identified below.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Architecture |  |  |
| Design |  |  |
| ARC 310K | Design I | 3 |
| ARC 310L | Design II | 3 |
| ARC 320K | Design III | 3 |
| ARC 520L | Design IV | 5 |
| ARC 520M | Design V | 5 |
| ARC 530T | Design VI | 5 |
| ARC 560R | Advanced Design (taken three times) | 15 |
| ARC 560T | Advanced Design | 5 |
| Visual communication |  |  |
| ARC 311K | Visual Communication I | 3 |
| ARC 311L | Visual Communication II | 3 |
| ARC 221 K | Visual Communication III | 2 |
| ARC 361T | Technical Communication | 3 |
| Professional practice |  |  |
| ARC 362 | Professional Practice | 3 |
| Site design |  |  |
| ARC 333 | Site Design | 3 |
| Environmental controls |  |  |
| ARC 334K | Environmental Controls I | 3 |
| ARC 334L | Environmental Controls II | 3 |
| Construction |  |  |
| ARC 415K | Construction I | 4 |
| ARC 415L | Construction II | 4 |
| ARC 435K | Construction III | 4 |
| ARC 435L | Construction IV | 4 |
| ARC 335M | Construction V | 3 |
| History |  |  |
| ARC 308 | Architecture and Society (meets the visual and performing arts requirement of the core curriculum) | 3 |
| ARC 318K | World Architecture: Origins to 1750 | 3 |
| ARC 318L | World Architecture: The Industrial Revolution to the Present | 3 |
| ARC 368R | Topics in the History of Architecture (taken three times) | 9 |



| HIS 315K | 3 |  |  |
| :---: | :---: | :---: | :---: |
|  | 15 | 15 | 10 |
| Third Year |  |  |  |
| First Term | Hours Second Term | Hours Summer Term | Hours |
| ARC 520M | 5 ARC 530T | 5 Foreign language 312K or equivalent | 3 |
| ARC 435K | 4 ARC 435L | 4 Foreign language 312L or equivalent | 3 |
| ARC 334K | 3 ARC 334L | 3 GOV 310L | 3 |
| S S 301 | 3 BIO 301E | 3 GOV 312L | 3 |
|  | 15 | 15 | 12 |
| Fourth Year |  |  |  |
| First Term | Hours Second Term | Hours |  |
| ARC 560R | 5 ARC 560T | 5 |  |
| PHL 610QA | 3 ARC 361T | 3 |  |
| HIS 315L | 3 PHL 610QB | 3 |  |
| T C 357 | 3 T C 357 | 3 |  |
|  | Elective | 3 |  |
|  | 14 | 17 |  |
| Fifth Year |  |  |  |
| First Term | Hours Second Term | Hours |  |
| ARC 560R | 5 ARC 560R | 5 |  |
| ARC 335M | 3 ARC 362 | 3 |  |
| ARC 368R | 3 ARC 368R | 3 |  |
| T C 660HA | 3 CRP 369K | 3 |  |
| Additional natural science course prescribed by the | 3 T C 660HB | 3 |  |
| College of Liberal |  |  |  |
| Arts |  |  |  |
|  | 17 | 17 |  |

## Total credit hours: 186

## Bachelor of Science in Architectural Studies

The four-year, pre-professional Bachelor of Science in Architectural Studies (BSArchStds) degree program, with an optional architectural history track, is an excellent platform for future graduate studies in architecture and associated fields. The required coursework is concentrated in the first three years, leaving the fourth year to develop the student's career interests.

Applicants for admission to this program must fulfill the Requirements for Admission (p. 30) to the School of Architecture.

The Bachelor of Science in Architectural Studies alone does not fulfill the educational requirements for registration as an architect. Students interested in pursuing registration must complete a first-professional degree in architecture.

## Curriculum

A total of at least 125 hours of coursework is required for the Bachelor of Science in Architectural Studies.

All students must complete the University's Core Curriculum (p. 20) as well as the courses listed in the following table. In some cases, a course that is required for the BSArchStds may also be counted toward the core curriculum; these courses are identified below.

## Requirements

## Architecture

Design

| ARC 310K | Design I | 3 |
| :--- | :--- | :--- |
| ARC 310L | Design II | 3 |


| ARC 320K | Design III | 3 |
| :---: | :---: | :---: |
| ARC 520L | Design IV | 5 |
| ARC 520M | Design V | 5 |
| Visual communication |  |  |
| ARC 311K | Visual Communication I | 3 |
| ARC 311L | Visual Communication II | 3 |
| ARC 221 K | Visual Communication III | 2 |
| Design theory |  |  |
| ARC 350R | Topics in Design Theory | 3 |
| Site design |  |  |
| ARC 333 | Site Design | 3 |
| Environmental controls |  |  |
| ARC 334K | Environmental Controls I | 3 |
| Construction |  |  |
| ARC 415K | Construction I | 4 |
| ARC 415L | Construction II | 4 |
| ARC 435K | Construction III | 4 |
| History |  |  |
| ARC 308 | Architecture and Society (visual and performing arts) | 3 |
| ARC 318K | World Architecture: Origins to 1750 | 3 |
| ARC 318L | World Architecture: The Industrial Revolution to the Present | 3 |
| ARC 368R | Topics in the History of Architecture | 3 |
| Core Curriculum Requirements |  |  |
| M 408C | Differential and Integral Calculus (mathematics) | 4 |
| PHY 302K | General Physics--Technical Course: Mechanics, Heat, and Sound (physics sequence meets part I science and technology) | 3 |
| or PHY 303K | Engineering Physics I |  |
| PHY 102M | Laboratory for Physics 302K | 1 |
| or PHY 103M | Laboratory for Physics 303K |  |
| PHY 302L | General Physics--Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics | 3 |
| or PHY 303L | Engineering Physics II |  |
| PHY 102N | Laboratory for Physics 302L | 1 |
| or PHY 103N | Laboratory for Physics 303L |  |
| Upper-division humanities elective in literature, foreign language, philosophy, or another field approved by the undergraduate dean's office |  | 3 |
| Philosophy elective |  | 3 |
| Electives (foreign language courses that are used to remove an admission deficiency may not be used to fulfill this requirement and may not be counted toward the degree) |  | 20 |
| Additional coursework to satisfy the core curriculum |  | 27 |
| Total Hours |  | 125 |

## Electives

Twenty-six semester hours of electives are required for the completion of the Bachelor of Science in Architectural Studies degree program. These electives consist of three hours of upper-division coursework in humanities, three hours in philosophy, and twenty additional open elective Hours hours, generally completed outside the School of Architecture. Students pursuing the architectural history track must take eighteen of their twenty hours of open electives in architectural history. Up to six hours of related coursework taken at the University, and approved by the program director, may be used to fulfill the elective requirement.

## Suggested Arrangement of Courses

| First Year |  |
| :---: | :---: |
| First Term | Hours Second Term |
| ARC 310K | 3 ARC 310L |
| ARC 311 K | 3 ARC 311L |
| ARC 308 | 3 ARC 318K |
| M 408C | 4 PHY 302K |
| UGS 302 or 303 | 3 PHY 102M |
|  | RHE 306 |
|  | 16 |
| Second Year |  |
| First Term | Hours Second Term |
| ARC 320K | 3 ARC 520L |
| ARC 221 K | 2 ARC 415L |
| ARC 415 K | 4 ARC 333 |
| ARC 318L | 3 HIS 315K |
| PHY 302L | 3 |
| PHY 102N | 1 |
|  | 16 |
| Third Year |  |
| First Term | Hours Second Term |
| ARC 520M | 5 ARC 350R |
| ARC 435K | 4 Electives |
| ARC 334K | 3 |
| ARC 368R | 3 |
|  | 15 |
| Fourth Year |  |
| First Term | Hours Second Term |
| GOV 310L | 3 E 316L, 316M, 316N, or 316P |
| HIS 315L | 3 GOV 312L |
| Philosophy elective | 3 Approved upper-division humanities elective |
| Science and technology, part II, core course | 3 Electives |
| Social and behavorial sciences core course | 3 |

course
15
Hours

Total credit hours: 125

## Courses

The faculty has approval to offer the following courses in the academic years 2012-2013 and 2013-2014; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule at http://registrar.utexas.edu/schedules/ to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog. For current information, students should consult the schedule posted in the School of Architecture.

A full explanation of course numbers is given in General Information (http://registrar.utexas.edu/catalogs). In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits 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; if 80 through 99, of graduate rank.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University A (p. 675).

## Architectural Interior Design: ARI Lower-Division Courses <br> ARI 310K. Design I.

Same as Architecture 310K. Restricted to students in the School of Architecture. 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. Three lecture hours and six laboratory hours a week for one semester. Offered on the lettergrade basis only. Prerequisite: Registration for Architectural Interior Design 311K or Architecture 311K.

## ARI 310L. Design II.

Same as Architecture 310L. Restricted to students in the School of Architecture. 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. Three lecture hours and six laboratory hours a week for one semester. Offered on the lettergrade basis only. Prerequisite: The following coursework with a grade of at least C in each: Architectural Interior Design 310K and 311 K , or Architecture 310K and 311K; and registration for Architectural Interior Design 311L.

## ARI 311K. Visual Communication I.

Same as Architecture 311K. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for designers, including formal and spatial studies, life drawing, and perspective. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Registration for Architectural Interior Design 310K or Architecture 310K.

## ARI 311L. Visual Communication II.

Same as Architecture 311L. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for designers, including color, light and shadow, and projections. Employs manual and digital techniques. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C in each: Architectural Interior Design 310 K and 311 K , or Architecture 310 K and 311 K ; and registration for Architectural Interior Design 310L or Architecture 310L.

## ARI 318K. 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. Three lecture hours a week for one semester. Prerequisite: For students in the School of Architecture, none; for others, consent of instructor.

## ARI 318M. Interior Design History.

Survey of interior design from antiquity through the eighteenth century, including theoretical, social, technical, and environmental forces. Three lecture hours a week for one semester. Prerequisite: Architectural Interior Design 318 K with a grade of at least C .

## Upper-Division Courses <br> ARI 320K. Design III--Interiors.

Restricted to students in the School of Architecture. 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. Nine hours of lecture and studio a week for one semester. Prerequisite: The following coursework with a grade of at least C in each: Architectural Interior Design 310L and 311L, or Architecture 310L and 311L; and registration for Architectural Interior Design 221K or Architecture 221 K .

## ARI 520L. Design IV--Interiors.

Restricted to students in the School of Architecture. 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. Fifteen hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 320K, Architecture 415K, and Architectural Interior Design 221K or Architecture 221 K , with a grade of at least C in each.

## ARI 221K. Visual Communication III.

Same as Architecture 221K. Restricted to students in the School of Architecture. Introduction to digital modeling as well as principles of digital fabrication. Includes various modes of output such as drawings, renderings, and physical models. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C in each: Architectural Interior Design 310L and 311L, or Architecture 310L and 311L; and registration for Architectural Interior Design 320K or Architecture 320K.

## ARI 324K. Environmental Controls I.

Same as Architecture 334K. Restricted to students in the School of Architecture. A survey of acoustics, color, light, illumination, and electrical and information systems in architectural interiors. Includes techniques of documentation. Three lecture hours and three laboratory hours a week for one semester. Architectural Interior Design 324K and Architecture 334K may not both be counted. Prerequisite: Architectural Interior Design 520L or Architecture 520 L with a grade of at least C.

## ARI 130. Interior Design Internship.

Restricted to students in the School of Architecture. Practical application of design procedures in a professional design office. At least 250 hours of work in one semester. Prerequisite: Architectural Interior Design 530T.

## ARI 530K. Design V--Interiors.

Restricted to students in the School of Architecture. 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. Fifteen hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 520L and 434 K with a grade of at least C in each.

## ARI 530T. Design VI--Interiors.

Restricted to students in the School of Architecture. Capstone studio with specific design projects from current markets. Application of code issues, regulatory restraints, fire safety, and regulations for accessibility in interiors. Fifteen hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 324 K and 530 K with a grade of at least C in each.

## ARI 434K. Construction II--Interior Materials and Assemblies.

Restricted to students in the School of Architecture. 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. Six hours of lecture and laboratory a week for one semester. Prerequisite: Architecture 415 K with a grade of at least C .

## ARI 338. Designing for Human Behavior.

Issues of mood, privacy, perception, proxemics, and preferences applied to the design of interiors. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ARI 350R. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For students in the School of Architecture, upper-division standing; for others, upper-division standing and consent of instructor.

## ARI 560R. Advanced Interior Design.

Restricted to students in the School of Architecture. Synthesis of components covered in other interior design courses, such as human aspects, place-making, the interior envelope, transitional spaces, and conceptual processes. Fifteen hours of lecture and studio a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Architectural Interior Design 530T with a grade of at least C and satisfactory completion of a third-year portfolio review.

## ARI 362. Interior Design Practice.

Restricted to students in the School of Architecture. Business procedures, professional practice, design project control and management, and professional ethics. Documents procedures for interior design. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

## ARI 368R. Interior Design History II.

Study of function and aesthetics, and decoration and use, emphasizing interiors from the nineteenth century to the present. Three lecture hours a week for one semester. Prerequisite: Architectural Interior Design 318M with a grade of at least C .

## ARI 279, 379. Interior Design Research.

Investigation of problems selected by the student with approval of the supervising instructor. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Upper-division standing and consent of instructor and the dean.

## Architecture: ARC

## Lower-Division Courses

ARC 001F. First-Year Interest Group Seminar.
Restricted to students in the First-Year Interest Group Program. Basic issues in various School of Architecture disciplines. One lecture hour a week for one semester.

## ARC 308 (TCCN: ARCH 1311). Architecture and Society.

Introduction to the social contexts, potential, and consequences of architecture and interior design. Three lecture hours and one laboratory hour a week for one semester.

## ARC 310K. Design I.

Same as Architectural Interior Design 310K. Restricted to students in the School of Architecture. 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. Three lecture hours and six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Registration for Architectural Interior Design 311K or Architecture 311K.

## ARC 310L. Design II.

Same as Architectural Interior Design 310L. Restricted to students in the School of Architecture. 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. Three lecture hours and six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C in each: Architectural Interior Design 310 K and 311 K , or Architecture 310K and 311 K ; and registration for Architectural Interior Design 311L.

## ARC 311K. Visual Communication I.

Same as Architectural Interior Design 311K. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for designers, including formal and spatial studies, life drawing, and perspective. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Registration for Architectural Interior Design 310K or Architecture 310K.

## ARC 311L. Visual Communication II.

Same as Architectural Interior Design 311L. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for designers, including color, light and shadow, and projections. Employs manual and digital techniques. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C in each: Architectural Interior Design 310K and 311K, or Architecture 310K and 311K; and registration for Architectural Interior Design 310L or Architecture 310L.

## ARC 415K. Construction I.

Restricted to students in the School of Architecture. Introduction to building construction, materials, and structures. Three lecture hours and three laboratory hours a week for one semester.

## ARC 415L. Construction II.

Restricted to students in the School of Architecture. Analysis of building assemblies, envelope design, and structures. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Architecture 415 K with a grade of at least C; Mathematics 408C or 408K; and Physics 302 K and 102 M , or 303 K and 103 M .

## ARC 318K (TCCN: ARCH 1301). World Architecture: Origins

 to 1750.Comparative study of the architecture of the ancient world, including Asia, Africa, the Americas, and Europe. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Architecture 308 with a grade of at least C.

## ARC 318L (TCCN: ARCH 1302). World Architecture: The Industrial Revolution to the Present.

Three lecture hours a week for one semester. Prerequisite: Architecture 318 K with a grade of at least C.

ARC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May not be counted toward a degree in the School of Architecture. May be repeated for credit when the topics vary.

## Upper-Division Courses

## ARC 320K. Design III.

Restricted to students in the School of Architecture. Intermediate-level studio addressing spatial, tectonic, environmental, social, and theoretical issues in architectural design. Taught in a studio format by faculty members under the direction of a faculty coordinator. Nine hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 310L and 311L, or Architecture 310L and 311L, with a grade of at least $C$ in each.

## ARC 520L. Design IV.

Restricted to students in the School of Architecture. Intermediate-level studio addressing urban design and building design. Taught in a studio format by faculty members under the direction of a faculty coordinator. Fifteen studio hours a week for one semester. Prerequisite: Architecture $415 \mathrm{~K}, 320 \mathrm{~K}$, and Architectural Interior Design 221 K or Architecture 221 K , with a grade of at least $C$ in each.

## ARC 520M. Design V.

Restricted to students in the School of Architecture. Intermediate-level studio with an emphasis on theory and research. Taught in a studio format by faculty members under the direction of a faculty coordinator. Fifteen studio hours a week for one semester. Prerequisite: Architecture 415L and 520 L with a grade of at least $C$ in each.

## ARC 221K. Visual Communication III.

Same as Architectural Interior Design 221K. Restricted to students in the School of Architecture. Introduction to digital modeling as well as principles of digital fabrication. Includes various modes of output such as drawings, renderings, and physical models. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least $C$ in each: Architectural Interior Design 310 L and 311L, or Architecture 310L and 311L; and registration for Architectural Interior Design 320K or Architecture 320K.

ARC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May not be counted toward a degree in the School of Architecture. May be repeated for credit when the topics vary.

## ARC 530T. Design VI.

Restricted to students in the School of Architecture. Intermediatelevel studio addressing the requirements of sound buildings--their programmatic, spatial, and tectonic resolution and their relationships to the physical and social context of the site. Taught in a studio format by faculty members under the direction of a faculty coordinator. Fifteen studio hours a week for one semester. Prerequisite: Architectural Interior Design 324 K , and Architecture 520 M and 435 K , with a grade of at least C in each.

## ARC 333. Site Design.

Restricted to students in the School of Architecture. History, theory, and technique of landscape design, with emphasis on the relationship of a building to its landscape. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ARC 334K. Environmental Controls I.

Same as Architectural Interior Design 324K. Restricted to students in the School of Architecture. A survey of acoustics, color, light, illumination, and electrical and information systems in architectural interiors. Includes techniques of documentation. Three lecture hours and three laboratory hours a week for one semester. Architectural Interior Design 324K and Architecture 334 K may not both be counted. Prerequisite: Architectural Interior Design 520L or Architecture 520L with a grade of at least C.

## ARC 334L. Environmental Controls II.

Restricted to students in the School of Architecture. A survey of heating, ventilating, air conditioning, vertical transportation, and wiring and plumbing systems in buildings, including techniques of documentation. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Architectural Interior Design 324 K with a grade of at least C.

## ARC 435K. Construction III.

Restricted to students in the School of Architecture. Building construction and materials theories; structural component analysis and design. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Architecture 415L with a grade of at least C; Mathematics 408C or 408L; and Physics 302L and 102N, or 303L and 103N.

## ARC 435L. Construction IV.

Restricted to students in the School of Architecture. Theories of building behavior and materials; structural system analysis and design. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Architecture 435 K with a grade of at least C.

## ARC 335M. Construction V.

Restricted to students in the School of Architecture. Advanced analysis of building envelope, assemblies, detailing, and specifications. Three lecture hours a week for one semester. Prerequisite: Architecture 435L with a grade of at least $C$.

## ARC 350R. Topics in Design Theory.

Advanced topics in architecture and associated disciplines to encourage critical and theoretical thinking. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For students in the School of Architecture, upper-division standing; for others, upper-division standing and consent of instructor; additional prerequisites may vary with the topic.

Topic 1: The Modern American City. Same as Geography 337 and Urban Studies 352 (Topic 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. Prerequisite: Upper-division standing.
Topic 2: American Dream: Status Quo and Alternatives. Same as Urban Studies 352 (Topic 2: American Dream: Status Quo and Alternatives).
Topic 3: Urban Design Practice. Same as Urban Studies 352 (Topic 3: Urban Design Practice).
Topic 4: Economy/Value/Quality of Life. Same as Urban Studies 352 (Topic 4: Economy/Value/Quality of Life).

## ARC 351R. Visual Communication.

Advanced topics in various methods of visual communication. Three lecture hours or six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Architecture 520L with a grade of at least $C$, or consent of instructor.

Topic 1: Computer Applications in Design. Six studio hours a week for one semester.

Topic 2: Introduction to Computer Applications. Six studio hours a week for one semester.
Topic 4: Composition, Presentation, and Portfolio. Three lecture hours a week for one semester.
Topic 5: Descriptive Geometry. Three lecture hours a week for one semester.
Topic 6: Drawing Clinic. Three lecture hours a week for one semester.
Topic 7: Introduction to Computer Imaging. Three lecture hours a week for one semester.
Topic 8: Seeing Things: General Drawing. Three lecture hours a week for one semester.
Topic 9: Solid Geometry Drawing. Three lecture hours a week for one semester.
Topic 10: Visual Communication Exercises. Three lecture hours a week for one semester.
Topic 11: Wood Design. Three lecture hours a week for one semester.

## ARC 560R. Advanced Design.

Restricted to students in the School of Architecture. Advanced problems in architectural design. Three lecture hours and twelve laboratory hours a week for one semester. May be repeated for credit. Offered on the lettergrade basis only. Prerequisite: Architecture 530T with a grade of at least C and satisfactory completion of third-year portfolio review.

## ARC 560T, 660T. Advanced Design.

For 560T, restricted to students in the School of Architecture; for 660T, restricted to students participating in the School of Architecture's professional residency program. Comprehensive studio to develop the student's ability to combine the elements of a thorough building design. For 560T, fifteen laboratory hours a week for one semester; for 660T, eighteen laboratory hours a week for one semester. Prerequisite: Architecture 560R with a grade of at least $C$ and registration for Architecture 361T.

## ARC 361T. Technical Communication.

Restricted to students in the School of Architecture. Studio to produce construction documents for buildings designed in Architecture 560T. Six studio hours a week for one semester. Prerequisite: Architecture 560R with a grade of at least $C$, and registration for Architecture 560T or 660T.

## ARC 362. Professional Practice.

Restricted to students in the School of Architecture. Ethical, legal, and administrative responsibilities of the architect; organizations, processes, and roles in architecture. Three lecture hours a week for one semester. Prerequisite: Architecture 560R with a grade of at least C.

## ARC 368R. Topics in the History of Architecture.

Seminars and lecture/seminars on advanced topics in the history of architecture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For students in the School of Architecture, Architecture 318L with a grade of at least C; for others, consent of instructor.

## ARC 279, 379, 479, 579. Architectural Research.

Investigation of problems selected by the student with the approval of the supervising instructor and the associate dean for undergraduate programs. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. A grade of at least $C$ is required for degree credit. Prerequisite: Consent of instructor.

## Community and Regional Planning: CRP

## Lower-Division Courses

## Upper-Division Courses

CRP 369K. Principles of Physical Planning.
Same as Urban Studies 352 (Topic 6). Introductory course in the physical dimension of urban planning. Three lecture hours a week for one semester. Only one of the following may be counted: Community and Regional Planning 369K, Urban Studies 352 (Topic: Principles of Physical Planning), 352 (Topic 6). Prerequisite: For students in the School of Architecture: Architecture 560R with a grade of at least C ; for others, consent of instructor.

# Red McCombs School of Business 

Thomas W. Gilligan, PhD, Dean<br>Jay C. Hartzell, PhD, Senior Associate Dean, Academic Affairs David E. Platt, PhD, Associate Dean, Undergraduate Program<br>Arthur T. Allert, BA, BSEd, Assistant Dean, Undergraduate Program http://www.mccombs.utexas.edu/bba

## General Information

## Mission

The undergraduate program of the Red McCombs School of Business seeks to educate its students through an innovative curriculum, excellent teaching, cutting-edge research, and involvement with industry and society. Through an environment that emphasizes opportunity, diversity, and ethical behavior, the McCombs School seeks to transform the lives of its students as it prepares them to become the business leaders of tomorrow.

## History

Courses in business were first offered at the University in 1912; there were a total of nine courses and two faculty members. The Bachelor of Business Administration (BBA) was created as a degree in 1916 with nine students graduating in the inaugural class of 1917. The business program became a charter member in 1916 of the American Association of Collegiate Schools of Business, the accrediting agency for business schools, and is currently fully accredited for both business and accounting.

The School of Business Administration was created in 1922, the outgrowth of the work in business administration first offered in the College of Arts and Sciences in the fall of 1912. In 1945, the school was reorganized as a college; in 2000, the college was renamed in honor of University alumnus and benefactor Red McCombs. The school includes the departments of accounting; business, government, and society; finance; information, risk, and operations management; management; and marketing. Coursework in business may lead to the degree of Bachelor of Business Administration and to several advanced degrees, described in the Graduate Catalog.

## Facilities

The McCombs School is housed in the George Kozmetsky Center for Business Education. This three-building complex includes modern classrooms and offices, lecture rooms with multimedia equipment, conference and communal study rooms, as well as lounges for informal student and teacher interaction. Computer classrooms, computer laboratories, the Financial Trading and Technology Center, and a behavioral science laboratory are also available. Computer and computer-access facilities are available to students, faculty members, and staff members. The McCombs School of Business has its own computer network that links to the school's laboratories and computing resources. The network is also connected to the University's computing infrastructure.

Students enrolled in a degree program at the McCombs School of Business will be expected to own a portable computing device suitable for use in the classroom and on the University wireless network.

## Financial Assistance Available through the School

Students who are enrolled in the McCombs School of Business are eligible for scholarships and awards funded by industry, foundations, and individuals. Some of these awards are available school-wide, while others are restricted to students in one department. Since funds are limited, students selected to receive an award must demonstrate outstanding academic aptitude and a firm commitment to a business education.

Most scholarships for continuing students are reserved for students who have declared a business major. Generally, one hundred to two hundred school scholarships are awarded annually, in amounts of $\$ 500$ to $\$ 2,500$; some are renewable. Criteria for awarding scholarships vary to meet the wishes of the donors but often include financial need, academic performance, major area of study, and hometown. Descriptions of school scholarships and applications for them are available on the BBA Program Office Web site in February of each year. The deadline for submission is the end of February for scholarships for the following academic year. Recipients are selected by the BBA Program Office of the school and are usually notified during the summer.

Departmental scholarships are generally reserved for juniors and seniors majoring in a program of the department. Because departmental scholarships are normally funded by annual contributions, the number of scholarships and the amounts awarded vary among departments and over time. Criteria for departmental awards are specified by the donors and include the same kinds of characteristics as those established for school-wide awards; deadlines and other elements of the selection process also vary among departments. Interested students should contact the major department for further information.

## Student Services

The BBA Program Office provides administrative support and a wide array of student services for the school. Student services are offered to all enrolled BBA students to enhance their academic experience and professional development, and include academic advising, career services, study abroad, and leadership development.

## Academic Advising

Upon admission to the McCombs School every undergraduate student is assigned to a professional academic adviser. Academic advisers in the BBA Program Office provide individualized, comprehensive advising and serve as a referral resource to students to ensure timely progress toward degree completion. Faculty advisers are also available in each academic department to help students explore their educational and career goals.

All students are encouraged to meet regularly with their assigned advisers. However, those who have been enrolled in the school for at least one semester are permitted to self-advise and register without consulting an academic adviser. To be eligible to self-advise, the student must have a University grade point average of at least 2.00. Like all undergraduate students, those who self-advise are responsible for knowing the requirements of the degree program they have chosen, for enrolling in courses appropriate to that degree program, for meeting the prerequisites of the courses selected, and for taking courses in the proper sequence to ensure timely progress toward the degree. See Student Responsibility (p. 16) in The University section for more information.

## Career Services

BBA Career Services offers job search assistance to enrolled business students. The purpose of the office is to help students determine their career goals, develop a plan for achieving these goals, and select and obtain employment commensurate with their goals, interests, and training.

To help students prepare for their career search, the office presents workshops on résumé writing, interviewing, conducting a job search, evaluating offers, and other career interest areas.

In addition to the career-related workshops, the BBA Career Advising team also teaches the required courses Business Administration 101S, 101 H , and 101 T to freshmen and transfer students. These courses will present the foundations for executing a successful job search and will focus on career management as a lifelong process. This course assists business students with planning, implementing and evaluating their careers. After completing these courses, students can implement job search strategies and interviewing techniques in pursuing internship and full-time employment opportunities.

Most students obtain their internship, which is a required part of the undergraduate business curriculum, at the end of their junior year. However, BBA Career Services encourages freshmen and sophomores to attend its recruiting activities and events, which can help them obtain various internships prior to the required internship. These experiences can help students develop their résumés and job search skills.

BBA Career Services maintains additional career resources and general business publications in their office. About fourteen thousand individual interviews for internships and full-time opportunities are arranged annually with employers in business, industry, government, and not-for-profit organizations. Several hundred firms conduct on-campus interviews at the McCombs School each year.

Another resource for employers, students, and alumni is the online McCombs Job Board. The Job Board helps recruiters reach business alumni and current students. It complements the on-campus recruiting program by allowing companies to recruit candidates for a wide variety of roles in their organizations throughout the calendar year.

More information about BBA Career Services is provided by the McCombs School at http://www.mccombs.utexas.edu/BBa/CareerServices.

As a complement to the assistance available from the school, the Center for Strategic Advising \& Career Counseling (http://www.utexas.edu/ugs/ csacc) serves students across campus who are exploring majors and careers. The center helps students learn more about their interests, skills and values; define short and long term goals; identify suitable major and career options; seek an internship; and plan for their job search or for graduate study.

The University makes no promise to secure employment for each graduate, but rather provides the tools and resources to ensure that students have access to employment opportunities.

## Student Organizations

Student organizations play a vital role in the educational experience offered by the University. Students who become involved in organizations gain experience in leadership, teamwork, networking, time management, and other practical areas. This experience, when combined with the theoretical knowledge gained in the classroom, helps students develop a well-rounded set of skills for use academically, professionally, and personally.

The Undergraduate Business Council (UBC) is the governing student body in the school. It is made up of representatives from McCombs Affiliated Student Organizations, an executive board, representatives elected by the student body, and members appointed by the executive board. The UBC represents all undergraduate business students in university affairs, and sponsors programs such as McCombs Kickoff,

Family Weekend, the VIP Distinguished Speaker Series, and the Faculty Honor Roll.

Business student organizations sponsor professional activities such as guest lectures, field trips, and faculty chats; many offer social activities as well. The McCombs Affiliated Student Organizations are:

## Student Organizations

American Marketing Association
Asian Business Students Association
ALPFA
Alpha Kappa Psi
Beta Alpha Psi
Black Business Student Association
Business Engineering Association
Business Healthcare Association
Delta Sigma Pi
Freshman Business Association
GLBTQA Business Student Association
Global Business Brigades
Hispanic Business Students Association
Honors Business Association
Investment Banking Industry Group
Jewish Business Students Association
Management Consulting Association
Management Information Systems Association
McCombs Diversity Council
National Association of Black Accountants
Phi Chi Theta
Student Consulting Initiative
Supply Chain Management Student Organization
Texas Analyst Association
Texas Enactus
Texas Energy Forum
Texas Sports Business Council
Texas Startup and Venture Capital Group
University Accounting Association
Undergraduate Business Council, University Finance Association
University Investors Association
University Management Association
University Real Estate Society
Universities Securities Investment Team
Women in Business Association

## Study Abroad

BBA International Programs offer McCombs School of Business students the opportunity to study abroad in two main ways: on an exchange program (summer, semester or academic year) at one of our many partner schools around the world; and on short-term, faculty-led summer programs, offering pre-determined McCombs courses which are taught abroad in various international locations. Both types of study abroad opportunities enable students to make progress toward their University degree requirements while gaining valuable intercultural experiences. More information is available at http://www.mccombs.utexas.edu/bba/ip/.

## Leadership Development Program

The Leadership Program (LP) gives students access to unique leadership development programs and activities. All business majors who are not in
the Business Honors Program and are freshmen, sophomores, or transfer students may apply. The LP requires a four-year commitment from freshmen and a three-year commitment from sophomores and transfer students. The primary goal of the Leadership Program is to enhance student learning and development as it relates to self-knowledge and leadership competence, and to expand the student's leadership portfolio during his or her time at the McCombs School of Business.

Admission to the Leadership Program is limited to a small number of students who are chosen on a competitive basis each year. More information and an online application form are available at http:// www.mccombs.utexas.edu/BBA/OSL/Leadership-Development/ Leadership-Program.aspx.

## Admission and Registration

## Admission

## Admission Policies of the School

Admission and readmission of undergraduate students to the University is the responsibility of the University director of admissions. Information about admission to the University is given in General Information (http:// catalog.utexas.edu/general-information/admission/undergraduateadmission).

Each year there are more qualified applicants to the McCombs School than can adequately be instructed by the faculty or accommodated within existing facilities. To provide students with the best educational experience possible, the school must limit undergraduate admission. Therefore, admission to the school is extremely competitive and admission requirements are more stringent than those of the University. As a result, a student may be admitted to the University but denied admission to the school. The student must be admitted to the school to pursue a degree program described in this catalog.

Admission to the school is granted for the fall semester only; summer session admission may be possible for freshmen. Students admitted for fall are expected to attend Orientation the summer before they enter the school.

## Freshman Admission Requirements for Texas Residents

To be considered for admission to the school, Texas-resident high school students must be granted regular admission to the University. However, because enrollment is limited by the availability of instructional resources, admission requirements for business degree programs are more restrictive than those of the University. High school rank, SAT Reasoning Test or American College Testing Program (ACT) scores, extracurricular activities, and essays are among the factors used in making admission decisions. A student who is admitted to the University but denied admission to the school may seek admission to another academic program at the University.

## Freshman Admission Requirements for Nonresidents

Because of enrollment restrictions dictated by the availability of faculty and facilities in the school and by the limitations on nonresident enrollment imposed by the Board of Regents, nonresident applicants may find the admission process extremely competitive.

## Application Procedures for Freshman Admission

Students may apply for admission through the Office of Admissions Web site, http://bealonghorn.utexas.edu. To be considered for admission to the McCombs School of Business, the student should specify business as his or her intended major. All application materials must be submitted to the Office of Admissions by the deadline to apply for admission to the University for the summer session or fall semester; these dates are given in General Information (http://catalog.utexas.edu/general-information/ admission/undergraduate-admission).

## Admission with Deficiencies

Students who were admitted to the University with deficiencies in high school units must remove them by the means prescribed in General Information (http://catalog.utexas.edu/general-information/admission/ undergraduate-admission/freshman-admission). Credit used to remove a deficiency may not be counted toward the degree. It may be earned on the pass/fail basis. Students may not declare a major until high school unit deficiencies have been removed.

## Foreign Language Proficiency

A student who transfers to the university must provide evidence that he or she has fulfilled the foreign language proficiency requirement for the Bachelor of Business Administration degree. Students may not declare a major until the foreign language proficiency requirement has been met.

## Admission-to-Major Requirements for Students Previously Enrolled in the School

A former student who was most recently enrolled in the McCombs School of Business and who is readmitted to the University reenters the major in which he or she was last enrolled. However, a former business student who has earned a Bachelor of Business Administration degree at the University is readmitted with the classification "non-degree seeking student."

A former student who was most recently classified as a prebusiness student will be readmitted to the transitional student classification. The student may then apply for admission to a business major according to the procedures given in the section Internal Transfer.

## Transfer

## Internal Transfer

Students enrolled in other degree programs at the University who wish to enter a degree program described in this catalog must submit an application for a change of major to the BBA Program Office by May 15 to be considered for admission in the following fall semester. The following minimum requirements for consideration are in addition to the requirements to transfer from one division to another that are given in General Information (http://catalog.utexas.edu/general-information/ registration-tuition-and-fees/transfer-from-one-division-to-another-within-the-university).

1. Completion of twenty-four semester hours of coursework in residence on the letter-grade basis by the end of the preceding spring semester
2. Completion of Mathematics 408 K and 408L, Mathematics 408 N and 408S, or Mathematics 408C and 408D, or the equivalent
3. Completion of Economics 304 K and 304 L
4. Completion of the foreign language proficiency requirement of two years of a single foreign language in high school or one year of a single foreign language in college
5. A grade point average of at least 3.00 on University in-residence coursework

An applicant's disciplinary record, as maintained by the Office of the Dean of Students, will be reviewed for academic dishonesty or other violations of University policy. Violations will be reported to the Admissions Committee and taken into account as part of the application process. Violations may exclude a student from admission depending on the nature and severity of the offense(s).

Admission is granted on a space-available basis and may not be possible if instructional resources are not compatible with enrollment demands. A student with a grade point average of less than 3.40 is unlikely to be admitted to the school.

## External Transfer

A student seeking to transfer to the McCombs School of Business from another university should list business as his or her intended major on the admission application. Because students are not admitted to the school for the spring, application materials must be submitted to the Office of Admissions by the appropriate deadline for the student to be considered for admission in the following fall semester. The following minimum requirements for consideration are in addition to the requirements for transfer admission that are given in General Information.

1. Completion of Mathematics 408 K and 408 L , Mathematics 408 N and 408S, Mathematics 408C and 408D, or Mathematics 403K and 403L, or the equivalent
2. Completion of Economics 304 K and 304 L
3. Completion of the foreign language proficiency requirement of two years of a single foreign language in high school or one year of a single foreign language in college
4. A grade point average of at least 3.00 on transferable college credit

Because of enrollment restrictions dictated by the availability of faculty and facilities in the school and by the limitations on nonresident enrollment imposed by the Board of Regents, an applicant may be denied admission to the McCombs School even though he or she meets University transfer requirements. Such an applicant may seek admission to another academic program at the University. A student with a grade point average of less than 3.50 is unlikely to be admitted to the McCombs School.

## Declaring a Major

Each student is admitted to the McCombs School with an unspecified major. The student may declare a specific business major when he or she has completed thirty semester hours of coursework, including Business Administration 101H, 101S, or 101T, Economics 304K and 304L, Mathematics 408C, 408K, or 408N, and Mathematics 408D, 408L, or 408S; has registered with BBA Career Services; and has fulfilled the foreign language proficiency requirement for the Bachelor of Business Administration degree. All students are required to declare a major before completing seventy-five semester hours. Students may declare their majors online at https://utdirect.utexas.edu/business/bba/. A student seeking admission to the integrated MPA or the Business Honors Program must complete a separate application; requirements for admission to these programs are given in the Accounting (p. 54) and Business Honors Program (p. 55) sections, respectively.

## Registration

General Information gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule (http:// www.registrar.utexas.edu/schedules), published before registration
each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and General Information are published on the registrar's Web site, http://registrar.utexas.edu/. Registration information specific to BBA students can be found at http://www.mccombs.utexas.edu/BBA/ Registration.

## Academic Policies and Procedures

## Honors

## University Honors

The designation University Honors, awarded at the end of each longsession semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered. Criteria for University Honors are given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/honors/university-honors).

## Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/honors/graduation-with-university-honors). Historical honors information for the McCombs School of Business BBA Program can be found on the college Web site.

## School Honors Program

The Business Honors Program is available to outstanding students who have distinguished themselves inside the classroom and out by superior performance during high school or in their first year at the University. The program is described in Business Honors Program (p. 55).

## Graduation

## Special Requirements of the School

All students must fulfill the minimum General Requirements (p. 17) for graduation given in The University section. Business students must also fulfill the following requirements:

1. All University students must have a grade point average of at least 2.00 to graduate. Business students must also have a grade point average in business courses of at least 2.00. Students in the Business Honors Program must have a University grade point average and a grade point average in business courses of at least 3.25. Students in the integrated BBA/MPA program must have a grade point average of at least 3.00 in all coursework taken as part of the minimum thirty-fivehour graduate program; they must also have a grade point average of at least 3.00 in graduate accounting coursework.
2. The University requires that at least six semester hours of advanced coursework in the major field of study be completed in residence. The McCombs School of Business requires that at least twelve semester hours of upper-division coursework in the major must be completed in residence at the University on the letter-grade basis.
3. A candidate for a degree must be registered in the McCombs School of Business either in residence or in absentia the semester or summer session the degree is to be awarded. Students must apply for the degree no later than the date specified in the official academic calendar. An exception is that eligible students in the integrated BBA/

MPA program will automatically be granted their BBA accounting degrees at the end of four years unless they opt out. Integrated BBA/MPA students are expected to complete their BBA accounting degrees within four years as a milestone toward their MPA degrees. Integrated BBA/MPA students who are not automatically granted their BBA accounting degrees at the end of four years must apply when they are eligible for the degree no later than the date specified in the official academic calendar.

## Degree Audit

All McCombs students are advised to monitor their degree progress through regular use of the online Interactive Degree Audit. IDA provides the student with a report of his or her progress toward completion of requirements for a specific degree program. In addition to using IDA, students are encouraged to meet regularly with their academic adviser in the BBA Program Office. The degree audit is not a substitute for individual advising.

## Applying for Graduation

A degree candidate must apply for the degree no later than the date given in the official academic calendar, except for the integrated BBA/ MPA program as noted above under Special Requirements of the School. No degree will be conferred unless the diploma application form has been properly filed. Further information, resources, and a link to the graduation application are available at http://www.mccombs.utexas.edu/ BBA/Graduation. Freshmen are expected to complete their degree within four years, and transfer students are expected to complete their degree in a timely manner.

## Degrees and Programs

Degree requirements are listed below under BBA Degree
Requirements and under individual major degree requirements (http:// catalog.utexas.edu/undergraduate/business/degrees-and-programs/ bachelor-of-business-administration). For a complete list of requirements for a degree, the student should combine the degree requirements in these two sections with the University's minimum General Requirements (p. 17) for graduation.

## The Minor*

While a minor is not required as part of the BBA degree program, the student may choose to complete a minor in either a second business field or a field outside the school. A student may complete only one minor. The minor consists of at least twelve semester hours in a single field, including at least nine hours of upper-division coursework. Students who minor in management information systems may count Management Information Systems 304 toward the requirement of nine hours of upper-division coursework. Students who minor in any area of finance must take Finance 367 as three of the required twelve hours.

Six of the required hours must be completed in residence. A course used to fulfill the requirements of a minor may not be taken on the pass/fail basis unless the course is offered only on that basis. An internship course may not be counted toward the minor.

The McCombs School allows the student to minor in any field in which the University offers a major. However, prerequisites and other enrollment restrictions may prevent the student from minoring in some fields.

## Applicability of Certain Courses Physical Activity Courses

Physical activity (PED) courses are offered by the Department of Kinesiology and Health Education. They may not be counted toward the Bachelor of Business Administration degree. However, they are counted among courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

No more than twelve semester hours of air force science, military science, or naval science coursework may be counted toward the Bachelor of Business Administration degree. ROTC courses may be used only as nonbusiness electives and may be counted toward the degree only by students who complete the third and fourth years of the ROTC program and accept a commission in the service.

## Courses Taken on the Pass/Fail Basis*

A business student may count toward the degree up to four one-semester courses in elective subjects outside the major taken on the pass/fail basis; only electives, nonbusiness electives, and upper-division nonbusiness electives may be taken on the pass/fail basis. Business courses taken on the pass/fail basis cannot be counted toward the major, unless they are offered only on the pass/fail basis. Credit earned by examination is not counted toward the total number of courses that the student may take pass/fail.

Complete rules on registration on the pass/fail basis are given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/evaluation/symbols/\#passfail).

## University Extension Self-Paced and Semester-Based Courses*

Students planning to take self-paced or semester-based University Extension courses should consult with the BBA Program Office before doing so to ensure compliance with the following restrictions:

1. Credit that an in-residence University student earns simultaneously through University Extension or similar means from another institution should be discussed in advance with the student's academic adviser to determine business degree applicability.
2. A student may not be enrolled concurrently for courses from University Extension or another institution during his or her last semester without jeopardizing graduation eligibility.
3. With regard to registration on the pass/fail basis, extension courses are subject to the same restrictions as courses taken in residence; these restrictions are given in the section Courses Taken on the Pass/ Fail Basis.

## Concurrent Enrollment*

To ensure degree applicability, students are urged to consult with their academic adviser before registering concurrently at another institution, either for resident coursework or for a distance education course, and before enrolling in University Extension self-paced or semester-based coursework. A student may not be enrolled concurrently during his or her last semester in any course to be counted toward the degree without jeopardizing graduation eligibility.

## Certificate Programs

Certificate programs in the McCombs School are designed to allow undergraduate students to develop an area of expertise in addition to their major program. The required number of hours to earn any certificate may
vary but may not be fewer than eighteen and may not exceed twentyfour. Undergraduates who complete transcript-recognized certificate requirements in conjunction with their degree requirements or within one year after earning the degree, receive recognition on the University transcript. At least half of the required certificate coursework must be completed in residence at the University. A maximum of nine hours of certificate coursework may be taken after the student has earned the undergraduate degree.

A student may not earn any transcript-recognized certificate in the same field as his or her major, and at least one certificate course must be outside the requirements of the major. However, certificate courses outside the major may be counted toward other degree requirements.

## The Business Foundations Program*

The Business Foundations Program (BFP) is designed to provide a foundation in business concepts and practice for students in other majors. Any nonbusiness student with a University grade point average of at least 2.00 may take any BFP course for which he or she meets the prerequisite. Students who intend to complete the BFP certificate program should apply online (http://www.mccombs.utexas.edu/Business-Foundations/ Business\%20Foundations\%20Certificate) for admission by March 1 for fall or summer, and by October 1 for spring.

To fulfill the certificate program, students must complete eighteen semester hours of coursework as described below; students must also complete the following corequisite courses: one economics course selected from Economics $304 \mathrm{~K}, 304 \mathrm{~L}$, 301, or the equivalent, and a three hour statistics course chosen from the list of approved courses available on the BFP Web site (http://www.mccombs.utexas.edu/BusinessFoundations/Business\ Foundations\ Certificate). Students are encouraged to complete these classes before taking Finance 320F.

Students who complete the certificate requirements in either the general track or the global track must apply on the BFP Web site (http://www.mccombs.utexas.edu/Business-Foundations/Business \%20Foundations\%20Certificate) for a certificate and a letter verifying completion of the program, by November1 for fall, April 1 for spring, or by August 1 for summer. At least half the required certificate coursework must be completed in residence at The University of Texas at Austin.

## General Track*

The certificate requirements are:

1. Accounting 310F; or both Accounting 311 and 312 (may fulfill the quantitative reasoning flag).
2. Management Information Systems 302F, or equivalent. See list of equivalents on the BFP Web site (http://www.mccombs.utexas.edu/ Business-Foundations/Business\%20Foundations\%20Certificate/ Coursework).
3. Finance 320F.
4. Three of the following five courses:
a. International Business 320F or 350 (International Business 350 may fulfill the independent inquiry flag),
b. Legal Environment of Business 320F or 323 (may fulfill the ethics and leadership flag),
c. Management 320 F or 336 (Management 336 may fulfill the ethics and leadership flag),
d. Marketing 320F or 337,
e. Business Administration 320F or Management 337 (entrepreneurship topic).
5. No more than nine of the required eighteen hours may be taken on an approved study abroad program. A list of approved
programs is available in the University Study Abroad Office (https:// world.utexas.edu/abroad/programs).
6. The student must satisfy the corequisite courses and the courses used to fulfill requirements 1 through 4 on the letter-grade basis. He or she must maintain a grade point average of at least 2.00 in these courses. Credit by exam is allowed for the economics and statistics corequisite courses.

## Global Track*

The certificate requirements are:

1. Proficiency in a language other than English is required. An intermediate level of competency is determined by the completion of any one of the following options:
a. Certified proficiency on a placement or credit-by-exam test;
b. Students with previous experience in the language they plan to use to meet the language requirement must take a language placement test. A student may not select for credit a language course below this placement level without departmental permission; or
c. A passing grade in a language course listed below:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| ASL 611C | Accelerated Second-Year American Sign Language | 6 |
| ASL 311D | American Sign Language III: Intermediate | 3 |
| ASL 312L | Second-Year American Sign Language II | 3 |
| ARA 611C | Intensive Arabic II | 6 |
| BEN 312L | Second-Year Bengali II | 3 |
| CHI 612 | Accelerated Second-Year Chinese | 6 |
| CHI 412L | Second-Year Chinese II | 4 |
| CZ 611C | Intensive Czech II | 6 |
| CZ 412L | Second-Year Czech II | 4 |
| DAN 612 | Accelerated Second-Year Danish | 6 |
| FR 611C | Intermediate French | 6 |
| GER 612 | Accelerated Second-Year German: Readings in Modern German | 6 |
| GK 312K | Intermediate Greek II | 3 |
| GK 312L | Intermediate Greek II: Biblical Greek | 3 |
| GK 610C | Intermediate Modern Greek | 6 |
| GK 310K | Second-Year Modern Greek II | 3 |
| HEB 612C | Intensive Biblical Hebrew II | 6 |
| HEB 611C | Intensive Hebrew II | 6 |
| HIN 312L | Second-Year Hindi II | 3 |
| ITL 611C | Intermediate Italian | 6 |
| JPN 611D | Intermediate Japanese | 6 |
| KOR 412L | Second-Year Korean II | 4 |
| LAT 311 | Intermediate Latin I | 3 |
| MAL 312L | Second-Year Malayalam II | 3 |
| NOR 612 | Accelerated Second-Year Norwegian | 6 |
| PSH 312L | Second-Year Pashto II | 3 |
| PRS 611C | Intensive Persian II | 6 |
| PRS 612C | Intensive Persian for Heritage Speakers | 6 |
| POL 611C | Intensive Polish II | 6 |
| POL 312L | Second-Year Polish II | 3 |
| POR 611D | Intermediate Portuguese II | 6 |
| RUS 611C | Intensive Russian II | 6 |
| RUS 412L | Second-Year Russian II | 4 |


| SAN 312L | Second-Year Sanskrit II | 3 |
| :--- | :--- | :--- |
| S C 312L | Second-Year Serbian/Croatian II | 3 |
| SEL 611C | Intensive Slavic and Eurasian Languages II | 6 |
| SEL 312L | Second-Year Slavic and Eurasian Languages II | 3 |
| SPN 611D | Intermediate Spanish II | 6 |
| SPN 612 | Accelerated Intermediate Spanish for Heritage | 6 |
|  | Learners |  |
| SWA 611C | Intensive Swahili II | 6 |
| SWE 612 | Accelerated Second-Year Swedish | 6 |
| TAM 312L | Second-Year Tamil II | 3 |
| TEL 312L | Second-Year Telugu II | 3 |
| TUR 611C | Intensive Turkish II | 6 |
| URD 312L | Second-Year Urdu II | 3 |
| YID 612 | Accelerated Second-Year Yiddish | 6 |
| YOR 312L | Second-Year Yoruba II | 3 |
| YOR 611C | Intermediate Yoruba | 6 |

Students who wish to meet the requirement with proficiency in a language not listed in the table above should contact the Texas Language Center.
2. Completion of at least three hours of academic credit while on an approved study abroad program. A list of approved programs is available in the University Study Abroad Office (https:// world.utexas.edu/abroad/programs).
3. Accounting 310F; or both Accounting 311 and Accounting 312 (these courses may fulfill the quantitative reasoning flag).
4. Management Information Systems 302F or the equivalent; a list of available courses is available on the Business Foundations Program (http://www.mccombs.utexas.edu/Business-Foundations/Business \%20Foundations\%20Certificate/Coursework) Web site.
5. International Business 320F or 350 (International Business 350 may fulfill the independent inquiry flag); or Business Administration 320F or Management 337 (entrepreneurship topic). One of the international business or entrepreneurship courses is required to complete the global track.
6. Finance 320F
7. Two of the following courses:
a. Legal Environment of Business 320F or 323 (both classes may fulfill the ethics and leadership flag);
b. Management 320F or 336 (Management 336 (may fulfill the ethics and leadership flag);
c. Marketing 320F or 337
d. Business Administration 320F or Management 337 (entrepreneurship topic); or International Business 320F or 350; whichever topic, international business or entrepreneurship, that was not used to fulfill the requirement 5 above.
8. No more than nine of the required eighteen hours may be taken while on an an approved study abroad program. A list of approved programs is available in the University Study Abroad Office (https:// world.utexas.edu/abroad/programs).
9. The student must satisfy the corequisite courses and the courses used to fulfill requirements 3 through 7 on the letter-grade basis. He or she must maintain a grade point average of at least 2.00 in these courses. Credit by exam is allowed of the economics and statistics corequisite courses.

Students should apply online to request their BFP certificate the semester they will complete the program; by November 1 for fall, April 1 for spring, or by August 1 for summer. Students have up to one year after
graduation to complete the certificate program for transcript purposes. http://www.mccombs.utexas.edu/BBA/Business-Foundations

## Business \& Public Policy Certificate

The Business \& Public Policy (BPP) Certificate provides undergraduate students with the opportunity to have an officially recognized concentration in the study of business and public policy. Because firms' actions are increasingly influenced by the interests and demands of numerous stakeholders, including owners, employees, suppliers, customers, NGOs, communities, and especially government regulators, it is increasingly important that businesses hire employees who can strategically respond to and influence these constituencies. Certificate holders will be well-equipped to understand the political process and its influence on firms and to work for those firms or for consulting firms that are increasingly important in this area. This certificate is also well-suited for undergraduates with an interest in careers in law, in governmental and public service, and/or in nonprofit organizations.

The Business \& Public Policy Certificate Program requires eighteen semester hours of coursework as described below. Students who have completed twenty-four hours in residence with upper-division standing may formally apply to the certificate program. Admission to the program is based on students' overall academic record. To gain admission the following semester, students must apply by March 1 for fall and by October 1 for spring.

At least half of the required certificate coursework must be completed in residence at The University of Texas at Austin. Students must contact the BPP certificate office to request the BPP certificate the semester they will complete the program; by November 1 for fall, by April 1 for spring, or by August 1 for summer. Students have up to one year after graduation to complete the certificate program for transcript purposes. A maximum of nine hours of certificate coursework may be taken after the student has earned the undergraduate degree.

The certificate requirements are:

## Required courses:

1. Business, Government, and Society 371, Corporate Political Strategy
2. Business, Government, and Society 372, Strategic Corporate Social Responsibility
3. Business, Government, and Society 373, Strategic Corporate Communication
4. Government 312L, Issues and Policies in American Government

Elective courses. Choose two of the following:

1. Advertising 353 or Public Relations 353, Advertising and Public Relations Law and Ethics
2. American Studies 310, Introduction to American Studies
3. American Studies 311S, Introductory Seminar in American Studies
4. American Studies 321 (Topic 5: Asian American Jurisprudence)
5. Business, Government, and Society 370 (Topic 1: Energy Technology \& Policy)
6. Communication Studies 342K, Political Communication
7. Economics 321, Public Economics
8. Economics 341 K , Introduction to Econometrics
9. Economics 333K, Development Economics
10. Economics 334 K , Urban Economics
11. Economics 339K, International Trade and Investment; or International Business 350 or European Studies 348 (Topic 2: International Trade); or International Business 320F, Foundations of International Business
12. Economics 351K, Current Issues in Business Economics
13. Finance 371M, Money and Capital Markets
14. Finance 372, Advanced Topics in Finance
15. Government 325, Political Parties
16. Government 351D, The Theoretical Foundations of Modern Politics
17. Government 357M (Topic 7: Constitutional Structures of Power)
18. Government 358, Introduction to Public Policy
19. Government 360N, Topics in International Relations
20. Government 365 N , Topics in Comparative Politics
21. Government 370L (Topic 21: Politics of Food in America)
22. Government 370L (Topic 7: The United States Congress)
23. Government 379S Money in Politics - Honors
24. History 350L (Topic 49: History of Imperialism)
25. Legal Environment of Business 320F, Foundations of the Legal Environment of Business, or Legal Environment of Business 323, Business Law and Ethics or Legal Environment of Business 323H, Business Law and Ethics: Honors
26. Legal Environment of Business 363, Real Estate Law
27. Legal Environment of Business 370 (Topic 1: Antitrust Law)
28. Legal Environment of Business 370 (Topic 2: Environmental Law)
29. Legal Environment of Business 370 (Topic 3: Employer-Employee Relations)
30. Legal Environment of Business 370 (Topic 5: The Law and the Multinational Corporation)
31. Legal Environment of Business 370 (Topic 14: Oil and Gas Law)
32. Philosophy 325L, Business, Ethics, and Public Policy
33. Public Relations 305, Fundamentals of Public Relations
34. Public Relations 317, Writing for Public Relations
35. Public Relations 319, Principles of Public Relations
36. Public Relations 352, Strategies in Public Relations
37. Public Relations 367, Integrated Communications Management
38. Public Relations 378 (Topic 5: Integrated Communications for Nonprofit Organizations)

## Energy Management Certificate

The certificate in Energy Management (EM) is designed to develop decision makers, leaders, and policy builders who have the technical expertise and business acumen to participate in the interdisciplinary teams that will be required to address our energy future.

The Energy Management Certificate requires eighteen semester hours of coursework as described below. Once students achieve upper-division standing they may formally apply to the certificate program. Admission to the program is based on students' overall academic record. To gain admission the following semester, students must apply by March 1 for fall and by October 1 for spring.

At least half of the required certificate coursework must be completed in residence at The University of Texas at Austin. Students must contact the Energy Management certificate office to request the EM certificate the semester they will complete the program; by November 1 for fall, by April 1 for spring, or August 1 for summer. Students have up to one year after graduation to complete the certificate program for transcript purposes. A maximum of nine hours of certificate coursework may be taken after the student has earned the undergraduate degree.

The certificate requirements are:

## Required courses:

1. Geological Sciences 303, Introduction to Geology, Geological Sciences 401, Physical Geology, or Geological Sciences 420H, Honors Introductory Geology
2. Business, Government, and Society 370 (Topic 10: Non-Technical Exploration and Production)
3. Geological Sciences 316P, Sedimentary Rocks (for nongeology students) or Geological Sciences 416M, Sedimentary Rocks
4. Legal Environment of Business 370 (Topic 13: Contracts and Real Property)
5. Legal Environment of Business 370 (Topic 14: Oil and Gas Law)
6. Business, Government, and Society 370 (Topic 1: Energy Technology and Policy)

## Global Management Certificate

Certificate will be offered pending approval of grant funding.
The Certificate in Global Management offers an officially recognized concentration in the study of international management. In today's workplace, managers lead global teams, interface with international suppliers and customers, and collaborate with international partners. It is vital for firms and organizations to have access to employees who understand global political and economic dynamics, who are able to recognize and adapt to the cultural orientations of multiple constituencies, and who can operate effectively in countries around the world.

Admission to the program is based on students' overall academic record. To gain admission the following semester, students must apply by March 1 for fall and by October 1 for spring.

At least half of the required certificate coursework must be completed in residence at The University of Texas at Austin. Students must contact the CIBER (http://www.mccombs.utexas.edu/Centers/CIBER) office to request the certificate the semester they will complete the program; by November 1 for fall, by April 1 for spring, or by August 1 for summer. Students have up to one year after graduation to complete the certificate program for transcript purposes. A maximum of nine hours of certificate coursework may be taken after the student has earned the undergraduate degree.

The certificate requirements are:

## Required courses:

1. International Relations and Global Studies 320F, Foundations of International Relations and Global Studies
2. Management 336, Organizational Behavior or Management 320F, Foundations of Organizational Behavior and Administration
3. Management 137C, Introduction to Management in a Global Environment
4. Management 237D, Global Management Capstone

## Elective courses:

1. Three hours of upper division coursework selected from any of the following:
a. Asian studies
b. European studies
c. French civilization
d. German, Scandinavian, and Dutch studies
e. Latin American studies
f. Middle Eastern studies
g. Portuguese civilization
h. Russian, East European and Eurasian studies
i. African and African Diaspora studies, selected from these courses only:
i African and African Diaspora Studies 372G (Topic 10: AfroLatin America)
ii African and African Diaspora Studies 372G (Caribbean Literature and Environment topic)
iii African and African Diaspora Studies 372G (Generating African Literature topic)
iv African and African Diaspora Studies 372G (Topic 24: Jesus, Africa, and History)
v African and African Diaspora Studies 372G (Topic 33: Sex and Power in the African Diaspora)
vi African and African Diaspora Studies 372G (Visual Arts of the Caribbean topic)
vii African and African Diaspora Studies 373, Independent Research
viii African and African Diaspora Studies 374C (Topic 6: Apartheid: South African History)
ix African and African Diaspora Studies 374C (Topic 4: History of Southern Africa)
x African and African Diaspora Studies 374E (Topic 4: Reimagining Cuba, 1868-Present)
xi African and African Diaspora Studies 374E (Topic 2: The Politics of Race and Violence in Brazi)
xii African and African Diaspora Studies 374F (Topic 13: Diaspora Visions)
xiii African and African Diaspora Studies 374F (Music of Mexico and Caribbean topic)
xiv African and African Diaspora Studies 679H, Honors Tutorial Course (Part A)
2. Three hours of economics coursework
3. Three hours upper-division coursework in international business, trade, and investment selected from the following:
a. International Business 350, International Trade or International Business 320F, Foundations of International Business
b. European Studies 348 (Topic 2: International Trade)
c. Economics 339K, International Trade and Investment

## Other Certificate Requirements:

Six hours of "international experience" credit earned on an approved study abroad program and/or pre-approved international internships. Any of the courses above completed abroad can satisfy requirements for both coursework and the international experience.

## Real Estate Certificate*

The Undergraduate Real Estate Certificate program (Texas URE) offers degree-seeking undergraduate students from any major the opportunity to explore the commercial real estate industry, and supplement their primary degree with an officially recognized certificate in real estate.

The Real Estate Certificate program requires eighteen semester hours of coursework as described below; students must also complete the following prerequisite courses: for nonbusiness students, Accounting 310 F (may fulfill the quantitative reasoning flag) and Finance 320F; for business students, Finance 357. In addition, nonbusiness students are strongly urged to complete Economics 301 , or 304 K and 304 L . Upon obtaining credit or registration for the designated prerequisite course(s), a student with upper-division standing may formally apply to the certificate program. Admission (http://www.mccombs.utexas.edu/BBA/ Certificate-Programs/Real-Estate-Certificate-Program/Current-Texas-URE-Students) to the program is based on students' overall academic
record and their performance in the required prerequisite course(s). The courses necessary to complete the Texas URE may have additional prerequisites, and admission to the program and instructor approval is required as a condition of enrollment in some courses. At least half the required certificate coursework must be completed in residence at The University of Texas at Austin.

The certificate requirements are:

1. Real Estate 358 and 378 K .
2. Real Estate 376G or Legal Environment of Business 363.
3. Three of the following:
a. Accounting 378 (approved topics in real estate accounting); or 326 for finance majors only,
b. Architectural Engineering 323K, 358, 366 (may fulfill the ethics and leadership flag), or 377K (Building Information Modeling for Project Management topic),
c. Architecture 308 (may fulfill the global cultures flag), 318 K (may fulfill the global cultures and writing flags), 318L (may fulfill the global cultures and writing flags), 350R (may be repeated where topics vary. Credit for topics is subject to approval), or 368R (History and Theory of Landscape Architecture I and History and Theory of Landscape Architecture I/ topics),
d. Community and Regional Planning 369K (may fulfill the writing flag),
e. Economics 330T, 334K, or 334L,
f. Finance 377 (Topic 3: Security Analysis) (for finance majors in the REIT Fund Program or the Financial Analysis Program only),
g. Geography 310C, 337, 356T [Topic 1: The Culture of Cities (may fulfill the cultural diversity in the United States flag)], or 360G (may fulfill the quantitative reasoning flag),
h. Legal Environment of Business 363 (for non-finance majors only),
i. Real Estate 376G (for non-finance majors only)
j. Urban Studies 301 (for urban studies majors only) (may fulfill the cultural diversity in the United States flag), or 305 (Experiencing the City topic).

Students must request transcript certification by emailing the program adviser at the time of application for graduation or upon completion of the program requirements, whichever is later. Students have up to one year after graduation to complete the certificate program for transcript purposes. A maximum of nine hours of certificate coursework may be taken after the student has earned the undergraduate degree.

## Supply Logistics Optimization Certificate*

The Supply Logistics Optimization Certificate (SLO) offers both business and nonbusiness students an opportunity to study supply logistics using the best resources of both the McCombs School of Business and the Cockrell School of Engineering. The certificate is designed to develop supply chain and logistics business managers who have the technical expertise to interface with industrial and manufacturing engineers. For engineering students, the certificate provides supply chain and logistics management expertise, particularly for those involved in product development, process innovation, and manufacturing systems engineering. Science and engineering technology enterprises have a great demand for managers and engineers who understand business as well as the underlying science, technology, and engineering principles on which their operations are based. Employers have indicated their desire to hire students who approach the industry from a more well-rounded, interdisciplinary perspective.

The following four courses for business and nonbusiness students are prerequisites for application to the Supply Logistics Optimization Certificate Program:

1. Mathematics 408 C (may fulfill the quantitative reasoning flag) and 408D or the equivalent (for business and nonbusiness students).

2a. Mechanical Engineering 318M and 335, or the equivalent (for nonbusiness students).

2b. Statistics 309 (may fulfill the quantitative reasoning flag) and Management Information Systems 301 or the equivalent (for business students).

Upon completion of these courses, a student with upper-division standing and a University grade point average of at least 3.00 may formally apply to the certificate program. Admission to the program is based on students' overall academic record and their performance in the four prerequisite courses. To gain admission the following semester students must apply by March 1 for fall and by October 1 for spring. At least half of the required certificate coursework must be completed in residence at The University of Texas at Austin.

The certificate requirements are twenty-one semester hours of coursework as described below:

1. Operations Management 335, 337 (Topic 3: Procurement and Supplier Management) (may fulfill the writing flag), and 368.
2. Nine semester hours chosen from Mechanical Engineering 366L, 367S, 373K, 375K.
3. Three semester hours chosen from Operations Management 337 (Topic 1: Total Quality Management); (Topic 2: Supply Chain Modeling and Optimization) (may fulfill the quantitative reasoning flag); (Topic 4: Supply Chain Design, Planning, and Contro); (Topic 5: Project Management), 366P, or 367.

Students must apply online (http://www.mccombs.utexas.edu/ Departments/IROM/Academic-Information/BBA/SCM/SLO) to request the SLO certificate the semester they will complete the program; by November 1 for fall, April 1 for spring, or by August 1 for summer. Students have up to one year after graduation to complete the certificate program for transcript purposes. A maximum of nine hours of certificate coursework may be taken after the student has earned the undergraduate degree. A maximum of nine hours of certificate coursework may be taken after the student has earned the undergraduate degree.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 20) and the following specific requirements for the BBA, including the requirements of a major. In some cases, a course that is required for the BBA or for a major may also be counted toward the Core Curriculum; these courses are identified below.

## Flags*

Each student must complete the University's Core Curriculum (http:// catalog.utexas.edu/undergraduate/undergraduate-studies/academic-policies-and-procedures/\#corecurriculum). In the process of completing Core Curriculum and BBA degree requirements, students must earn credit for seven flags as listed below; most of the required flags are attached to the business core and major courses students must complete to earn a BBA degree. Courses may simultaneously satisfy flag and other degree requirements. As applicable, students are advised to fulfill the cultural diversity and the global cultures flag requirements through courses that meet other requirements of the Core Curriculum such as the first-year
signature course, American history, government, or visual and performing arts requirements, or BBA degree requirements such as the human behavior requirement or electives. Please note, students may not earn the cultural diversity and global cultures flag from the same course.

Two writing flags: one flag requirement is typically satisfied by Business Administration 324 or 324 H , a second by the capstone class in the major when taken in residence.

One quantitative reasoning flag: flag requirement typically satisfied by Accounting 311 or 311 H , Accounting 312 or 312H, Statistics 309 or 309 H , or 371 G when taken in residence.

One global cultures flag: BBA students should find a course that satisfies one of the University Core requirements, human behavior requirement, or an elective, which carries the global cultures flag.

One cultural diversity in the United States flag: BBA students should find a course that satisfies one of the University Core requirements, human behavior requirement, or an elective, which carries the cultural diversity in the United States flag.

One ethics and leadership flag: typically satisfied by Management 336 or 336H, or Legal Environment of Business 323 or 323H when taken in residence.

One independent inquiry flag: typically satisfied by classes required for the degree; Finance 370, International Business 350, Management 374, 374H, Management Information Systems 375, and Operations Management 337 (Topic 3: Procurement and Supplier Management), when taken in residence.

Flags may be added to courses periodically; courses with flags are identified in the Course Schedule. More information is available in the section on Skills and Experience Flags (http://catalog.utexas.edu/ undergraduate/undergraduate-studies/academic-policies-and-procedures/ \#skillsandexperienceflags).

## BBA Degree Requirements*

1. A grade point average of at least 2.00 is required on all work undertaken at the University for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded. In addition, a grade point average of at least 2.00 in business courses is required.

The official grade in a course is the last one made; however, 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 the University and his or her academic standing in the McCombs School of Business.

A student may not repeat for credit or grade points any course in which he or she has earned a grade of $C$ - or higher (or the symbol $C R$, if the course was taken on the pass/fail basis).
2. A candidate for the BBA degree must be enrolled in the McCombs School in the semester or summer session in which the degree is awarded.
3. Each student is expected to complete the courses required for his or her major and to meet the curriculum requirements described in items 4 through 7 below in the year specified.
4. During their freshman and sophomore years, students must complete the University's Core Curriculum (p.20) requirements.
5. Students must complete the following BBA degree requirements during the freshman year:
a. Mathematics 408 K (may fulfill the quantitative reasoning flag) and 408L ; or 408C (may fulfill the quantitative reasoning flag) and 408D; or 408N (may fulfill the quantitative reasoning flag), and 408S; or the equivalent. This coursework may also be used to fulfill the mathematics requirement of the Core Curriculum.
b. Economics 304 K and 304 L . Economics 304 K may also be used to fulfill the social and behavioral sciences requirement of the Core Curriculum.
c. Management Information Systems 301, a business core course.
d. Three semester hours of coursework in anthropology, psychology, or sociology, chosen from approved courses; courses dealing primarily with statistics or data processing may not be used to fulfill this requirement.
e. Business Administration 101H, 101S, or 101T. Entering freshmen take Business Administration 101S, entering transfer students take Business Administration 101T, and entering business honors students take Business Administration 101H. Because each course is offered only once a year, failure to take the course in the proper semester will prevent the student from declaring a major and progressing toward the degree.
6. Students must complete the following business core courses during the sophomore year:
a. Accounting 311 and 312 (both courses may fulfill the quantitative reasoning flag).
b. Statistics 309 (may fulfill the quantitative reasoning flag).
c. Business Administration 324 (may fulfill the writing flag).
7. Eighteen semester hours beyond the first two years are specified as follows:
a. Business core courses:
i Legal Environment of Business 323 (may fulfill the ethics and leadership flag).
ii Finance 357.
iii Marketing 337.
iv Operations Management 335 or Management 336 (may fulfill the ethics and leadership flag).
v Statistics 371G (may fulfill the quantitative reasoning flag). Finance majors pursuing the quantitative finance track take Statistics 375 to fulfill this requirement.
b. A professional, business-related internship or practicum course chosen from the following: Accounting 353J, 366P, Business Administration 353, 353H, Finance 353, 366P, Management 353, Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, 366P. Only one internship course may be counted toward the degree.
8. The following requirements apply in addition to those in items 4 through 7 above:
a. Additional coursework to provide a total of at least sixty semester hours outside the McCombs School. At least six of these hours
must be at the upper-division level. Students should consult the requirements of their major department for additional information about coursework to be taken outside the school.
b. Completion of the requirements of one of the majors listed in the section Program Degree Requirements. In no event is a degree of Bachelor of Business Administration awarded to a student with fewer than forty-eight semester hours in business, at least twenty-four of which have been completed in residence on the letter-grade basis at the University. At least twelve semester hours of upper-division coursework in the major must be completed in residence at the University on the letter-grade basis. For additional residence requirements, see the University's minimum General Requirements (p.17) for graduation given in The University section. Please also see footnote below.

Proficiency in a foreign language equivalent to one year competency is required. This requirement may be fulfilled either by completion of the two high school units in a single foreign language that are required for admission to the University as a freshman or by the demonstration of proficiency at the second-semester level. Credit earned at the college level to achieve the proficiency may be taken on the pass/fail basis, and the credit may count towards the degree. Due to the variety in the way language classes are taught at the University, students should consult their academic adviser.

The following are the courses that may be counted towards the residence requirement for each major:

- Accounting (BBA): Accounting 326, 327, 329, 362, and 364.
- Accounting (Integrated BBA/MPA): Accounting 151, 152, 355, 356, 358 C , and 359.
- Business honors program: Business Administration 324H, Finance 357H, Legal Environment of Business 323H, Management 336H and 374H, Marketing 337H, Operations Management 335H, and Statistics 371 H or 375 H .
- Science and technology management: Accounting 329, Finance 374C or 374S, Management 374 or Management Information Systems 375, Operations Management 335 and 337 (Topic 5: Project Management).
- Finance: Accounting 326, Finance 357, 367, 370, and the courses required for the student's track.
- International business: International Business 350 and 378, and the courses specified in requirements 4 and 6 of the major (http:// catalog.utexas.edu/undergraduate/business/degrees-and-programs/ bachelor-of-business-administration/international-business) (six hours international business electives and nine hours area studies).
- Management (general management track): Management 336 and 374, Operations Management 335, and the twelve hours of track courses specified in requirement 3 of the major (p. 59), general management.
- Management (consulting and change management track): Management 328, 336, and 374, Operations Management 335, and the nine hours of track courses specified in requirement 3 of the major, (http://catalog.utexas.edu/undergraduate/business/degrees-and-programs/bachelor-of-business-administration/management) consulting \& change management.
- Management information systems: Management Information Systems 325, 333K, 374, 375, and the six additional hours of upper-division management information systems coursework in requirement 3 of the major (http://catalog.utexas.edu/undergraduate/business/degrees-and-programs/bachelor-of-business-administration/management-information-systems).
- Marketing: International Business 350 and Marketing 337, 460, 370 , and the courses specified for nine additional semester hours in requirement 3 of the major (http://catalog.utexas.edu/undergraduate/ business/degrees-and-programs/bachelor-of-business-administration/ marketing).
- Supply chain management: Management 336, Operations Management 335, 337 (Topic 3: Procurement and Supplier Management), 337 (Topic 2: Supply Chain Modeling and Optimization), 367, 368, and the courses specified for six additional semester hours in requirement 4 of the major. (http:// catalog.utexas.edu/undergraduate/business/degrees-and-programs/ bachelor-of-business-administration/supply-chain-management)
*Changes pending approval by the University of Texas System


## Bachelor of Business Administration <br> Accounting

Two programs are available to students who wish to study accounting at the University. The first is the four-year major in accounting leading to the Bachelor of Business Administration degree. The second is the five-year integrated approach to the Master in Professional Accounting degree, which leads to the award of both the BBA and the Master in Professional Accounting degrees. The objective of the BBA accounting curriculum is to provide students with a broad overall education, solid grounding in the common body of knowledge of business administration, and exposure to accounting in sufficient depth to help them achieve entry-level competence for pursuit of a career in industry. The integrated approach is designed for students who wish to concentrate in accounting and obtain education in an accounting specialization.

## Bachelor of Business Administration

The requirements of this program are:

1. The Core Curriculum (p.20) requirements and the BBA Degree Requirements (p.52).
2. Fifteen additional semester hours of accounting: Accounting 326, 327 (may fulfill the quantitative reasoning flag), 329, 362, and 364.
3. Economics 420K.
4. Operations Management 335 and Management 336 (may fulfill the ethics and leadership flag) and 374 (may fulfill the writing and independent inquiry flags).
5. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

## BBA/MPA: Integrated Approach

The integrated approach to the Master in Professional Accounting is a five-year program of undergraduate and graduate coursework that allows the student to earn the BBA and the Master in Professional Accounting (MPA) degrees. The professional curriculum, which usually begins in the student's junior year, includes specially designed accounting courses taught in relatively small classes by full-time faculty members.

The accounting faculty has designed three concentrations within this program: auditing/financial reporting, managerial accounting/control, and taxation. Each concentration is a sequence of courses that offers strong preparation for a particular career path. In addition, the student may choose a generalist curriculum.

Because MPA graduates are expected to become leaders in the accounting profession, highly motivated students with the personal
qualities and intellectual capacity to establish successful careers in public accounting, industry, not-for-profit organizations, and higher education are encouraged to apply.

## Admission

Students are admitted to the integrated approach according to the following requirements. Admission is granted only for the fall semester; June 1 is the application deadline for those who wish to begin the program the following fall. Students interested in this program must have met the following requirements by the June 1 deadline: the foreign language proficiency requirement for the BBA degree; and completion of at least sixty semester hours of coursework, including Accounting 311 and 312; Business Administration 101H, 101S, or 101T; Economics 304K and 304L with a grade of $C$ - or better; Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N with a grade of $C$ - or better; and Mathematics 408D, 408L, or 408 S with a grade of $C$ - or better. As stated in the BBA Degree Requirements, "A student may not repeat for credit or grade points any course in which he or she has earned a grade of $C$ - or higher."

International students pursuing the BBA/MPA degree: English skills are essential for success in the MPA program. As a result, it is important to demonstrate the ability to speak, read, write, and understand English through the TOEFL or IELTS. Official scores for either the internet-based TOEFL or IELTS must be on the student's record prior to the application deadline, even if $s /$ he was allowed to waive the TOEFL or IELTS for admission to the University. Only applicants from English-speaking countries are allowed to waive this requirement. Please visit the GIAC website (http://www.utexas.edu/ogs/admissions/test_scores.html) for a list of countries which qualify for the waiver. The preferred minimum for the TOEFL is 105 overall, with a minimum of 24 for each individual section or a minimum band score of 7.5 for the IELTS. If previously-submitted test scores do not accurately reflect the applicant's current English proficiency, it is strongly recommended to retake the test to increase scores.

Admission is based on the applicant's University grade point average and SAT Reasoning Test or ACT scores, as well as other relevant examples of academic ability and leadership. An applicant with a University grade point average of less than 3.00 is unlikely to be admitted to this program. Admission may be restricted by the availability of instructional resources. An applicant's disciplinary record, as maintained by the Office of the Dean of Students, will be reviewed for academic dishonesty or other violations of University policy. Violations will be reported to the Admissions Committee and taken into account as part of the application process. Violations may exclude a student from admission depending on the nature and severity of the offense(s). Application materials and information about deadlines are available at http://www.mccombs.utexas.edu/mpa/ integrated-mpa.

Before beginning the fifth year, integrated approach students must be admitted to the MPA program. Students must complete at least two long-session semesters in residence in the MPA program. Application forms must be submitted by February 1 of the student's fourth year. Students must have completed the following BBA degree requirements before the application deadline: the University Core Curriculum (https:// www.utexas.edu/ugs/core/requirements), courses needed to declare a major, the human behavior requirement, the lower-division business core, and Business Administration 324. They must also earn an acceptable score on the Graduate Management Admission Test (GMAT) and have their test scores sent to the University's Office of Admissions. Students usually take the GMAT in the fall or winter of their fourth year.

## Satisfactory Progress

Students are expected to make continuous progress toward the degree by completing required accounting coursework each semester. Students who fail to take required accounting coursework two long-session semesters
in a row will be removed from the program and placed in the unspecified business major. Students will be notified before this action is taken; they must meet with their academic adviser upon being notified.

## Probation

A student is placed on probation if his or her grade point average in core undergraduate accounting courses falls below 3.00 . Except with the consent of the MPA Program Office, a student on probation may not take graduate accounting courses.

## Dismissal

The student is dismissed from the integrated approach if (1) he or she fails to improve his or her academic performance significantly while on probation, or (2) he or she will not achieve a grade point average of 3.00 even by earning grades of $A$ in all remaining core undergraduate accounting courses.

## Graduation

Students pursuing the integrated approach to the MPA degree are expected to complete their BBA accounting degrees within four years as a milestone towards their MPA degree. Students who are eligible will automatically be granted their BBA accounting degrees at the end of four years unless they opt out. Integrated BBA/MPA students who are not automatically granted their BBA accounting degrees at the end of four years must apply when they are eligible for the degree, by the date specified in the official academic calendar. The additional requirements for graduation pertaining to the BBA degree are given in Graduation ( p . 46). To receive an MPA degree, a student must have a grade point average of at least 3.00 in all coursework taken as part of the minimum thirty-five hour MPA degree. He or she must also have a grade point average in graduate accounting coursework of at least 3.00 .

## Degree Requirements

The requirements for the BBA/MPA program are:

1. Undergraduate coursework
a. The Core Curriculum (https://www.utexas.edu/ugs/core/ requirements) requirements and the BBA Degree Requirements (http://catalog.utexas.edu/undergraduate/business/degrees-andprograms/\#bbadegreerequirements). Because the integrated approach includes a graduate-level internship course, students may forgo the undergraduate internship course described in requirement 7.2 of the BBA Degree Requirements.
b. Economics 420K.
c. Operations Management 335 and Management 336 (may fulfill the ethics and leadership flag) and 374 (may fulfill the writing and independent inquiry flags).
d. The following courses: Accounting 151, 152, 355, 356, 358C, and 359.
e. For students in the auditing/financial reporting, managerial accounting/control, or generalist concentration, Finance 367 and a business elective; for students in the taxation concentration, Finance 367 and three semester hours of coursework in legal environment of business or business, government, and society approved by the student's academic adviser.
f. Additional elective work, if necessary, to provide a total of at least 120 semester hours of undergraduate coursework.
2. Graduate coursework
a. Accounting 380K (Topic 1: Financial Accounting Standards and Analysis $\Lambda$ ) and 380K (Topic 13: Information Technology for Accounting and Control).
b. Twenty-nine additional semester hours of graduate coursework, including at least twelve hours in accounting and no more than six hours outside business. The student's academic adviser must approve coursework in the student's concentration in advance.

More information is available at http://www.mccombs.utexas.edu/mpa/ integrated-mpa.

## Accounting Suggested Arrangement of Courses

| First Year |  |  |
| :---: | :---: | :---: |
| First Term | Hours Second Term | Hours |
| M 408K, 408C, or 408N | 4 M 408D, 408L, or 408S | 4 |
| RHE 306 | 3 MIS 301 | 3 |
| Psychology/sociology/anthropology | 3 Visual and performing arts | 3 |
| UGS 302 or 303 | 3 B A 101S | 1 |
| ECO 304K | 3 ECO 304L | 3 |
|  | 16 | 14 |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| B A 324 | 3 ACC 312 | 3 |
| STA 309 | 3 STA 371G | 3 |
| ACC 311 | 3 E 316L, 316M, 316N, or 316P | 3 |
| Science and technology part I | 3 GOV 312L | 3 |
| GOV 310L | 3 Science and technology part I | 3 |
|  | 15 | 15 |
| Third Year |  |  |
| First Term | Hours Second Term | Hours |
| ACC 326 | 3 ACC 327 | 3 |
| MAN 336 | 3 Nonbusiness elective | 3 |
| FIN 357 | 3 ECO 420K | 4 |
| O M 335 | 3 American history | 3 |
| Science and technology part II | 3 LEB 323 | 3 |
|  | 15 | 16 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| ACC 353J | 3 MAN 374 | 3 |
| ACC 329 | 3 ACC 364 | 3 |
| ACC 362 | 3 Free elective | 3 |
| MKT 337 | 3 Upper-division nonbusiness elective | 3 |
| American history | 3 Free elective | 3 |
|  | 15 | 15 |

Total credit hours: 121

## Business Honors Program

The Business Honors Program is designed to provide an intellectual challenge for students who have distinguished themselves academically and in leadership roles outside the classroom. The student may choose a general program of study or choose to combine the general program of study with an additional major. Business Honors Program students take fourteen business courses in special sections open only to them. Additional information is available from the Business Honors Program Office.

## Admission

Admission to the Business Honors Program is limited to a small number of exceptional students who are chosen on a competitive basis. Admission decisions are made by the Business Honors Program Committee. Most students enter the program as freshmen, but some are admitted as sophomores.

Students entering the University and the McCombs School of Business as freshmen may apply to the Business Honors Program by completing a separate online application available through the UT Office of Admissions. The Business Honors Program Committee considers the student's SAT Reasoning Test or ACT scores, high school class rank, preparatory courses, extracurricular activities, evidence of leadership ability, and other objective criteria.

Students may also seek admission to the Business Honors Program during the spring semester of their freshman year to begin taking courses as a sophomore. To be considered for admission, the student must have completed in the fall and spring semesters of the freshman year at least twenty-four semester hours of college-level coursework; this coursework must include Economics 304 K and 304L, Mathematics 408C (may fulfill the quantitative reasoning flag) or 408 K (may fulfill the quantitative reasoning flag), and Mathematics 408D or 408L. In addition to the criteria listed above for freshman applicants, the Business Honors Program Committee considers the student's grade point average in courses taken in residence at the University and the number, type, and rigor of the courses the student has taken at the University. Students will also be evaluated based upon evidence of their extracurricular activities and leadership abilities. An applicant's disciplinary record, as maintained by the Office of the Dean of Students, will be reviewed for academic dishonesty or other violations of University policy. Violations will be reported to the Admissions Committee and taken into account as part of the application process. Violations may exclude a student from admission depending on the nature and severity of the offense(s).

Students applying to the Business Honors Program are permitted to have received credit for Business Administration 101S and/or Management Information Systems 301; however, no credit will be accepted for other courses normally taken as part of the honors core.

Application materials and information about deadlines are available at http://www.mccombs.utexas.edu/programs/bhp/.

## Continuance

A student who enters the Business Honors Program as a freshman must have a grade point average of at least 3.50 on the courses taken in residence during the fall and spring semesters of the first year to continue in the program. The student must complete at least twelve semester hours in residence on the letter-grade basis during each of those two semesters. After the freshman year, each student, whether admitted as a freshman or as a sophomore, is dismissed from the program if his or her overall or business grade point average drops below 3.25. Exceptions are granted only by the Business Honors Program Committee.

## Graduation

To graduate under the Business Honors Program, the student must earn a University grade point average of at least 3.25 and a grade point average of at least 3.25 in business courses.

## Degree Requirements

Business Honors Program students may choose a general program of study, or choose to combine the general program of study with an additional major. Requirements for the general program of study are:

1. The Core Curriculum (p.20) requirements and the BBA Degree Requirements (p.52).
2. Completion of the following business core courses and other business courses in special Honors Program sections:

Accounting 311 H (may fulfill the quantitative reasoning flag)
Accounting 312 H (may fulfill the quantitative reasoning flag)

Business Administration 101H
Business Administration 324H (may fulfill the writing flag)
Business Administration 151H
Finance 357H
Legal Environment of Business 323H (may fulfill the ethics and leadership flag)
Management 336 H (may fulfill the ethics and leadership flag)
Management 374 H (may fulfill the writing and independent inquiry
flags)
Management Information Systems 301H
Marketing 337H
Operations Management 335H
Statistics 309 H (may fulfill the quantitative reasoning flag)
Statistics 371 H (may fulfill the quantitative reasoning flag) or 375 H
3. Nine semester hours of upper-division business electives.
4. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

## Business Honors Program Suggested Arrangement of Courses

| First Year |  |  |
| :---: | :---: | :---: |
| First Term | Hours Second Term | Hours |
| B A $101 \mathrm{H}^{1}$ | $1 \mathrm{M} \mathrm{408L}, \mathrm{408D} ,\mathrm{or} \mathrm{408S}$ | 4 |
| RHE 306 | 3 ECO 304L | 3 |
| Psychology/sociology/anthropology | 3 B A 324H | 3 |
| UGS 302 or 303 | 3 MIS 301H | 3 |
| M 408K, 408C, or 408N | 4 Visual and performing arts | 3 |
| ECO 304K | 3 |  |
|  | 17 | 16 |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| ACC $311 \mathrm{H}^{1}$ | ${ }^{3}$ ACC 312H ${ }^{1}$ | 3 |
| GOV 310L | 3 Sta $371 \mathrm{H}^{1}$ | 3 |
| B A $151 \mathrm{H}^{1}$ | 1 FIN 357H | 3 |
| STA 309H | 3 GOV 312L | 3 |
| Science and technology part I | 3 Science and technology part I | 3 |
|  | 13 | 15 |
| Third Year |  |  |
| First Term | Hours Second Term | Hours |
| MAN $336 \mathrm{H}^{2}$ | 3 O M 335H | 3 |
| Free elective | 3 Free elective | 3 |
| American history | 3 E 316L, 316M, 316N, or 316P | 3 |
| Science and technology part II | 3 Upper-division business elective | 3 |
| MKT 337H | 3 Nonbusiness elective | 3 |
|  | 15 | 15 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| B A 353H | ${ }^{3}$ MAN 374H ${ }^{1}$ | 3 |
| LEB 323H | 3 Free elective | 3 |
| American history | 3 Upper-division business elective | 3 |
| Upper-division nonbusiness elective | 3 Nonbusiness elective | 3 |
| Upper-division business elective | 3 Upper-division nonbusiness elective | 3 |
|  | 15 | 15 |

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## Science and Technology Management

Science and engineering technology enterprises have a great demand for managers who are not only skilled at business, but who also understand the principles underlying the science, technology, and engineering ventures they must manage. To fill this need, the program of study for the BBA in science and technology management provides a sound foundation in mathematics, in science, and in business, qualifying the student for more advanced study in the management of technological, engineering, and scientific enterprises.

Students work closely with the faculty adviser in the Department of Information, Risk, and Operations Management.

All students must take the courses listed below, with a minimum of fortyeight semester hours in the McCombs School of Business. Prerequisites for all courses are given in this catalog. Other requirements of the Cockrell School of Engineering must also be fulfilled.

The requirements of this program are:

1. The Core Curriculum (p. 20) requirements and the BBA Degree Requirements (p. 52), with the following specifications:
a. Students in this program must complete Mathematics 408C (may fulfill the quantitative reasoning flag) and 408D; or 408 K (may fulfill the quantitative reasoning flag), 408L, and 408M.
b. Operations Management 335 or 335 H is required
c. Students are expected to take one of the following to satisfy the professional internship requirement: Management Information Systems 353 or 366P; Operations Management 353 or 366P. If a student transfers from a different major with credit for another internship or practicum as listed in the BBA Degree Requirements, that class can be counted for this requirement.
2. The following business courses: Accounting 329, Operations Management 337 (Topic 5: Project Management), and either Management 374 (may fulfill the writing and independent inquiry flags) or Management Information Systems 375 (may fulfill the writing flag)
3. One of the following courses: Finance 374C or Finance 374S
4. Three additional hours of business coursework
5. The following nonbusiness courses: Chemistry 301 (may fulfill the quantitative reasoning flag), and Physics 303K, 303L (both may fulfill the quantitative reasoning flag), 103M, and 103N. The physics sequence also meets part I of the core curriculum science and technology requirement. Chemistry 301 also fulfills part II of the core curriculum science and technology requirement.
6. Mathematics 427 K (may fulfill the quantitative reasoning flag)
7. The following engineering courses:
a. Engineering Mechanics 306 or Mechanical Engineering 320
b. Electrical Engineering 302 and 306
c. One of the following courses: Aerospace Engineering 374K, Mechanical Engineering 375K, or Engineering Studies 377
8. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

## Science and Technology Management Suggested Arrangement of Courses

First Year

| First Term | Hours Second Term | Hours |
| :--- | :---: | ---: |
| M 408C | 4 B A 101S | 1 |
| RHE 306 | 3 M 408D | 4 |
| ECO 304K | 3 ECO 304L | 3 |
| Psychology/sociology/anthropology | 3 MIS 301 | 3 |
| UGS 302 or 303 | 3 Visual and performing arts | 3 |
|  | $\mathbf{1 6}$ | $\mathbf{1 4}$ |

Second Year
First Term
Hours Second Term
Hours
ACC 311
M 427K
E 316L, 316M, 316N, or 316P
PHY 303K
PHY 103M
3 ACC 312
4 STA 309
3 PHY 303L
3 PHY 103N
1 E E 306
GOV 310L
14
Third Year
First Term
Hours Second Term
Hours
B A 324
OM 335
MKT 337
CH 301
GOV 312L

Fourth Year
First Term
MIS 353 or O M 353
ACC 329
LEB 323
O M 337 (Topic 5: Project
Management)
M E 320 or E M 306
15
Total credit hours: 120

## Finance

Finance is the study of resource allocation-the process, markets, institutions, and instruments that provide for the transfer of money and wealth. The finance degree program offers students an opportunity to study the finance function in the business firm, the financial services firm, and the financial system.

The finance major presents students with the theoretical framework and analytical tools and techniques to handle a variety of finance and business functions. Students may choose one of seven tracks: corporate finance and investment banking, energy finance, investment management, financial markets/banking, quantitative finance, or real estate; students who do not wish to specialize may choose the general finance track.

Corporate finance and investment banking courses are designed to prepare students for careers as associates of corporate treasury departments, as corporate financial analysts, and as management consultants. Energy finance courses are designed to prepare students for positions in project financing, valuation, and risk management in the energy sector. Investment management courses are designed to give students a background suitable for starting positions as financial analysts with investment funds, investment banks, and other financial institutions.

Financial markets/banking courses are designed to prepare students for a variety of financial institution-related careers, such as lending officer and financial analyst. Quantitative finance courses are designed to prepare students for financial analyst positions in research departments of financial institutions and for graduate study in finance. Real estate courses are designed to give students a broad background in valuing and managing real estate; the track is intended to prepare students for positions in real estate commercial brokerage and appraisal, mortgage banking, loan underwriting, real estate development and investment, and property management.

Finance majors may specialize further by completing the Financial Analyst Program (FAP). This one year program allows competitively selected business students to work closely with finance faculty members and industry professionals to develop their skills and experience as analysts. The program may be combined with any of the finance options. More information about FAP is available in the Department of Finance office and at http://www.mccombs.utexas.edu/Centers/AIM/Financial-AnalystProgram.aspx.

The requirements of this program are:

1. The Core Curriculum (p. 20) and the BBA Degree Requirements (p. 52).
2. Accounting 326, Finance 367 or 367Q (students pursuing the quantitative finance option must choose 367Q), and 370 (may fulfill writing and independent inquiry flags).
3. Only one independent study may be counted toward the finance major with the exception of the general finance track and the real estate track, which do not allow independent study, as noted below.
4. One of the following:
a. Corporate Finance and Investment Banking
i Finance 374C.
ii One of the following courses: Accounting 327 (may fulfill the quantitative reasoning flag), 329,362 , or 364.
iii Two of the following courses: Finance 366P, 371M, 372, 373, 376, 377 (Topic 1: Portfolio Analysis and Management), either 377 (Topic 2: Financial Risk Management) or 377 (Topic 5: Energy Financial Risk Management), and either 377 (Topic 3: Security Analysis) or 377 (Topic 4: Financial Analysis).
b. Energy Finance
i Finance 374C and Finance 377 (Topic 5: Energy Financial Risk Management).
ii Two of the following courses: Finance 366P, 371M, 372, 373, 375F, 376, 377 (Topic 1: Portfolio Analysis and Management), and either 377 (Topic 3: Security Analysis) or 377 (Topic 4: Financial Analysis).
c. Investment Management
i Finance 377 (Topic 1: Portfolio Analysis and Management).
ii Three of the following courses: Finance 366P, 371M, 372, 373, 374C or 374S, 375F, 376, either 377 (Topic 2: Financial Risk Management) or 377 (Topic 5: Energy Financial Risk Management), either 377 (Topic 3: Security Analysis) or 377 (Topic 4: Financial Analysis), and Real Estate 378K.
d. Financial Markets/Banking
i Finance 354 or 371M.
ii Three of the following courses: Finance 366P, 372, 373, 374C or 374S, 375F, 376, 377 (Topic 1: Portfolio Analysis and Management), either 377 (Topic 2: Financial Risk Management) or 377 (Topic 5: Energy Financial Risk Management), either 377 (Topic 3: Security Analysis) or 377 (Topic 4: Financial Analysis), and Real Estate 378K.
i Twelve semester hours of upper-division coursework in finance; up to three hours may be taken in real estate. The following courses may not be used to fulfill this requirement: Finance 353 , 357, 367, and 370. Finance 354 and 371 M may not both be used. Finance 374C and 374S may not both be used. Finance 377 (Topic 2: Financial Risk Management) and 377 (Topic 5: Energy Financial Risk Management) may not both be used. Finance 377 (Topic 3: Security Analysis) and 377 (Topic 4: Financial Analysis) may not both be used; Topic 3 is open only to students in the Financial Analyst Program.
ii An independent research course may not be counted toward the general finance option.
f. Quantitative Finance
i Statistics 375 or 375 H . Completing this requirement will also fulfill the requirement for the statistics course listed in item 7.1.5 of the BBA degree requirements (p. 52).
ii Finance 367Q. Completing this requirement will also fulfill the requirement listed in item 2 of the finance program requirements given above.
iii Finance 374C.
iv Finance 377 (Topic 2: Financial Risk Management) or 377 (Topic 5: Energy Financial Risk Management).
v One of the following courses: Finance 371M, 372, 373, 376, 377 (Topic 1: Portfolio Analysis and Management), and either 377 (Topic 3: Security Analysis) or 377 (Topic 4: Financial Analysis).
vi One of the following courses: Statistics 372 (Topic 5: Financial and Econometric Time Series Modeling), 372 (Topic 6: Optimization Methods in Finance), 372 (Topic 7: Computational Finance), Management Information Systems 373 (Topic 17: Data Mining for Business Intelligence), Finance 366P.
g. Real Estate
i Finance 354 or 371 M .
ii One of the following courses: Finance 377 (Topic 3: Security Analysis) or 377 (Topic 4: Financial Analysis), 374S or 374C.
iii Six semester hours of coursework in real estate.
iv An independent research course may not be counted toward the real estate option.
5. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

## Finance Suggested Arrangement of Courses

| First Year |  |  |
| :--- | :---: | ---: |
| First Term | Hours Second Term | Hours |
| M 408K, 408C, or 408N | 4 M 408L, 408D, or 408S | 4 |
| RHE 306 | 3 MIS 301 | 3 |
| Science and technology part 1 | 3 Science and technology part 1 | 3 |
| UGS 302 or 303 | 3 B A 101S | 1 |
| ECO 304K | 3 ECO 304L | 3 |
|  | $\mathbf{1 6}$ | $\mathbf{1 4}$ |
| Second Year | Hours Second Term |  |
| First Term | 3 ACC 312 | 3 |
| B A 324 | 3 FIN 357 | 3 |
| STA 309 | 3 E 316L, 316M, 316N, or 316P | 3 |
| ACC 311 | 3 GOV 310L | 3 |
| Psychology/sociology/anthropology | 3 Visual and performing arts | 3 |
| Science and technology part 2 | $\mathbf{1 5}$ | 3 |
|  |  | $\mathbf{1 5}$ |

e. General Finance

## Third Year

First Term
FIN 367
STA 371G
MKT 337
American history
GOV 312L

Fourth Year
First Term
FIN 353
Finance track course
Finance track course
Upper-division nonbusiness elective
Free elective

## Hours Second Term

Hours
3 Finance track course 3
3 ACC 326
3 American history
3 American history 3
3 Nonbusiness elective 3
3 MAN 336 or O M 3353
15 15

Hours Second Term
Hours 3 FIN 370
3 Finance track course 3
3 LEB 323
3 Upper-division nonbusiness elective 3
3 Nonbusiness elective 3
15

Total credit hours: 120

## International Business

Recognizing the role of the United States in world affairs and the importance of international operations to American business enterprise, this major offers a combination of basic business knowledge with an interdisciplinary study of international policies and practices. The curriculum is designed to develop competency to function effectively in a specific region of the world and to prepare students for positions in global business operations, government, or international agencies in the fields of economic development and/or international trade.

The requirements of this program are:

1. The Core Curriculum (p. 20) requirements and the BBA Degree Requirements (p.52).
2. Twelve semester hours of coursework beyond the freshman level in a foreign language associated with the area studies specialization used to fulfill requirement 6 below. A minimum of six of the twelve required hours must be at the upper-division level.
3. International Business 350 (may fulfill the independent inquiry flag) and 378 (certain sections may fulfill the writing, independent inquiry, and global cultures flags).
4. Six semester hours chosen from the following courses: Finance 376, International Business 340S, 372, and Marketing 372 (Topic 4: Global Marketing). Other courses on the global dimensions of key business areas (e.g. "International Accounting and Taxation" or "Intercultural Management") may also be used for this requirement when available, as approved by the international business faculty adviser.
5. Three semester hours of business electives.
6. Nine semester hours of upper-division coursework focused on a specific geographic region. These courses must be approved by the international business faculty adviser. Examples of acceptable fields of study are Latin American studies; Middle Eastern studies; Asian studies; and Russian, East European, and Eurasian studies or other areas related to the student's geographic region.
7. All international business majors must study or intern abroad for at least one semester or summer session of no less than six weeks. Students should study or intern in a country or region associated with their foreign language and area studies specialization. Ideally, the study abroad experience should be in an immersion program that includes courses taken with local students.

The international business faculty adviser must approve all study abroad programs and area studies courses in advance. Any McCombs School program is acceptable if it takes place in a country in which English is not the dominant language (the faculty-led

Summer Study Abroad programs will not fulfill this requirement). In addition, most affiliated study abroad programs available through the University's Study Abroad Office are acceptable, depending on the course of study.

Students must complete the equivalent of at least six semester hours during their study abroad period. Credit earned abroad may be used to fulfill other degree requirements if appropriate. An international internship in the appropriate geographic region which meets the basic internship requirements for all business majors may be used in place of the study abroad requirement with satisfactory documentation and faculty adviser approval.
8. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

International business majors should note that each student must submit information using the IB Planner (https://utdirect.utexas.edu/business/ib/ planner.WBX) for approval of language courses, area studies courses, and study abroad experience.

## International Business Suggested Arrangement of Courses

| First Year |  |  |
| :---: | :---: | :---: |
| First Term | Hours Second Term | Hours |
| M 408K, 408C, or 408 N | $4 \mathrm{M} \mathrm{408L}, 408 \mathrm{D}$, or 408S | 4 |
| RHE 306 | 3 B A 101S | 1 |
| ECO 304K | 3 Visual and performing arts | 3 |
| Psychology/sociology/anthropology | 3 MIS 301 | 3 |
| UGS 302 or 303 | 3 ECO 304L | 3 |
|  | 16 | 14 |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| ACC 311 | 3 ACC 312 | 3 |
| GOV 310L | 3 GOV 312L | 3 |
| STA 309 | 3 B A 324 | 3 |
| Science and technology part I | 3 Sophomore foreign language | 3 |
| Sophomore foreign language | 3 Science and technology part I | 3 |
|  | 15 | 15 |
| Third Year |  |  |
| First Term | Hours Second Term | Hours |
| STA 371G | 3 FIN 357 | 3 |
| MKT 337 | 3 Area studies | 3 |
| I B 350 | 3 International business elective | 3 |
| Upper-division foreign language | 3 MAN 336 or O M 335 | 3 |
| Science and technology part II | 3 Area studies | 3 |
|  | 15 | 15 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| MKT 353 | 3 I B 378 (offered in spring only) | 3 |
| LEB 323 | 3 International business elective | 3 |
| Upper-division foreign language | 3 Area studies | 3 |
| E 316L, 316M, 316N, or 316P | 3 Business elective | 3 |
| American history | 3 American history | 3 |
|  | 15 | 15 |

## Total credit hours: 120

## Management

The Department of Management offers courses in such areas as consulting, change management, human capital management, and entrepreneurship. Students may either choose from the available courses to customize a major in general management, or follow the focused curriculum in consulting and change management.

The major objective of the general management track is to train broadly competent administrators for service in a wide variety of organizations -public or private, product- or service-oriented, profit or not-for-profit. To accomplish this basic objective, the program offers the student the opportunity to acquire knowledge about the management of human and physical resources and to acquire skills useful in the management of any organization.

The consulting and change management track is designed to prepare students to become leaders in consulting firms, firms that require consulting advice, and firms implementing important changes. At times, every organization must renew its ability to compete; many firms use external advisers to assist in the renewal process. The consulting process often involves extensive analysis of the firm's competitive position, capabilities, organizational processes, and culture. Once a new direction is developed, the implementation of change must be managed. Such changes include introduction of new competitive thrusts, revision of organizational structures, incorporation of new technologies, and expansion into new geographic markets.

The requirements of the general management track are:

1. The Core Curriculum (p. 20) requirements and the BBA Degree Requirements (p.52).
2. The following courses: Management 336 (may fulfill the ethics and leadership flag), 374 (may fulfill the writing and independent inquiry flags), and Operations Management 335.
3. Twelve semester hours chosen from the following courses: Management 325, 337 (any topic), and 340S.
4. Six semester hours of upper-division coursework in social science (anthropology, economics, government, history, linguistics, geography, psychology, sociology).
5. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

The requirements of the consulting and change management track are:

1. The Core Curriculum (p. 20) requirements and the BBA Degree Requirements (p.52).
2. The following courses: Management 328, 336 (may fulfill the ethics and leadership flag), 374 (may fulfill the writing and independent inquiry flags), and Operations Management 335.
3. Nine semester hours chosen from the following courses: Accounting 329, Management 325, 337 (any topic), 340S, Operations Management 337 (Topic 1: Total Quality Management). The following topics of Management 337 are recommended: Groups and Teams, Topic 9: Leadership Issues, Topic 22: Women in Management, Topic 21: Art and Science of Negotiation, Topic 20: Entrepreneurial Management, and Strategic Change and Innovation.
4. Six semester hours of upper-division coursework in social science (anthropology, economics, government, history, linguistics, geography, psychology, sociology).
5. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

## Management Suggested Arrangement of Courses

## First Year

First Term
M 408K, 408C, or 408 N
RHE 306
ECO 304K
Psychology/sociology/anthropology

Hours Second Term
4 M 408S, 408D, or 408L
3 B A 101S
3 ECO 304L
3 MIS 301

Hours
4
1
3
3

UGS 302 or 303
3 Visual and performing arts
Second Year
First Term
ACC 311
B A 324
STA 309
GOV 310L
Science and technology part I

Third Year
First Term
Management elective
OM 335
STA 371G
Free elective
Science and technology part II

| Hours Second Term | Hours |
| :--- | ---: |
| 3 ACC 312 | 3 |
| 3 MAN 336 | 3 |
| 3 E 316L, 316M, 316N, or 316P | 3 |
| 3 GOV 312L | 3 |
| 3 Science and technology part I | 3 |
| 15 | 15 |
| Hours Second Term |  |
| 3 Management elective | 3 |
| 3 FIN 357 | 3 |
| 3 MKT 337 | 3 |
| 3 Upper-division social science | 3 |
| 3 American history | 3 |
| 15 | 15 |
| Hours Second Term |  |
| 3 MAN 374 | 3 |
| 3 Management elective | 3 |
| 3 LEB 323 Nonbusiness elective | 3 |
| 3 Nonbusiness elective | 3 |
| 15 | 3 |

3 ACC 312
3 MAN 336
3
3 E 316L, 316M, 316N, or 316P 3
3 GOV 312L 3
3 Science and technology part I 3
15
$\begin{array}{cr}\text { Hours Second Term } & \text { Hours } \\ 3 \text { Management elective } & 3 \\ 3 \text { FIN } 357 & 3 \\ 3 \text { MKT } 337 & 3 \\ 3 \text { Upper-division social science } & 3 \\ 3 \text { American history } & 3 \\ 15 & 15\end{array}$
Fourth Year
First Term
MAN 353
Management elective
Upper-division social science
American history
Free elective

Total credit hours: 120

## Management Information Systems

There is a great demand for individuals with knowledge about both business and computer applications. Through a series of business core courses and business computer courses, the program in management information systems is intended to prepare a professional who can fully appreciate the complexity of information system design. The graduate is expected to have both the technical and the managerial knowledge to solve fundamental business problems in inventory control, production, forecasting, finance, cost accounting, and other areas. Courses are designed to provide a foundation in the integration of hardware, software, networking, and business functional analysis for business systems.

The requirements of this program are:

1. The Core Curriculum (p. 20) requirements and the BBA Degree Requirements (p.52).
2. The following courses: Management Information Systems 304, 325, $333 \mathrm{~K}, 374$, and 375 (may fulfill the writing and independent inquiry flags).
3. Six additional semester hours of upper-division coursework in management information systems.
4. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

# Management Information Systems Suggested Arrangement of Courses 

## First Year

First Term
M 408K or 408C
RHE 306
ECO 304K
Psychology/sociology/anthropology

Hours Second Term
4 M 408D or 408L
3 B A 101S
3 ECO 304L
3 MIS 301

Hours

| UGS 302 or 303 | 3 Visual and performing arts | 3 |
| :---: | :---: | :---: |
|  | 16 | 14 |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| MIS 304 | 3 MIS 325 | 3 |
| ACC 311 | 3 ACC 312 | 3 |
| GOV 310L | 3 B A 324 | 3 |
| STA 309 | 3 GOV 312L | 3 |
| Science and technology part I | 3 Science and technology part I | 3 |
|  | 15 | 15 |
| Third Year |  |  |
| First Term | Hours Second Term | Hours |
| MIS 333K | 3 MIS 373 (Topic 24) | 3 |
| STA 371G | 3 MKT 337 | 3 |
| Free elective | 3 FIN 357 | 3 |
| MAN 336 or O M 335 | 3 American history | 3 |
| Science and technology part II | 3 Upper-division nonbusiness elective | 3 |
|  | 15 | 15 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| MIS 353 | 3 MIS 375 | 3 |
| MIS 374 | 3 LEB 323 | 3 |
| MIS upper-division elective | 3 E 316L, 316M, 316N, or 316P | 3 |
| American history | 3 Nonbusiness elective | 3 |
| Upper-division nonbusiness elective | 3 Nonbusiness elective | 3 |
|  | 15 | 15 |

Total credit hours: 120

## Marketing

Marketers help the firm discover and utilize new technological and market opportunities. Their motivation is to create strong brands and loyal customers in the ever-shifting competitive landscape. This is possible through the efforts of marketers to identify the customers with needs the firm is best positioned to meet. Marketers ensure the firm is offering customers well-designed products and services at just the right price, and makes the products available through the right distribution channels, while promoting product offerings through innovative, informative, and persuasive communications. Career opportunities in marketing exist in every industry, no matter the type and size of business.

The requirements of this program are:

1. The Core Curriculum (p. 20) requirements and the BBA Degree Requirements (p.52).
2. International Business 350 (may fulfill the independent inquiry flag), Marketing 460 (may fulfill the quantitative reasoning flag), and 370 (may fulfill the writing flag).
3. Nine semester hours chosen from Marketing 338, 340S, 363, 366P (may be used as an elective or to satisfy the internship requirement, but not both), 370 K , and 372 (any topic).
4. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

Marketing majors should carefully consider the prerequisites for Marketing 370, for course planning: Ninety semester hours of college coursework, including Marketing 460; credit or registration for an approved internship or practicum course; and six additional semester hours of elective coursework in marketing.

## Marketing Suggested Arrangement of Courses

First Year
First Term
M 408K or 408C
RHE 306
ECO 304K
Psychology/sociology/anthropology
UGS 302 or 303

Second Year
First Term
ACC 311
B A 324
STA 309
GOV 310L
Science and technology part I

Third Year
First Term
MKT 460
Marketing elective
MAN 336 or O M 335
American history
Science and technology part II

Fourth Year
First Term
MKT 353
Marketing elective
E 316L, 316M, 316N, or 316P
Upper-division nonbusiness elective Free elective

| Hours Second Term | Hours |
| :---: | ---: |
| 4 B A 101S | 1 |
| 3 M 408D or 408L | 4 |
| 3 ECO 304L | 3 |
| 3 MIS 301 | 3 |
| 3 Visual and performing arts | 3 |
| 16 | 14 |
| Hours Second Term |  |
| 3 ACC 312 | 3 |
| 3 MKT 337 | 3 |
| 3 STA 371G | 3 |
| 3 GOV 312L | 3 |
| 3 Science and technology part I | 3 |
| 15 | 15 |

Hours Second Term

4 Marketing elective 3
3 IB 3503
3 FIN 3573
3 American history 3
3 LEB 323 3
$16 \quad 15$

| Hours Second Term | Hours |
| :--- | ---: |
| 3 MKT 370 | 3 |
| 3 Upper-division nonbusiness elective | 3 |
| 3 Free elective | 3 |
| 3 Nonbusiness elective | 3 |
| 3 Nonbusiness elective | 3 |
| 15 | 15 |

Hours

Total credit hours: 121

## Supply Chain Management

The supply chain management major is designed to prepare students to become leaders in supply chain management, a total systems approach taken by companies, suppliers, and partners to deliver manufactured products and services to the end customer. Information technology is used to integrate all elements of the supply chain from sourcing parts to coordination of retailers; this integration gives the enterprise a competitive advantage that is not available in traditional logistics systems. Entry-level positions in supply chain management include buyer, materials manager, risk management analyst, logistics planner, and staff consultant. Students work closely with the faculty adviser in the Department of Information, Risk, and Operations Management.

The requirements of this program are:

1. The Core Curriculum (p. 20) requirements and the BBA Degree Requirements (p.52).
2. Management 336 or 336 H (both may fulfill the ethics and leadership flag).
3. The following courses:
a. Operations Management 335 or 335 H
b. Operations Management 337 (Topic 2: Supply Chain Modeling and Optimization) (may carry the quantitative reasoning flag)
c. Operations Management 337 (Topic 3: Procurement and Supplier Management) (may carry the writing and independent inquiry flags)
d. Operations Management 367
e. Operations Management 368
4. Six semester hours chosen from:

Operations Management 337 (Topic 1: Total Quality Management) Operations Management 337 (Topic 4: Information Technology for Supply Chains)
Operations Management 337 (Topic 5: Project Management) Operations Management 340S
Management 337 (Topic 21: The Art and Science of Negotiation)
5. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

## Supply Chain Management Suggested Arrangement of Courses

## First Year

First Term
M 408 K or 408 C
RHE 306
ECO 304K
Psychology/sociology/anthropology UGS 302 or 303

Hours Second Term<br>4 M 408D or 408L<br>3 B A 101S<br>3 ECO 304L<br>3 MIS 301<br>3 Visual and performing arts<br>16

Hours

Second Year
First Term
ACC 311
B A 324
STA 309
GOV 310L
Science and technology part I

Third Year
First Term
OM 368
STA 371G
MKT 337
Free elective
Science and technology part II

Fourth Year
First Term
OM 353
OM 337
Operations management elective
American history
Upper-division nonbusiness elective

Hours Second Term
3 ACC 312
3 OM 335
3 E 316L, 316M, 316N, or 316P
3 GOV 312L
3 Science and technology part I
15

Hours Second Term
3 Operations management elective
3 FIN 357
3 MAN 336
3 Upper-division nonbusiness elective
3 American history
15

Hours Second Term
3 LEB 323
3 OM 367
3 Free elective
3 Nonbusiness elective
3 Nonbusiness elective
15

Total credit hours: 120

## Courses

The faculty has approval to offer the following courses in the academic years 2014-2015 and 2015-2016; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in General Information. In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits 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; if 80 through 99 , of graduate rank.

## Business Administration

## Business Administration: B A

## Lower-Division Courses

B A 001F. First-Year Interest Group Seminar.

Restricted to students in the First-Year Interest Group Program. Basic issues in various McCombs School of Business disciplines. One lecture hour a week for one semester.

## B A 101H. Professional Development and Career Planning: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. Professional development issues including selfassessment, 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. One lecture hour a week for one semester. Only one of the following may be counted: Business Administration 101H, 101S, 101T. Offered on the letter-grade basis only.

## B A 101S. Professional Development and Career Planning.

Restricted to freshmen students in the McCombs School of Business. 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. One lecture hour a week for one semester. Only one of the following may be counted: Business Administration 101H, 101S, 101T. Offered on the letter-grade basis only.

## B A 101T. Professional Development and Career Planning.

Restricted to transfer students in the McCombs School of Business. Discussion of issues surrounding career planning, implementation, and evaluation. One lecture hour a week for one semester. Only one of the following may be counted: Business Administration 101, 101H, 101S, 101T, 102. Offered on the letter-grade basis only.

B A 119, 219, 319, 419, 519, 619. International Learning Seminar.
Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Business Administration 119, 219, 319, 419, 519, 619 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

[^1]
## Upper-Division Courses

## B A 320F. Foundations of Entrepreneurship.

Restricted to non-business majors. Introduction to the mechanics and strategies for starting a business. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## B A 321L. Contemporary Leadership Issues.

Focuses on leadership topics such as ethics, diversity, and sustainability. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## B A 324. Business Communication: Oral and Written.

Restricted to students in the McCombs School of Business. 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. Three lecture hours a week for one semester. Business Administration 324 and 324 H may not both be counted. Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, 309K, or Tutorial Course 603A, and credit or registration for Business Administration $101 \mathrm{H}, 101 \mathrm{~S}$, or 101 T .

## B A 324H. Business Communication: Oral and Written: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. 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. Three lecture hours a week for one semester. Business Administration 324 and 324H may not both be counted. Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, 309K, or Tutorial Course 603A; and Business Administration 101 H or 101S, or credit or registration for Business Administration 101T.

B A 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, $940 S$. 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. May be repeated for credit when the topics vary.

## B A 149, 249, 349, 449, 549, 649. International Learning Seminar.

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Business Administration 149, 249, 349, 449, 549, 649 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## B A 151H. Honors Lyceum in Business Administration.

Restricted to students admitted to the McCombs School of Business Honors Program. Presentations by professionals from various fields of business. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Business Administration 101H or 101S, or credit or registration for Business Administration 101T.

## B A 352F. Internship in Business Administration.

Restricted to non-business majors. 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. The equivalent of eight lecture hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Completion of at least forty-five semester hours of coursework, Accounting 310F with a grade of at least C , and consent of the director of the Business Foundations Program.

## B A 353. Internship in Business Administration.

Restricted to students in the McCombs School of Business. Focuses on career goals through academic discussion and evaluations, while placing students in professional internships with public and private enterprises. The equivalent of three lecture hours a week for one semester; hours to be arranged. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353, 353H, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student's major requirement. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

## B A 353H. Internship in Business Administration-Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. Focuses on career goals through academic discussion and evaluations, while placing students in professional internships with public and private enterprises. Three lecture hours a week for one semester. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353, 353H, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student's major requirement. Offered on the pass/fail basis only. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

## B A 366F. Business Administration Practicum.

Restricted to non-business majors. 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. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing and completion of at least forty-five semester hours of coursework.

## B A 179F, 379F. Independent Research in Business Administration.

Restricted to non-business majors. Conference course. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Accounting 310F with a grade of at least C , consent of instructor, and written approval before the first meeting of the course on forms provided for that purpose from the director of the Business Foundations Program.

## Department of Accounting

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Accounting: ACC

## Lower-Division Courses

## ACC 310F. Foundations of Accounting.

Restricted to non-McCombs School of Business majors. 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. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Business Administration degree.

## ACC 311 (TCCN: ACCT 2301). Fundamentals of Financial Accounting.

Restricted to students in the McCombs School of Business. Concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements. Three lecture hours a week for one semester. Accounting 311 and 311H may not both be counted. Prerequisite: Twenty-four semester hours of college credit.

## ACC 311H. Fundamentals of Financial Accounting: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. An exploration of concepts and their application in transaction analysis and financial statement preparation; and analysis of financial statements. Three lecture hours a week for one semester. Accounting 311 and 311 H may not both be counted. Prerequisite: Twentyfour semester hours of college credit, Management Information Systems 301 or its equivalent, and credit or registration for Business Administration 324 or 324 H .

## ACC 312 (TCCN: ACCT 2302). Fundamentals of Managerial Accounting.

Restricted to students in the McCombs School of Business. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing. Three lecture hours a week for one semester. Accounting 312 and 312 H may not both be counted. Prerequisite: Accounting 311 or 311 H .

ACC 312H. Fundamentals of Managerial Accounting: Honors. Restricted to students admitted to the McCombs School of Business Honors Program. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing. Three lecture hours a week for one semester. Accounting 312 and 312H may not both be counted. Prerequisite: Accounting 311 or 311 H , and credit or registration for Business Administration 151H.

## Upper-Division Courses

## ACC 326. Financial Accounting--Intermediate.

Restricted to students in a business major. Theoretical foundation, concepts, and principles underlying financial statements; current assets; current liabilities; property, plant, and equipment; short-term investments; present value analysis. Three lecture hours a week for one semester. Accounting 326 and 380K (Topic 1: Financial Accounting Standards and Analysis I) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Accounting 311 or 311 H , and 312 or 312 H , with a grade of at least C - in each.

## ACC 327. Financial Statement Analysis.

Restricted to students in a business major. 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. Three lecture hours a week for one semester. Accounting 327 and 380K (Topic 7: Financial Statement Analysis) may not both be counted. Prerequisite: Accounting 326 with a grade of at least C-.

## ACC 329. Managerial Accounting and Control.

Restricted to students in a business major. The origination, processing, reporting, and use in business operations of accounting information for management purposes. Three lecture hours a week for one semester. Only one of the following may be counted: Business Administration 382T, Accounting 329, 359, 387 (Topic 1), 287 (Topic 5). Prerequisite: Accounting 311 or 311 H , and 312 or 312 H , with a grade of at least C - in each.

ACC 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, $940 S$. 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. May be repeated for credit when the topics vary.

## ACC 151. Accounting Careers Exploration.

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. Presentations by professional accountants and managers. One and one-half lecture hours a week for one semester. Offered on the letter-grade basis only.

## ACC 152. MPA Distinguished Speaker Lyceum.

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. Discussion of current issues confronting the accounting profession. The equivalent of two lecture hours a week for one semester. Offered on the pass/fail basis only.

## ACC 353J. Internship in Accounting.

Restricted to students in a business major. Focuses on students' career goals through academic discussion and evaluations, while placing students in professional internships with public and private enterprises. Internship and discussion hours to be arranged. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353, 353H, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student's major requirement. Offered on the pass/fail basis only. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

## ACC 355. Introduction to Taxation.

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. The role of taxes in contemporary society and their impact on individuals and business. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 355, 364, 380K (Topic 11: Introduction to Taxation). Offered on the letter-grade basis only.

## ACC 356. Financial Accounting Concepts and Research.

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. Conceptual framework of financial accounting; research methods in financial reporting; and financial reporting institutions and regulations. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

## ACC 358C. Auditing and Other Assurance Services.

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 358C, 362, 380K (Topic 4). Offered on the letter-grade basis only. Prerequisite: Accounting 356 or the equivalent.

## ACC 359. Managerial/Cost Accounting.

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. Analysis of manufacturing costs, development of cost estimates, and preparation of relevant information for management decision making. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 329, 359, 287 (Topic 5), 287 (Topic 1), 387 (Topic 1), 387 (Topic 5), Business Administration 382T. Offered on the letter-grade basis only.

## ACC 362. Auditing and Control.

Restricted to students in a McCombs School of Business major. Professional practice standards and procedures of auditing: ethics, legal liability, sampling methods, control systems, control design, and control evaluation. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 358C, 362, 380K (Topic 4: Introduction to Auditing). Prerequisite: Accounting 311 or 311 H , and 312 or 312 H , with a grade of at least C - in each.

## ACC 364. Fundamentals of Taxation.

Restricted to students in a business major. Introduction to the role of taxes in contemporary society and their impact on individuals and business entities; emphasis on federal income taxation. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 355, 364, 380K (Topic 11: Introduction to Taxation). Prerequisite:
Accounting 311 or 311 H , and 312 or 312 H , with a grade of at least C- in each.

## ACC 366P. Accounting Practicum.

Restricted to business majors. 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. The equivalent of three lecture hours a week for one semester. Accounting 366P and 384 (Topic: Tax Practicum) may not both be counted. Prerequisite: Forty-five semester hours of college coursework.

## ACC 378. Contemporary Accounting Topics.

Restricted to students in a business major. In-depth study of selected accounting topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Accounting 311 or 311 H , and 312 or 312 H , with a grade of at least C- in each. Some topics have additional prerequisites; these are given in the Course Schedule.

## ACC 179C, 379C. Independent Research in Accounting.

Restricted to students in a McCombs School of Business major. Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business Government and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Real Estate 179C, 379C, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upper-division; Accounting 311 or 311 H , and 312 or 312 H , with a grade of at least C - in each; consent of instructor; and written approval on
forms provided for that purpose before the first meeting of the course from the department chair's office.

## Department of Finance

## Finance: FIN

## Lower-Division Courses

## Upper-Division Courses

## FIN 320F. Foundations of Finance.

Restricted to non-McCombs School of Business majors. Principles of effective financial management, including planning, organization, and control; financial intermediaries; securities markets; evaluating alternative assets, debt, and capital structures. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Business Administration degree. Prerequisite: Upper-division standing; Accounting 310 F , or 311 or 311 H and 312 or 312 H , or 6 hours of accounting coursework.

FIN 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940 . 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. May be repeated for credit when the topics vary.

## FIN 353. Internship in Finance.

Restricted to students in a business major. Focuses on students' career goals through academic discussion and evaluations, while placing students in professional internships with public and private enterprises. Internship and discussion hours to be arranged. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353, 353H, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student's major requirement. Offered on the pass/fail basis only. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

## FIN 354. Money, Banking, and Economic Conditions.

Restricted to students in a business major. The monetary system, financial markets, national income components, and their relationship to business activity. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 322, Finance 354, 354H. Prerequisite: Accounting 311 or 311 H ; Economics 304 K and 304L; and credit or registration for Business Administration 324 or 324 H .

## FIN 357. Business Finance.

Restricted to students in a McCombs School of Business major. 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. Three lecture hours a week for one semester. Finance 357 and 357 H may not both be counted. Prerequisite: Statistics 309 or 309 H , credit or registration for Accounting 312 or 312 H , and Business Administration 324 or 324H.

## FIN 357H. Business Finance: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. 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. Three lecture hours a week for one semester. Finance 357 and 357 H may not both be counted. Prerequisite: Economics 304 K and 304 L , and credit or registration for Accounting 312 or 312 H , Business Administration 324 or 324 H , and Statistics 371 H or 375 H .

## FIN 165P, 365P. Energy Finance Practicum.

Restricted to students accepted to the Helios Challenge. 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. May not be used to satisfy the professional, business related internship or practicum course degree requirement for the Bachelor of Business Administration. Prerequisite: Consent of instructor.

## FIN 366P. Finance Practicum.

Restricted to students accepted to the Financial Analyst Program. 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. The equivalent of three lecture hours a week for one semester. Prerequisite: Forty-five semester hours of college coursework and consent of instructor.

## FIN 367. Investment Management.

Restricted to students in a business major. 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. Three lecture hours a week for one semester. Finance 367 and 367Q may not both be counted. Prerequisite: Finance 357 or 357 H ; and credit or registration for Statistics 371G, 371H, 375, or 375H.

## FIN 367Q. Investment Management: Quantitative.

Restricted to students in a business major. Quantitative approach to investments; decision making under differing uncertainties and constraints; portfolio theory and applications; formulation of investment strategies; introduction to option pricing; Monte Carlo simulation; and development of conceptual managerial perspectives and philosophies for investment environments. Three lecture hours a week for one semester. Finance 367 and 367Q may not both be counted. Prerequisite: Finance 357 or 357 H , and credit or registration for Statistics 375 or 375 H .

## FIN 370. Integrative Finance.

Restricted to students in a McCombs School of Business major. Integrates financial decision making in functional areas of finance; utilizes various concepts to promulgate strategies, policies, and procedures in managing funds to achieve objectives. Three lecture hours a week for one semester. Prerequisite: Ninety semester hours of college coursework; Finance 367 or 367Q; credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353, 353H, Finance 353, 366P, Management 353, Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, or 366P; and three additional semester hours of coursework in finance or real estate.

## FIN 371M. Money and Capital Markets.

Restricted to students in a business major. Development of modern financial markets, with emphasis on the factors that determine interest rates; institutional characteristics and pricing mechanisms of various interest-sensitive securities. Three lecture hours a week for one semester. Prerequisite: Finance 357 or 357 H .

## FIN 372. Advanced Topics in Finance.

Restricted to students in a McCombs School of Business major. Advanced topics in finance with emphasis on theoretical and quantitative analysis. Three lecture hours a week for one semester, or as required by
the topic. May be repeated for credit when the topics vary. Prerequisite: Credit or registration for Finance 367 or 367Q.

## FIN 373. Research Topics in Finance.

Restricted to students in a business major. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Finance 357 or 357 H , and consent of instructor.

Topic 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 374C. Financial Planning and Policy for Large Corporations.

Restricted to students in a business major. 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. Three lecture hours a week for one semester. Prerequisite: Finance 357 or 357 H .

## FIN 374S. Entrepreneurial Finance.

Restricted to students in a business major. 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. Three lecture hours a week for one semester. Prerequisite: Finance 357 or 357 H .

## FIN 375F. Banking and Financial Intermediation.

Restricted to students in a business major. Theory of financial intermediation, regulatory environment, interest rates, and asset/liability management with a focus on commercial banking; depository and contractual intermediation. Three lecture hours a week for one semester. Prerequisite: Finance 357 or 357 H .

## FIN 376. International Finance.

Restricted to students in a business major. The international financial environment, with emphasis on the factors affecting exchange rates and how exchange rate changes affect the firm. Three lecture hours a week for one semester. Prerequisite: Finance 357 or 357 H .

## FIN 377. Advanced Investment Analysis.

Second course in investments, with emphasis on quantitative applications and the underlying theory in the analysis and management of securities and portfolios. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Portfolio Analysis and Management. Restricted to students in a business major. Additional prerequisite: Finance 367 or 367Q.
Topic 2: Financial Risk Management. Restricted to students in a McCombs School of Business major. Finance 377 (Topic 2) and 377 (Topic 5: Energy Financial Risk Management) may not both be counted. Prerequisite: Credit or registration for Finance 367 or 367Q.
Topic 3: Security Analysis. Restricted to students accepted to the Financial Analyst Program. Finance 377 (Topic 3) and 377 (Topic 4: Financial Analysis) may not both be counted. Prerequisite: Credit or registration for Finance 367 or 367Q, and consent of instructor.
Topic 4: Financial Analysis. Restricted to students in a business major. Application of fundamental analysis and valuation techniques. Finance 377 (Topic 3) and 377 (Topic 4) may not both be counted. Additional prerequisite: Credit or registration for Finance 367 or 367Q.
Topic 5: Energy Financial Risk Management. Restricted to students in a business major. Finance 377 (Topic 2) and 377 (Topic 5) may not both be counted. Additional prerequisite: Finance 367 or 367 Q.

## FIN 377L. Portfolio Analysis and Management.

Restricted to students in a McCombs School of Business major. An exploration of quantitative applications and the underlying theory in the analysis and management of securities and portfolios; designed for students with career goals in investment. Three lecture hours a week for one semester. Prerequisite: Finance 367 or 367 Q.

## FIN 179C, 379C. Independent Research in Finance.

Restricted to students in a business major. Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business Government \& Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Real Estate 179C, 379C, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upperdivision; Finance 357 or 357 H with a grade of at least C-; and consent of instructor. A student registering for this course must obtain written approval from the department chair's office, on forms provided for that purpose, before the first meeting of the course.

## Real Estate: R E

## Lower-Division Courses

## Upper-Division Courses

R E 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940 S. 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. May be repeated for credit when the topics vary.

## R E 358. Introduction to Real Estate and Urban Land Development.

Same as Urban Studies 351 (Topic 5). Restricted to students in a McCombs School of Business major. An examination of the principles of real estate and urban land economics. Topics include investment, valuation, financing, and public policy in real estate and mortgage markets. Three lecture hours a week for one semester. Only one of the following may be counted: Real Estate 358, Urban Studies 351 (Topic: Introduction to Real Estate and Urban Land Development), 351 (Topic 5). Prerequisite: Credit or registration for Finance 357 or 357H.

## R E 360. Special Topics in Real Estate.

Restricted to students in a business major. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Real Estate 358.

## R E 376G. 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. Three lecture hours a week for one semester. Prerequisite: Real Estate 358.

## R E 378K. 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. Three lecture hours a week for one semester. Prerequisite: Finance 367 or Real Estate 358.

# Department of Business, Government and Society 

## Business, Government, and Society: BGS Lower-Division Courses <br> Upper-Division Courses

BGS 325. Social and Ethical Responsibility of Business.
Restricted to students in a business major. Examines ethical aspects of the decision-making processes of managers and employees. Also explores responsibility of firms to society and other constituencies. Three lecture hours a week for one semester.

BGS 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, $940 S$. 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. May be repeated for credit when the topics vary.

## BGS 370. Topics in Business, Government, and Society.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Energy Technology and Policy. Designed to give students an understanding of the broad context of energy production and consumption in the U.S. and the world. Discusses past energy trends and fundamentals of energy and power, including fossil fuels and renewable energy sources and technologies. Explores different energy resources, environmental impacts, and societal uses of energy, and concludes with an evaluation of future energy technology options. Additional prerequisite: Upper-division standing.
Topic 10: Nontechnical Exploration and Production. Restricted enrollment; contact the Energy Management and Innovation Center for permission to register. Introduction to the oil and gas exploration and production business for nontechnical personnel. Subjects include prospect generation and leasing, drilling, production, processing, transportation, and closing out a project. Business Government and Society 370 (Topic: Oil and Gas Exploration for Nontechnical Personnel) and 370 (Topic 10) may not both be counted. Additional prerequisite: Sophomore standing.

## BGS 371. 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. Three lectures hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

## BGS 372. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

## BGS 373. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

BGS 179, 379. Independent Research in Business, Government, and Society.

Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business Government and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Real Estate 179C, 379C, Risk Management 179, 379. Prerequisite: Sophomore standing and written consent from the department chair's office; forms are available in the department office for that purpose.

## Legal Environment of Business: LEB Lower-Division Courses <br> Upper-Division Courses

## LEB 320F. Foundations of the Legal Environment of Business.

Restricted to non-McCombs School of Business majors. Not open to law students. Introduction to the legal problems confronting businesses in the global environment. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Business Administration degree Prerequisite: Upper-division standing.

## LEB 323. Business Law and Ethics.

Restricted to students in a McCombs School of Business major. 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. Three lecture hours a week for one semester. Legal Environment of Business 323 and 323 H may not both be counted.

## LEB 323H. Business Law and Ethics: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. 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. Three lecture hours a week for one semester. Legal Environment of Business 323 and 323H may not both be counted Prerequisite: Upper-division standing, ninety semester hours of college coursework, Accounting 312 or 312H, and credit or registration for Business Administration 324 or 324 H

LEB 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, $940 S$. 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 Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary

## LEB 361. Law of Business Organizations.

Restricted to students in a business major. Study of basic legal principles of business organizations and operations, including practical comparison and assessment of advantages and disadvantages of different types of organization. Three lecture hours a week for one semester. Prerequisite: Thirty semester hours of undergraduate coursework, or consent of instructor.

## LEB 363. Real Estate Law.

An examination of law pertaining to estates and interests in land, conveyances and mortgages, brokers, easements, contracts, default and foreclosure. Three lecture hours a week for one semester. Prerequisite: Thirty semester hours of undergraduate coursework, or consent of instructor.

## LEB 366. Commercial Transactions.

Restricted to students in a business major. 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. Three lecture hours a week for one semester. Prerequisite: Thirty semester hours of undergraduate coursework, or consent of instructor.

## LEB 370. Topics in the Legal Environment of Business.

Selected topics on legal constraints affecting managerial decision making and business behavior. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Thirty semester hours of undergraduate coursework, or consent of instructor.

## Topic 1: Antitrust Law.

Topic 2: Environmental Law.
Topic 3: Employer-Employee Relations.
Topic 4: Social and Ethical Responsibilities of Business.
Topic 5: The Law and the Multinational Corporation.
Topic 6: Law of the Entertainment Business.
Topic 7: Business Torts.
Topic 8: Constitutional Issues in Business.
Topic 9: Business Dispute Resolution.
Topic 10: Intellectual Property.
Topic 11: Sports, Sports Management, and Entertainment Law.
Survey of the law as it relates to amateur and professional sports and sports management. Includes an entertainment law component that examines the legal aspects of the film industry.
Topic 12: Law of the European Union. Introduction to the rapidly evolving law of the European Union, with particular emphasis on business applications and comparisons to American law.
Topic 13: Contracts and Real Property. Restricted enrollment; contact the Energy Management and Innovation Center for permission to register. General real property interests, including land, mineral, and riparian interests. Subjects include 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. Legal Environment of Business 363 and 370 (Topic 13) may not both be counted.
Topic 14: Oil and Gas Law. Restricted enrollment; contact the Energy Management and Innovation Center for permission to register. Ownership interests in the oil and gas mineral estate. Subjects include conveyance and partition of the mineral estate; trespass and third party claims; and oil and gas lease provisions. Legal Environment of Business 370 (Topic 14) and 372 may not both be counted. Additional prerequisite: For non-energy management or non-public policy program students, consent of instructor.

## LEB 179, 379. Independent Research in the Legal Environment of Business.

Restricted to students in a McCombs School of Business major. Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business Government and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Real Estate 179C, 379C, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upper-division; Legal Environment of Business 323 or 323 H with a grade of at least C-; consent of instructor; and written approval before the first meeting of the course from the department chair's office, on forms provided for that purpose.

## Department of Information, Risk, and Operations Management

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Management Information Systems: MIS Lower-Division Courses

## MIS 301. Introduction to Information Technology Management.

Restricted to students in the McCombs School of Business. 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. Three lecture hours a week for one semester. Management Information Systems 301 and 301H may not both be counted.

## MIS 301H. Introduction to Information Technology Management: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. 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. Three lecture hours a week for one semester. Management Information Systems 301 and 301 H may not both be counted.

## MIS 302F. Introduction to Information Technology Management.

Restricted to nonbusiness students. 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. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Business Administration degree. Management Information Systems 302F and 311F may not both be counted.

MIS 304. Introduction to Problem Solving and Programming.
Restricted to students in the McCombs School of Business. Programming skills for creating easy-to-maintain systems for business applications. Object-oriented and structured methodologies with Visual Basic. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

## MIS 310 (TCCN: BCIS 1305). 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. Three lecture hours a week for one semester.

## Upper-Division Courses

MIS 325. Database Management.
Restricted to students in the McCombs School of Business. Beginning and intermediate topics in data modeling for relational database management systems. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

## MIS 333K. Web Application Development.

Restricted to students in a business major. Concepts and practices of information systems. Advanced programming techniques used to generate menu-driven applications. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 304 and 325.

MIS 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, $940 S$. 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. May be repeated for credit when the topics vary.

## MIS 353. Internship in Management Information Systems.

Restricted to students in a business major. Focuses on students' career goals through academic discussion and evaluations, while placing students in professional internships with public and private enterprises. Internship and discussion hours to be arranged. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353, 353H, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not count toward the student's major requirement. Offered on the pass/fail basis only. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

## MIS 366P. Management Information Systems Practicum.

Restricted to students in a business major. 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. The equivalent of three lecture hours a week for one semester. Prerequisite: Forty-five semester hours of college coursework and consent of instructor.

## MIS 373. Topics in Management Information Systems.

Restricted to students in a business major. Provides in-depth treatment of business data processing concerns such as database management, telecommunications, and development of commercial systems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic.

Topic 6: Advanced Application of Software Development. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 333K and consent of instructor.
Topic 8: Advanced Data Communication Systems. Development issues for intranet- and internet-based systems. Offered on the lettergrade basis only. Prerequisite: Management Information Systems 365. Topic 9: Health Care Management. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 325.
Topic 12: Technical Consulting. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 304 and consent of instructor.
Topic 13: Information Technology for Supply Chains. Same as Operations Management 337 (Topic 4). Provides an understanding of how information technology is used to coordinate supply chain activities across different industries. Students work in teams and undertake hands-on exercises to learn how to plan and coordinate operations. Management Information Systems 373 (Topic 13) and Operations Management 337 (Topic 4) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 301 with a grade of at least C-.
Topic 14: Web Systems Development. Concepts underlying Web development tools, page and site design, and building Web-based business sites. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 304 and 325.
Topic 15: Systems Analysis for E-Business. Applications of technology for creating e-business systems and process redesign. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 325.
Topic 16: Information Technology Security, Privacy, and Survivability. Offered on the letter-grade basis only. Prerequisite: For business majors, Management Information Systems 333K or the equivalent; for others, consent of instructor.
Topic 17: Data Mining for Business Intelligence. Introduces the data mining process and primary data mining techniques employed to extract intelligence from data and evaluates the strengths and weaknesses of data mining techniques applied to challenges in various business domains. Offered on the letter-grade basis only. Prerequisite: Statistics 309 or 309H.
Topic 18: Business Process Excellence. Provides in-depth coverage of business process change and management with information technology (IT) in today's organizations. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.
Topic 19: Enterprise Computing. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 333K.
Topic 20: Managing the Future. Addresses the management of uncertainty. Introduces managerial concepts and methods for structuring decisions about the uncertainties in the future of industries, products, markets, and technologies. Includes scenario analysis, technology roadmaps, and dynamic innovation models. Students work in teams and undertake hands-on exercises aimed at developing a set of alternative futures for industries and technologies. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.
Topic 21: Open Innovation.
Topic 22: IT Audit and Security. Offered on the letter-grade basis only.
Topic 23: Social Media Analytics. Introduction to social network analysis for business value using statistical optimization and decision
theory; and foundation for analyzing online search and conversation data for market sensing, sentiments, product quality, reputation, recommendations, and brand awareness. Offered on the letter-grade basis only.
Topic 24: Mobile Apps and Web Services. An overview of mobile and web services technology models and architectures. Management Information Systems 365 and 373 (Topic 24) may not both be counted. Additional prerequisite: Management Information System 333K.

## MIS 374. Business System Development.

Restricted to students in a McCombs School of Business major. Provides foundation in business system analysis, project management, planning, design, and implementation, using basic business knowledge and computer skills. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Seventy-five semester hours of college coursework, including Management Information Systems 333K.

## MIS 375. Strategic Information Technology Management.

Restricted to students with a major in business. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

## MIS 179, 379. Independent Research in Management Information Systems.

Restricted to students in a business major. Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business Government and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Real Estate 179C, 379C Risk Management 179, 379. Prerequisite: Management Information Systems 304 and 325 with a grade of at least B- in each, and consent of instructor; and written approval before the first meeting of the course from the department chair's office, on forms provided for that purpose.

## Operations Management: O M

## Lower-Division Courses Upper-Division Courses

## O M 335. Operations Management.

Restricted to students in a business major. The operations or production function and the skills required for analyzing and solving related problems. Three lecture hours a week for one semester. Operations Management 335 and 335H may not both be counted. Prerequisite: Credit or registration for Business Administration 324 or 324 H and credit or registration for Statistics 309 or 309 H .

## O M 335H. Operations Management: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. An investigation of the operations or production function, and the skills required for analyzing and solving related problems. Three lecture hours a week for one semester. Operations Management 335 and 335H may not both be counted. Prerequisite: Business Administration 324 or 324 H and Statistics 309 or 309 H .

## O M 337. Special Topics in Operations Management.

Restricted to students in a business major. Analysis of contemporary management problems. Three lecture hours or two lecture hours and one
laboratory/discussion hour a week for one semester. Management 337 and Operations Management 337 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Total Quality Management. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Additional prerequisite: For business majors, Operations Management 335 or 335 H with a grade of at least C-; for others, admission to an appropriate major sequence in engineering.
Topic 2: Supply Chain Modeling and Optimization. Formulating models of decision-making situations, the appropriate use of quantitative techniques, and finding solutions to the models that optimize objective measures of merit using readily available computer software. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Additional prerequisite: Credit or registration for Operations Management 335 or 335 H .
Topic 3: Procurement and Supplier Management. Strategic issues in procurement and supplier management; 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Additional prerequisite: Operations Management 335 or 335 H with a grade of at least C-
Topic 4: Information Technology for Supply Chains. Same as Management Information Systems 373 (Topic 13). Provides an understanding of how information technology is used to coordinate supply chain activities across different industries. Students work in teams and undertake hands-on exercises to learn how to plan and coordinate operations. Management Information Systems 373 (Topic 13) and Operations Management 337 (Topic 4) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 301 with a grade of at least C-. Topic 5: Project Management. Offered on the letter-grade basis only. Additional prerequisite: Seventy-five semester hours of coursework, including Operations Management 335 or 335 H with a grade of at least C-

O M 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940 S. 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 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. May be repeated for credit when the topics vary.

## O M 353. Internship in Operations Management.

Restricted to students in a business major. Focuses on students' career goals through academic discussion and evaluations, while placing students in professional internships with public and private enterprises. Internship and discussion hours to be arranged. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353, 353H, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. Offered on the pass/fail basis only. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

## O M 366P. Operations Management Practicum.

Restricted to students in a business major. 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. The equivalent of three lecture hours a week for one semester. Management 366P and Operations Management 366P may not both be counted. Offered on the lettergrade basis only. Prerequisite: Completion of at least forty-five semester hours of college coursework, and credit or registration for Operations Management 335 or 335 H .

## O M 367. Strategic Supply Chain Management.

Restricted to students in a business major. Management of manufacturing process technology in international competition. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Operations Management 335 or 335H.

## O M 368. Logistics and Inventory Management.

Restricted to students in a business major. Analysis of the entire flow of information, materials, and services from suppliers through factories and warehouses to the end customer. Includes logistics, supplier selection, and inventory management, using case studies, optimization, and simulation. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Operations Management 335 or 335H.

## O M 179, 379. Independent Research in Operations Management.

Restricted to students in a business major. Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business, Government, \& Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Real Estate 179C, 379C, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upperdivision; Management 336, 336H, Operations Management 335, or 335H with a grade of at least C-; and consent of instructor and written approval from the department chair's office on forms available for that purpose.

## Risk Management: R M

Lower-Division Courses

## Upper-Division Courses

R M 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, $940 S$. 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. May be repeated for credit when the topics vary.

## R M 357E. 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. Three lecture hours a week for one semester.

## R M 369K. 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. Three lecture hours a week for one semester.

## R M 376. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## R M 377. 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. Three lecture hours a week for one semester.

## R M 179, 379. Independent Research in Risk Management.

Restricted to students in a McCombs School of Business major. Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business Government and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Real Estate 179C, 379C, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, including Risk Management 357E; consent of instructor; written approval before the first meeting of the course from the department chair's office, on forms provided for that purpose.

## Statistics: STA

## Lower-Division Courses

## STA 309. Elementary Business Statistics.

Restricted to students in the McCombs School of Business. 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). Three lecture hours a week for one semester. Only one of the following may be counted: Economics 329, Statistics 309, 309H. Prerequisite: Mathematics 408D, 408L, or 408S.

## STA 309H. Elementary Business Statistics: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. 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). Three lecture hours a week for one semester. Only one of the following may be counted: Economics 329, Statistics 309, 309H. Prerequisite: Twenty-four semester hours of college credit, including Mathematics 408D, 408L, or 408S.

## Upper-Division Courses

## STA 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, $940 S$. 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. May be repeated for credit when the topics vary.

## STA 371G. Statistics and Modeling.

Restricted to students in a McCombs School of Business major. Focuses on methods used to model and analyze data. Explores multiple regression models and their application in the functional areas of business, timeseries models, decision analysis and the value of information, and simulation-based methods. Three lecture hours a week for one semester. Only one of the following may be counted: Statistics 371G, 371H, 375, 375H. Prerequisite: Management Information Systems 301, 301H, or 310; Statistics 309 or 309 H ; and credit or registration for Business Administration 324 or 324 H .

## STA 371H. Statistics and Modeling: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Statistics 371G, 371H, 375, 375H. Prerequisite: Management Information Systems $301,301 \mathrm{H}$, or 310 ; Mathematics 408D, 408L, 408M or 408S; Statistics 309 or 309 H ; and credit or registration for Business Administration 324 or 324 H .

## STA 372. Topics in Statistics.

Restricted to students in the McCombs School of Business. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and Statistics 309 with a grade of at least C-.

## Topic 1: Statistical Computer Packages.

Topic 2: Sampling.
Topic 3: Statistical Decision Making for Business.
Topic 4: Multivariate Statistical Analysis.
Topic 5: Financial and Econometric Time Series Modeling. Applied skills course that focuses on statistical forecasting methods used in business. Subjects may include Box-Jenkins models; exponential smoothing models; ARCH/GARCH models for varying volatility in financial returns; seasonal adjustment of time series; tests for nonstationarity of time series; and modeling multiple time series. Each subject is illustrated with real data using series such as interest rates and stock returns. Additional prerequisite: Statistics 371G, 371H, 375, or 375 H .
Topic 6: Optimization Methods in Finance. Focuses on deterministic and stochastic optimization methods used to analyze problems in finance, including linear, nonlinear, quadratic, and integer programming, and dynamic and stochastic programming. Additional prerequisite: Mathematics 408D, 408L, or 408M.
Topic 7: Computational Finance. A systematic introduction to the analysis and implementation of numerical methods used in finance. Covers numerical techniques used 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. Additional prerequisite: Mathematics 408D, 408 L , or 408M.
Topic 8: Time Series Forecasting Models. An applied skills approach to statistical forecasting methods used in business. Topics may include seasonal adjustment of time series; exponential smoothing models; ARCH/GARCH models for varying volatility in financial returns; diffusion models for new product forecasting; Box-Jenkins models; and modeling multiple time series. Each topic is illustrated with real data. Additional prerequisite: Statistics 371G, 371H, 375, or 375H.

## STA 375. Statistics and Modeling for Finance.

Restricted to students in the McCombs School of Business. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Statistics 371G, 371H, 375, 375H. Prerequisite: Management Information Systems 301, 301H, or 310; Mathematics 408D, 408L, 408M or 408S; Statistics 309 or 309 H ; and credit or registration for Business Administration 324 or 324H.

## STA 375H. Statistics and Modeling for Finance: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. Methods used to model and analyze data, especially as applied to problems related to finance. Explores regression models, timeseries models, decision analysis and simulation-based methods. Three lecture hours a week for one semester. Only one of the following may be counted: Statistics 371G, 371H, 375, 375H. Prerequisite: Management Information Systems 301, 301H, or 310; Mathematics 408D, 408L, 408M or 408S; Statistics 309 or 309H; and credit or registration for Business Administration 324 or 324 H .

## STA 376. Intermediate Statistics.

Restricted to students in a business major. Analysis of forecasting techniques and theory; macroeconomic models; long-range and shortterm forecasting; forecasting for the firm, using case material. Three lecture hours a week for one semester. Prerequisite: Statistics 309 or 309H.

# Department of Management 

## Management: MAN

## Lower-Division Courses

Upper-Division Courses

## MAN 320F. Foundations of Organizational Behavior and Administration.

Restricted to non-McCombs School of Business majors. An introduction to the management of organizations. Issues are addressed from the perspectives of strategy and planning, organizational behavior, and operations management. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Business Administration degree. Prerequisite: Upper-division standing.

## MAN 325. Strategic Human Resources Management.

Restricted to students in a business major. Overview of the personnel function, covering recruitment, compensation, equal employment, job analysis, training, benefits, employee discipline, collective bargaining, safety, and health. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Management 336 or 336 H .

## MAN 328. Consulting and Change Management.

Restricted to students in a business major. 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. Three lecture hours a week for one semester. Prerequisite: Management 336 or 336H with a grade of at least C-

## MAN 336. Organizational Behavior.

Restricted to students in a business major. The process of managing organizations and the behavior of individuals and groups within the organizational setting. Three lecture hours a week for one semester. Management 336 and 336H may not both be counted. Prerequisite: Credit or registration for Business Administration 324 or 324 H ; and credit or registration for three semester hours of coursework in anthropology, psychology, or sociology.

## MAN 336H. Organizational Behavior: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. An exploration of the process of managing organizations and the behavior of individuals and groups within the organizational setting. Three lecture hours a week for one semester. Management 336 and 336 H may not both be counted. Prerequisite: Accounting 312H; credit or registration for Business Administration 324 or 324 H ; and thirty semester hours of coursework, including credit or registration for three semester hours of coursework in anthropology, psychology, or sociology.

## MAN 337. Special Topics in Management.

Analysis of contemporary management problems. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Some sections are offered on the letter-grade basis only; these are identified in the Course Schedule. Management 337 and Operations Management 337 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 9: Leadership Issues. Restricted to students in a business major. Three lecture hours a week for one semester. Prerequisite: Management 336 or 336 H with a grade of at least C-.
Topic 20: Entrepreneurial Management. Restricted to students in a business major. Covers the life cycle of an entrepreneurial business, including evaluating the attractiveness of an idea, launching and growing the business, and harvesting the profits. Three lecture hours a week for one semester. Additional prerequisite: Accounting 311 or 311 H ; Management 336 or 336 H with a grade of at least C-; and credit or registration for Finance 357 or 357H.
Topic 21: The Art and Science of Negotiation. Restricted to students in a business major. Designed to help students develop a broad array of negotiation skills and to understand negotiations in useful analytical frameworks. Emphasis is placed on simulations, role-playing, and cases. Three lecture hours a week for one semester. Prerequisite: Management 336 or 336 H with a grade of at least C-
Topic 22: Women in Management. Additional prerequisite: Completion of forty-five semester hours of coursework.

## MAN 137C. Introduction to Management in a Global Environment.

Restricted to students accepted to the Global Management Certificate program. Develops students' skills in recognizing cultural tendencies, both in themselves and in new geographic locations; introduces observation and reflection techniques to maximize learning while abroad. Course must be taken before participation in the international experience component required by the Global Management Certificate. One lecture hour a week for one semester. Only one of the following may be counted toward the Global Management Certificate: Applied Learning and Development 119, 219, 319, 419, 519, 619, 179, 279, Liberal Arts 119, 219, 319, 129, 229, 329, Management 137C, 337 (Topic: Intercultural Management), 379, $479,579,679$. Offered on the letter-grade basis only

## MAN 237D. Global Management Capstone.

Restricted to students accepted to the Global Management Certificate program. Develops students' ability to process and articulate learning from intercultural experience; develops skills in applying knowledge and strategies gained in one region/country to new cultural and geopolitical contexts. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Management 137C, completion of required international experience component of the Global Management Certificate, and consent of instructor.

MAN 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, $940 S$. 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. May be repeated for credit when the topics vary.

## MAN 353. Internship in Management.

Restricted to students in a business major. Focuses on students' career goals through academic discussion and evaluations, while placing students in professional internships with public and private enterprises. Internship and discussion hours to be arranged. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353, 353H, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student's major requirement. Offered on the pass/fail basis only. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

## MAN 374. General Management and Strategy.

Restricted to students in a McCombs School of Business major. 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 longterm health of the entire firm or a major division. Three lecture hours a week for one semester. Management 374 and 374 H may not both be counted. Prerequisite: Upper-division standing; seventy-five semester hours of coursework, including: Management 336 or 336 H ; credit or registration for Finance 357 or 357 H , and Marketing 337 or 337 H ; and credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353, 353H, Finance 353, 366P, Management 353 (or 366P), Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, or 366P.

## MAN 374H. General Management and Strategy: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. 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. Three lecture hours a week for one semester. Management 374 and 374 H may not both be counted. Prerequisite: Upper-division standing; ninety semester hours of college coursework; Finance 357 or 357 H ; Management 336 or 336 H ; Marketing 337 or 337 H ; and credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353, 353H, Finance 353, 366P, Management 353 (or 366P), Management Information Systems 353, or 366P.

MAN 179C, 379C. Independent Research in Management.
Restricted to students in a McCombs School of Business major. Conference course. Only two of the following may be counted toward
the Bachelor of Business Administration: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Real Estate 179C, 379C, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upper-division; Management 336 or 336 H with a grade of at least C-; consent of instructor; written approval before the first meeting of the course from the department chair's office on forms provided for that purpose.

# Department of Marketing 

## International Business: I B

## Lower-Division Courses Upper-Division Courses

## I B 320F. Foundations of International Business.

Restricted to non-McCombs School of Business majors. 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. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Business Administration degree. Only one of the following courses may be counted: Economics 339K, European Studies 348 (Topic 2: International Trade), International Business 320F or 350. Prerequisite: Upper-division standing.

I B 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, $940 S$. 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 Marketing. University credit is awarded for work in an exchange program; it may be counted a coursework taken in residence. May be repeated for credit when the topics vary.

## I B 350. International Trade.

Same as European Studies 348 (Topic 2). Study of the principles, policies, and problems of the international exchange of goods and investments. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 339K, European Studies 348 (Topic 2), International Business 320F, 350. Prerequisite: Upper-division standing.

## I B 372. Seminar in International Business.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic and are given in the Course Schedule.

## Topic 1: International Marketing.

Topic 2: Business in Emerging Markets. Same as Latin American Studies 322 (Topic 9: Business in Emerging Markets) and Middle Eastern Studies 341 (Topic 2: Business in Emerging Markets). Only one of the following may be counted: International Business 372 (Topic 2), Latin American Studies 322 (Topic 9), Middle Eastern Studies 322K (Topic 4: Business in Emerging Markets), 341 (Topic 2).
Topic 3: Managing the Global Corporation.
Topic 4: Competing with the Japanese.
Topic 5: Business in Latin America.

Topic 6: Business German. German 356W and International Business 372 (Topic 6) may not both be counted. Additional prerequisite: German 312 K or 312 V with a grade of at least C -, or appropriate score on the placement test.
Topic 7: Advanced Business German. Designed for students who have taken German 328. Taught in German. Normally meets with German 336W. German 336W and International Business 372 (Topic 7) may not both be counted. May be counted toward the international business elective requirement. Additional prerequisite: Three courses beyond German 506, or equivalent credit on the placement test. Topic 8: Business Spanish. International Business 372 (Topic 8) and Mexican American Studies 350 may not both be counted. Additional prerequisite: Spanish 327G.
Topic 9: Business French. Taught in French. Additional prerequisite: French 320E and one additional upper-division French course, or consent of instructor.

## I B 378. International Business Operations.

Restricted to students in a McCombs School of Business major. Establishment and conduct of international business operations: trade, investments, branch and subsidiary management, intermediary functions; case studies in international enterprise. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; at least seventyfive semester hours of coursework, including Economics 339K or International Business 350; and credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353, 353H, Finance 353, 366P, Management 353, (366P), Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, 366P.

## I B 179C, 379C. Independent Research in International Business.

Restricted to students in a business major. Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Real Estate 179C, 379C, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upperdivision; International Business 350 with a grade of at least C-; and consent of instructor. A student registering for this course must obtain written approval from the department chair's office, on forms provided for that purpose, before the first meeting of the course.

## Marketing: MKT

## Lower-Division Courses

## Upper-Division Courses

## MKT 320F. Foundations of Marketing.

Restricted to non-McCombs School of Business majors. 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. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Business Administration degree. Prerequisite: Upper-division standing.

## MKT 337. Principles of Marketing.

Restricted to students in a McCombs School of Business major. 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. Three lecture hours
a week for one semester. Marketing 337 and 337 H may not both be counted. Prerequisite: Credit or registration for Business Administration 324 or 324 H , and Statistics 309 or 309 H .

## MKT 337H. Principles of Marketing: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. 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. Three lecture hours a week for one semester. Marketing 337 and 337 H may not both be counted. Prerequisite: Credit or registration for Accounting 312H, Business Administration 324H, and Statistics 309 or 309H.

## MKT 338. Promotional Policies.

Restricted to students in a business major. 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. Three lecture hours a week for one semester. Prerequisite: Marketing 337 or 337 H .

MKT 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, $940 S$. 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. May be repeated for credit when the topics vary.

## MKT 353. Internship in Marketing and International Business.

Restricted to students in a business major. Focuses on students' career goals through academic discussion and evaluations, while placing students in professional internships with public and private enterprises. Internship and discussion hours to be arranged. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353, 353H, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student's major requirement. Offered on the pass/fail basis only. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

## MKT 460. Information and Analysis.

Restricted to students in a business major. The development and analysis of information for marketing management sources. Three lecture hours and one recitation hour a week for one semester. Prerequisite: Marketing 337 or 337 H , and Statistics 309 or 309 H .

## MKT 363. Professional Selling and Sales Management.

Restricted to students in a business major. Policies, operation, coordination, and control of personal selling activities in marketing organizations. Three lecture hours a week for one semester. Prerequisite: Marketing 337 or 337 H .

## MKT 366P. Special Projects in Marketing Practicum.

Restricted to business majors. 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. The equivalent of three lecture hours a week for one semester. Prerequisite: Completion of forty-five semester hours of college coursework, and Marketing 337 or 337 H .

## MKT 370. Marketing Policies.

Restricted to students in a McCombs School of Business major. 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. Three lecture hours a week for one semester. Prerequisite: Ninety semester hours of college coursework, including Marketing 460; credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353, 353H, Finance 353, 366P, Management 353, 366P, Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, 366P; and six additional semester hours of elective coursework in marketing.

## MKT 370K. Retail Merchandising.

Restricted to students in a business major. 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. Three lecture hours a week for one semester. Prerequisite: Marketing 337 or 337H.

## MKT 372. Marketing Seminar.

Restricted to students in a business major. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Marketing 337 or 337 H . Additional prerequisites may be required for some topics; these are given in the Course Schedule.

Topic 1: Market Area Decisions.
Topic 2: Consumer Behavior.
Topic 3: Implementing Marketing Concepts. Implementation of marketing concepts in a real-world setting through participation in marketing projects with area companies. Additional prerequisite:
Consent of instructor.
Topic 4: Global Marketing. May be used in place of International Business 372 in fulfilling the requirements of the major in international business.

MKT 179C, 379C. Independent Research in Marketing.
Restricted to students in a business major. Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Real Estate 179C, 379C, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upperdivision; Marketing 337 or 337H with a grade of at least C-; and consent of instructor. A student registering for this course must obtain written approval from the department chair's office, on forms provided for that purpose, before the first meeting of the course.

# Moody College of Communication 

Roderick Hart, PhD, Dean<br>Mark Bernstein, EdD, Associate Dean, Student Affairs<br>Stephen Reese, PhD, Associate Dean, Academic Affairs<br>Michael J. Wilson, BJ, Assistant Dean, External Relations Janice M. Daman, MBA, Assistant Dean<br>Darrell D. Rocha, BA, Assistant Dean moody.utexas.edu

## General Information

## Mission

In an increasingly crowded and complex world, communication plays many roles. Accurate communication from person to person and from individual to public is essential to understanding, and understanding is basic to intelligent agreement or disagreement. The swift exchange of information permits business to grow, stimulates public taste, and brings about change while helping individuals and institutions to adapt to change. Decreasing the time between the discovery of new knowledge by scientist, scholar, or industrial experimenter and the comprehension of this knowledge by large segments of the public counteracts inertia and spreads the benefits of such discoveries. Communication makes possible the marshaling of public opinion and increases the effectiveness of forces for political progress.

The academic discipline of communication combines the characteristics of an art and of a science. Those who study communication as an art seek to improve in themselves and in others the oral, written, and visual skills of exchanging information. As a science, communication emphasizes the objective study and investigation of this fundamental aspect of human behavior.

The degree programs of the Moody College of Communication do not represent all of the academic disciplines concerned with the process of communication or the effects of communication on the individual and society. Engineering and physics shape and design the instruments by which communication is transmitted, and in the process become involved with human desires and reactions. Linguistics investigates the symbols by which human beings convey messages to each other. All language study bears on the process of communication. Art, drama, music, and literature are forms of communication. Psychology studies the relationship of communication to the individual, and sociology examines the impact of communication on society. Education relies heavily on effective communication. Thus the student who majors in the College of Communication should find relationships between the major and every course in the program. The major should give focus to the student's educational experience at the University. Those who minor in one of the communication fields should find means of increasing their personal effectiveness through developing skill in writing and speaking and in discerning the role of the mass media in the communication process in society.

## Facilities

In addition to the extensive library and computer resources of the University, certain special resources provide support for work in communication. Chief among them is the Jesse H. Jones Communication Center. Communication Building A (CMA) is a six-level building housing classrooms, offices, and sophisticated technology facilities. All facilities offer pervasive wireless Internet access and all instructional and production spaces feature high-definition equipment. Communication

Building $B$ (CMB), a nine-level production building, houses Austin's public television station, KLRU. Also housed in Communication Building B are teaching and production facilities for the School of Journalism and the Department of Radio-Television-Film.

These facilities provide opportunities for academic programs that cross disciplinary lines, interrelate traditional and online media, and otherwise combine the resources of the College in ways not feasible within any one of the component units.

Although students have access to numerous computer labs across campus, they are encouraged to purchase personal laptop computers for their own use.

The Belo Center for New Media (BMC), which opened in summer 2012, is a 5 -level 120,000 square-foot facility that weds cutting-edge technology with innovative teaching and research methods. The Belo Center is home to the KUT Public Broadcast Center, the School of Journalism, the Department of Advertising, and the College of Communication Dean's Office. With base funding provided by the Belo Foundation and the Decherd and Moroney families, the Belo Center serves as a striking gateway to the northwest side of the University of Texas campus. The Belo Center houses a multitude of instructional, research, and meeting spaces including a 300 -seat auditorium, a 120 -seat lecture hall, and an executive briefing facility, as well as a theatrical-grade 75 -seat presentation room. The KUT Public Broadcast center is housed in a twostory, 20,000 square-foot wing which includes a 72 -seat, glass-walled performance studio that incorporates the community into some of KUT's 300 annual in-studio performances.

## Financial Assistance Available through the College

The Moody College of Communication and each academic unit have a large number of scholarships that are awarded annually. Students interested in receiving one of these scholarships should apply online early in the spring semester for scholarships to be awarded the following academic year. More information about college scholarships is available at http://moody.utexas.edu/students/scholarships and from the Student Advising Office.

## Student Services

## Academic Advising

The Student Advising Office, in collaboration with the academic departments, oversees all advising in the college. To allow in-depth advising on specific programs of study, courses, and career choices in the major, each student is assigned an adviser. Students should meet with their advisers to select courses appropriate to the degree and to ensure that all degree requirements are met. In addition, students should consult their advisers for assistance in preparing for graduation.

## Career Services

Communication Career Services (CCS) provides a variety of career development and job/internship search assistance programs for students and alumni. The office's online systems link clients to the CCS job and internship databases and on-campus interviewing and résumé referral programs. Communication job and internship fairs, on-campus interviews, and a wide range of job search workshops and career exploration programs provide networking opportunities and allow students to explore their career options, gain experience, and build their career management skills. Individual career counseling, prelaw advising, and an extensive library and Web site offer additional resources to help candidates research and prepare for the job market in a wide variety of media, communication, and related industries.

As a complement to the assistance available from the college, the University's Sanger Learning Center and the Center for Strategic Advising and Career Counseling in the School of Undergraduate Studies provide career counseling services to all students. The centers offer professional career counseling, skill and interest inventories and tests, and assistance to students in choosing or changing their majors and considering graduate study.

The University makes no promise to secure employment for each graduate.

## Student Organizations

Student organizations provide an opportunity for students to meet fellow students within their major, learn about a major or career, hear from professionals in the field, and gain hands-on experience in club administration and leadership. One organization students may join is the Communication Council, the governing body for student activities in the college. The Communication Council acts as a representative of all undergraduate communication students and sponsors collegewide programs such as Communication Week and Senior Celebration as well as other events throughout the year. A complete list of student organizations in the college is available at http://moody.utexas.edu/ccs.

## Admission and Registration

## Admission

## Admission to the University

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. Information about admission to the University is given in General Information (http:// catalog.utexas.edu/general-information/admission/undergraduateadmission). Admission to a major may be restricted by the availability of instructional resources.

## Admission Policies of the College

Students admitted to the University with deficiencies in high school units must remove them by the means prescribed in General Information. Course credit used to remove deficiencies may not be counted toward the student's degree.

A few students who already have a bachelor's degree and who are not candidates for an advanced degree are admitted to the college each year as nondegree students. Such students are admitted only with the approval of the appropriate academic unit head and the dean.

## Registration

General Information gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule (http://registrar.utexas.edu/ schedules), published before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and General Information are published on the registrar's Web site, http:// registrar.utexas.edu/.

Enrollment in upper-division courses in the Moody College of Communication may be restricted because of limitations on instructional resources.

## Academic Policies and Procedures

## Honors

## University Honors

The designation University Honors, awarded at the end of each longsession semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered. Criteria for University Honors are given in General Information.

## Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in General Information.

## Senior Fellows Program

The Senior Fellows Program is a college-wide honors program providing a broad, interdisciplinary supplement to the student's major. The program is designed for students with the talent and interest to go beyond the usual undergraduate experience. Participants who complete four honors courses in communication with a grade of at least $B$ in each course earn the distinction of Senior Fellow. The coursework is undertaken in conjunction with the student's degree requirements. Students with a grade point average of at least 3.30 are invited to apply to participate during their junior and/or senior years. Requirements for admission include completion of the formal application process, which includes a written statement of purpose indicating why the student wishes to be part of the program, and an interview with members of the faculty committee that oversees the program. Twenty-five to thirty students are selected for the program each year.

## College Honors Programs

Each academic unit in the Moody College of Communication offers an honors program to students majoring in the unit. Requirements for the programs vary, but all include (1) minimum grade point averages for admission to and continuance in the program; (2) three to six semester hours of honors coursework; and (3) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

Each academic unit encourages eligible students to apply for admission to the honors program. Students who complete the program receive a certificate indicating "Special Honors in (name of field)." This notation also appears on the student's academic record.

## Advertising Honors Program

Students who plan to seek special honors in advertising should apply to the department undergraduate adviser for admission to the honors program upon completion of sixty semester hours of coursework; they must apply no later than upon completion of ninety semester hours. A University grade point average of at least 3.50 and a grade point average in advertising of at least 3.50 are required for admission. The requirements for graduation with special honors are (1) Advertising 373H, Integrated Communications Campaigns: Honors, and Advertising 379 H , Honors Tutorial Course, with a grade of at least $B$ in each; (2) a University grade point average of at least 3.50 and a grade point average in advertising of at least 3.50; and (3) completion in residence at the

University of at least sixty semester hours of coursework counted toward the degree of Bachelor of Science in Advertising.

## Communication Sciences and Disorders Honors Program

Students who plan to seek special honors in communication sciences and disorders should apply to the department undergraduate adviser for admission to the honors program upon completion of ninety semester hours of coursework. A University grade point average of at least 3.00 and a grade point average in communication sciences and disorders of at least 3.50 are required for admission. The requirements for graduation with special honors are (1) Communication Sciences and Disorders 359H, Honors Tutorial Course: Reading, with a grade of at least $B$-; (2) Communication Sciences and Disorders 379H, Honors Tutorial Course: Special Project, with a grade of at least $B$-; (3) a University grade point average of at least 3.00 and a grade point average in communication sciences and disorders of at least 3.50 ; and (4) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree of Bachelor of Science in Communication Sciences and Disorders.

## Communication Studies Honors Program

Students who plan to seek special honors in communication studies should consult the communication studies undergraduate adviser upon completion of seventy-five semester hours of coursework. A University grade point average of at least 3.00 and a grade point average in communication studies of at least 3.50 are required for admission to the honors program. The requirements for graduation with special honors are (1) a major in communication studies; (2) Communication Studies 359H, Honors Tutorial Course: Reading, with a grade of at least $B$-; (3) Communication Studies 379H, Honors Tutorial Course: Special Project, with a grade of at least $B$-; (4) a University grade point average of at least 3.00 and a grade point average in communication studies of at least 3.50; and (5) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree of Bachelor of Science in Communication Studies.

## Journalism Honors Program

Students who plan to seek special honors in journalism should apply to the School of Journalism adviser for admission to the honors program upon completion of sixty semester hours of coursework; they must apply no later than upon completion of ninety semester hours. A University grade point average of at least 3.50 and a grade point average in journalism of at least 3.50 are required for admission. The requirements for graduation with special honors are (1) Journalism 379H, Honors Tutorial Course, with a grade of at least $B ;(2)$ a University grade point average of at least 3.50 and a grade point average in journalism of at least 3.50 ; and (3) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree of Bachelor of Journalism.

## Public Relations Honors Program

Students who plan to seek special honors in public relations should apply to the public relations adviser for admission to the honors program upon completion of sixty semester hours of coursework; they must apply no later than upon completion of ninety semester hours. A University grade point average of at least 3.50 and a grade point average in public relations of at least 3.50 are required for admission. The requirements for graduation with special honors are (1) Public Relations 377H, Integrated Communications Campaigns: Honors, and Public Relations 379H, Honors Tutorial Course, with a grade of at least $B$ in each; (2) a University grade point average of at least 3.50 and a grade point average in public relations of at least 3.50 ; and (3) completion in residence at the University
of at least sixty semester hours of coursework counted toward the degree of Bachelor of Science in Public Relations.

## Radio-Television-Film Honors Program

Students who plan to seek special honors in radio-television-film should apply to the department chair for admission to the honors program upon completion of seventy-five semester hours of coursework; they must apply no later than upon completion of ninety semester hours. A University grade point average of at least 3.00 and a grade point average in radio-television-film of at least 3.50 are required for admission to and continuation in the honors program. The requirements for graduation with special honors are (1) two semesters of Radio-Television-Film 378H, Honors Tutorial Course, with a grade of at least $B$ - each semester; (2) a University grade point average of at least 3.00 and a grade point average in radio-television-film of at least 3.50; and (3) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree of Bachelor of Science in Radio-Television-Film.

## Concentrations and Certificates Communication and Society Concentration

This concentration is designed for consumers and creators of messages in public contexts. It is open only to students in majors outside the Moody College of Communication; any noncommunication student may enroll in any of these courses for which he or she meets the prerequisite. In addition to fulfilling the prerequisite, the student must have a University grade point average of at least 2.25 to enroll in any upper-division course in the Moody College of Communication.

The communication and society concentration requires eighteen semester hours of coursework, consisting of two required courses and twelve hours of electives; nine hours of the elective work must be in upper-division courses. Of the eighteen semester hours required for the concentration, at least twelve must be completed in residence. At any time after enrolling in his or her last concentration course, the student should fill out a concentration completion form in the Student Advising Office. The form must be submitted by the deadline to apply for graduation in the student's final semester. Students who complete the concentration will receive verification.

A student who wishes to use the concentration to fulfill minor requirements should make certain these courses meet the requirements of his or her college.

## Concentration Courses

## Required Courses

Communication 309, Communication Technology and Society
Radio-Television-Film 305, Introduction to Media Studies
Electives
Advertising 315, History and Development of Advertising Communication 316M, Race, Ethnicity, and the Media
Communication Studies 306M, Professional Communication Skills
Communication Studies 332K, Theories of Persuasion
Communication Studies 342K, Political Communication
Journalism 350F, Media Law
Journalism 364E, The Mass Media and Society

## Certificate in Communication and Society: Science Communication

The certificate in Communication and Society: Science Communication is designed to help prepare students with undergraduate studies in a sciences-related field to effectively communicate science topics to a variety of audiences by utilizing professional communication techniques and tools. Students will gain an understanding of contemporary
communication issues that may impact their field, and gain advanced skills to enhance their communication with the public, whether through traditional media, new media, or in person. This program is open only to students with majors in the College of Natural Sciences.

The certificate program requires eighteen semester hours of coursework. Nine hours must be taken at the upper-division level and at least nine hours must be taken in residence. The certification requirements are:

1. Six hours of coursework chosen from the list of approved Issues in Communication courses available in the Moody College of Communication;
2. Nine additional hours of coursework chosen from the list of approved Communication Tools courses available in the Moody College of Communication;
3. Communication 350, Communication Internship (requires approval of the certificate committee; prior approval is recommended.)
4. All courses must be taken for a letter grade, and only courses with a grade of $C$ or better will be counted.

Students pursuing the certificate may enroll in any of the approved courses for which he or she meets the prerequisite. The student must have a University grade point average of at least 2.25 to enroll in any upper-division course in the college

The student must submit an application form online to the Student Advising Office in order to enroll in the Communication and Society: Science Communication certificate program.

Students must apply for the transcript-recognized academic certificate at the time they complete their degree or the certificate program, whichever comes later.

Students should consult the Student Advising Office for additional information about the program and the coursework that meets certificate requirements. The courses that may be counted toward the certificate include, but are not limited to, the following:

## Issues in Communication group

Communication Studies 315M, Interpersonal Communication Theory
Communication Studies 322E, Communication Ethics
Communication Studies 334K, Nonverbal Communication
Communication Studies 338, Leadership Stories
Communication Studies 344K, Lying and Deception
Communication Studies 353S, Social Media and Organizations
Journalism 301F, Fundamental Issues in Journalism
Journalism 346F, Reporting on the Environment
Journalism 346G, Domestic Issues and Global Perspective
Communication 319S, Topics in Communication (requires approval of the certificate committee; prior approval is recommended.)
Communication 329S, Topics in Communication (requires approval of the certificate committee; prior approval is recommended.)

## Communication Tools Group

Communication Studies 306M, Professional Communication Skills
Communication Studies 320, Advanced Presentation Skills
Communication Studies 332, Argumentation and Advocacy
Communication Studies 337, Building Sales Relationships
Communication Studies 332K, Theories of Persuasion
Communication Studies 348, Communication Research Methods
Communication Studies 364M, Pre-Graduate School Mentorship (requires
approval of certificate committee; prior approval is recommended.)
Journalism 302F, Digital Storytelling Basics
Journalism 331G, Audio Storytelling
Journalism 332F, News Editing for Online and Print

Journalism 333F, Data-Driven Reporting
Journalism 336F, Social Media Journalism
Journalism 339G, Mobile News App Design
Communication 319S, Topics in Communication (requires approval of the certificate committee; prior approval is recommended.)
Communication 329S, Topics in Communication (requires approval of the certificate committee; prior approval is recommended.)

## Sports Media Certificate

The Sports Media Certificate is designed to complement a student's education by developing his or her proficiency and knowledge in the area of sports media. A student may enroll in any of the certificateaccepted courses for which he or she meets the prerequisites, including a University grade point average of at least 2.25 to enroll in any upper-division course in the Moody College of Communication. Undergraduates who complete certificate requirements in conjunction with their degree requirements or within one year after earning the degree receive recognition on the University transcript; students in integrated undergraduate/graduate programs must complete certificate requirements within one year after they complete their undergraduate degree requirements. A maximum of nine semester hours of the certificate coursework may be taken after the student has earned the undergraduate degree. At least half of the required certificate coursework must be completed in residence at the University.

Advertising and public relations majors may count these courses towards their degree but are ineligible for the certificate because University policy precludes a student from earning any transcript-recognized certificate in the same field as his or her major. Kinesiology majors may not count Kinesiology 350, Sociological Aspects of Sport and Physical Activity, and Kinesiology 354, Sport and Event Marketing, towards the certificate. Sport management majors may not count Advertising 378S (Topic 1: Advertising and Public Relations for Sport), Public Relations 378S (Advertising and Public Relations for Sports topic), and Kinesiology 355, Media and Public Relations in Sport, towards the certificate.

Students should apply for the certificate when they apply for graduation or when they complete the certificate program, whichever is later. Transcript recognition is awarded at the end of that semester or summer session.

The certificate program requires eighteen semester hours of coursework as described below. Nine hours must be taken at the upper-division level and at least nine hours must be taken in residence. The certificate requirements are:

1. Advertising 305, Fundamentals of Advertising
2. Advertising 350, Advertising Internship
3. Approved topic of Advertising 378, Advanced Studies in Advertising, or Journalism 348G, The Business of Sports Media
4. Nine hours of coursework to be selected from:
a. Advertising 378S (Topic 1: Advertising and Public Relations for Sports) or Public Relations 378S (Topic 1: Advertising and Public Relations for Sports), or Kinesiology 355, Media and Public Relations in Sport
b. Advertising 378S (Topic 2: Legal Aspects of Sports and Media) or Public Relations 378S (Topic 2: Legal Aspects of Sports and Media)
c. Advertising 378S (Topic 3: Return on Investment for Sports Media) or Public Relations 378S (Topic 3: Return on Investment for Sports Media)
d. Advertising 378S (Topic 4: Analysis of Sports and Entertainment Audiences) or Public Relations 378S (Topic 4: Analysis of Sports and Entertainment Audiences)
e. Advertising 378S (Topic 5: Ethics and Social Issues in Sports Branding) or Public Relations 378S (Topic 5: Ethics and Social Issues in Sports Branding)
f. Communication 325S (Topic 1: Sports, Media and the Integration of American Society)
g. Communication Studies 347 K , Rhetoric of Popular Culture
h. Journalism 326F, Reporting Sports
i. Journalism 349G, Sports Journalism
j. Radio-Television-Film 359 (Topic: Youth and Social Media)
k. Kinesiology 350, Sociological Aspects of Sport and Physical Activity
I. Kinesiology 354, Sport and Event Marketing
5. Earn a grade of at least $C$ in each course

Additional electives may be offered on a semester-by-semester basis.

## US Latino and Latin American Media Studies Certificate

This concentration is designed to introduce students to United States Latino and Latin American issues in communication and the media and to give them the opportunity to prepare for professional work related to these areas in addition to their major. The certificate program requires eighteen hours of coursework, including at least nine hours completed in residence. Students must fulfill the following requirements:

1. Communication 316M, Race, Ethnicity, and the Media, or Radio-Television-Film 316M, Race, Ethnicity, and the Media
2. Nine hours of upper-division elective coursework chosen from the list of approved electives available in the Moody College of Communication
3. Six additional hours (upper or lower division) of elective coursework in Latin American studies or Mexican American studies
4. All courses must be taken for a letter grade, and only courses with a grade of $C$ or better will be counted.

Any Moody College of Communication student may enroll in any of the concentration courses for which he or she meets the prerequisite. The student must have a University grade point average of at least 2.25 to enroll in any upper-division course in the college.

The student must submit an application form online to the Office of Student Affairs in order to enroll in the US Latino and Latin American Media Studies Certificate Program. Certain course prerequisites, for approved courses in the Moody College of Communication, may be waived once the student is accepted to the program.

Each degree program in the college imposes a limit on the number of hours in the college that may be counted toward the degree; each also imposes limits on the number of hours in the major that may be counted. For students who complete the US Latino and Latin American Media Studies certificate, these limits may be modified with the approval of the Student Advising Office.

Students must apply for the transcript-recognized academic certificate at the time they complete their degree or the certificate program, whichever comes later.

Students should consult the Student Advising Office for additional information about the program and the coursework that meets concentration requirements. The courses that may be counted toward the certificate include, but are not limited to, the following:

## Required Course

Communication 316M, Race, Ethnicity, and the Media or Radio-Television-Film 316M, Race, Ethnicity, and the Media

## Electives

Advertising 334, International Advertising
Advertising 378, Advanced Studies in Advertising
Advertising 378 (Topic 2: Advanced Issues in Multicultural Markets)
Advertising 378 (Topic 9:Consumer Discrimination in the Marketplace)
Journalism 340C (Topic 1: Mass Media and Minorities)
Journalism 349T (Topic 4: International Reporting)
Journalism 349T (Topic 7: Oral History as Journalism)
Journalism 349T (Topic 10: Covering the US Latino Community)
Journalism 367E, Journalism in Latin America
Public Relations 378, Advanced Studies in Public Relations
Radio-Television-Film 359S (Topic: Brazilian Media and Culture)
Radio-Television-Film 359S (Topic: Brazilian Film: Documentary vs. Narrative Interpretation)
Radio-Television-Film 365 (Topic: Immigrant Media)
Radio-Television-Film 365 (Topic 6: Contemporary Issues: Latinos and Media)
Radio-Television-Film 365 (Topic: Race, Class, and Media)
Radio-Television-Film 366K (Topic 4: East Austin Stories)
Six additional hours to be selected from Latin American studies and/or Mexican American studies are also required.

## Courses for Teacher Preparation

The college does not currently offer a teaching certification program for any of its degrees. Students who wish to pursue teacher certification should consult the teacher certification officer in the College of Education.

## Graduation

## Special Requirements of the College

All students must fulfill the General Requirements (p. 17) for graduation given in The University section. Students in the Moody College of Communication must also fulfill the following requirements.

1. All University students must have a grade point average of at least 2.00 to graduate. In the Moody College of Communication, a student who fails to achieve this grade point average in the normal 120 hours required for a degree may register for up to forty additional hours in order to do so.
2. All communication majors must have a grade of at least $C$ in each course taken in the College of Communication that is counted toward the degree; if the course is offered on the pass/fail basis only, the student must have the symbol $C R$.
3. The University requires that the student complete in residence at least sixty semester hours of the coursework counted toward the degree. In the Moody College of Communication, these sixty hours must include at least eighteen hours of upper-division coursework and at least six hours of upper-division coursework in the major.
4. A candidate for a degree must be registered in the Moody College of Communication either in residence or in absentia the semester or summer session the degree is to be awarded and must apply to the dean for the degree no later than the date specified in the official academic calendar. Information about applying for graduation is given below.
5. An Air Force, Army, or Naval Reserve Officer Training Corps student who elects the basic and/or advanced program in air force science, military science, or naval science will not be approved for graduation until the student's government contract is completed or the student is released from the ROTC.
6. Each degree program is arranged to provide for the orderly progress of the student's coursework. A beginning student (including a transfer student with fewer than forty-eight semester hours of transferable credit) who registers for twelve semester hours or more must take at least nine semester hours, in at least three courses, of the coursework listed as prescribed work for one of the degrees in the Moody College of Communication. The student must continue to take at least nine semester hours of the prescribed work each long-session semester until he or she has completed forty-eight semester hours of credit. The dean may adjust this rule in exceptional circumstances, or when the student has earned credit by examination, or when the student registers for fewer than twelve hours in a long-session semester.
7. No student in the Moody College of Communication may repeat for credit a course in which he or she has earned a grade of $C$ or better.

## Degree Audit

Students should verify the coursework they have completed and the coursework still needed for the degree by reviewing a degree audit at least once each semester with an adviser in the Student Advising Office. The degree audit is a computer-generated report of the student's progress in completing degree requirements. He or she may also create, print, and review an audit online through IDA, the Interactive Degree Audit system; information about IDA is available at http://registrar.utexas.edu/students/ degrees/ida/.

Although the degree audit normally provides an accurate statement of requirements, the student is responsible for knowing the requirements for the degree as stated in a catalog under which he or she is eligible to graduate and for registering so as to fulfill those requirements. Because the student is responsible for registering for the courses needed to fulfill degree requirements, he or she should seek an official ruling in the Student Advising Office before registering if in doubt about any requirement.

## Applying for Graduation

To graduate, a student must be registered in the Moody College of Communication and must file a graduation application with the Student Advising Office. A student who is enrolled in residence must submit the application online at http://moody.utexas.edu/students/graduationinformation. A student who is not currently enrolled should contact the Student Advising Office about the process to graduate in absentia.

The graduation application should be filed at the beginning of the student's last semester; it must be filed no later than the deadline given in the official academic calendar. No degree will be conferred unless the graduation application form has been filed on time.

## Degrees and Programs

## Degrees Offered

In the Moody College of Communication, six undergraduate degrees are offered: Bachelor of Science in Advertising, Bachelor of Science in Communication Sciences and Disorders, Bachelor of Science in Communication Studies, Bachelor of Journalism, Bachelor of Science in Public Relations, and Bachelor of Science in Radio-Television-Film. In addition to the core curriculum, the requirements of each degree consist of special requirements, prescribed work, and major requirements; these are given later in this chapter under the heading for the degree. In addition, the student must fulfill the University-wide Graduation Requirements ( p .17 ) and the Special Requirements of the College ( p . 81) of Communication.

A student may not earn more than two undergraduate degrees from the Moody College of Communication. A student may not earn both the Bachelor of Science in Advertising and the Bachelor of Science in Public Relations.

## The Minor

While a minor is not required as part of any communication degree program, the student may choose to complete a minor in a field outside the Moody College of Communication. A student may complete only one minor. The minor consists of at least fifteen semester hours in a single field of study, including at least nine hours of upper-division coursework. Nine of the fifteen hours must be completed in residence. A course to be counted toward the minor may not be taken on the pass/fail basis unless the course is offered only on that basis. Only one course counted toward the core curriculum, prescribed work, and major requirements for the student's degree may also be counted toward the minor.

If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the fifteen hours may be lower-division but must include at least nine hours beyond course 507 or the equivalent.

All minors must be approved by the student's academic adviser.
The Moody College of Communication allows the student to minor in any field outside the college in which the University offers a major. However, prerequisites and other enrollment restrictions may prevent the student from pursuing a minor in some fields. Before planning to use specific courses to make up the minor, the student should consult the department that offers those courses.

## Degree Requirements

## Flag Requirements

As part of the prescribed work for all degrees in the college, students must complete three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics and leadership flag; and one course with an independent inquiry flag. A single course may not carry both the cultural diversity in the United States and the global cultures flags simultaneously. If the flag requirements are not fulfilled by courses specified for the degree, the student must complete courses as electives or in addition to the number of hours required for the degree. Courses that carry flags are identified in the Course Schedule (http://registrar.utexas.edu/schedules).

## Communication and Culture Requirements

As part of the prescribed work for all degrees, students must complete three semester hours of coursework in the Moody College of Communication dealing with the study of communication issues concerning at least one minority or nondominant group within the United States. Courses used to fulfill this requirement may also be used to fulfill the cultural diversity in the United States flag requirement and other degree requirements. Multicultural courses include, but are not limited to, the following; all courses that fulfill this requirement are identified in the Course Schedule (http://registrar.utexas.edu/schedules).

## Advertising 316, Creativity and American Culture

Advertising 353, Advertising and Public Relations Law and Ethics
Advertising 378 (Topic: Integrated Communication in Latino Entertainment)
Advertising 378 (Topic: Sports/Media/Integration of American Society)
Advertising 378 (Topic 2: Advanced Issues in Multicultural Markets)
Advertising 378 (Topic: African Americans and the Media)
Communication 316M, Race, Ethnicity, and the Media
Communication Studies 314L, Language, Communication, and Culture

Communication Studies 340K, Communication and Social Change
Communication Studies 355K, Intercultural Communication
Communication Studies 365K, Male-Female Communication
Communication Studies 367 (Topic: Language and Culture)
Communication Sciences and Disorders 308K, Perspectives on Deafness
Communication Sciences and Disorders 314L, Sociocultural Bases of Communication
Communication Sciences and Disorders 360M, Communication and Deaf People
Journalism 335, Narrative Journalism
Journalism 340C (Topic 1: Mass Media and Minorities)
Journalism 340C (Topic 2: African Americans and the Media)
Journalism 340C (Topic 3: Journalism and Religion)
Journalism 340C (Topic 4: Leadership, Management, and the Media)
Journalism 340C (Topic 5: Women and the News)
Journalism 340C (Topic 10: Covering Latino Community in the United States)
Journalism 340C (Topic: African American Athletes and the Media) Journalism 359T (Topic: Sports/Media/Integration of American Society)
Public Relations 353, Advertising and Public Relations Law and Ethics
Public Relations 378 (Topic: Integrated Communication in Latino Entertainment)
Public Relations 378 (Topic: Sports/Media/Integration of American Society)
Radio-Television-Film 331K (Topic 1: Cult Movies and Gender Issues)
Radio-Television-Film 331K (Topic 2: Television and Theories of Gender)
Radio-Television-Film 335 (Topic: Race/Class/Gender in American Television)
Radio-Television-Film 345 (Topic: History of Black American Cinema)
Radio-Television-Film 359 (Topic: Asian American Media Cultures)
Radio-Television-Film 359S (Topic 1: Hispanic Images and Counterimages)
Radio-Television-Film 365 (Topic 4: History of United States Latino Media)
Radio-Television-Film 359S (Topic 2: Women and Media Culture)
Radio-Television-Film 365 (Topic 6: Latinos and Media)
Radio-Television-Film 370 (Topic: Women and Film)

## Applicability of Certain Courses

## Internship Credit

Some communication degree programs require an internship; in other programs, students may elect to complete an internship. In either case, the student must be a communication major and must meet the prerequisite for the internship course. Up to but no more than four semester hours of credit in internship courses may be counted toward the student's degree.

## Physical Activity Courses

Physical activity (PED) courses are offered by the Department of Kinesiology and Health Education. They are counted among courses for which a student is enrolled, and the grades are included in the grade point average. However, these courses may not be counted toward a degree in the Moody College of Communication.

## ROTC Courses

No more than nine semester hours of credit for air force science, military science, or naval science courses may be counted toward any degree in the Moody College of Communication. Such coursework may be counted only as lower-division electives in degree programs that have room for such electives, and only by students who have completed the third and fourth years of the ROTC program. ROTC courses may not be substituted for any specific required course.

## Concurrent Enrollment and Correspondence and Extension Courses

Credit that a University student in residence earns simultaneously by correspondence or extension from the University or elsewhere or in residence at another school will not be counted toward a degree in the Moody College of Communication unless specifically approved in advance by the dean. Requests to take communication courses by correspondence or extension are normally disapproved. A student in his or her final semester may not enroll concurrently at another institution in any course that is to be counted toward the degree. No more than 30 percent of the semester hours required for any degree offered in the Moody College of Communication may be taken by correspondence.

## Courses Taken on the Pass/Fail Basis

A student in the Moody College of Communication may count toward the degree up to fifteen semester hours of coursework in elective subjects outside the Moody College of Communication taken on the pass/fail basis. No course required for the degree and taken in residence may be taken pass/fail, unless the course is offered only on that basis. The student may also take examinations for credit in elective subjects on the pass/ fail basis; credit earned by examination is not counted toward the total of five courses that the student may take on this basis. If a student chooses to major in a subject in which he or she has taken a course pass/fail, the academic unit that offers the major determines whether the course may be counted toward the student's major requirements. Complete rules on registration on the pass/fail basis are given in General Information.

## Bible Courses

No more than twelve semester hours of Bible courses may be counted toward a degree.

## Bachelor of Science in Advertising

To be awarded the degree of Bachelor of Science in Advertising, the candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements ( p .17 ) for graduation and Core Curriculum ( p .20 ) requirements, the college graduation requirements given in Special Requirements of the College (p. 81), and the requirements given in Special Requirements, Prescribed Work, and Major Requirements below.

## Areas of Study

Students majoring in advertising specialize in one of four programs: Texas Advertising Management, Texas Creative, Texas Media, or Texas Sports and Entertainment. Admission to the Texas Creative and Texas Media programs is by an application process; students who are not interested in or accepted into either of these programs will complete either the Texas Advertising Management or the Texas Sports and Entertainment program. All advertising majors must complete the requirements of their specialization, as well as the requirements listed in the preceding paragraph.

## Texas Advertising Management Program

This program is designed for students interested in a variety of professional careers, including account planning and advertising management positions in a wide range of advertising, sales promotion, direct response, promotional products, and related agencies. Students planning to work for advertisers, such as manufacturing or service companies, rather than for agencies, may also meet their goals through the Texas Advertising Management program. The program focuses on an integrated approach in which communication problems are addressed
with a variety of tools, including advertising, public relations, sales promotion, and direct response. Students must complete:

1. Advertising 378 (Topic 20: Account Planning)
2. Three hours chosen from:
a. Advertising 378 (Topic 4: Direct Marketing)
b. Advertising 378 (Topic 11: Leadership and Ethics)
c. Advertising 378 (Topic 17: Integrated Communication for Nonprofit Organizations)
d. Advertising 378 (Topic 19: Online Consumer Research)
3. Three hours chosen from:
a. Advertising 377M (Topic 1: Advanced Media Research)
b. Advertising 377M (Topic 2: Advanced Studies in Media Sales)
c. Advertising 377M (Topic 3: Digital Metrics)
d. Advertising 377M (Topic 4: Nontraditional New Media Concepts)
e. Advertising 377M (Topic 8: Digital Insights)
f. Advertising 377M (Topic 9: Media Investments)
g. Advertising 377M (Topic 10: Media Showcase)

## Texas Creative Program

This program is designed to mold talented students into skilled advertising copywriters and art directors. To achieve that goal, it focuses on the creative and strategic thinking required to make the highest quality advertising messages. The program consists of Advertising 343 K , Portfolio I; Advertising 468K, Portfolio II; and Advertising 468L, Portfolio III. In these three courses, students are expected to learn conceptual and critical thinking skills, computer design and page layout skills, and copywriting. The sequence also helps students develop the portfolio of creative work that is required of those seeking jobs in advertising.

Students who complete Advertising 325 with a grade of at least $B$ may apply for admission to the Texas Creative program. Applications are generally distributed during the last week of class, and decisions are posted the following week. Students who are accepted into the program may enroll in Advertising 343K the following semester; those who are not accepted may apply again the following semester, but students may apply only twice. Student work is reviewed each semester, and advancement through the program is contingent upon the quality of portfolio development.

## Texas Media Program

This program is designed to help students develop the characteristics that define success in advertising media planning, buying, sales, new media development, and metrics. Because advertising media is a broad and quickly evolving industry, the program offers a variety of courses, allowing students to focus their training and allowing the program itself to adapt to industry developments.

Students who complete Advertising 345J with a grade of at least $B$ may apply for admission to the Texas Media program. Applications are distributed during the last week of classes. Admission decisions are made at the end of the semester and students admitted to the program are notified by a Secure Academic Note prior to the next add/drop registration period. Those who are not admitted may apply again the following semester, but students may apply only twice.

All Texas Media students must complete Advertising 377 (Topic 1: Advanced Media Strategies), 377 (Topic 3: Digital Media), and 377M (Topic 7: Media Negotiation). In addition, Texas Media students may choose to take at least one additional media upper-division course, which can be counted as an advertising elective. Advertising 377 or 377 M may
be taken concurrently if all prerequisites are met. Most students complete the program in two semesters.

## Texas Sports and Entertainment Program

This program is designed to give students the knowledge to develop decisions in sports communication. The program complements the student's education by developing their proficiency and knowledge in this area of specialization. Students must complete Advertising 305S, 348S, and at least one other 378 S topic.

## The Consent Procedure

Part of the prerequisite for some advertising courses is consent of the instructor received prior to registering. To be able to register for such a course, a student must first ask for and receive the instructor's consent. The student may be invited to an interview with the instructor or may be asked to provide supporting materials, such as an application or an essay. The student is responsible for knowing the deadline to apply. Consent forms are available from the student's adviser and in the Department of Advertising.

## Special Requirements

To enroll in upper-division advertising courses, a student must have completed Advertising 318J in residence with a grade of at least $B$, and must have a University grade point average of at least 2.25 and a grade point average in courses in the Moody College of Communication of at least 2.00. Students who do not fulfill these requirements will be dropped from upper-division advertising courses, normally before the twelfth class day. The grade point average requirement is waived for the transfer student during the first semester of coursework, while he or she is establishing a University grade point average. Students may enroll in Advertising 318J no more than twice.

In addition, advertising majors must have a grade of at least $C$ in each course taken in the Moody College of Communication that is counted toward the degree and a grade of at least $C$ in each course counted toward the major requirements; if the course is offered on the pass/fail basis only, the student must have the symbol $C R$.

Advertising majors must take Advertising 370J and 373 or 373 H in residence.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 20), as well as the requirements for the Bachelor of Science in Advertising listed below under Prescribed Work. In some cases, a course required for the BSAdv may also be counted toward the core curriculum; these courses are identified below.

## Prescribed Work*

1. Three semester hours in English or rhetoric and writing in addition to the courses required by the core curriculum.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics and leadership flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Three semester hours of coursework in the Moody College of Communication dealing with the study of communication issues concerning at least one minority or nondominant group within the United States. Courses that fulfill this requirement may also be
used to fulfill other degree requirements. A partial list of these communication and culture courses is given in the Communication and Culture Requirement (p. 82) section under the Moody College of Communication's Degrees and Programs section; a complete list is available in the college's Student Advising Office before registration for each semester and summer session. The courses are also identified in the Course Schedule (http://registrar.utexas.edu/ schedules).
4. Students must demonstrate intermediate proficiency in a single foreign language. Courses taken to meet this requirement may not be taken on the pass/fail basis.

Credit may be earned by examination for any part of a foreign language sequence. An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic adviser for information on testing.
5. Statistics and Data Sciences 306, completed in residence. This course also meets the core curriculum mathematics requirement.
6. Twelve semester hours of coursework in the McCombs School of Business, preferably three hours in marketing, three hours in accounting, three hours in either legal environment of business or finance, and three hours in management. At least six of the twelve hours must be in upper-division coursework. Marketing 338 may not be used to fulfill this requirement.
7. At least thirty-six semester hours of upper-division coursework.
8. No more than twelve semester hours of transfer credit in advertising may be counted toward the degree.
9. Enough additional coursework to make a total of 120 semester hours. No more than forty-two hours in advertising and no more than thirtysix hours in any other single field may be counted toward the degree.

## Major Requirements

1. At least thirty-six, but no more than forty-two semester hours of advertising, of which at least twenty-four hours must be upperdivision. The following courses are required: Advertising 318J, 325, $344 \mathrm{~K}, 345 \mathrm{~J}, 350$ or $468 \mathrm{~L}, 370 \mathrm{~J}, 353$, and 373 . The student must complete Advertising 318J, 370J, and 373 or 373 H in residence; 318 J must be completed with a grade of at least $B$.
2. At least six semester hours of coursework must be taken in the Moody College of Communication but outside the department. However, no student may count toward the degree more than forty-eight hours (including transfer credit) in Moody College of Communication coursework.
3. No Moody College of Communication course to be counted toward the degree and no course to be counted toward major requirement 1 above may be taken on the pass/fail basis, unless the course is offered only on that basis.

In addition, the following coursework is required to complete the following programs:

Texas Advertising Management: Advertising 378 (Topic 20); 378 (Topic $4,11,17$, or 19); and 377M (Topic 1, 2, 3, 4, 8, 9, or 10).

Texas Creative: Advertising 343K, 468K, and 468L (note: Advertising 468 L is part of the twenty-four required advertising hours for Creative students).

Texas Media: Advertising 377 (Topics 1 and 3), and 377M (Topic 7).

Texas Sports and Entertainment: Advertising 305S, 348S, and any 378S topic.

## Order and Choice of Work

## First Year

1. The student must take three courses from the following group each semester:
a. Rhetoric and Writing 306.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in a foreign language.
d. Courses that meet flag requirements.
2. Enough additional coursework to raise the student's course load to fifteen or sixteen hours each semester. Courses should be chosen with the guidance of a college adviser.

First-year students may not take two beginning foreign language courses in the same semester. First-year students may not take more than eight semester hours in one department.

## Second Year

1. The student must take three courses from the following group each semester; four are recommended:
a. English 316L, 316M, 316N, or 316P, and any three-semester-hour course in English or rhetoric and writing.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
d. courses that meet flag requirements.
2. Advertising 318J.
3. Statistics and Data Sciences 306.
4. Enough additional coursework, if needed, to raise the student's course load to fifteen or sixteen hours each semester. Basic courses in business, studio art, and computer sciences are especially recommended.

## Third and Fourth Years

1. Any remaining courses in the core curriculum and the prescribed work.
2. The remaining courses listed as major requirements.
3. Upper-division electives chosen to support the major. Advertising majors normally emphasize economics, government, history, English, sociology, psychology, marketing, or management.

## *Changes pending approval by the University of Texas System

## Bachelor of Science in Communication Sciences and Disorders

To be awarded the degree of Bachelor of Science in Communication Sciences and Disorders, the candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements (p. 17) for graduation and the Core Curriculum (p. 20) requirements, the college graduation requirements given in Special

Requirements of the College (p. 81), and the requirements given in Special Requirements, Prescribed Work, and Major Requirements below.

## Special Requirements

To enroll in upper-division communication sciences and disorders courses, a student must have a University grade point average of at least 2.25 and a grade point average in courses in the Moody College of Communication of at least 2.00. Students who do not fulfill this requirement will be dropped from upper-division communication sciences and disorders courses, normally before the twelfth class day. This requirement is waived for the transfer student during the first semester of coursework, while he or she is establishing a University grade point average.

In addition, a student with a major in communication sciences and disorders must have a grade of at least $C$ in each course taken in the Moody College of Communication that is counted toward the degree; if the course is offered on the pass/fail basis only, the student must have the symbol CR.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 20), as well as the requirements for the Bachelor of Science in Communication Sciences and Disorders (BSCSD) listed below under Prescribed Work. In some cases, a course required for the BSCSD may also be counted toward the core curriculum; these courses are identified below.

## Prescribed Work*

1. Three semester hours in English or rhetoric and writing in addition to the courses required by the core curriculum.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics and leadership flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Three semester hours of coursework in the Moody College of Communication dealing with the study of communication issues concerning at least one minority or nondominant group within the United States. Courses that fulfill this requirement may also be used to fulfill other degree requirements. A partial list of these communication and culture courses is given in the Communication and Culture Requirement (p. 82) section under the Moody College of Communication's Degrees and Programs section; a complete list is available in the college's Student Advising Office before registration for each semester and summer session. The courses are also identified in the Course Schedule (http://registrar.utexas.edu/ schedules).
4. Students must demonstrate intermediate proficiency in a single foreign language. Courses taken to meet this requirement may not be taken on a pass/fail basis. Credit may be earned by examination for any part of a foreign language sequence.

An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic adviser for information on testing.
5. At least thirty-six semester hours of upper-division coursework.
6. No more than twelve semester hours of transfer credit in communication sciences and disorders may be counted toward the degree.
7. Enough additional coursework to make a total of 120 semester hours. No more than thirty-six semester hours in one field of study may be counted toward the degree.

## Special Emphases in Communication Sciences and Disorders

Students majoring in communication sciences and disorders may specialize in speech/language pathology, audiology, or education of the deaf/hearing-impaired. After completing the necessary undergraduate coursework, they may seek the graduate degrees that are required for professional accreditation by the American Speech-Language-Hearing Association (for those in speech/language pathology and audiology) or the Council on Education of the Deaf (for those in education of the deaf/ hearing-impaired). Students in speech/language pathology and audiology who wish to practice in Texas must be licensed by the Texas Department of State Health Services; those in education of the deaf/hearing-impaired must be certified by the Texas State Board for Educator Certification.

## Major Requirements

1. Students specializing in speech/language pathology must complete at least thirty-seven semester hours of coursework in communication sciences and disorders; those specializing in audiology must complete at least thirty-seven hours; those specializing in education of the deaf/hearing-impaired must complete at least thirty-two hours. For students in all three specializations, fifteen hours of this coursework must be upper-division. No more than forty-three semester hours of coursework in communication sciences and disorders may be counted toward the degree. The following courses are required:
a. Speech/language pathology: Communication Sciences and Disorders 306K, 308K, 311K, 313L, 318K, 118L, 341, 350, 358, 358S, 367K, 371, and 373.
b. Audiology: Communication Sciences and Disorders 306K, 308K, $311 \mathrm{~K}, 313 \mathrm{~L}, 318 \mathrm{~K}, 118 \mathrm{~L}, 341,350,358,358 \mathrm{~S}, 367 \mathrm{~K}, 371$, and 373.
c. Education of the deaf/hearing-impaired: Communication Sciences and Disorders 308K, 311K, 313L, 314L, 318K, 118L, 341, 360M, $367 \mathrm{~K}, 373$, and four hours of 175 N .
2. At least six semester hours of coursework must be taken in the Moody College of Communication but outside communication sciences and disorders. However, no student may count toward the degree more than forty-nine semester hours (including transfer credit) in Moody College of Communication coursework.
3. No Moody College of Communication course to be counted toward the degree may be taken on the pass/fail basis, unless the course is offered only on that basis.

## Order and Choice of Work

## First Year

1. The student must take three courses from the following group each semester:
a. Rhetoric and Writing 306.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in a foreign language. Students in education of the deat/hearing-impaired are encouraged to take American Sign Language.
d. Courses that meet flag requirements.
2. Enough additional coursework to raise the student's course load to fifteen or sixteen hours each semester. Courses should be chosen with the guidance of a college adviser.

First-year students may not take two beginning foreign language courses in the same semester. First-year students may not take more than eight semester hours in one department.

## Second Year

1. The student must take three courses from the following group each semester; four are recommended:
a. English 316L, 316M, 316N, or 316P, and any three-semester-hour course in English or rhetoric and writing.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
d. courses that meet flag requirements.
2. Communication Sciences and Disorders 306 K (for students in speech/ language pathology or audiology) or 308 K (for students in education of the deaf/hearing-impaired) and other lower-division courses in communication sciences and disorders recommended by the student's adviser.
3. Enough additional coursework, if needed, to raise the student's course load to fifteen or sixteen hours each semester.

## Third and Fourth Years

1. Any remaining courses in the core curriculum and the prescribed work.
2. The remaining courses listed as major requirements.
3. Enough additional coursework to raise the student's course load to fifteen or sixteen hours each semester.'
*Changes pending approval by the University of Texas System

## Bachelor of Science in Communication Studies

To be awarded the degree of Bachelor of Science in Communication Studies, the candidate must complete 120 semester hours of coursework and fulfill the University's General Requirements (p. 17) for graduation and the Core Curriculum ( p .20 ) requirements, the college graduation requirements given in Special Requirements of the College (p. 81), and the requirements given in Special Requirements, Prescribed Work, and Major Requirements below.

## Special Requirements

Students may take no more than nine hours of communication studies coursework, including transfer work, before they have declared a major in communication studies. Exceptions may be made for students who have officially declared a communication studies minor with their colleges, and for communication studies courses taken during a summer session. Students minoring in communication studies may take only the number of hours required for the minor.

To enroll in upper-division communication studies courses, a student must have a University grade point average of at least 2.25 and a grade point average in courses in the Moody College of Communication of at least 2.00. Students who do not fulfill this requirement will be dropped from upper-division communication studies courses, normally before the twelfth class day. This requirement is waived for the transfer student during the first semester of coursework, while he or she is establishing a University grade point average.

In addition, a student with a major in communication studies must have a grade of at least $C$ in each course taken in the Moody College of Communication that is counted toward the degree; if the course is offered on the pass/fail basis only, the student must have the symbol $C R$.

A student majoring in communication studies may not register for more than nine semester hours of communication studies in one semester or summer session.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 20), as well as the requirements for the Bachelor of Science in Communication Studies listed below under Prescribed Work. In some cases, a course required for the BSCommStds may also be counted toward the core curriculum; these courses are identified below.

## Prescribed Work*

1. Three semester hours in English or rhetoric and writing in addition to the courses required by the core curriculum.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics and leadership flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Three semester hours of coursework in the Moody College of Communication dealing with the study of communication issues concerning at least one minority or nondominant group within the United States. Courses that fulfill this requirement may also be used to fulfill other degree requirements. A partial list of these communication and culture courses is given in the Communication and Culture Requirement (p. 82) section under the Moody College of Communication's Degrees and Programs section; a complete list is available in the college's Student Advising Office before registration for each semester and summer session. The courses are also identified in the Course Schedule.
4. Students must demonstrate intermediate proficiency in a single foreign language. Courses taken to meet this requirement may not be taken on the pass/fail basis. Credit may be earned by examination for any part of a foreign language sequence. An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic adviser for information on testing.

An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult and academic adviser for information on testing.
5. At least thirty-six semester hours of upper-division coursework.
6. No more than twelve semester hours of transfer credit in communication sciences and disorders may be counted toward the degree.
7. Enough additional coursework to make a total of 120 semester hours. No more than thirty-six semester hours in one field of study may be counted toward the degree.

## Major Requirements

1. At least thirty but no more than thirty-six semester hours of communication studies. At least fifteen hours must be in upperdivision coursework. Each student must complete one of the following tracks:
a. Corporate Communications
i Communication Studies 306M, 313M, and 332K.
ii Six semester hours chosen from the following courses: Communication Studies 310K, 316L, 320, 335, 336D, 337, 338, 339L, 341, 346, 350M, 353S, 370K, and 372T.
iii Fifteen additional semester hours of communication studies.
b. Human Relations
i Communication Studies 306M and 332K.
ii Nine semester hours chosen from the following courses: Communication Studies 314L, 315M, 330, 334K, 344K, 354, 355K, 357, 358, 370K, and 371K.
iii Fifteen additional semester hours of communication studies.

## c. Political Communication

i Communication Studies 306M, 317C, and 332K.
ii Nine semester hours chosen from the following courses: Communication Studies 320, 331K, 332, 333, 340K, 342C, 342K, 345, and 370K.
iii Twelve additional semester hours of communication studies.
2. At least six semester hours of coursework must be taken in the College of Communication but outside communication studies. However, no student may count toward the degree more than forty-two semester hours (including transfer credit) in College of Communication coursework.
3. No College of Communication course to be counted toward the degree may be taken on the pass/fail basis, unless the course is offered only on that basis.

## Order and Choice of Work

## First Year

1. The student must take three courses from the following group each semester:
a. Rhetoric and Writing 306.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in a foreign language.
d. Courses that meet flag requirements.
2. Enough additional coursework to raise the student's course load to fifteen or sixteen hours each semester. Courses should be chosen with the guidance of a college adviser.

First-year students may not take two beginning foreign language courses in the same semester. First-year students may not take more than eight semester hours in one department.

## Second Year

1. The student must take three courses from the following group each semester; four are recommended:
a. English 316L, 316M, 316N, or 316P, and any three-semester-hour course in English or rhetoric and writing.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
d. Courses that meet flag requirements.
2. Lower-division communication studies courses recommended by the student's adviser.
3. Enough additional coursework, if needed, to raise the student's course load to fifteen or sixteen hours each semester.

## Third and Fourth Years

1. Any remaining courses in the core curriculum and the prescribed work.
2. The remaining courses listed as major requirements. Students should note that some upper-division courses have a series of prerequisite courses that takes up to three semesters to complete.
3. Enough additional coursework to raise the student's course load to fifteen or sixteen hours each semester.

## *Changes pending approval by the University of Texas System

## Bachelor of Journalism

To be awarded the degree of Bachelor of Journalism, the candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements (p. 17) for graduation and the Core Curriculum (p.20) requirements, the college graduation requirements given in Special Requirements of the College ( $p .81$ ), and the requirements given in Special Requirements, Prescribed Work, and Major Requirements below.

Journalism courses are divided into five levels of coursework and more narrowly within the levels according to their skill set and writing content. Not all courses are offered every semester.

Level I, Foundations: Journalism 301F and 302F
Level II, Applications: Journalism 310F and 311F
Level III, Specialized Issues and Skills:

- Category 1-Public Affairs Reporting: Journalism 320F, 321F, 322F, 323F, 324F, 325F, 326F
- Category 2-Specialized Journalistic Skills: Journalism 330F, 331F, 332F, 333F, 334F, 335F, 336F, 336D, 338F, 339F, 330G, 331G, 332G, 333G, 334G, 335G, 336G, 337G
- Category 3-Understanding and Reporting Social Issues: Journalism 340F, 341F, 342F, 343F, 344F, 346F, 347F, 348F, 349F, 340G, 341G, 342G, 343G, 344G, 345G, 346G, 347G, 348G, 349G, 340J, 341J

Level IV, Professional Principles: Journalism 350F, 351F, 352F, 353F Level V, Professional Practices: Journalism 360F, 160G, 361F, 362F, 379,
Courses in Levels II - V have prerequisites appropriate to their skill level. Prerequisites may include testing, an interview, or other procedures. Information about these additional requirements is available from the School of Journalism adviser.

## Special Requirements

All students in the journalism program are strongly encouraged to have a laptop computer meeting certain specifications as they enter Level II courses. Computer parameters will be designated by the School of Journalism on the department Web site at http://journalism.utexas.edu.

Students will be required to take Journalism 302F, 310F, and 311F in residence. In addition, Journalism 310F and 311F require a grade of at least $B$-.

Students who are interested in completing advanced photojournalism courses are required to take Communication 316, Photographic Communication, as part of their required six hours of coursework in communication.

To enroll in upper-division journalism courses, a student must have a University grade point average of at least 2.25, a grade point average in courses in the College of Communication of at least 2.00, and credit for Journalism 310F and 311F with a grade of at least $B$-. Students who do not fulfill this requirement will be unable to register for upper-division journalism courses. The 2.25 grade point average requirement is waived for the transfer student during the first semester of coursework, while he or she is establishing a University grade point average.

Journalism majors must complete Journalism 360F or Journalism 361F in order to graduate. Internships can be taken for course credit as soon as a student completes the two Level II courses with a grade of at least $B$ in each.

The student must complete at least eighty-four semester hours outside journalism. At least sixty-five hours must be in liberal arts and natural sciences.

A student majoring in journalism may not register for more than nine semester hours in journalism in one semester or summer session. The director or associate director may make exceptions to this rule for students who need additional journalism courses in order to graduate on time.

A student with a major in journalism must have a grade of at least $C$ in each course taken in the College of Communication that is counted toward the degree; if the course is offered on the pass/fail basis only, the student must have the symbol $C R$.

Additional information about the preceding requirements is available from the School of Journalism at http://journalism.utexas.edu/ or (512) 471-1845.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 20) as well as the prescribed work for the Bachelor of Journalism listed below. In some cases, a course required for the Bachelor of Journalism may also be counted toward the core curriculum; these courses are identified below. Flag descriptions can also be found in Core Curriculum (p. 20).

## Prescribed Work*

1. Three semester hours in English or rhetoric and writing in addition to the courses required by the core curriculum.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics and leadership flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses
that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Three semester hours of coursework in the Moody College of Communication dealing with the study of communication issues concerning at least one minority or non-dominant group within the United States. Courses that fulfill this requirement may also be used to fulfill other degree and flag requirements. A partial list of these communication and culture courses is given in the Communication and Culture Requirement (p. 82) section under the Moody College of Communication's Degrees and Programs section; a complete list is available in the college's Student Advising Office before registration for each semester and summer session. The courses are also identified in the Course Schedule.
4. Students must demonstrate intermediate proficiency in a single foreign language. Courses taken to meet this requirement may not be taken on a pass/fail basis. Credit may be earned by examination for any part of a foreign language sequence.

An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic adviser for information on testing.
5. At least thirty-six semester hours of upper-division coursework.
6. No more than twelve semester hours of transfer credit in journalism may be counted toward the degree.
7. Enough additional coursework to make a total of 120 semester hours. No more than thirty-six semester hours in one field of study may be counted toward the degree, except as indicated under Major Requirements below.

## Major Requirements

1. Journalism students must complete thirty-six semester hours in journalism and no more than thirty-six journalism hours may be counted toward the degree.
2. The following courses are required: Journalism 301F, 302F, 310F, $311 F, 350 \mathrm{~F}$, and six hours to be chosen from 360F, 361F and 362F. Journalism 302F, 310F, and 311F must be taken in residence and a grade of at least $B$-is required for 310F and 311F.
3. At least nine semester hours but not more than fifteen semester hours from Level III, Specialized Issues and Skills, as follows:
a. at least three semester hours to be chosen from Journalism 320F, 321F, 322F, 323F, 324F, 325F, 326F
b. at least three semester hours to be chosen from Journalism 330F, $331 \mathrm{~F}, 332 \mathrm{~F}, 333 \mathrm{~F}, 334 \mathrm{~F}, 335 \mathrm{~F}, 336 \mathrm{~F}, 337 \mathrm{~F}, 338 \mathrm{~F}, 339 \mathrm{~F}, 330 \mathrm{G}$, 331G, 332G, 333G, 334G, 335G, 336G, 337G
c. at least three semester hours to be chosen from Journalism 340F, 341F, 342F, 343F,344F,345F, 346F, 347F, 348F, 349F, 340G, 341G, 343G, 344G, 345G,346G,347G,348G,349G,340J,341J
4. At least six semester hours of coursework must be taken in the College of Communication but outside the School of Journalism. No more than forty-two hours (including transfer credit) in College of Communication coursework may be counted toward the degree.
5. No College of Communication course to be counted toward the degree may be taken on the pass/fail basis, unless the course is offered only on that basis.

## Order and Choice of Work

## First Year

1. The student must take three courses from the following group each semester:
a. Rhetoric and Writing 306
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum. Students who plan to concentrate in photojournalism are encouraged to take courses in chemistry, physics, and mathematics to fulfill the science and technology areas.
c. Courses in a foreign language.
2. Journalism 301F and 302F.
3. Students who plan to take advanced photojournalism courses are encouraged to take Communication 316 in their second semester as part of their required six hours of coursework in communication but outside of journalism.
4. Two courses that meet flag requirements.
5. Enough additional coursework to raise the student's course load to fifteen or sixteen hours each semester. Courses should be chosen with the guidance of a college academic adviser.

First-year students may not take two beginning foreign language courses in the same semester. First-year students may not take more than eight semester hours in one department.

## Second Year

1. The student should take three courses from the following group each semester; four are recommended:
a. English 316L, 316M, 316N, or 316P and any three-semester-hour course in English or rhetoric and writing.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
2. Journalism 310F and 311F and additional coursework to fulfill the major requirements.
3. Two courses that meet flag requirements.
4. Enough additional coursework, if needed, to raise the student's course load to fifteen or sixteen hours each semester. Courses should be chosen with the guidance of a college academic adviser.

## Third Year

1. Two courses that meet flag requirements.
2. Any remaining courses in the core curriculum and the prescribed work.
3. Journalism Level III and IV coursework to fulfill the major requirements. Courses should be chosen with the guidance of a college academic adviser.
4. Journalism 360 F or 361 F , if the prerequisites have been met.
5. Upper-division electives chosen to support the major.

## Fourth Year

1. Upper-division electives chosen to support the major.
2. Any remaining major requirements from Levels III, IV, and V. Courses should be chosen with the guidance of a college academic adviser.
3. Any remaining flag requirements.
4. Any remaining courses in the core curriculum and the prescribed work.

## *Changes pending approval by the University of Texas System

## Bachelor of Science in Public Relations

To be awarded the degree of Bachelor of Science in Public Relations, the candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements ( p .17 ) for graduation and the Core Curriculum ( p .20 ) requirements, the college graduation requirements given in Special Requirements of the College (p. 81), and the requirements given in Special Requirements, Prescribed Work, and Major Requirements below.

## Areas of Study (optional)

## Texas Media Program

This program is designed to help students develop the characteristics that define success in advertising media planning, buying, sales, new media development, and metrics. Because advertising media is a broad and quickly evolving industry, the program offers a variety of courses, allowing students to focus their training and allowing the program itself to adapt to industry developments.

Students who complete Advertising 345 J with a grade of at least $B$ may apply for admission to the Texas Media program. Applications are distributed during the last week of classes. Admission decisions are made at the end of the semester and students admitted to the program are notified by a Secure Academic Note prior to the next add/drop registration period. Those who are not admitted may apply again the following semester, but students may apply only twice.

All Texas Media students must complete Advertising 377 (Topic 1 : Advanced Media Strategies), Advertising 377 (Topic 3: Digital Media), and Advertising 377M (Topic 7: Media Negotiation). In addition, Texas Media students may choose to take at least one additional media upper-division course, which can be counted as an advertising elective. Advertising 377 or 377M may be taken concurrently if all prerequisites are met. Most students complete the program in two semesters.

## Texas Sports and Entertainment Program

This program is designed to give students the knowledge to develop decisions in sports communication. The program complements the student's education by developing their proficiency and knowledge in this area of specialization. Students must complete Public Relations 305S, 348S, and at least one other Advertising 378S or Public Relations 378 S topic.

## The Consent Procedure

Part of the prerequisite for some advertising and public relations courses is consent of the instructor received prior to registering. To be able to register for such a course, a student must first ask for and receive the instructor's consent. The student may be invited to an interview with the instructor or may be asked to provide supporting materials, such as an application or an essay. The student is responsible for knowing the deadline to apply. Consent forms are available online and in the Department of Advertising.

## Special Requirements

To enroll in upper-division public relations courses, a student must have completed Advertising 318J in residence with a grade of at least $B$ and must have a University grade point average of at least 2.25 and a grade point average in courses in the Moody College of Communication of at least 2.00. Students who do not fulfill these requirements will be dropped from upper-division public relations courses, normally before the twelfth class day. The grade point average requirement is waived for the
transfer student during the first semester of coursework, while he or she is establishing a University grade point average. Students may enroll in Advertising 318 J no more than twice.

In addition, a student with a major in public relations must have a grade of at least $C$ in each course taken in the Moody College of Communication that is counted toward the degree and a grade of at least $C$ in each course counted toward the major requirements; if the course is offered on the pass/fail basis only, the student must have the symbol $C R$.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 20) as well as the requirements for the Bachelor of Science in Public Relations (BSPR) listed below under Prescribed Work. In some cases, a course required for the BSPR may also be counted toward the core curriculum; these courses are identified below.

## Prescribed Work*

1. Rhetoric and Writing 309K, 309S, or 310.
2. Three courses with a writing flag;one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics and leadership flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Three semester hours of coursework in the Moody College of Communication dealing with the study of communication issues concerning at least one minority or nondominant group within the United States. Courses that fulfill this requirement may also be used to fulfill other degree requirements. A partial list of these communication and culture courses is given in the Communication and Culture Requirement (p. 82) section under the Moody College of Communication's Degrees and Programs section; a complete list is available in the college's Student Advising Office before registration for each semester and summer session. The courses are also identified in the Course Schedule (http://registrar.utexas.edu/ schedules).
4. Students must demonstrate intermediate proficiency in a single foreign language. Courses taken to meet this requirement may not be taken on the pass/fail basis. Credit may be earned by examination for any part of a foreign language sequence.
An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic adviser for information on testing.
5. Statistics and Data Sciences 306, completed in residence. This course also meets the core curriculum mathematics requirement.
6. Twelve semester hours of coursework in business, preferably three hours in marketing, three hours in management, three hours in accounting, and three hours in either legal environment of business or finance. At least six of the twelve hours must be in upperdivision coursework. Marketing 338 may not be counted toward this requirement.
7. At least thirty-six semester hours of upper-division coursework.
8. No more than twelve semester hours of transfer credit may be counted toward the major requirements given below.
9. Enough additional coursework to make a total of 120 semester hours. No more than thirty-six semester hours in one field of study may be counted toward the degree.

## Major Requirements

1. At least thirty-six but no more than forty-two semester hours of coursework, of which at least twenty-four hours must be upperdivision. The following courses are required:
a. Advertising 318J, 344K, 345J, Public Relations 317, 348, 350, 352, 353, 367, and 377K. The student must take Advertising 318J, Public Relations 367 and 377K in residence; Advertising 318J must be completed with a grade of at least $B$.
b. Six additional hours in public relations or advertising.
2. At least six semester hours of coursework must be taken in the College of Communication but outside advertising and public relations. No student may count toward the degree more than fortyeight hours (including transfer credit) in College of Communication coursework.
3. No College of Communication course to be counted toward the degree and no course to be counted toward major requirement 1 above may be taken on the pass/fail basis, unless the course is offered only on that basis.

## Order and Choice of Work

## First Year

1. The student must take three courses from the following group each semester:
a. Rhetoric and Writing 306.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in a foreign language.
d. Courses that meet flag requirements.
2. Advertising 318J and Public Relations 317.
3. Additional coursework to raise the student's course load to fifteen or sixteen hours each semester. Courses should be chosen with the guidance of a college adviser.

First-year students may not take two beginning foreign language courses in the same semester. First-year students may not take more than eight semester hours in one department.

## Second Year

1. The student must take three courses from the following group each semester; four are recommended:
a. Rhetoric and Writing 306; English 316L, E 316M, E 316N, or E 316P; and Rhetoric and Writing 309K, 309S, or 310.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
d. Courses that meet flag requirements.
2. Statistics and Data Sciences 306
3. Enough additional coursework, if needed, to raise the student's course load to fifteen or sixteen hours each semester. Basic courses in writing are especially recommended.

## Third Year

1. Any remaining courses in the core curriculum and the prescribed work.
2. Public Relations 348, Advertising 344K, 345J, Marketing 320F, and additional coursework to fulfill the major requirements.
3. Upper-division electives chosen to support the major. Public relations majors normally emphasize writing courses, such as those in English, journalism, and liberal arts; public speaking courses, such as those in communication studies; psychology; marketing; and/or management.

## Fourth Year

1. The remaining courses listed as major requirements.
2. Upper-division electives chosen to support the major.
*Changes pending approval by the University of Texas System

## Bachelor of Science in Radio-Television-Film

To be awarded the degree of Bachelor of Science in Radio-TelevisionFilm, the candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements (p.17) for graduation and the Core Curriculum ( p .20 ) requirements, the college graduation requirements given in Special Requirements of the College (p. 81), and the requirements given in Special Requirements, Prescribed Work, and Major Requirements below.

## Special Requirements

To enroll in upper-division radio-television-film courses, a student must have a University grade point average of at least 2.25 and a grade point average in courses in the Moody College of Communication of at least 2.00. Students who do not fulfill this requirement will be dropped from upper-division radio-television-film courses, normally before the twelfth class day. The grade point average requirement is waived for the transfer student during the first semester of coursework, while he or she is establishing a University grade point average.

In addition, a student with a major in radio-television-film must have a grade of at least $C$ in each course taken in the Moody College of Communication that is counted toward the degree; if the course is offered on the pass/fail basis only, the student must have the symbol $C R$.

To enroll in some upper-division radio-television-film courses, the student must earn specific grades in prerequisite courses. In addition, enrollment in a few upper-division courses requires the consent of the instructor. Course prerequisites and the departmental consent process are described in Department of Radio-Television-Film (p. 115).

It is not recommended that a student majoring in radio-television-film register for more than nine semester hours in radio-television-film in one long-session semester or more than six semester hours in a summer session.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 20), as well as the requirements for the Bachelor of Science in Radio-TelevisionFilm listed below under Prescribed Work. In some cases, a course required for the BSRTF may also be counted toward the core curriculum; these courses are identified below.

## Prescribed Work*

1. Three semester hours in English or rhetoric and writing in addition to the courses required by the core curriculum.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics
and leadership flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Three semester hours of coursework in the Moody College of Communication dealing with the study of communication issues concerning at least one minority or nondominant group within the United States. Courses that fulfill this requirement may also be used to fulfill other degree requirements. A partial list of these communication and culture courses is given in the Communication and Culture Requirement (p. 82) section under the Moody College of Communication's Degrees and Programs section; a complete list is available from the college's Student Advising Office before registration for each semester and summer session. The courses are also identified in the Course Schedule.
4. Students must demonstrate intermediate proficiency in a single foreign language. Courses taken to meet this requirement may not be taken on the pass/fail basis. Credit may be earned by examination for any part of a foreign language sequence.
An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic adviser for information on testing.
5. At least thirty-six semester hours of upper-division coursework.
6. No more than twelve semester hours of transfer credit in radio-television-film may be counted toward the degree.
7. Enough additional coursework to make a total of 120 semester hours. No more than forty-two hours in radio-television-film and no more than thirty-six hours in any other single field may be counted toward the degree.

## Major Requirements

1. At least thirty but no more than forty-two semester hours of radio-television-film, of which at least eighteen hours must be upperdivision. All students must take twelve hours of lower-division coursework in radio-television-film, and two courses chosen from the following: Radio-Television-Film 324F, 330K, 331J, 331K, 331M, $331 \mathrm{~N}, 331 \mathrm{P}, 334,335,342,342 \mathrm{~T}, 345,347 \mathrm{C}, 348,359,359 \mathrm{~S}, 365$, and 370 .
2. At least six semester hours of coursework must be taken in the Moody College of Communication but outside the department. However, no student may count toward the degree more than forty-eight hours (including transfer credit) in Moody College of Communication coursework.
3. No Moody College of Communication course to be counted toward the degree may be taken on the pass/fail basis, unless the course is offered only on that basis.

## Areas of Study

The curriculum in radio-television-film is designed to prepare students to be versatile and well-equipped for positions in fields related to media. The program aims to train students to analyze the role of communication media in societies, to write and speak well, and to create media projects and programs. The curriculum is multidisciplinary and includes courses in the history and analysis of media systems, including film, television, and new media; global media; production and screenwriting; digital media; critical and cultural studies; ethnic, gender, and minority studies; and communication technologies and policies. Each student's program of study is planned by the student and an undergraduate adviser to meet the student's academic and professional goals. Because upper-division
courses require specific lower-division prerequisites, students should consider their lower-division preparation carefully. For example, many production courses require completion of Radio-Television-Film 317 and 318 with a grade of $B$ - or better, while nonproduction courses may require either Radio-Television-Film 314 or 316, or 309.

Students who plan to take production courses should be aware that these courses may require five to ten hours of independent production or studio time a week in addition to the class meetings listed in the Course Schedule. All costs of production, such as the cost of film and film processing, actors' fees, and location fees, are borne by the student. The cost of most equipment is covered by tuition.

## Order and Choice of Work

First Year

1. The student must take three courses from the following group each semester:
a. Rhetoric and Writing 306.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in a foreign language.
d. Courses that meet flag requirements.
2. Two of the following: Radio-Television-Film 305, 309, 312C, 314, 316, 316M.
3. Enough additional coursework to raise the student's course load to fifteen or sixteen hours each semester. Courses should be chosen with the guidance of a college adviser.

First-year students may not take two beginning foreign language courses in the same semester. First-year students may not take more than eight semester hours in one department.

## Second Year

1. The student must take three courses from the following group each semester; four are recommended:
a. English 316L, 316M, 316N, or 316P, and any three-semester-hour course in English or rhetoric and writing.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
d. Courses that meet the flag requirements.
2. Two lower-division courses in radio-television-film, including those that are prerequisite to the area(s) in which the student plans to take upper-division courses.
3. Enough additional coursework, if needed, to raise the student's course load to fifteen or sixteen hours each semester.

## Third and Fourth Years

1. Any remaining courses in the core curriculum and the prescribed work.
2. Two upper-division radio-television-film courses to be counted toward requirement 1 of the major requirements.
3. Twelve to twenty-four semester hours of upper-division coursework in radio-television-film.
4. Enough additional coursework to raise the student's course load to fifteen or sixteen hours each semester.
*Changes pending approval by the University of Texas System

## Courses

The faculty has approval to offer the following courses in the academic years 2014-2015 and 2015-2016; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in General Information (http://catalog.utexas.edu/general-information). In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits indicate the rank of the course: if they are 01 through 19, the course is of lower-division rank; if 20 through 79, of upperdivision rank; if 80 through 99, of graduate rank.

## Communication

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p.675).

## Communication: COM

## Lower-Division Courses

## COM 301C. Freshman Seminar.

Restricted to first-semester freshmen. 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. Two lecture hours and one discussion hour a week for one semester.

## COM 102D, 202D, 302D. Connecting Internship Experience.

Supervised internship experience related to interdisciplinary themes of a Bridging Disciplines Program. Internships may be on or off campus, be paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. For 102D, three hours of fieldwork a week for one semester; for 202D, six hours of fieldwork a week for one semester; for 302D, ten hours of fieldwork a week for one semester. With consent of the Bridging Disciplines Program research coordinator, may be repeated once for credit. May not be counted toward any College of Communication degree. Prerequisite: Admission to the Bridging Disciplines Programs.

## COM 309. Communication Technology and Society.

Same as Radio-Television-Film 309. Study of communication technologies, from writing to the Internet; their uses in interpersonal, group, mass, and international contexts; and the impact of technologies on work. Three lecture hours and one discussion hour a week for one semester.

## COM 310. Topics in Texas Sports and Media.

Introduction to various contemporary and historical issues, emphasizing interdisciplinary perspectives and critical discourse. Three lecture hours a week for one semester. Communication 310 and Journalism 313S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## COM 314. Special Topics in Communication.

Contemporary issues and practices in communication. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## COM 115, 215, 315. Topics in Leadership and Communication.

Restricted to students in the College of Communication. Contemporary issues, practices, and skills related to leadership and communication.
For 115 , two lecture hours a week for eight weeks; for 215, two lecture hours a week for one semester; for 315, three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## COM 316 (TCCN: COMM 1316). Photographic Communication.

Introduction to photographic technique and recent trends, evaluation, visual design, and use of images in the media. Students must provide their own 35 -mm single-lens reflex or digital camera that can be operated under manual mode and with off-camera flash. Three lecture hours and one and one-half laboratory hours a week for one semester. Communication 316 and Journalism 316 may not both be counted.

## COM 316M. Race, Ethnicity, and the Media.

Same as Radio-Television-Film 316M. Critical review of contemporary and historical media images of, and discourses on, race and ethnicity. Introduction to relevant communication research and institutions. Three lecture hours and one discussion hour a week for one semester. Fulfills the communication and culture requirement in the College of Communication.

## COM 118C, 218C, 318C. Forum Seminar Series.

Restricted to freshmen and sophomores. Lectures and discussions on various contemporary issues. Emphasis on multidisciplinary perspectives and critical discourse. For 118C, two lecture hours a week for eight weeks; for 218C, two lecture hours a week for one semester; for 318C, three lecture hours a week for one semester, or two lecture hours and one hour of supervised research a week for one semester. May be repeated for credit when the topics vary.

## COM 119, 219, 319. International Learning Seminars.

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Communication 119, 219, 319, and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

COM 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses <br> COM 320. Advanced Topics in Texas Sports and Media.

Critical assessment of various contemporary and historical issues, emphasizing interdisciplinary perspectives. Three lecture hours a week for one semester. Communication 320 and Journalism 326S may not both be counted unless the topics vary. May be repeated for credit when the
topics vary. Prerequisite: Completion of at least sixty semester hours of coursework and a University grade point average of at least 2.25.

## COM 324. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, three hours of lower-division coursework in radio-television-film, admission to the Semester in Los Angeles program, and a University grade point average of at least 2.25.

Topic 2: Development Process of Film and Television. Only one of the following may be counted: Communication 324 (Topic: Development Process of Film and Television), 324 (Topic 2), Radio-Television-Film 348 (Topic: Development Process of Film and Television).
Topic 3: Inside the Music Industry. Only one of the following may be counted: Communication 324 (Topic: Inside The Music Industry), 324 (Topic 3), Radio-Television-Film 348 (Topic: Inside The Music Industry).
Topic 4: New Media and Emerging Entertainment. Only one of the following may be counted: Communication 324 (Topic: New Media and Emerging Entertainment), 324 (Topic 4), Radio-Television-Film 348 (Topic: New Media and Emerging Entertainment).
Topic 5: Careers in Entertainment. Only one of the following may be counted: Communication 324 (Topic: Careers in Entertainment), 324 (Topic 5), Radio-Television-Film 324L (Topic: Careers in Entertainment)

## COM 125, 225, 325. Topics in Leadership and Communication.

Restricted to students in the College of Communication. Contemporary issues, practices, and skills related to leadership and communication. For 125, two lecture hours a week for eight weeks; for 225, two lecture hours a week for one semester; for 325 , three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## COM 325S. Issues in Sports Media.

Special topics in the role and convergence of sports and the media. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 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. Only one of the following may be counted: Advertising 378 (Topic: Sports, Media, and the Integration of American Society), Communication 325 (Topic: Sports, Media, and the Integration of American Society), 325S (Topic 1), Journalism 359T (Topic: Sports, Media, and the Integration of American Society), Public Relations 378 (Topic: Sports, Media, and the Integration of American Society). Prerequisite: Upper-division standing and a University grade point average of at least 2.25.

## COM 129, 229, 329, 429, 529, 629. International Learning Seminars.

Restricted to students participating in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Communication 129, 229, 329, 429, 529, 629 and Undergraduate Studies 119 may not both be counted unless the topics
vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

COM 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## COM 330. Research in Texas Sports and Media.

Same as Journalism 339S. Restricted to journalism majors. Supervised research with a faculty member; research may consist of an individual project or assisting a faculty research project. Hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing and a University grade point average of at least 2.25; and Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B-in each.

## COM 350. Communication Internship.

Restricted to students in the College of Communication. Practical work experience related to the student's area of interest in the communication field. An average of 10 hours of work a week, for a total of at least 150 hours a semester or summer term. May not be taken by students who have credit for any three-semester-hour communication internship course. Offered on the pass/fail basis only. Prerequisite: Completion of the prerequisite for the three-semester-hour internship course in the student's major department.

## COM 350L. Semester in Los Angeles Internship.

Practical work experience in the entertainment industry in Los Angeles. An average of 10 hours of work a week, for a total of at least 150 hours a semester or summer term. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, three hours of lower-division coursework in radio-television-film, admission to the Semester in Los Angeles program, and a University grade point average of at least 2.25.

## COM 360. Communication Research Design.

An introduction to sampling, measurement, data collection, and analytic procedures as applied to research problems in communication. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## COM 370. Advanced Study in Communication.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, admission to the College of Communication Senior Fellows Program, and consent of instructor.

## COM 178. Communication Internship.

Restricted to students in the College of Communication. Practical work experience related to the student's area of interest in the communication field. An average of 10 hours of work a week, for a total of at least 150 hours a semester or summer term. May be repeated, but only one hour may be counted toward a degree in the College of Communication. Offered on the pass/fail basis only. Prerequisite: Completion of a threehour internship course in the College of Communication.

## Department of Advertising

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

To enroll in any upper-division advertising course, an advertising major must have fulfilled the Special Requirements (p. 84) for the Bachelor of Science in Advertising.

## Advertising: ADV <br> Lower-Division Courses

## ADV 303. 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. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising degree or the Bachelor of Science in Public Relations degree.

## ADV 304. Advertising on the Internet.

The defining concepts, differences, and current practices of advertising on the Internet. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. May not be counted toward the Bachelor of Science in Advertising degree or the Bachelor of Science in Public Relations degree.

## ADV 305. Fundamentals of Advertising.

Fundamentals and practices of advertising in relation to economies, societies, and mass communication. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or Bachelor of Science in Public Relations degrees.

## ADV 305S. Introduction to Integrated Communication for Sports.

Same as Public Relations 305S. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 305S, 378 (Topic 7: Integrated Communication for Sports), Kinesiology 352K (Topic: Integrated Communication for Sports), Public Relations 305S.

## ADV 309R. Introduction to Advertising and Public Relations Research.

Same as Public Relations 309. Restricted to advertising and public relations majors. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 309R, 378 (Topic: Introduction to Advertising and Public Relations Research), Public Relations 309, 378 (Topic: Topic: Introduction to Advertising and Public Relations Research).

## ADV 314. Social and Ethical Issues.

Designed to prepare students to identify, analyze, and respond to social and ethical issues in advertising and public relations. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or the Bachelor of Science in Public Relations degrees.

## ADV 315. History and Development of Advertising.

The evolution and development of advertising in the United States in a social, historical, economic, and cultural context. Three lecture hours a week for one semester.

## ADV 316. Creativity and American Culture.

Same as Public Relations 316. A cross-disciplinary view of the creative process and creative products. The conceptual core of film, fine arts, advertising, architecture, and literature. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or the Bachelor of Science in Public Relations. Fulfills the communication and culture requirement in the College of Communication.

## ADV 318J. Introduction to Advertising and Integrated Brand Communication.

The functions of advertising; role in marketing/communications mix; economic and social influence; advertising institutions and media; campaigns and appropriations; retail and business-to-business aspects. Three lecture hours and one discussion hour a week for one semester. Students may not enroll in Advertising 318J more than twice.

## ADV 319. 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 as persuasive communication. Three lecture hours a week for one semester.

## Upper-Division Courses

## ADV 325. Introduction to Advertising Creativity.

Restricted to advertising and public relations majors. Development of concepts and problem-solving techniques for print and broadcast advertising design and copywriting. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Advertising 318J with a grade of at least B.

ADV 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## ADV 334. International Advertising.

Major issues in international advertising and advertising directed at cultural minorities within countries. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ADV 336. 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. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Advanced Issues in Multicultural Markets. Research in diversity in advertising; understanding human diversity; trends in United States demographics. Three lecture hours a week for one semester. Advertising 336 (Topic 1) and 378 (Topic 2: Advanced Issues in Multicultural Markets) may not both be counted. Prerequisite: Upperdivision standing.

Topic 2: Consumer Discrimination in the Marketplace. Consumer discrimination of ethnic and racial groups in the marketplace. Three lecture hours a week for one semester. Advertising 336 (Topic 2) and 378 (Topic 9: Consumer Discrimination in the Marketplace) may not both be counted. Prerequisite: Upper-division standing.
Topic 3: Advertising and Black Representation. Focus on the opportunities created by the growing number of African American consumers who express their social identities in the marketplace. Three lecture hours a week for one semester. Advertising 336 (Topic 3) and 378 (Topic 12: Advertising and Black Representation) may not both be counted. Prerequisite: Upper-division standing.
Topic 4: Consumer Insight. A framework for analyzing consumer cognition, attitudes, and behavior by looking at both material from the behavioral sciences and techniques of consumer analysis used in marketing practice. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 336 (Topic 4), 378 (Topic 25: Consumer Insight), 391K (Topic: Consumer Insight). Prerequisite: Upper-division standing.

## ADV 341S. Research in Sports Communication and Media.

Same as Public Relations 341S. An introduction to advertising and public relations research and methodology for sports. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and a University grade point average of at least 2.25.

## ADV 342. Advertising Copywriting.

Copywriting for print and broadcast media. Methods for developing creative advertising concepts, strategies, and executions for print, radio, and television. Emphasis on writing rather than on art direction. Three lecture hours a week for one semester. Prerequisite: Advertising 325 with a grade of at least C , and instructor's approval of the student's previous work in advertising courses.

## ADV 343K. Portfolio I.

Basic advertising art direction and copywriting skills, including indications for graphics, headlines, and body copy. Three lecture hours and three studio hours a week for one semester. Prerequisite: Advertising 325 with a grade of at least $B$, and admission to the Texas Creative program.

## ADV 344K. Advertising Research.

Introduction to social science research methods as used in advertising and marketing; emphasis on survey research and secondary data. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing; Advertising 318 J with a grade of at least B; and Advertising 309R, Public Relations 309, Statistics 309, or Statistics and Scientific Computation 306 with a grade of at least C. Advertising majors must also have credit or registration for Advertising 325.

## ADV 345J. Advertising Media Planning Foundations.

Media characteristics and media-market measurements; development of media plans. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Upper-division standing; Advertising 318J with a grade of at least B; and Advertising 309R, Public Relations 309, Statistics 309, or Statistics and Scientific Computation 306 with a grade of at least C. Advertising majors must also have credit or registration for Advertising 325.

## ADV 447. Computer Imaging Topics.

Introduction to computer graphics with applications to advertising and other disciplines. Students interact with computer systems to produce artwork and design portfolios. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the
topics vary. Prerequisite: Advertising 318 J with a grade of at least B and consent of instructor received prior to registering.

## Topic 1: Advertising Design for Interactive Media.

## ADV 348. Design of Integrated Communications.

Theory and practice of the graphic arts and production, including conception and design; typography; engraving; preparation of copy, art, and photographs; paper; color psychology; and printing. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ADV 348S. The Business of Sports Media.

Same as Journalism 348G and Public Relations 348S. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 348S, 378 (Topic: The Business of Sports Media), Communication 325 (Topic: The Business of Sports Media), Journalism 348G, 349T (Topic: The Business of Sports Media), Public Relations 348S, 378 (Topic: The Business of Sports Media). Prerequisite: Upper-division standing and a University grade point average of at least 2.25 ; additional prerequisite for journalism majors: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## ADV 350. Advertising Internship.

Practical work experiences in advertising sales, creative management, and research with advertisers, agencies, media, or auxiliary services. An average of twelve hours of work a week, for a total of 180 hours a semester or summer session. Offered on the pass/fail basis only. Prerequisite: Advertising 344 K and 345 J with a grade of at least C in each.

## ADV 350S. Internship in Sports Media.

Same as Public Relations 350S. Restricted to Texas Program in Sports and Media students. Practical work experience in sports media. Internship to be arranged by student and approved by instructor. The equivalent of three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or the Bachelor of Science in Public Relations degrees. Offered on the pass/fail basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.25; Advertising 305S or Public Relations 305S; and three additional hours from the Sports Media Certificate approved coursework list.

## ADV 151. Advertising Practicum.

Internship and discussion hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Advertising 350 or 468 K , consent of departmental internship coordinator, and completion of department requirements for enrollment in an internship course.

## ADV 353. Advertising and Public Relations Law and Ethics.

Same as Public Relations 353. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Advertising 353, 371J, 376, Public Relations 353, 371J, 376. Fulfills the communication and culture requirement in the College of Communication. Prerequisite: For advertising majors, Advertising 318J with a grade of at least B; for public relations majors, Public Relations 319; for others, none.

## ADV 366. Special Topics in Advertising.

Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising degree. May be repeated for credit when the topics vary.

## ADV 368C. Advertising Senior Seminar.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Credit or registration for Advertising 344 K and 345 J , and written consent of instructor received prior to registering.

## Topic 1: Agency Practices. <br> Topic 2: Affect and Emotion. <br> Topic 3: Advertising Ethics.

## ADV 468K. Portfolio II.

Intermediate advertising art direction and copywriting; special emphasis on execution skills and concepts. Three lecture hours and three studio hours a week for one semester. Prerequisite: Advertising 343K and consent of the Texas Creative program faculty.

## ADV 468L. Portfolio III.

Advanced advertising art direction and advertising creative concepts. Three lecture hours and three studio hours a week for one semester. With consent of instructor, may be repeated once for credit. Prerequisite: Advertising 468 K and consent of the Texas Creative program faculty.

## ADV 370J. 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. Three lecture hours a week for one semester. Advertising 370J and Public Relations 367 may not both be counted. Prerequisite: Advertising 344 K and 345 J with a grade of at least C in each; and Marketing 320F or 337 with a grade of at least C.

## ADV 373. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 373, 373H, Public Relations 377H, 377K. Prerequisite: Advertising 370J.

## ADV 373H. Integrated Communications Campaigns: Honors.

Restricted to students in the Advertising or Public Relations Honors program. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 373, 373H, Public Relations 377H, 377K. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Advertising 370J or Public Relations 367, a University grade point average of at least 3.50, admission to the departmental honors program, and consent of the undergraduate adviser.

## ADV 374. Advanced Studies in Media and Negotiations. ADV 475. Portfolio IV.

Designed to enhance the intellectual and philosophical framework of students in the Texas Creative program. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Advertising 468L and consent of the Texas Creative program faculty.

## ADV 377. Advertising Media Topics.

Three lecture hours a week for one semester or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Admission to the Texas Media program and consent of instructor. Additional prerequisites vary with the topic and are given in the Course Schedule.

Topic 1: Advanced Media Strategies. Required for students in the Texas Media program.
Topic 2: One-to-One Advertising on the Internet. Students may be added to the class on the first class day. Additional prerequisite: Experience using HTML.
Topic 3: Digital Media. Students may be added to the class on the first class day. Additional prerequisite: Experience using HTML.
Topic 4: Media Alliances. Focuses on the partnerships and tools used in generating, investigating, and evaluating unique brand contact points such as product placement, sponsorships, and other promotional media activities. Includes co-branding efforts, client-generated media venues, and public relations alliances from a media planning perspective.
Topic 5: Media Show. Designed to help students remove the traditional barriers between message development and delivery in their media work. Students have the opportunity to show their work to industry professionals across a variety of venues. Three lecture hours and three studio hours a week for one semester.
Topic 6: Advanced Media Research. Only one of the following may be counted: Advertising 377 (Topic: Media Research), 377 (Topic 6), 377M (Topic 6: Media Research).

## ADV 377M. Media Studies.

Topics in media and its effects on advertising and public relations strategies. The equivalent of three lecture hours a week for one semester; additional hours may be required for some topics. Advertising 377M and Public Relations 377M may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Advertising 345J with a grade of at least C, and consent of instructor.

Topic 1: Advanced Media Research. Development of data analysis skills using various analytical techniques. Three lecture hours a week for one semester. Advertising 377M (Topic 1) and 378 (Topic 13: Advanced Media Research) may not both be counted. Additional prerequisite: Upper-division standing.
Topic 2: Advanced Studies in Media Sales. Same as Public Relations 377M (Topic 2: Advanced Studies in Media Sales). Examination of advertising media sales beyond audience measurement techniques, and quantitative and qualitative data. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Advertising 377M (Topic 2), 378 (Topic 14: Advanced Studies in Media Sales), Public Relations 377M (Topic 2), 378 (Topic 2: Advanced Studies in Media Sales). Additional prerequisite: Upper-division standing, Advertising 345J with a grade of at least $C$, and consent of instructor.
Topic 3: Digital Metrics. Examines the evolving scope of digital metrics and analytics by looking at three dimensions of digital media: business, communications, and technology. Three lecture hours a week for one semester. Advertising 377M (Topic 3) and 378 (Topic 16: Digital Metrics) may not both be counted. Additional prerequisite: Upper-division standing.
Topic 4: Nontraditional New Media Concepts. Restricted to students in the Texas Creative program. Examination of how we consume and respond to media as it changes with new technology. Three lecture hours a week for one semester. Advertising 377M (Topic 4) and 378 (Topic 18: Nontraditional New Media Concepts) may not both be counted. Additional prerequisite: Upper-division standing.
Topic 5: Media Metrics. Three lecture hours a week for one semester. Additional prerequisite: Upper-division standing.

Topic 7: Media Negotiations. Restricted to advertising and public relations majors in the Texas Media program. Additional prerequisite: Upper-division standing.
Topic 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. The equivalent of three lecture hours a week for one semester.
Topic 9: Media Investments. An examination of media investments, from both a buying and selling perspective, for management of an activation role on the agency, vendor, or client side of the media business. The equivalent of three lecture hours a week for one semester.
Topic 10: Media Showcase. Designed to help students remove the traditional barriers between message development and delivery in their media work. Students have the opportunity to show their work to industry professionals across a variety of venues. The equivalent of three lecture hours a week for one semester.

## ADV 378. Advanced Studies in Advertising.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and a University grade point average of at least 2.25; additional prerequisites vary with the topic.

Topic 4: Direct Marketing. Additional prerequisite: Marketing 320F. Topic 10: Copywriting. Additional prerequisite: Advertising 325 with a grade of at least C , and consent of instructor.
Topic 11: Leadership and Ethics.
Topic 15: Creative Project: Writing. Additional prerequisite:
Advertising 325 with a grade of at least C , and consent of instructor.
Topic 17: Integrated Communication for Nonprofit Organizations.
Topic 19: Online Consumer Research. Additional prerequisite: Advertising 344K and consent of instructor.
Topic 20: Account Planning. Additional prerequisite: Advertising 344K and 345J.
Topic 22: Psychology of Video Game Advertising.
Topic 23: Technology Marketing and Advertising.
Topic 24: Digital Creative Portfolio. Additional prerequisite:
Advertising 325 with a grade of at least C, and consent of instructor.
Topic 26: Consumer Psychology and New Media.
Topic 27: Advanced Media Research, Insights, and Analysis. Additional prerequisite: Advertising 344 K and consent of instructor.
Topic 28: Online Consumer Behavior and Research. Additional prerequisite: Advertising 344 K and consent of instructor.

## ADV 378S. 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. The equivalent of three lecture hours a week for one semester, or as required by the topic. Advertising 378S and Public Relations 378 S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and a University grade point average of at least 2.25; additional prerequisites vary with the topic.

Topic 1: Advertising and Public Relations for Sports. Same as Public Relations 378S (Topic 1: Advertising and Public Relations for Sports). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 30: Advertising and Public Relations for Sports), 378S (Topic 1), Public Relations 378 (Topic 30: Advertising and Public Relations for Sports), 378S (Topic 1).
Topic 2: Legal Aspects of Sports and Media. Same as Public Relations 378S (Topic 2: Legal Aspects of Sports and Media). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 31: Legal Aspects of Sports and

Media), 378 (Topic 2), Public Relations 378 (Topic 31: Legal Aspects of Sports and Media), 378S (Topic 2).
Topic 3: Return on Investment of Sports Media. Same as Public Relations 378S (Topic 3: Return on Investment of Sports Media). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 32: Sponsorships, Endorsements, Advertising, and Promotional Events for Sports and Entertainment), 378 (Topic 3), Public Relations 378 (Topic 32: Sponsorships, Endorsements, Advertising, and Promotional Events for Sports and Entertainment), 378S (Topic 3).
Topic 4: Analysis of Sports and Entertainment Audiences. Same as Public Relations 378S (Topic 4: Analysis of Sports and Entertainment Audiences). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 33: Analysis of Sports and Entertainment Audiences), 378 S (Topic 4), Public Relations 378 (Topic 33: Analysis of Sports and Entertainment Audiences), 378 (Topic 4).
Topic 5: Ethics and Social Issues in Sports Branding. Same as Public Relations 378S (Topic 5: Ethics and Social Issues in Sports Branding). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 34: Sports, Ethics, and Social Issues), 378 (Topic 5), Public Relations 378 (Topic 34: Sports, Ethics, and Social Issues), 378S (Topic 5).
Topic 6: Sports Audiences and Nontraditional Media. Same as Public Relations 378S (Topic 6: Sports Audiences and Nontraditional Media). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 35: Sports Audiences and Nontraditional Media), 378S (Topic 6), Public Relations 378 (Topic 35: Sports Audiences and Nontraditional Media), 378S (Topic 6).
Topic 7: Contributions of Sports and Entertainment to Education and Health. Same as Public Relations 378S (Topic 7: Contributions of Sports and Entertainment to Education and Health). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 36: Contribution of Sports and Entertainment to Education and Health), 378S (Topic 7), Public Relations 378 (Topic 36: Contribution of Sports and Entertainment to Education and Health), 378S (Topic 7).
Topic 8: College Sports Media. Same as Public Relations 378S (Topic 8). An examination of the history of college sports media, with an emphasis on the evolution of sports coverage from NCAAcontrolled limited broadcasting of football and basketball,to present day intercollegiate athletics coverage available via multiple outlets.
Topic 9: Sports Contract Negotiation Techniques. Same as Public Relations 378 (Topic 9). Strategies and techniques for successfully negotiating contracts, with a special emphasis on the negotiation of sports contracts.
Topic 10: Leadership and Administration in Sports Organizations. Same as Public Relations 378S (Topic 10). Designed to develop marketing skills related to events, programs, products, and facilities in the sports management field.
Topic 11: Sports and Social Media. Same as Public Relations 378S (Topic 11). 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.
Topic 12: Sports Audiences. Same as Public Relations 378 (Topic 12). 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 379. Integrated Communication for Sports and Entertainment.

Three lecture hours a week for one semester.

## ADV 379H. 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. Supervised individual special studies. Prerequisite: Admission to the departmental honors program and consent of the undergraduate adviser.

## ADV 179J, 279J, 379J, 479J. Advertising Problems.

Individual instruction. Some topics may require additional laboratory hours. May be repeated for credit when the topics vary. Prerequisite: Written consent of instructor received prior to registering.

Topic 1: Supervised Individual Special Studies. Supervised individual special studies for which separate courses are not available.
Topic 2: Supervised Individual Creative Studies. Supervised individual creative studies for which separate courses are not available. Additional laboratory hours to be arranged.
Topic 3: Supervised Individual Media Studies. Supervised individual media studies for which separate courses are not available. Additional laboratory hours to be arranged. Additional prerequisite: Advertising 345 J .

## Public Relations: P R Lower-Division Courses

## P R 305. Fundamentals of Public Relations.

Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Public Relations degree or the Bachelor of Science in Advertising degree.

## P R 305S. Introduction to Integrated Communication for Sports.

Same as Advertising 305S. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 305S, 378 (Topic 7: Integrated Communication for Sports), Kinesiology 352K (Topic: Integrated Communication for Sports), Public Relations 305S.

## P R 309. Introduction to Advertising and Public Relations Research.

Same as Advertising 309R. Restricted to advertising and public relations majors. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 309R, 378 (Topic: Introduction to Advertising and Public Relations Research), Public Relations 309, 378 (Topic: Topic: Introduction to Advertising and Public Relations Research).

## P R 316. Creativity and American Culture.

Same as Advertising 316. A cross-disciplinary view of the creative process and creative products. The conceptual core of film, fine arts, advertising, architecture, and literature. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or the Bachelor of Science in Public Relations. Fulfills the communication and culture requirement in the College of Communication.

## P R 317. Writing for Public Relations.

Restricted to public relations majors. Introduction to writing skills for the media, including readability, clarity, verification, and style. Three lecture
hours and one laboratory hour a week for one semester. Prerequisite: Advertising 318 J with a grade of at least B .

## P R 319. Principles of Public Relations.

Restricted to public relations majors. Principles, theory, history, ethics, and practice of public relations in a variety of organizational settings; elements of strategic management. Three lecture hours a week for one semester. Public Relations 319 and 331 may not both be counted. Prerequisite: Advertising 318J with a grade of at least B.

## Upper-Division Courses

P R 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## P R 331. Fundamentals of Media Relations.

Strategic public relations decisions as they relate to media; investigation of ethical principles and norms regulating activity of public relations. Three lecture hours a week for one semester. May not be counted toward the major requirement for the Bachelor of Science in Public Relations degree. Public Relations 319 and 331 may not both be counted. Prerequisite: Advertising 318 J with a grade of at least B.

## P R 341S. Research in Sports Communication and Media.

Same as Advertising 341S. An introduction to advertising and public relations research and methodology for sports. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and a University grade point average of at least 2.25.

## P R 348. Public Relations Techniques.

Analysis and production of print, electronic, and oral messages to achieve organizational objectives; fundamentals of media relations; Internet applications. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Upper-division standing; Public Relations 319 (or 333) or 331; and Journalism 315 or Public Relations 317 with a grade of at least C .

## P R 348S. The Business of Sports Media.

Same as Advertising 348S and Journalism 348G. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 348S, 378 (Topic: The Business of Sports Media), Communication 325 (Topic: The Business of Sports Media), Journalism 348G, 349T (Topic: The Business of Sports Media), Public Relations 348S, 378 (Topic: The Business of Sports Media). Prerequisite: Upper-division standing and a University grade point average of at least 2.25 ; additional prerequisite for journalism majors: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## P R 350. Public Relations Internship.

Restricted to public relations majors. Internship to be arranged by student and approved by instructor. Internship to be arranged. May be taken only
once. Offered on the pass/fail basis only. Prerequisite: Advertising 344K, 345 J , and Public Relations 348 with a grade of at least C in each.

## P R 350S. Internship in Sports Media.

Same as Advertising 350S. Restricted to Texas Program in Sports and Media students. Practical work experience in sports media. Internship to be arranged by student and approved by instructor. The equivalent of three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or the Bachelor of Science in Public Relations degrees. Offered on the pass/fail basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.25; Advertising 305S or Public Relations 305S; and three additional hours from the Sports Media Certificate approved coursework list.

## P R 151. Public Relations Internship.

Designed for students who have completed a three-semester-hour internship in public relations. Internship and discussion hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Public Relations 350 ; consent of the public relations internship coordinator; and completion of the major requirements for enrollment in an internship course.

## P R 352. Strategies in Public Relations.

Restricted to public relations majors. Strategies relating to public relations disciplines, including the management of external, internal, community, nonprofit, and media issues, and public relations marketing programs. Three lecture hours a week for one semester. Prerequisite: Public Relations 319 or 331 , and 348 with a grade of at least $C$ in each.

## P R 353. Advertising and Public Relations Law and Ethics.

Same as Advertising 353. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Advertising 353, 371J, 376, Public Relations 353, 371J, 376. Fulfills the communication and culture requirement in the College of Communication. Prerequisite: For advertising majors, Advertising 318J with a grade of at least B; for public relations majors, Public Relations 319; for others, none.

## P R 367. Integrated Communications Management.

Public relations as a managerial problem-solving process; strategic management of programs to enhance public-organizational relationships. Three lecture hours a week for one semester. Advertising 370J and Public Relations 367 may not both be counted. Prerequisite: Advertising 344 K , 345J, Marketing 320F, and Public Relations 348 with a grade of at least C in each.

## P R 374. Public Relations Publications.

Production of controlled public relations media for internal and external publics; analysis of annual reports, trade magazines, and electronic publishing. Three lecture hours a week for one semester. Prerequisite: Public Relations 319 or 331, and 348, or consent of instructor; and Journalism 315 or one of the following courses: Rhetoric and Writing 309K, 309S, 325M, 379C (Topic: Grammar and Style for Writers).

## P R 377H. Integrated Communications Campaigns: Honors.

Restricted to students in the Advertising or Public Relations Honors Program. 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. Three lecture hours a week for one semester, with additional hours to be arranged. Only one of the following may be counted: Advertising, 373, 373H, Public Relations 377H, 377K. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Advertising 370J or Public Relations 367, Public Relations

352, a University grade point average of at least 3.50, admission to the Advertising or Public Relations Honors Program, and consent of the undergraduate adviser.

## P R 377K. Integrated Communications Campaigns.

Integration of theory, research methods, and communication techniques for planning, implementing, and evaluating public relations campaigns; client proposal writing and presentation. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising, 373, 373H, Public Relations 377H, 377K. Prerequisite: Public Relations 367.

## P R 377M. Media Studies.

Topics in media and its effects on advertising and public relations strategies. The equivalent of three lecture hours a week for one semester; additional hours may be required for some topics. Advertising 377M and Public Relations 377M may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: Advanced Studies in Media Sales. Same as Advertising 377M (Topic 2: Advanced Studies in Media Sales). Examination of advertising media sales beyond audience measurement techniques, and quantitative and qualitative data. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Advertising 377M (Topic 2), 378 (Topic 14: Advanced Studies in Media Sales), Public Relations 377M (Topic 2), 378 (Topic 2: Advanced Studies in Media Sales). Additional prerequisite: Upperdivision standing, Advertising 345 J with a grade of at least C , and consent of instructor.

## PR 378. Advanced Studies in Public Relations.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and a University grade point average of at least 2.25 .

Topic 1: Ethics in Advertising and Public Relations.
Topic 3: Black Music and the Media.
Topic 4: Health Communication: Theory and Practice.
Topic 5: Integrated Communication for Nonprofit Organizations.
Topic 6: Public Relations in Entertainment.

## P R 378S. 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. The equivalent of three lecture hours a week for one semester or as required by the topic. Advertising 378S and Public Relations 378S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Advertising 305S or Public Relations 305 S with a grade of at least C; and a University grade point average of at least 2.25.

Topic 1: Advertising and Public Relations for Sports. Same as Advertising 378S (Topic 1: Advertising and Public Relations for Sports). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 30: Advertising and Public Relations for Sports), 378 (Topic 1), Public Relations 378 (Topic 30: Advertising and Public Relations for Sports), 378 (Topic 1).
Topic 2: Legal Aspects of Sports and Media. Same as Advertising 378 (Topic 2: Legal Aspects of Sports and Media). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 31: Legal Aspects of Sports and Media), 378 (Topic 2), Public Relations 378 (Topic 31: Legal Aspects of Sports and Media), 378S (Topic 2).
Topic 3: Return on Investment of Sports Media. Same as Advertising 378S (Topic 3: Return on Investment of Sports Media).

Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 32: Sponsorships, Endorsements, Advertising, and Promotional Events for Sports and Entertainment), 378S (Topic 3), Public Relations 378 (Topic 32: Sponsorships, Endorsements, Advertising, and Promotional Events for Sports and Entertainment), 378S (Topic 3).
Topic 4: Analysis of Sports and Entertainment Audiences. Same as Advertising 378S (Topic 4: Analysis of Sports and Entertainment Audiences). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 33: Analysis of Sports and Entertainment Audiences), 378S (Topic 4), Public Relations 378 (Topic 33: Analysis of Sports and Entertainment Audiences), 378S (Topic 4).
Topic 5: Ethics and Social Issues in Sports Branding. Same as Advertising 378S (Topic 5: Ethics and Social Issues in Sports Branding). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 34: Sports, Ethics, and Social Issues), 378 (Topic 5), Public Relations 378 (Topic 34: Sports, Ethics, and Social Issues), 378S (Topic 5).
Topic 6: Sports Audiences and Nontraditional Media. Same as Advertising 378 (Topic 6: Sports Audiences and Nontraditional Media). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 35: Sports Audiences and Nontraditional Media), 378 (Topic 6), Public Relations 378 (Topic 35: Sports Audiences and Nontraditional Media), 378S (Topic 6).
Topic 7: Contributions of Sports and Entertainment to Education and Health. Same as Advertising 378S (Topic 7: Contributions of Sports and Entertainment to Education and Health). Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 378 (Topic 36: Contribution of Sports and Entertainment to Education and Health), 378S (Topic 7), Public Relations 378 (Topic 36: Contribution of Sports and Entertainment to Education and Health), 378 S (Topic 7).
Topic 8: College Sports Media. Same as Advertising 378S (Topic 8). 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.
Topic 9: Sports Contract Negotiation Techniques. Same as Advertising 378 (Topic 9). Strategies and techniques for successfully negotiating contracts, with a special emphasis on the negotiation of sports contracts.
Topic 10: Leadership and Administration in Sports Organizations. Same as Advertising 378S (Topic 10). Designed to develop marketing skills related to events, programs, products, and facilities in the sports management field.
Topic 11: Sports and Social Media. Same as Advertising 378 S
(Topic 11). 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.
Topic 12: Sports Audiences. Same as Advertising 378S (Topic 12). 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 179, 279, 379. Public Relations Problems.

Individual instruction. Prerequisite: Public Relations 352.

## P R 379H. 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 public relations topic. Individual instruction. Prerequisite: Admission to the departmental honors program and consent of the undergraduate adviser.

## Department of Communication Sciences and Disorders

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

## Communication Sciences and Disorders: CSD Lower-Division Courses

## CSD 306K. Introduction to Communication Disorders.

Introduction to the study of processes and disorders of speech, language, and hearing; observation in the University Speech and Hearing Center. Three lecture hours a week for one semester.

## CSD 308K. Perspectives on Deafness.

Examination of deafness from a number of perspectives: social and psychological meanings of deafness, the deaf community, education of deaf children, sign languages, and historical trends. Three lecture hours a week for one semester. Fulfills the communication and culture requirement in the College of Communication.

## CSD 311K. Phonetic Description of Speech.

Speech production, physiological analysis and description of speech sounds, voice quality, and voice dynamics; notation; phonetic theory; applications of phonetics. Three lecture hours a week for one semester.

## CSD 313L. Hearing Science.

Acoustical, physiological, and psychological bases of normal human hearing; theories of audition; laboratory techniques in hearing science research. Three lecture hours a week for one semester.

## CSD 314L. 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. Three lecture hours a week for one semester.

## CSD 318K. Acquisition of Communicative Abilities in

 Children.Introduction to assessment procedures and treatment strategies for children with speech and language disorders. Three lecture hours a week for one semester. Prerequisite: Communication Sciences and Disorders 306 K or 308 K with a grade of at least C , and Communication Sciences and Disorders 311 K with a grade of at least C .

## CSD 118L. Acquisition of Communicative Abilities in Children: Laboratory.

Clinical laboratory experience in child language. One lecture hour a week for one semester. Prerequisite: Communication Sciences and Disorders 306 K or 308 K with a grade of at least C, and Communication Sciences and Disorders 311 K with a grade of at least C

## Upper-Division Courses

## CSD 140L. Professional Issues in Communication Disorders.

Restricted to communication sciences and disorders majors. Issues in ethics, licensure, certification, and professional practice in communication disorders. One lecture hour a week for one semester. May not be counted toward a degree. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and twelve semester hours of coursework in communication sciences and disorders.

CSD 341. Principles of Audiology
Causes of hearing disorders; diagnostic procedures and treatment. Three lecture hours a week for one semester. Prerequisite: Upperdivision standing, a University grade point average of at least 2.25, and Communication Sciences and Disorders 313L with a grade of at least C.

## CSD 350. Language and the Brain.

Same as Linguistics 350 (Topic 1: Language and the Brain). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CSD 358. Anatomy and Physiology of the Speech and Hearing Mechanism.

In-depth study of the anatomy and physiology of structures involved in speech, language, hearing, and swallowing. Includes anatomical and physiological mechanisms of respiration, phonation, articulation, and hearing; and the central nervous system and blood supply to the speech and hearing mechanism. Three lecture hours a week for one semester. Communication Sciences and Disorders 358 and 393E (Topic 8: Anatomy and Physiology of the Speech and Hearing Mechanism)may not both be counted. Prerequisite: Upper-division standing, Communication Sciences and Disorders 311 K with a grade of at least C, and a University grade point average of at least 2.25 .

## CSD 358S. Fundamentals of Speech Science.

Same as Linguistics 358S. Neurophysiological mechanisms underlying the encoding and decoding of speech. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 358S, 396N, Linguistics 358S. Prerequisite: Upper-division standing and a University grade point average of at least 2.25; for Communication Sciences and Disorders majors, Communication Sciences and Disorders 313L and 358 with a grade of at least C in each.

## CSD 359H. Honors Tutorial Course: Reading.

Restricted to senior communication sciences and disorders majors Intensive reading and research as planned by the departmental honors committee. Individual instruction. Prerequisite: Upper-division standing; twenty-four semester hours of coursework in communication sciences and disorders, twelve of which must be upper-division; and admission to the Communication Sciences and Disorders Honors Program.

## CSD 360M. Communication and Deaf People.

Forms of face-to-face communication used with deaf people, including speech/listening, systems of manual communication, and natural sign language. Emphasis is on child development issues and the use of different methods in educational practice. Three lecture hours a week for one semester. Fulfills the communication and culture requirement in the College of Communication. Prerequisite: Upper-division standing, Communication Sciences and Disorders 308K with a grade of at least C, and a University grade point average of at least 2.25.

## CSD 367. Topics in Communication Sciences and Disorders.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## CSD 367C. Communication, Culture, and Disability.

Through examination of historical trends, current law and practices, and family and ethical issues, explores how societies have interacted with people who are disabled. Emphasis placed on alternative methods of communication. Three lecture hours a week for one semester. Communication Sciences and Disorders 367 (Topic: Communication, Culture, and the Disabled) and 367C may not both be counted. Fulfills the communication and culture requirement. Prerequisite: Upper-division standing and a University grade point average of at least 2.25.

CSD 367K. Introduction to Speech and Language Disorders Assessment and Treatment in Children.
Restricted to senior communication sciences and disorders majors. Introduction to assessment procedures and treatment strategies for children with speech and language disorders. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, a University grade point average of at least 2.25, and the following coursework with a grade of at least $C$ in each course: Communication Sciences and Disorders 306 K or $308 \mathrm{~K} ; 311 \mathrm{~K}$ and 313 L ; 318 K and 118 L (or 368 K and 168L); 358 and 358S (or 315S).

## CSD 167M, 367M. Clinical Practicum.

Restricted to communication sciences and disorders majors specializing in audiology or speech/language pathology. Supervised clinical practicum in speech/language pathology and audiology. For 167M, one lecture hour and three practicum hours a week for one semester; for 367M, one lecture hour and nine practicum hours a week for one semester. No more than four hours of clinical practicum may be counted towards the Bachelor of Science in Communication Sciences and Disorders. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: For communication sciences and disorders majors specializing in audiology or speech/language pathology: upper-division standing, eighteen semester hours of coursework in communication sciences and disorders, a University grade point average of at least 3.00, and an upper-division grade point average of at least 3.50 ; additional prerequisite for audiology majors: Communication Sciences and Disorders 341 with a grade of A, credit with a grade of A or registration for Communication Sciences and Disorders 378, and consent of instructor; additional prerequisite for speech/language pathology majors: credit with a grade of A for Communication Sciences and Disorders 367K or 371, and consent of instructor.

## CSD 367R. Clinical Research in Speech/Language Pathology.

Three lecture hours a week for one semester. Communication Sciences and Disorders 367 (Topic 2: Clinical Research in Speech Language Pathology) and 367R may not both be counted. Prerequisite: Upperdivision standing, Communication Sciences and Disorders 358S with a grade of at least C , and a University grade point average of at least 2.25.

## CSD 371. Introduction to Speech and Language Disorders Assessment and Treatment in Adults.

Restricted to senior communication sciences and disorders majors. Introduction to assessment procedures and treatment strategies for adults with speech and language disorders. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, a University grade point average of at least 2.25, and the following coursework with a grade of at least C in each course: Communication Sciences and Disorders 306K or 308 K ; 311K, 313L, and 350; and 358 and 358S (or 315S).

## CSD 373. Principles of Aural Rehabilitation.

Rationale, methods, materials, procedures, and criteria for aural rehabilitation for hearing-impaired persons. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; the following coursework with a grade of at least C in each: Communication Sciences and Disorders 306K or 308K, 311K, 313L, 341, 358, and 358S; and a University grade point average of at least 2.25 .

## CSD 175N. Deaf Education Seminar.

Discussion of selected topics in social, political, and educational aspects of deafness. One lecture hour a week for one semester. Communication sciences and disorders majors specializing in education of the deaf/ hearing-impaired may count no more than four semester hours in this course toward the degree; communication sciences and disorders majors specializing in audiology or specializing in speech/language pathology may count no more than two semester hours in this course toward the
degree; other students with majors in the College of Communication may count no more than one semester hour in this course toward the degree. May be repeated for credit. Prerequisite: Upper-division standing.

## CSD 378. Clinical Audiology.

Differential diagnostic procedures for evaluation of auditory disorders-theoretical concepts and clinical applications. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Communication Sciences and Disorders 341.

## CSD 178K, 278K, 378K. Studies in Communication Sciences and Disorders.

Restricted to communication sciences and disorders majors. Supervised individual research. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit with consent of the department chair. Only three semester hours may count toward a degree in the College of Communication. No more than three semester hours may be taken on the letter-grade basis. Prerequisite: Upper-division standing; eighteen semester hours of coursework in communication sciences and disorders, including at least six hours of upper-division coursework; a University grade point average of at least 2.50; a grade point average in all College of Communication coursework of at least 3.00; and approval of a project in advance of registration.

## CSD 178L. Clinical Audiology Laboratory.

Clinical laboratory experience in audiology. One lecture hour a week for one semester. Prerequisite: Upper-division standing.

## CSD 379H. Honors Tutorial Course: Special Project.

Restricted to senior communication sciences and disorders majors. The writing of a thesis or the presentation of a creative project; final comprehensive examination. Individual instruction. Prerequisite: Communication Sciences and Disorders 359H.

## Department of Communication Studies

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Communication Studies: CMS

## Lower-Division Courses

CMS 301. Topics in Communication Studies.
Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## CMS 306M (TCCN: SPCH 1321). 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. Three lecture hours a week for one semester.

## CMS 210. Forensics Workshop.

Open to all University students. Training for participation in extracurricular speech activities, including intercollegiate debate. Two lecture hours and
eight laboratory hours a week for one semester. Communication Studies 210 may be taken three times for credit.

CMS 310K (TCCN: SPCH 2333). Team-Based Communication. Analysis of small-group communication: cohesiveness, social climate, role structure, leadership, conformity, dynamics of interaction; participation in small-group communication situations. Three lecture hours a week for one semester.

## CMS 313M. Organizational Communication.

Communication processes within government, private, and volunteer organizations. Three lecture hours a week for one semester.

## CMS 314L. 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. Three lecture hours a week for one semester.

## CMS 315M (TCCN: SPCH 1318). Interpersonal Communication Theory.

Introduction to the study of communication in relationships; topics include self-disclosure, conflict, long-distance relationships, stereotyping, and persuasion. Three lecture hours a week for one semester.

## CMS 316L (TCCN: SPCH 2316). Interviewing Principles and Practices.

Introduction to interviewing theory, emphasizing the acquisition and application of interviewing skills. Three lecture hours a week for one semester.

## CMS 317C. Speechmaking and Society.

The impact of public discourse on the ideas and issues of culture and history in the United States. Three lecture hours a week for one semester.

CMS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## CMS 320. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Studies 312C, 317M, 320, 367 (Topic: Advanced Presentation Skills). Prerequisite: Upper-division standing and Communication Studies 306M with a grade of at least C.

## CMS 321D. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 322E. 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. Three lecture hours a week for one semester. Communication Studies 322E and 367 (Topic 4: Communication Ethics) may not both counted. Prerequisite: Upperdivision standing.

## CMS 323R. 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. Three lecture hours a week for one semester. Communication Studies 323R and 367 (Topic: Rhetoric East and West) may not both be counted. Prerequisite: Upper-division standing.

## CMS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## CMS 330. 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. Three lecture hours a week for one semester. Communication Studies 330 and 367 (Topic: Interpersonal Health Communication) may not both be counted. Prerequisite: Upperdivision standing.

## CMS 331K. Speech Writing and Criticism.

Composition and analysis of oral messages; emphasis on creating and arranging ideas, style, delivery, critical method. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Communication Studies 306M or the equivalent, or consent of instructor.

## CMS 332. Argumentation and Advocacy.

Nature of argumentative controversy; variables of form, method, and ethics; analysis of argumentative rhetorical works. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 332K. Theories of Persuasion.

A study of motivational factors involved in persuasive speaking to secure belief and action. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 333. Case Studies in Argumentation.

Study of argumentation theories. Includes analysis of case studies taken from areas of law, public policy, popular culture, and history. Three lecture hours a week for one semester. Communication Studies 333 and 367 (Topic: Case Studies in Argumentation) may not both be counted. Prerequisite: Upper-division standing.

## CMS 334K. Nonverbal Communication.

Survey of the effects of space, physical appearance, movement, eye behavior, and vocal behavior on interpersonal communication. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 335. 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. Three lecture hours a week for one semester. Communication Studies 335 and 367 (Topic: Strategic Sales and Event Planning) may not both be counted. Prerequisite: Upperdivision standing.

## CMS 336D. Career Dynamics and Corporate Communication.

An exploration of work and career from an interdisciplinary perspective, employing a variety of definitions, cases, theories, strategies, and popular culture materials to address issues of employability, entrepreneurship, advancement, and objective/external and subjective/psychological success and their relationships with organizational life. Topics may include effects of technologies on work and careers, professionalism and professional identity, networks, teamwork, work-life balance, managing one's boss, and criteria for success. Three lecture hours a week for one semester. Communication Studies 336D and 367 (Topic: Career Dynamics and Corporate Communication) may not both be counted. Prerequisite: Upper-division standing.

## CMS 337. 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. Three lecture hours a week for one semester. Communication Studies 337 and 367 (Topic: Communication to Build Sales Relationships) may not both be counted Prerequisite: Upper-division standing.

## CMS 338. 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. Three lecture hours a week for one semester. Communication Studies 338 and 367 (Topic: Stories of Leadership) may not both be counted. Prerequisite: Upper-division standing.

## CMS 339L. Social Interaction in Virtual Environments.

Examines fundamental principles connected to the uses and effects of new technologies. Covers social networking sites, online dating, virtual group collaboration, and video games. Three lecture hours a week for one semester. Communication Studies 339L and Communication Studies 367 (Topic: Social Interaction in Virtual Environments) may not both be counted. Prerequisite: Upper-division standing.

## CMS 340K. Communication and Social Change.

Analysis of how persuasion is used in mass movements: civil rights consumerism, feminism, pacifism, religious sects. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 341. Computer-Mediated Communication.

Uses principles related to communication and social psychology to explore online interactions. May include the study of impression formation and management, group communication, trust and deception, Internet dating, online video gaming, social support, Internet addiction, and impacts of new communication technology. Three lecture hours a week for one semester. Communication Studies 341 and 367 (Topic: ComputerMediated Communication) may not both be counted. Prerequisite: Upperdivision standing.

## CMS 342C. 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. Three lecture hours a week for one semester. Communication Studies 342C and 367 (Topic: Communication and Civic Participation) may not both be counted. Prerequisite: Upper-division standing.

## CMS 342K. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 344K. 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. Three lecture hours a week for one semester. Communication Studies 344K and 367 (Topic: Lying and Deception) may not both be counted. Prerequisite: Upper-division standing.

## CMS 345. 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. Three lecture hours a week for one semester. Communication Studies 345 and 367 (Topic: Media Effects and Politics) may not both be counted. Prerequisite: Upper-division standing.

## CMS 345K. Perspectives on Rhetoric.

Four different meanings of rhetoric; how these meanings contribute to the current understanding of communication studies. Three lecture hours a week for one semester. Prerequisite: Upper-division standing

## CMS 345P. 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. Communication Studies 345P and 367 (Topic: Communication and Public Opinion) may not both be counted. Prerequisite: Upper-division standing.

## CMS 346. 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. Three lecture hours a week for one semester. Communication Studies 346 and 367 (Topic: Using Communication Technology at Work) may not both be counted. Prerequisite: Upperdivision standing.

## CMS 347K. 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. Three lecture hours a week for one semester. Communication Studies 347K and 367 (Topic: Rhetoric of Popular Culture) may not both be counted. Prerequisite: Upper-division standing.

## CMS 348. 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. Three lecture hours a week for one semester. Communication Studies 348 and 367 (Topic: Communication Research Methods) may not both be counted. Prerequisite: Upper-division standing.

## CMS 348K. 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). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 349M. 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. Web-based instruction; no class meetings. Prerequisite: Upper-division standing, and Advertising 303, Communication Studies 347K, or Radio-Television-Film 305.

## CMS 350M. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 351. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 353S. 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. Three lecture hours a week for one semester. Communication Studies 353 S and 367 (Topic: Social Media and Organizations) may not both be counted. Prerequisite: Upper-division standing.

## CMS 354. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 355K. Intercultural Communication.

Theories of speech and language that concern interaction between persons from different cultures who speak different languages or dialects. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 357. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 358. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 359. Language, Culture, and Communication of HipHop.

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. Three lecture hours a week for one semester. Communication Studies 359 and 367 (Topic: Language, Culture, and Communication in the Hip-Hop Nation) may not both be counted. Prerequisite: Upper-division standing.

## CMS 359H. Honors Tutorial Course: Reading.

Intensive reading and research as planned by the departmental honors committee. Individual instruction. Prerequisite: Upper-division standing and admission to the Communication Studies Honors Program.

## CMS 360. 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. Three lecture hours a week for one semester. Communication Studies 360 and 367 (Topic: Language and the Body in Social Interaction) may not both be counted. Prerequisite: Upper-division standing.

## CMS 364K. 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. Three lecture hours a week for one semester. Communication Studies 364 K and 367 (Topic: Gender and Communication) may not both be counted. Prerequisite: Upper-division standing.

## CMS 164M, 264M, 364M. Pre-Graduate School Mentorship.

Introduction for undergraduates to graduate study in a discipline of their choosing. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. With consent of the department chair, may be repeated for credit, but no more than three hours may be taken. Prerequisite: Consent of instructor.

## CMS 365K. Male-Female Communication.

Same as Women's and Gender Studies 345 (Topic 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## CMS 365L. 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. Three lecture hours a week for one semester. Communication Studies 365L and 367 (Topic: Communication, Controversy, and Citizenship) may not both be counted. Prerequisite: Upper-division standing.

## CMS 366. 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. Three lecture hours a week for one semester. Communication Studies 366 and 367 (Topic: Love, Democracy, and Rhetoric) may not both be counted. Prerequisite: Upper-division standing.

## CMS 366C. Celebrity Culture.

Examines the importance of fame and celebrity throughout the nineteenth, twentieth, and twenty-first centuries, in relation to education, entertainment, and politics. Three lecture hours a week for one semester. Communication Studies 366C and 367 (Topic: Celebrity Culture) may not both be counted. Prerequisite: Upper-division standing.

## CMS 366F. 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. Three lecture hours a week for one semester. Communication Studies 366F and 367 (Topic: Rhetoric of Film) may not both be counted. Prerequisite: Upperdivision standing.

## CMS 366M. 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. Three lecture hours a week for one semester. Communication Studies 366M and 367 (Topic: Rhetoric and Popular Music) may not both be counted. Prerequisite: Upper-division standing.

## CMS 366R. Rhetoric and Religion.

Explores secular and religious instances of ambivalence, and its uses and effects. Three lecture hours a week for one semester. Communication Studies 366R and 367 (Topic: Rhetoric and Religion) may not both be counted. Prerequisite: Upper-division standing.

## CMS 367. Topics in Communication Studies.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing. Additional prerequisites may vary with the topic and are given in the Course Schedule.

## Topic 1: Applied Interpersonal Communication. <br> Topic 2: Campaign Communication. <br> Topic 3: Communication and Thought. Investigates the emergence of collaborative thought from human communication. <br> Topic 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. <br> Topic 6: Pragmatism and Group Dynamics. Explores how individual beliefs and expectations determine the quality of group communication.

## CMS 369V. Political Research.

Students conduct research with Project Vote Smart, a nonpartisan, nonprofit political research organization. Offered on the pass/fail basis only. Prerequisite: Students must apply by sending a cover letter and resume to projectvotesmart@austin.utexas.edu.

## CMS 370K. Internship in Communication Studies.

Restricted to senior communication studies majors. Focuses on career goals of students through classroom discussions and places students in communication positions with public and private organizations. The equivalent of three lecture hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Twelve semester hours of communication studies (or speech), including at least three hours of upper-division coursework; a University grade point average of at least 2.50; a grade point average in communication studies of at least 3.00 ; and consent of instructor.

## CMS 371K. Practicum in Conflict Mediation.

Two lecture hours and three discussion hours a week for one semester. Students must also attend one weekend workshop at the beginning of the semester. With consent of instructor, may be repeated once for credit. Offered on the pass/fail basis only.

## CMS 171M. Communication Studies Internship.

Internship and discussion hours to be arranged. Offered on the pass/ fail basis only. Prerequisite: Communication Studies 370K; consent of departmental internship coordinator; and completion of departmental requirements for enrollment in an internship course.

## CMS 372K. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Communication Studies 313M.

## CMS 372T. 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. Three lecture hours a week for one semester. Communication Studies 367 (Topic: Time Matters) and 372T may not both be counted. Prerequisite: Upper-division standing.

## CMS 373D. Advocacy in Applied Settings.

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. Eight conference hours a day for six days, for the equivalent of three lecture hours a week for one semester. Taught in Washington, DC. Prerequisite: Consent of the department.

## CMS 374D. Beyond Congress and the White House.

Explores issues of power in our nation's capital. Students study Washington, DC via visits to sites around the city. One three-hour field trip a week for one semester. Taught in Washington, DC. Prerequisite: Consent of the department.

## CMS 177K, 377K, 477K. Faculty-Initiated Research.

Supervised research on a project designed by a faculty member. Individual instruction. No more than six semester hours in the following courses may be counted: Communication Studies 177K, 377K, 477K, 178K, 278K, 378K, 478K, 578K, 678K. Prerequisite: Upper-division standing, twelve semester hours of coursework in communication studies, a University grade point average of at least 2.50 , and consent of instructor and the department.

## CMS 178K, 278K, 378K, 478K, 578K, 678K. 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. Individual instruction. No more than six semester hours in the following courses may be counted: Communication Studies 177K, 377K, 477K, 178K, 278K, 378K, 478K, 578K, 678K. Prerequisite: Upper-division standing, twelve semester hours of coursework in communication studies, a University
grade point average of at least 2.50, and consent of instructor and the department; Communication Studies $177 \mathrm{~K}, 377 \mathrm{~K}, 477 \mathrm{~K}$ is recommended.

## CMS 379H. Honors Tutorial Course: Special Project.

The writing of a thesis or the presentation of a creative project; final comprehensive examination. Individual instruction. Prerequisite: Communication Studies 359H.

## School of Journalism

Journalism majors may not register for more than nine semester hours in journalism in one semester or summer session. The director or associate director may make exceptions to this rule for seniors who need additional journalism courses in order to graduate on time.

Any student enrolled in a journalism course who does not attend the first class meeting or laboratory session may be dropped from that course.

In addition to the prerequisites given below, several policies described in this catalog and specifically those listed in the section Special Requirements (p.81) affect registration in journalism courses.

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Journalism: J

## Lower-Division Courses

J 301F. 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. Three lecture hours a week for one semester. Journalism 301F and 310 may not both be counted.

## J 302F. Digital Storytelling Basics.

Restricted to journalism majors. Introduction to multiple technologies for digital delivery of text, photos, audio, and video news across journalism platforms. Includes a module on grammar, spelling, and punctuation. Students must pass the grammar, spelling, and punctuation module to pass the course. Three lecture hours and three laboratory hours a week for one semester. Journalism 302F and 315 may not both be counted.

## J 310F. Reporting: Words.

Restricted to journalism majors. Reporting, writing, and editing skills for print, online, and broadcast. Three lecture hours and three laboratory hours a week for one semester. Journalism 310F and 320D may not both be counted. Prerequisite: Journalism 301F (or 310) and 302F (or 315) with a grade of at least $C$ in each.

## J 310K. Visual Literacy.

Introduction to the visual concerns of message design and interpretation, including their bases in theories of visual perception, semiotics, and media practice. Three lecture hours a week for one semester.

## J 311F. Reporting: Images.

Restricted to journalism majors. Photography, video, and design for print, web, and broadcast, including design principles, visual perception, typography, manipulation of images, and photographs. Three lecture hours and three laboratory hours a week for one semester. Only one of
the following may be counted: Journalism 311F, 318C, 321C. Offered on the letter-grade basis only. Prerequisite: Journalism 301F (or 310) and 302 F (or 315) with a grade of at least $C$ in each.

## J 313S. Topics in Texas Sports and Media.

Introduction to various contemporary and historical issues, emphasizing interdisciplinary perspectives and critical discourse. Three lecture hours a week for one semester. Communication 310 and Journalism 313S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## J 318. Photography I.

Intensive training in basic digital and black-and-white photography; darkroom techniques; and fundamental approaches to producing images. Three lecture hours and four laboratory hours a week for one semester. Journalism 318 and 325 may not both be counted. Prerequisite: Journalism 316 with grade of at least C, and a major in journalism or consent of instructor.

J 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

J 320F. Covering Law Enforcement and Courts.
Restricted to journalism majors. Specialized reporting, research, and writing skills for investigating and covering incidents and issues occurring in law enforcement, public safety, and criminal justice. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311 F (or 321C) with a grade of at least B- in each.

## J 321F. Reporting on City and County Government.

Restricted to journalism majors. Basic beat reporting skills to navigate city and county governments, and conducting reporting, research, and writing on issues and people at the local level. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 322F. Navigating State Government.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311 F (or 321 C ) with a grade of at least $B$ - in each.

## J 323F. Education Reporting.

Restricted to journalism majors. Covering school districts and higher education to produce stories that humanize the bureaucracy of public education and compellingly depict issues, structures, and policies. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 324F. Business and Financial Reporting.

Restricted to journalism majors. 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.

Three lecture hours a week for one semester. Journalism 324F and 349T (Topic 2: Business Journalism) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## J 325F. Covering Politics.

Restricted to journalism majors. Specialized research, reporting, and writing skills to cover political issues, candidates, and campaigns. Three lecture hours a week for one semester. Journalism 325F and 349T (Topic 16: Politics and the Press) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## J 326F. Reporting Sports.

Restricted to journalism majors. Contemporary professional skills and techniques in sports journalism. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B - in each..

## J 326S. Advanced Topics in Texas Sports and Media.

Restricted to journalism majors. Critical assessment of various contemporary and historical issues, emphasizing interdisciplinary perspectives. Three lecture hours a week for one semester. Communication 320 and Journalism 326S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 327. Feature Writing.

Practice in researching, reporting, writing, structuring, and editing feature stories and news features for the print media. Identifying and contacting appropriate freelance markets regarding queries and stories. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 327, Latin American Studies 322 (Topic 4: Feature Writing), Mexican American Studies 374 (Topic 6: Feature Writing). Prerequisite: Journalism 310F (or 320D) with a grade of at least C, and admission to a journalism area of concentration.

J 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, $929 S$. 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. May be repeated for credit when the topics vary.

## J 329T. Topics in Public Affairs Reporting.

Restricted to journalism majors. Contemporary social, professional, and intellectual concerns in the practice of public affairs reporting. Three lecture hours a week for one semester. Some topics may require additional laboratory hours. May be repeated for credit when the topics vary. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 330F. Television Reporting and Producing.

Restricted to journalism majors. Basic television news gathering skills, including shooting and editing videotape, planning and executing visual storytelling, and writing and producing news packages. Students assist in the production of a television news program. Three lecture hours and three laboratory hours a week for one semester. Journalism 330F and 353D may not both be counted. Prerequisite: Journalism 310F (or 320D)
and 311 F (or 321C) with a grade of at least B- in each, and Journalism 331 G (or 322D) with a grade of at least C.

## J 330G. Creative Nonfiction for Magazines and Books.

Restricted to journalism majors. Reporting and writing skills for narrative nonfiction, including writing book proposals, magazine pitches, and sample chapters. Three lecture hours a week for one semester. Journalism 330G and 359T (Topic 6: Narrative Storytelling) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 330J. Advanced Photo Editing and Design.

Restricted to students in the Maymester Abroad Program. 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. Taught abroad; location may vary by semester. Only one of the following may be counted: Journalism 330J, 370K (Topic 1: Advanced Photo Editing and Design), 395 (Topic 2: Advanced Photo Editing and Design).

## J 331. Web Publishing.

Advanced skills in Web design and in publishing multimedia content. Emphasis on collaborative work in creating an ongoing Web information product. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with grade of at least $C$ in each, and admission to a journalism area of concentration.

## J 331F. Entrepreneurial Journalism.

Restricted to journalism majors. Creating for-profit and nonprofit journalistic enterprises in the news media ecosystem; the 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; and projects and prototypes that include business plans and content planning. Three lecture hours a week for one semester. Journalism 331F and 359T (Topic: Entrepreneurial Journalism) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321 C ) with a grade of at least $B$ - in each.

## J 331G. Audio Storytelling.

Restricted to journalism majors. Examination and practice of writing news for podcast. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Journalism 322D, 331G, 359T (Topic 7: Podcasting). Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 331J. Studio Photography.

Restricted to journalism majors. 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. Three lectures and four lab hours a week for one semester. Journalism 331J and 371K (Topic 2: Studio Photography) may not both be counted. Prerequisite: Journalism 310 F (or 320D) and 311F (or 321C) with a grade of at least B- in each; Communications 316 or Journalism 316 with a grade of at least C.

## J 332F. News Editing for Online and Print.

Restricted to journalism majors. Advanced multimedia editing and production techniques. Emphasis on news judgment, language use, editing of textual elements, and use of digital software for print and web publication of text, audio, and visual imagery. Three lecture hours and three laboratory hours a week for one semester. Journalism 332F and 330 may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311 F (or 321C) with a grade of at least B- in each.

## J 332G. Explanatory Journalism: Storytelling in a Digital Age.

Restricted to journalism majors. Examination of the evolution of long-form explanatory storytelling from print and film to new forms of Web-based and interactive storytelling. Three lecture hours a week for one semester. Journalism 332G and 359T (Topic: Explanatory Journalism: Storytelling in a Digital Age) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 332J. Sports for Reporting Texas.

Restricted to journalism majors. Students work as sports reporters for the School of Journalism's Reporting Texas Web site. Three lecture hours a week for one semester. Additional hour(s) to be arranged. Journalism 332J and Journalism 339T (Topic: Sports for Reporting Texas) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321 C ) with a grade of at least $B$ - in each..

## J 333F. Data-Driven Reporting.

Restricted to journalism majors. Electronic document retrieval and manipulation; spreadsheet and database management; and Internet skills. Includes collaborative work on major investigative projects. Three lecture hours a week for one semester. Journalism 333F and 338 may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 333G. 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. Three lecture hours and three laboratory hours a week for one semester. Journalism 333G and 355 may not both be counted. Prerequisite: Communication 316 or Journalism 316 with a grade of at least C.

## J 333J. Photography for Reporting Texas.

Restricted to journalism majors. Students work as photographers for the School of Journalism's Reporting Texas Web site. Three lecture hours and three lab hours a week for one semester. Additional hour(s) to be arranged. Journalism 333J and Journalism 359T (Topic: Photography for Reporting Texas) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 334. Multimedia Journalism.

Review of online reporting techniques, advanced multimedia skills, and current issues in new media. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311 F (or 321 C ) with a grade of at least C in each, and admission to a journalism area of concentration.

## J 334F. Oral History as Journalism.

Restricted to journalism majors. 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. Three lectures hours a week for one semester. Only one of the following may be counted: Journalism 334F, 349 T (Topic 7: Oral History as Journalism), 395 (Topic 20: Oral History as Journalism). Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 334G. Advanced Visual Journalism: Video.

Restricted to journalism majors. 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. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Journalism 334G, 370K, 371K.

Prerequisite: Communication 316 or Journalism 316 with a grade of at least C; and Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 335. Narrative Journalism.

Students develop and produce a publication, focusing particularly on underrepresented groups and issues. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Journalism 335, Latin American Studies 322 (Topic 11: Latino Community Journalism), 322 (Topic 11: Narrative Journalism), Mexican American Studies 374 (Topic 4: Latino Community Journalism), 374 (Topic 4: Narrative Journalism). Prerequisite: Journalism 310F (or 320D) with a grade of at least C , admission to a journalism area of concentration, and consent of instructor.

## J 335F. Magazine Writing and Production.

Restricted to journalism majors. Instruction in and supervised practice of magazine writing and production. Laboratory hours include production of a magazine online and in print. Three lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Journalism 335F, 349T (Topic 15: Magazine Production), 359T (Topic 2: Magazine Production). Prerequisite: Journalism 310F (or 320D) and 311 F (or 321C) with a grade of at least $B$ - in each.

## J 335G. Advanced Television Reporting and Producing.

Restricted to journalism majors. Advanced writing and reporting skills for the collaborative production of television news programs on deadline. Students assist in producing a television news program. Three lecture hours and three laboratory hours a week for one semester. Journalism 335G and 372D may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each, and Journalism 330F (or 353D) with a grade of at least C.

## J 335J. Mobile Programming for Journalists.

Restricted to journalism majors. Students will learn coding and other skills in preparation for designing mobile news apps. Three lecture hours a week for one semester. Additional hour(s) to be arranged. Journalism 335J and 339T (Topic: Introduction to Mobile Programming for Journalists) may not both be counted. Prerequisite: Upper-division standing and Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 336D. Graphic Design for Print and Online.

Restricted to journalism majors. 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. Three lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Journalism 303F, 319, 336, 336D. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## J 336F. Social Media Journalism.

The role of journalism in emerging digital social networks, examining current and traditional theories about social media as a form of journalism. Practice in the use of live chatting, tagging, geotagging, wikis, Twitter, Flickr, and digital avatars as news-gathering techniques. Three lecture hours a week for one semester. Journalism 336F and 349T (Topic: Social Media Journalism) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 336G. Producing Social Documentaries for Television News.

Restricted to journalism majors. 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. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each; Journalism 331G or 359T (Topic 7: Podcasting) with a grade of at least C .

## J 337F. Long-Form Feature Writing.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Journalism 337F and 374D may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 337G. Opinion Writing.

Restricted to journalism majors. Examines opinion writing and commentary in traditional print and evolving online formats. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311 F (or 321 C ) with a grade of at least $B$ - in each.

## J 337J. Writing for Online News Audiences.

Restricted to journalism majors. Students will learn how to write informatively and effectively for online audiences, and how to repurpose traditional print journalism for online publication. Three lectures a week for one semester. Journalism 337J and 349T (Topic 22) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 338F. Advanced Visual Design.

Restricted to journalism majors. 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. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Journalism 338F, 359T (Topic 3: Advanced Visual Design), 395 (Topic 5: Advanced Visual Design). Prerequisite: Journalism 303F, (or 319), or 336D with a grade of at least C, and Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 338G. Data Visualization.

Restricted to journalism majors. An investigation of how to tell stories through data and data visualization. Subjects include finding compelling data sets, cleaning and analyzing the contents, and presenting results online through a variety of methods, including online interactive charts and maps. Journalism 338G and 359T (Topic: Data Visualization) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 339D. News Documentaries and Public Affairs.

Study and practice of researching, writing, and producing short-form and magazine documentaries for television. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) with a grade of at least C , and admission to a journalism area of concentration.

## J 339F. Investigative Reporting.

Restricted to journalism majors. Emphasis on determining what an investigative story is, finding investigative stories, and basic tactics in pursuing such stories. Three lecture hours and three laboratory hours a week for a semester. Journalism 339F and 359T (Topic 5: Investigative Reporting) may not both be counted. Prerequisite: Journalism 310F (or 320 D ) and 311 F (or 321C) with a grade of at least $B$ - in each.

## J 339G. Mobile News App Design.

Restricted to journalism majors. 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. Journalism 339G and Journalism 359T (Topic: Mobile News App Design) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each, and consent of instructor.

## J 339S. Research in Texas Sports and Media.

Same as Communication 330. Restricted to journalism majors. Supervised research with a faculty member; research may consist of an individual project or assisting a faculty research project. Hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing and a University grade point average of at least 2.25; and Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## J 339T. Topics in Specialized Journalistic Skills.

Restricted to journalism majors. Contemporary social, professional, and intellectual concerns in the practice of specialized journalistic skills. Three lecture hours a week for one semester. Some topics may require additional laboratory hours. May be repeated for credit when the topics vary. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 340C. Topics in Journalism, Communication, and Culture.

Issues concerning minority or nondominant groups within the United States. Three lecture hours a week for one semester. Some topics may require additional laboratory hours. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 4: Leadership, Management, and the Media. Prerequisite: Admission to a journalism area of concentration.

## J 340F. Covering the Global Economy.

Restricted to journalism majors. Examines the enduring financial, economic, and business issues journalists confront in covering the global economy. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## J 340G. Reporting Asia: A Foreign Correspondent's Framework.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 340G, 349T (Topic 17: Reporting Asia), 395 (Topic 17: Reporting Asia). Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 340J. Documentary Tradition of Latin America.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 340J, 349T (Topic: Documentary Tradition in Latin America), 395 (Topic 4: Documentary Tradition of Latin America). Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 341F. Understanding African Americans and the Media.

Restricted to journalism majors. Examination of documentaries and films, readings and discussions, writing and research assignments, and group projects to increase understanding of the historical context of African Americans in United States society. Focuses on evaluating media representation and coverage of African Americans. Three lecture hours a week for one semester. Journalism 341F and 340C (Topic 2: African Americans and the Media) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## J 341G. Reporting China: A Foreign Correspondent's Workshop.

Restricted to journalism majors. Contemporary social, professional, and intellectual concerns with the practice of journalism. Three lecture hours a week for one semester. Journalism 341G and 349T (Topic 18: Reporting China) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 341 J . Minorities and the Media.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 340C (Topic 1: Mass Media and Minorities), 341J, Latin American Studies 322 (Topic 10: Minorities and the Media), Mexican American Studies 374 (Topic 22: Minorities and the Media), Urban Studies 354 (Topic: Mass Media and Minorities), Women's and Gender Studies 340 (Topic 21: Minorities and the Media). Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 342F. Women and the News.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Journalism 340C (Topic 5: Women and the News) and 342F may not both be counted. Prerequisite: Journalism 310 F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 342G. Reporting the World: A Critical Examination of the United States News Media.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Journalism 342G and 349T (Topic 19: Reporting the World) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 343F. Journalism and Religion.

Restricted to journalism majors. Critical examination of how religion traditionally has been covered in the United States, and guidelines for developing individual thinking and reporting on religious issues. Three lecture hours a week for one semester. Journalism 340C (Topic 3: Journalism and Religion) and 343F may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B - in each.

## J 343G. Exploring Digital Media and Society.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311 F (or 321 C ) with a grade of at least $B$ - in each.

## J 343J. Globalization and Social Media.

Restricted to journalism majors. An investigation of new communication technologies as they pertain to globalization and social media. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Globalization and Social Media), Journalism 343J, 349T (Topic: Globalization and Social Media), Radio-Television-Film 331M (Topic: Globalization and Social Media), Sociology 321K (Topic: Globalization and Social Media). Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## J 344F. Reporting on Gender and Sexuality.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## J 344G. Urban Journalism.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B - in each.

## J 344J. Media Images and Society.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Journalism 344J and 349T (Topic: Media Images and Society) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311 F (or 321C) with a grade of at least B - in each.

## J 345F. Social Issues Reporting.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 345G. Human Rights Journalism.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 345J. Web Design for Journalists.

Restricted to journalism majors. An overview of Web technologies used for publishing and marketing purposes, and an analysis of the evolution and potential of digital publishing. Designed to familiarize
students with systems commonly used in Web development such as HTML and CSS coding; content management systems; graphic design; usability and search engine optimization (SEO); online advertising and marketing(Google AdWords/AdSense and social media); and audience tracking (Google Analytics). Meets three hours a week for one semester. Journalism 345J and 359T (Topic: Web Design for Journalism) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321 C ) with a grade of at least $B$ - in each.

## J 346F. Reporting on the Environment.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Journalism 346F and 349T (Environmental Journalism) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 346G. Domestic Issues and Global Perspective.

Restricted to journalism majors. Comparative reporting and covering social issues from global and intercultural perspectives. Proper positioning of the United States globally in terms of recession, food, health care, education, energy consumption, and climate change. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311 F (or 321 C ) with a grade of at least B- in each.

## J 347F. Reporting Latin America.

Restricted to journalism majors. Foreign reporting and international news production processes, with special emphasis on Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 347F, 349T (Topic 4: International Reporting), 395 (Topic 4: Documentary Tradition of Latin America). Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## J 347G. Cultural Survey of Photography.

Restricted to journalism majors. Development of photojournalism and commercial, documentary, amateur, and art photography, including historical processes, the evolution of stylistic trends, and the careers of major photographers. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 347G, 362E, 387P. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each; and Communication 316 or Journalism 316 with a grade of at least $C$.

## J 347S. Magazine Management.

Study of the business of launching and maintaining successful publications. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 327 with a grade of at least $C$ in each, and admission to a journalism area of concentration.

## J 348D. Gender and the News.

Restricted to Journalism majors. 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. Three lecture hours a week for one semester. Journalism 340C (Topic 5: Women and the News) and Journalism 342F may not both be counted. Fulfills the communication and culture requirement in the College of Communication. May be counted toward the cultural diversity flag requirement. Offered on the letter-grade basis only. Prerequisite: Upperdivision standing, and Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 348F. Covering the Latino Community in the United States.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Journalism 348F and 349T (Topic 10: Covering the Latin Community in the United States) may not both be counted. Prerequisite: Journalism 310 F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 348G. The Business of Sports Media.

Same as Advertising 348 S and Public Relations 348S. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 348S, 378 (Topic: The Business of Sports Media), Communication 325 (Topic: The Business of Sports Media), Journalism 348G, 349T (Topic: The Business of Sports Media), Public Relations 348S, 378 (Topic: The Business of Sports Media). Prerequisite: Upper-division standing and a University grade point average of at least 2.25; additional prerequisite for journalism majors: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 348S. Media Management.

Print and broadcast management and planning in operations, personnel, content, marketing, finance, technology, and regulation. Three lecture hours a week for one semester. Prerequisite: Admission to a journalism area of concentration.

## J 349F. Reporting Public Health and Science.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Journalism 349F and 349T (Topic: Reporting Public Health and Science) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 349G. Sports Journalism.

Restricted to journalism majors. Contemporary professional skills and techniques in covering sports and athletics, including interviewing coaches and athletes, reporting, the business side of sports, ethical issues for sports journalists, and writing sidebars and color stories. Three lecture hours and three laboratory hours a week for one semester. Journalism 349G and 359T (Topic 1: Sports Journalism) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 349T. Topics in Understanding and Reporting Social Issues.

Restricted to journalism majors. Contemporary social, professional, and intellectual concerns in the practice of journalism. Three lecture hours a week for one semester. Some topics may require additional laboratory hours. May be repeated for credit when the topics vary. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

Topic 1: Senior Seminar. Capstone experience in analysis of current journalism issues. Students complete a major research project. Additional prerequisite: Consent of instructor.
Topic 5: Broadcast News Practices and Analysis.
Topic 8: Alternative Media. Journalism 349T (Topic 8) and 395 (Topic 22: Alternative Media) may not both be counted.
Topic 9: Covering Technology and Innovation.
Topic 11: Editorial Column Writing.
Topic 14: Latino Policy Issues.
Topic 20: Video Journalism for the Web.
Topic 21: Writing for Magazines and Specialty Publications.
Topic 22: Writing for Online Publications.

## J 350F. Media Law.

Examination of legal rights and restrictions for online and print journalism, including Constitutional guarantees, libel, invasion of privacy, and contempt of court. Three lecture hours a week for one semester. Journalism 350F and 360 may not both be counted. Required for all journalism majors. Prerequisite: For journalism majors, Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## J 351F. Journalism, Society, and the Citizen Journalist.

Restricted to journalism majors. Social and ethical responsibilities; and legal rights and restrictions, including Constitutional guarantees, libel, invasion of privacy, and contempt of court. Three lecture hours a week for one semester. Journalism 351F and 349T (Topic 13: Journalism, Society, and the Citizen Journalist) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## J 352F. Ethics in Journalism.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 352F, 349T (Topic 12: Ethics in Journalism), 395 (Topic 23: Ethics in Journalism). Prerequisite: Journalism 310F (or 320D) and 311 F (or 321C) with a grade of at least B- in each.

## J 353F. Historical Perspectives in Journalism.

Restricted to journalism majors. Evolution of journalism and mass media, including the social, economic, and political factors that have contributed to changes in news gathering and distribution. Three lecture hours a week for one semester. Journalism 353F and 366E may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 354F. Journalism and Press Freedom in Latin America.

Restricted to journalism majors. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 354F, Journalism 367E, or Latin American Studies 322 (Topic 14). Prerequisite: Journalism 310F (or 320D) and 311F (or 321 C ) with a grade of at least $B$ - in each.

## J 359T. Topics in Journalism, Skills, and Techniques.

Restricted to journalism majors. Contemporary professional skills and techniques in the practices of journalism. Three lecture hours and two to four laboratory hours a week for one semester, as required by the topic.

May be repeated for credit when the topics vary. Prerequisite: Journalism 310 F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

Topic 4: Advanced News Editing.

## J 360F. Internship.

Restricted to journalism majors. Internships to be arranged by student and approved by instructor. Internship hours to be arranged. Journalism 331K and 360 F may not both be counted. Offered on the pass/fail basis only. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least $B$ - in each.

## J 160G. Journalism Practicum.

Restricted to journalism majors. Internship hours to be arranged. Journalism 131P and 160G may not both be counted. May be repeated for credit, but only one hour may be counted toward the Bachelor of Journalism degree. Offered on the pass/fail basis only. Prerequisite: Communication 350 or Journalism 360F.

## J 361F. Reporting Texas.

Restricted to journalism majors. Students work as online reporters, photographers, and editors for the School of Journalism's Reporting Texas website. Three lecture hours and three laboratory hours a week for one semester. Journalism 361F and 359T (Topic: Reporting Texas) may not both be counted. Prerequisite: Six semester hours of upper-division coursework in journalism with a grade of at least $B$ in each course.

## J 362F. Journalism Portfolio.

Restricted to journalism majors. A synthesis experience to polish journalism skills, showcase reporting and production abilities across multiple journalistic platforms, and complete a professional online portfolio. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Six semester hours of upper-division coursework in journalism with a grade of at least $B$ in each course.

## J 363. 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. Three lecture hours a week for one semester.

## J 364E. The Mass Media and Society.

Readings, lectures, films, guest speakers, and panel discussions on the function, role, and responsibility of the mass media in modern society. Three lecture hours a week for one semester. Prerequisite: Admission to a journalism area of concentration, or consent of instructor.

## J 367E. Journalism in Latin America.

Study of the practice of journalism in Latin America. Survey of the region, including historical, political, economic, cultural, ethnic, and geographical aspects. Three lecture hours a week for one semester. Journalism 367E and Latin American Studies 322 (Topic 14) may not both be counted. Prerequisite: Upper-division standing and a major in journalism, or consent of instructor.

## J 370K. 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. Three lecture hours and four laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Journalism 355 with a grade of at least C, and acceptance into the photojournalism area of concentration; or consent of instructor.

Topic 1: Advanced Photo Editing and Design. Taught abroad; location may vary by semester. Only one of the following may
be counted: Journalism 370K (Topic 1), 370K (Topic: Advanced Photojournalism in Czechoslovakia), 395 (Topic 2: Advanced Photo Editing and Design).
Topic 2: Documentary Video.
Topic 3: Picture Editing.

## J 371K. 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. Three lecture hours and four laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Journalism 355 with a grade of at least C , and acceptance into the photojournalism area of concentration; or consent of instructor.

Topic 1: Location Lighting.
Topic 2: Studio Photography.

## J 373D. Advanced News Reporting.

Study of community and institutional news sources; reporting on courts and city, county, and state governments; emphasis on fact-finding and skill in writing; in-depth reporting of significant events. Three lecture hours and six hours of laboratory reporting a week for one semester. Prerequisite: Journalism 310F (or 320D) with a grade of at least C, and admission to a journalism area of concentration.

## J 375. Magazine Editing and Publishing.

Restricted to journalism majors. Advanced magazine design and layout; critical analysis of the magazine in society. Three lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Journalism 375, 376D, 377D. Prerequisite: Journalism 330 and 319 (or 336) with a grade of at least $C$ in each.

## J 376D. Newspaper Editing and Layout.

Restricted to journalism majors. Advanced newspaper typography, layout, and editing. Graphics techniques and production processes; planning content and format of newspapers; copydesk management. Three lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Journalism 375, 376D, 377D. Prerequisite: Journalism 330 and 319 (or 336) with a grade of at least C in each.

## J 377D. Print Design.

Advanced print design and layout. Graphics techniques and production processes; planning content and format of newspapers and magazines. Three lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Journalism, 375, 376D, 377D. Prerequisite: Journalism 319 (or 336) with a grade of at least C, credit with a grade of at least C or registration for Journalism 330, and admission to a journalism area of concentration.

## J 379. Journalism Independent Study.

Restricted to journalism majors. Designed to give students the opportunity to pursue special studies for which separate courses have not been organized. The equivalent of nine laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each, and consent of the director of the school.

## J 379H. Honors Tutorial Course.

Restricted to journalism majors. Conference course of intensive study, planned by Journalism Honors Committee; research and the writing of a substantial paper on a special journalism topic. Individual instruction. May be repeated for credit. Prerequisite: Admission to the Journalism Honors Program and consent of the director of the school.

## J 379P. Photojournalism Research Projects.

Restricted to journalism majors. Designed to give photojournalism students the opportunity to pursue special studies for which separate courses have not been organized. The equivalent of nine laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least Bin each.

## Department of Radio-TelevisionFilm

Most upper-division radio-television-film courses are restricted to radio-television-film majors. Non-majors interested in taking an upper-division course in radio-television-film should contact the instructor after the fourth class day to request permission to be added to the class. For Radio-Television-Film 317 and 318, the department restricts enrollment during the first registration period to radio-television-film majors. During later registration periods, courses in which space is available may be opened to nonmajors.

Attendance is required at the first class meeting of Radio-TelevisionFilm 317 and 318 and all upper-division radio-television-film courses. At the discretion of the instructor, students who do not attend the first class meeting may be dropped from the course, even if they have registered and paid their tuition.

The Department of Radio-Television-Film reserves the right to retain and to use for noncommercial purposes copies of all work completed by students as part of departmental course assignments.

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Radio-Television-Film: RTF

## Lower-Division Courses

## RTF 301N. Introductory Topics in Radio-Television-Film.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary

## RTF 305 (TCCN: COMM 1307). Introduction to Media Studies.

Introduction to historical, cultural, political, economic, and international characteristics of film, television, and other media in society. Two lecture hours, one discussion hour, and one two-and-one-half-hour film screening a week for one semester. Required of all radio-television-film majors.

## RTF 309. Communication Technology and Society.

Same as Communication 309. Study of communication technologies, from writing to the Internet; their uses in interpersonal, group, mass, and international contexts; and the impact of technologies on work. Three lecture hours and one discussion hour a week for one semester.

## RTF 312C. Introduction to Global Media.

A world perspective on information, news, and entertainment communication systems; politics, technology, economics, and culture. Three lecture hours a week for one semester.

## RTF 314 (TCCN: COMM 2366). The Development of the Motion Picture.

Survey of significant movements and schools of filmmaking through viewings and discussions of representative motion pictures; critical approaches to performance, sociological impact, visual aesthetics, and industry structure. Three lecture hours and one two-hour film screening a week for one semester. A one-hour discussion section may also be required.

## RTF 316 (TCCN: COMM 1335). History of Television and Radio.

Survey of evolution of U.S. television and radio programming, aesthetics, production, and policy. Three lecture hours a week for one semester, with one screening of up to two hours a week as required.

## RTF 316M. Race, Ethnicity, and the Media.

Same as Communication 316M. Critical review of contemporary and historical media images of, and discourses on, race and ethnicity. Introduction to relevant communication research and institutions. Three lecture hours and one discussion hour a week for one semester. Fulfills the communication and culture requirement in the College of Communication.

## RTF 317. Narrative Strategies.

Study of the way meaning is structured and perceived in the screen image; introduction to basic narrative techniques. Includes viewing and analysis of narrative examples. Three lecture hours and two and onehalf hours of film screening a week for one semester. Some sections may require an additional discussion hour. Required of all students in the production area. Students may not enroll in this course more than twice. Prerequisite: Three semester hours of lower-division coursework in radio-television-film.

## RTF 318. Introduction to Image and Sound.

Exploration of fundamental production concepts and techniques through lectures, projects, and laboratory work. Three lecture hours and three laboratory hours a week for one semester. Students may not enroll in this course more than twice. Prerequisite: Six semester hours of lower-division coursework in radio-television-film and consent of instructor.

## RTF 319. Introduction to Digital Media.

Basic information, skills, and theories of digital media. Includes the study of computer-based image construction, Web-based tools for research and production, and theories of interactivity. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Three semester hours of lower-division coursework in radio-television-film.

RTF 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## RTF 321F. Media Analysis and Criticism.

Restricted to radio-television-film majors. A foundational course devoted to the critical analysis of media in a variety of contexts. Three lecture hours a week for one semester. Additional hours may be required for some topics. May be repeated for credit when the topics vary.

Prerequisite: Upper-division standing and twelve semester hours of lowerdivision coursework in radio-television-film.

## RTF 324F. Social Theories of Media.

A foundational course exploring social theories of media. Three lecture hours a week for one semester. Additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: For radio-television-film majors, upper-division standing and twelve semester hours of lower-division coursework in radio-televisionfilm; for others, upper-division standing.

## RTF 124L, 224L, 324L. Topics in the Entertainment Professions.

Restricted to radio-television-film majors. 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. One, two, or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, three hours of lower-division coursework in radio-television-film, a University grade point average of at least 2.25, and admission to the Semester in Los Angeles program.

RTF 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## RTF 330G. Topics in Media Research.

Restricted to radio-television-film majors. Applied research investigating specific media topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-Television-Film 305 with a grade of at least C, and nine additional semester hours of lower-division coursework in radio-televisionfilm with a grade of at least $C$.

## RTF 330K. Introduction to Research Methods.

Restricted to radio-television-film majors. Introduction to applied media research and research criticism; fundamentals of audience analysis, survey design, experimental and field research, content analysis. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305 and nine additional semester hours of lower-division coursework in radio-television-film.

## RTF 330L. Internship in Film and Electronic Media.

Restricted to radio-television-film majors. Practical work experience related to the study of film, television, radio, or other media. Students must make their own arrangements to secure relevant internships. The equivalent of ten lecture hours a week for one semester. Radio-Television-Film 330L and 330M may not both be counted. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, twelve semester hours of lower-division coursework in radio-television-film, and consent of the internship coordinator.

## RTF 330M. Internship in Digital Media.

Position availability depends on qualifications of student and number of internships open at time of enrollment. Practical work experience in digital media and postproduction media. One and one-half lecture hours and at least ten hours of fieldwork a week for one semester. Radio-Television-

Film 330L and 330M may not both be counted. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, twelve semester hours of coursework in the College of Communication with a grade of at least C in each course, and consent of instructor.

## RTF 331J. Policy Issues in New Communication Technologies.

Overview of policy and regulation of communication systems in the United States, with emphasis on contemporary technologies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, and the following coursework with a grade of at least $C$ in each course: Radio-Television-Film 305, 309, and six additional semester hours of lower-division coursework in radio-television-film.

## RTF 331K. Film, Video, and Television Theory.

Restricted to radio-television-film majors. Survey of basic theories that seek to explain the relationships between film, video, television, and their respective audiences. Three lecture hours a week for one semester, with one two-hour film screening a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305, either 314 or 316, and six additional semester hours of lower-division coursework in radio-television-film.

## Topic 1: Cult Movies and Gender Issues. <br> Topic 2: Television and Theories of Gender. <br> Topic 4: Feminist Media Theory. Survey of basic feminist media theory. <br> Topic 5: Screen Theory. Survey of basic screen theory.

## RTF 331L. Corporate and Instructional Video.

Restricted to radio-television-film majors. Study, design, production, use, and evaluation of corporate and instructional video materials. Three lecture hours a week for one semester, with studio hours to be arranged. Prerequisite: Upper-division standing; Radio-Television-Film 305 and three additional semester hours of lower-division coursework in radio-television-film with a grade of at least C in each course; and Radio-Television-Film 317 and 318 with a grade of at least B in each.

## RTF 331M. New Communication Technologies.

Restricted to radio-television-film majors. Survey of history of new communication technologies. Analysis of regulation, policy, economics, and programming of new communication technologies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and the following coursework, with a grade of at least C in each course: Radio-TelevisionFilm 305, 309, and six additional semester hours of lower-division coursework in radio-television-film.

## RTF 331N. The Information Society.

Introduction to information technologies such as the Internet, telephones, and computers and their relation to existing media; includes history, policy, economics, and social impact. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For radio-television-film majors, upper-division standing and twelve semester hours of lower-division coursework in radio-television-film; for others, upper-division standing.

## RTF 331P. Topics in New Communication Technologies.

Restricted to radio-television-film majors. Applications and potential effects of new telecommunications and information technologies in the home, workplace, and in education, social services, and politics. Three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary.

Prerequisite: Radio-Television-Film 309 and nine additional semester hours of lower-division coursework in radio-television-film.

## RTF 331Q. Topics in Digital Media.

Laboratory explorations of the spatial and narrative dimensions of the digital environment. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For radio-television-film majors, the following coursework with a grade of at least C in each course: Radio-Television-Film 305, 318 or 319, and six additional semester hours of coursework chosen from Radio-Television-Film 309, 314, 316, 317, 318, and 319; for others, upper-division standing.

## RTF 331R. 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. Three lecture hours and one and one-half studio hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For radio-television-film majors, the following coursework with a grade of at least $C$ in each course: Radio-Television-Film 305, 318 or 319, and six additional semester hours of coursework chosen from Radio-Television-Film 309, $314,316,317,318$, and 319 ; for others, upper-division standing.

## RTF 331T. Topics in Digital Media: Audio.

Explorations of the auditory dimensions of the digital environment. Three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: For radio-television-film majors, Radio-Television-Film 318 or 319, and nine additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing.

## RTF 333. Introduction to Screenwriting.

Restricted to radio-television-film majors. 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. One and one-half lecture hours and two workshop hours a week for one semester. Prerequisite: Upperdivision standing and twelve semester hours of lower-division coursework in radio-television-film.

## RTF 334. Programming and Audiences.

Study of media programming and its cognitive and behavioral impact on audiences. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and twelve semester hours of lower-division coursework in radio-television-film.

## RTF 335. Television Analysis and Criticism.

Analysis of critical methods, selected television programs, and selected critics. Practice in written criticism required of all students. Three lecture hours a week for one semester, with two hours of film screening a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and twelve semester hours of lowerdivision coursework in radio-television-film.

## RTF 336. Special Projects in Radio-Television-Film.

Restricted to radio-television-film majors. Comprehensive research or creative projects in areas of special interest developed and executed by the student under faculty supervision. Individual instruction. May be repeated once for credit. Prerequisite: Upper-division standing, twelve semester hours of lower-division coursework in radio-television-film, and consent of the department.

## RTF 337. Radio Fundamentals.

Restricted to radio-television-film majors. Fundamentals of audio program production. Students create either brief or long audio programs. Three lecture hours a week for one semester, with studio hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing; Radio-Television-Film 305 and three additional semester hours of lower-division coursework in radio-television-film with a grade of at least $C$ in each course; and Radio-Television-Film 317 and 318 with a grade of at least B- in each.

## RTF 337P. Multitrack Audio Production.

Restricted to radio-television-film majors. Principles and practice of multitrack audio production. Three lecture hours a week for one semester, with studio hours to be arranged. Prerequisite: Upper-division standing; Radio-Television-Film 305 and three additional semester hours of lowerdivision coursework in radio-television-film with a grade of at least $C$ in each course; and Radio-Television-Film 317 and 318 with a grade of at least B- in each.

## RTF 340. Studio Production.

Restricted to radio-television-film majors. Introduction to production of television programs, including the multicamera format. Three lecture hours and six laboratory hours a week for one semester. May not be taken concurrently with Radio-Television-Film 366 or 366K. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional semester hours of lower-division coursework in radio-television-film.

## Topic 1: Drama/Music Production.

Topic 2: Public Affairs Production.

## RTF 341. Audio Production: Sound for Picture.

Restricted to radio-television-film majors. Theory and practice of producing quality audio for television, film, and other picture media. Includes basic editing on a digital audio workstation. Three lecture hours a week for one semester, with studio hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional semester hours of lower-division coursework in radio-television-film.

## RTF 341C. Advanced Audio: Sound Design and Postproduction.

Restricted to radio-television-film majors. Sound design and editing, and fundamentals of postproduction audio mixing. Three lecture hours a week for one semester, with studio hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Radio-Television-Film 337, 337 P , or 341.

Topic 1: Sound Design and Mixing. Restricted to radio-television-film majors. Sound design and editing, and fundamentals of postproduction audio mixing. Three lecture hours a week for one semester, with studio hours to be arranged. Radio-Television-Film 341C (Topic: Sound Design and Mixing) and 341C (Topic 1) may not both be counted. Additional prerequisite: Upper-division standing.

## RTF 342. Topics in Global Media.

Study of political, social, cultural, and economic factors affecting the use and impact of communication systems in an international context. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and twelve semester hours of lower-division coursework in radio-television-film.

Topic 3: International Communication: Third World Issues. Same as Latin American Studies 322 (Topic 7) and Mexican American Studies 374 (Topic 17). Additional prerequisite: For radio-televisionfilm majors, upper-division standing; consent of instructor; and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305 and nine additional semester hours of lowerdivision coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 4: Participatory Media.
Topic 6: Development Communication. Same as Middle Eastern Studies 341 (Topic 4: Development Communication). Only one of the following may be counted: Middle Eastern Studies 322K (Topic 14: Development Communication), 341 (Topic 4), Radio-Television-Film 342 (Topic 6).
Topic 7: Global Media Systems.

## RTF 342T. International Telecommunications.

Restricted to radio-television-film majors. Overview of issues and history of international telecommunication systems, focusing on the roles of business and government. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing, and the following coursework, with a grade of at least C in each course: Radio-Television-Film 305, 309, and six additional semester hours of lower-division coursework in radio-television-film.

## RTF 343. Advanced Video Production.

Restricted to radio-television-film majors. Advanced study in film, television, and media production. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Radio-Television-Film 340, 366, or 366K; additional prerequisites vary with the topic.

Topic 1: Advanced Narrative Production. Restricted to students in radio-television-film. Individual and group production of short films using high-definition video. Three lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing and Radio-TelevisionFilm 340 or 366K (Topic 2: Narrative Production).
Topic 2: Advanced Documentary Production. Individual and group production of a documentary, from research and preproduction to completion.
Topic 3: Advanced Soundstage Production. Group production of short films using the Hollywood soundstage as the primary model.
Topic 4: Creating Cross-Platform Fundraising Media. Small group production of client-commissioned fundraising media and an exploration of the realm of independent production contracting. Radio-Television-Film 343 (Topic 4) and 344M (Topic: Cross-Platform Content Creation) may not both be counted. Additional prerequisite: Upper-division standing, and Radio-Television-Film 346, 366D, 366K, or 368 with a grade of at least B.
Topic 5: Developing Independent Feature Films. Restricted to radio-television-film majors. Group research and lectures about producing an independent feature film. Three lecture hours and three laboratory hours a week for one semester. Radio-Television-Film 343 (Topic: Developing Indie Feature Films) and 343 (Topic 5) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing and Radio-Television-Film 340 or 366K.
Topic 7: Film Funding and Promotion. Restricted to radio-televisionfilm majors. Creation and implementation of social media presence, crowd funding, publicity, and festival exposure for independent films. Three lecture hours a week for one semester Offered on the lettergrade basis only. Additional prerequisite: Upper-division standing.

## Topic 1: National Media Systems.

Topic 2: Comparative Media Systems.

## RTF 343M. Master Class.

Restricted to radio-television-film majors. Incorporates a guest speaker series, focused on a particular topic for the semester. Students conduct research, coordinate and attend the speaker series, and pursue creative projects related to the semester's topic. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B-in each, and six additional semester hours of lower-division coursework in radio-televisionfilm.

## RTF 343N. Advanced Three-Dimensional Production.

Restricted to radio-television-film majors. 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. Three lecture hours and three laboratory hours a week for one semester, with additional hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Radio-Television-Film 366M, and consent of instructor.

## RTF 343S. Soundstage Production for Television and Film.

Restricted to radio-television-film majors. Study of the skills and aesthetics related to professional-level productions in the soundstage format. Three lecture hours and three laboratory hours a week for one semester. Radio-Television-Film 343 (Topic: Soundstage Production for Television and Film) and 343S may not both be counted. Prerequisite: Radio-TelevisionFilm 340 or 366 K with a grade of at least $C$.

## RTF 344. Special Applications of Media Production.

Restricted to radio-television-film majors. Special problems involved in audio, film, and video production. Three lecture hours a week for one semester, with studio hours to be arranged if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Radio-Television-Film 305 and three additional semester hours of lower-division coursework in radio-television-film with a grade of at least $C$ in each course; and Radio-Television-Film 317 and 318 with a grade of at least Bin each. Additional prerequisites vary with the topic.

RTF 344M. 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. Three lecture hours a week for one semester, with studio hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: For radio-television-film majors, Radio-Television-Film 318 or 319, and nine additional semester hours of coursework in radio-television-film; for others, upper-division standing.

Topic 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. Three lecture hours hours a week, with studio hours to be arranged. Additional prerequisite: Upper-division standing
Topic 2: Computer Graphics for Film and Games. Restricted to radio-television-film majors. Three lecture hours a week for one semester. Radio-Television-Film 344M (Topic: Computer Animation and 3-D Modeling) and 344M (Topic 2) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upperdivision standing.
Topic 3: Visual Effects and Motion Graphics. A production course designed to introduce students to the core concepts and techniques used in visual effects and motion graphics. Topics include, but are not limited to, compositing, animation, particles, and greenscreen. Three
lecture hours a week for one semester. Radio-Television-Film 344M (Topic: Visual Effects) and 344M (Topic 3) may not both be counted.

## RTF 344N. Advanced Applications of Digital Media Production.

Restricted to radio-television-film majors. Advanced topics in digital media theory, design, and development. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and Radio-Television-Film 344M (Topic 3); additional prerequisites may vary with the topic.

Topic 1: Advanced Visual Effects. Production course that explores advanced topics, concepts and techniques in compositing, image and projection, digital painting, and animation. Radio-Television-Film 344N (Topic: Advanced Visual Effects) and 344N (Topic 1) may not both be counted. Only one of the following may be counted: Radio-TelevisionFilm 344N (Topic: Advanced Visual Effects), 344N (Topic 1), 344N (Topic 2). Only one of the following may be counted: Radio-TelevisionFilm 344N (Topic: Advanced Visual Effects), 344N (Topic 1), 344N (Topic 3). Offered on the letter-grade basis only.
Topic 2: Advanced Effects: Modeling. Radio-Television-Film 344N (Topic 1: Advanced Visual Effects) and 344N (Topic 2) may not both be counted. Offered on the letter-grade basis only.
Topic 3: Advanced Effects: Rigging. Radio-Television-Film 344N (Topic 1: Advanced Visual Effects) and 344N (Topic 3) may not both be counted. Offered on the letter-grade basis only.
Topic 4: Undergraduate Animation Thesis. Each student will produce a two- to ten-minute animated short film. Radio-TelevisionFilm 344N (Topic: Undergraduate Animation Thesis) and 344N (Topic 4) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: One of the following: Radio-Television-Film $343 \mathrm{~N}, 344 \mathrm{M}$ (Topic 3), 344N (Topic 1), 351C, 351D, or 366M.
Topic 5: Character Animation in 3D. Restricted to radio-televisionfilm majors. Hands-on approach to learning character animation in Maya. Introduction to the fundamental methods needed to create animated characters, including techniques used to create motion. Three lecture hours a week for one semester. Radio-Television-Film 344N (Topic: Character Animation in 3D) and 344N (Topic 5) may not both be counted. Additional prerequisite: Radio-Television-Film 344M (Topic 2).

## RTF 345. Studies in Film History.

Restricted to radio-television-film majors. Critical assessment of major genres, periods, movements, and personalities in United States and international film history. Three lecture hours a week for one semester, with one two-hour film screening a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305, either 314 or 316, and six additional semester hours of lower-division coursework in radio-television-film.

Topic 1: Third World Cinema: Asia and the Middle East.
Topic 2: Israeli Cinema and Television. Only one of the following may be counted: Jewish Studies 363 (Topic 16: Israeli Cinema and Television), Middle Eastern Studies 325 (Topic 2: Israeli Cinema and Television), Radio-Television-Film 345 (Topic 2).
Topic 3: History of Mexican Cinema. Additional prerequisite: Upper-division standing, Radio-Television-Film 314 or 316, and nine additional semester hours of lower-division coursework in radio-television-film.
Topic 4: Latin American Cinema.
Topic 5: Third World Cinema: Africa and the Americas.
Topic 6: Experimental Film and Video. Critical assessment of the history and current trends in experimental film and video. Radio-

Television-Film 331K (Topic: Experimental Film and Video) and 345 (Topic 6) may not both be counted.

## RTF 346. Introduction to Editing.

Restricted to radio-television-film majors. Theory and practice of video and film editing techniques. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional semester hours of lower-division coursework in radio-television-film.

## RTF 346E. Advanced Editing.

Restricted to radio-television-film majors. 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. Three lecture hours and two and one-half hours for film screenings a week for one semester, with additional laboratory hours to be arranged. Only one of the following may be counted: Radio-Television-Film 344 (Topic: Advanced Editing), 346C, 346E. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and Radio-Television-Film 346 with a grade of at least $B$.

## RTF 347C. The Business of Media.

Restricted to radio-television-film majors. Survey of business practices in film, television, and music industries: development, production, distribution, and exhibition. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing and twelve semester hours of lower-division coursework in radio-television-film.

## RTF 348. Studies in Media Industries.

Examination of the economics and the production, research, management, and distribution practices of the film and electronic media industries. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and twelve semester hours of lower-division coursework in radio-televisionfilm.

## RTF 351C. Introduction to Two-Dimensional Animation.

Restricted to radio-television-film majors. Theory and practice of digital graphics and animation techniques. Three lecture hours a week for one semester, with studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: For majors, Radio-Television-Film 318 or 319, and nine additional semester hours of coursework in radio-television-film; for others, upper-division standing.

## RTF 351D. Advanced Two-Dimensional Animation.

Restricted to radio-television-film majors. In-depth study of twodimensional animation techniques and an introduction to stop-motion animation, green screen techniques, and postproduction effects. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Only one of the following may be counted: Radio-TelevisionFilm 344M (Topic: Advanced Digital Animation), 344M (Topic: TwoDimensional Animation and Motion Graphics), 351D. Prerequisite: Upperdivision standing and Radio-Television-Film 351C.

## RTF 351T. Three-Dimensional Animation.

Restricted to radio-television-film majors. Introduction to the art of threedimensional animation using lectures, workshops, screenings, and labs. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Radio-Television-Film 344M (Topic: Three-

Dimensional Animation) and 351T may not both be counted. Prerequisite: Radio-Television-Film 351D.

## RTF 359. Studies in Media and Culture.

Special topics related to the critical analysis of media in cultural contexts. Three lecture hours a week for one semester. Radio-Television-Film 359 and 359S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-Television-Film 314 or 316, and nine additional semester hours of lower-division coursework in radio-television-film.

## RTF 359S. Studies in Media and Culture.

Restricted to radio-television-film majors. Special topics related to the critical analysis of media in cultural contexts. Three lecture hours and two hours of film screening a week for one semester. Radio-TelevisionFilm 359 and 359 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-Television-Film 314 or 316, and nine additional semester hours of lower-division coursework in radio-television-film.

Topic 1: Hispanic Images and Counterimages. Same as Latin American Studies 322 (Topic 1: Hispanic Images and Counterimages) and Mexican American Studies 374 (Topic 9: Hispanic Images and Counterimages). The critical analysis of Hispanic images in media. Three lecture hours and one two-hour film screening a week for one semester. Only one of the following may be counted: Latin American Studies 322 (Topic 1), Mexican American Studies 374 (Topic 9), Radio-Television-Film 359S (Topic 1). Additional prerequisite: For radio-television-film majors: upper-division standing, Radio-TelevisionFilm 314 or 316, and nine additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing.
Topic 2: Women and Media Culture. Critical analysis of media and its interrelation with issues of gender. Radio-Television-Film 359 (Topic: Women and Media Culture) and 359S (Topic 2) may not both be counted.
Topic 3: Gender and Rock Culture. Critical analysis of issues relating to media, gender, and rock culture. Radio-Television-Film 331K (Topic: Gender, Sexuality, and Rock Culture) and 359S (Topic 3) may not both be counted.
Topic 4: Media, Memory, and History. Critical analysis of the relationship between historical events and media.

## RTF 365. Topics in Media and Society.

Restricted to radio-television-film majors. Advanced topics addressing media, communication, and society. Three lecture hours a week for one semester, with additional hours to be arranged if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing and twelve semester hours of lower-division coursework in radio-television-film.

Topic 2: Latino Audiences. Same as Latin American Studies 322 (Topic 2: Latino Audiences) and Mexican American Studies 374 (Topic 10: Latino Audiences). Prerequisite: For radio-television-film majors: upper-division standing and the following coursework, with a grade of at least C in each course: Radio-Television-Film 305 and nine additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 3: Mass Media and Ethnic Groups. Same as Latin American Studies 322 (Topic 3: Mass Media and Ethnic Groups) and Mexican American Studies 374 (Topic 11: Mass Media and Ethnic Groups). Prerequisite: For radio-television-film majors: upper-division standing and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305 and nine additional semester hours of lowerdivision coursework in radio-television-film; for others, upper-division standing and consent of instructor.

Topic 4: History of United States Latino Media. Prerequisite: Upperdivision standing, Radio-Television-Film 305 with a grade of at least C, and nine additional semester hours of coursework in radio-televisionfilm.
Topic 5: Latin American Media. Prerequisite: Upper-division standing, Radio-Television-Film 305 with a grade of at least C, and nine additional semester hours of lower-division coursework in radio-television-film.
Topic 6: Latinos and Media. Same as Latin American Studies 322 (Topic 12: Latinos and Media) and Mexican American Studies 374 (Topic 24: Latinos and Media). Prerequisite: For radio-television-film majors, upper-division standing and the following coursework, with a grade of at least C in each course: Radio-Television-Film 305 and nine additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 7: Narrowcasting. Prerequisite: Upper-division standing, Radio-Television-Film 305 with a grade of at least C, and nine additional semester hours of lower-division coursework in radio-television-film. Topic 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. Prerequisite: Upper-division standing, Radio-Television-Film 305 with a grade of at least C , and nine additional semester hours of coursework in radio-television-film.
Topic 9: Media Industries and Entrepreneurship. Same as Sociology 352E. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Radio-Television-Film 365 (Topic: Media Industries and Entrepreneurship), 365 (Topic 9), Sociology 352E, 352M (Topic: Media Industries and Entrepreneurship). Additional prerequisite: For radio-television-film majors, upper-division standing and twelve semester hours of lower-division coursework in radio-television-film; for others, consent of instructor.
Topic 10: Globalization and Social Media. Same as Sociology 352S. Issues surrounding the hype, myth, paradox, and reality of social media in a global context. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Globalization and Social Media), Journalism 349T (Topic: Globalization and Social Media), Radio-Television-Film 331M (Topic: Globalization and Social Media), 365 (Topic 10), Sociology 321K (Topic: Globalization and Social Media), 352S. Additional prerequisite: For radio-television-film majors, upper-division standing and twelve semester hours of lower-division coursework in radio-television-film; for others, consent of instructor.

## RTF 365C. Media and Policy.

Advanced topics addressing media and policy in society. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For radio-television-film majors, the following coursework with a grade of at least $C$ in each course: Radio-TelevisionFilm 305, either 314 or 316, and six additional semester hours of lowerdivision coursework in radio-television-film; for others, consent of instructor.

Topic 1: Media, Communication Law, and Ethics. Contemporary ethical and policy issues facing the transforming media industries and the American public. Rooted in an understanding of the First Amendment as well as the development of communication industries, the course examines a range of topics that new media and the Internet have complicated. Radio-Television-Film 365 (Topic: Media, Communication Law, and Ethics) and 365C (Topic 1) may not both be
counted. Additional prerequisite: Upper-division standing and twelve semester hours of lower-division coursework in radio-television-film.

## RTF 365D. Media Literacy.

Advanced topics addressing media literacy and education. Three lecture hours a week for one semester; some topics require additional hours. May be repeated for credit when the topics vary. Prerequisite: For radio-television-film majors, upper-division standing and the following coursework with a grade of at least C in each: Radio-Television-Film 305, and nine additional semester hours of lower-division coursework in radio-television-film; for others, consent of instructor.

Topic 1: Digital and Information Literacy. Exploration of the expanding nature of literacy in a digital world. Study of the ability to strategically access, analyze, evaluate, and produce communication in a variety of forms through media literacy. Three lecture hours a week for one semester. Radio-Television-Film 365 (Topic: New Media Literacy) and 365D (Topic 1) may not both be counted. Additional prerequisite: For radio-television-film majors, twelve semester hours of lower-division coursework in radio-television-film; for others, consent of instructor.

## RTF 366. Introduction to Field and Studio Production.

Restricted to radio-television-film majors. Basic theory and techniques in single-camera video production; individual and collective production assignments, with emphasis on technical proficiency, examination of the entire production process, visualization of ideas, and critical evaluation of the visual text. Three lecture hours and six laboratory hours a week for one semester. May not be taken concurrently with Radio-Television-Film 340 or 366K. Prerequisite: Upper-division standing; Radio-Television-Film 305 and three additional semester hours of lower-division coursework in radio-television-film with a grade of at least C in each course; and Radio-Television-Film 317 and 318 with a grade of at least B in each.

## RTF 366D. Directing Workshop.

Restricted to radio-television-film majors. Explores the role of the director, focusing on the director-actor relationship, narrative structure, and visual language. Three lecture hours and three laboratory hours a week for one semester. Radio-Television-Film 344 (Topic: Directing Workshop) and 366D may not both be counted. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-TelevisionFilm 317 and 318 with a grade of at least B- in each, and six additional semester hours of lower-division coursework in radio-television-film.

## RTF 366K. Introductory Production.

Restricted to radio-television-film majors. Workshops in narrative and documentary production. Three lecture hours and three laboratory hours a week for one semester. May not be taken concurrently with Radio-Television-Film 340 or 366 . May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Radio-Television-Film 305 and three additional semester hours of lower-division coursework in radio-television-film with a grade of at least $C$ in each course; and Radio-Television-Film 317 and 318 with a grade of at least B- in each.

Topic 2: Narrative Production. A workshop in visual storytelling and making non-dialogue films. Additional prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least Bin each, and six additional semester hours of lower-division coursework in radio-television-film.
Topic 3: Documentary Production. Workshop in contemporary documentary practice, including directing, producing, cinematography, editing, sound recording, and distribution.
Topic 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 366M. Introduction to Three-Dimensional Production.

Restricted to students in radio-television-film. An introduction to the aesthetics, science, theory and practice of three-dimensional production via lectures, screenings, and some hands-on production work in groups. No previous three-dimensional experience is required. Three lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, six additional semester hours of lower-division coursework in radio-televisionfilm, and consent of instructor.

## RTF 367K. Producing Film and Television.

Restricted to radio-television-film majors. Comprehensive consideration of the production process from the producer's standpoint regarding fiscal and creative management. Includes development and preproduction and production planning using computer budgeting and scheduling. Three lecture hours a week for one semester, with computer laboratory hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Radio-Television-Film 305 and three additional semester hours of lower-division coursework in radio-television-film with a grade of at least $C$ in each course; and Radio-Television-Film 317 and 318 with a grade of at least B- in each.

## RTF 367L. Narrative Filmmaking: 16-mm.

Restricted to radio-television-film majors. Theory and techniques in $16-\mathrm{mm}$ film synchronous sound production; individual and collective production assignments, with emphasis on technical proficiency, examination of entire production process, visualization of ideas, and critical evaluation of the visual text. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Radio-TelevisionFilm 366K.

## RTF 367P. Advanced Producing.

Restricted to radio-television-film majors. Advanced practical application of the business and creative skills used to produce and distribute media projects in the marketplace. Three lecture hours a week for one semester. Radio-Television-Film 344 (Topic: Advanced Producing) and 367P may not both be counted. May be repeated for credit when the topics vary. Prerequisite: Radio-Television-Film 367K.

## RTF 368. Advanced Production Topics.

Restricted to radio-television-film majors. Advanced study of production crafts in film, television, and other digital media. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Radio-Television-Film 343 or 367L.

Topic 2: Cinematography. Restricted to radio-television-film majors. Three lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing; and Radio-Television-Film 343 (Topic 1: Advanced Narrative Production), 343 (Topic 2: Advanced Documentary Production), or 367L.
Topic 3: Advanced Production.

## RTF 368C. Advanced Directing.

Restricted to radio-television-film majors. Creation of collaborative, performance-based works, such as the co-direction of a Dogme-style film, that emphasize simplicity and ingenuity in image and sound choices using the Dogme 95 meets Meisner technique. Works will adhere to the production code that is a modified version of the Dogme 95 Vow of Cinematic Chastity. Three lecture hours and three laboratory hours a week for one semester. Radio-Television-Film 368 (Topic 4: Advanced Directing) and 368C may not both be counted. Offered on the letter-grade
basis only. Prerequisite: Upper-division standing, Radio-Television-Film 333, and 366D.

## RTF 368S. Undergraduate Thesis.

Restricted to radio-television-film majors. Advanced film production or media studies research. Three lecture hours a week for one semester, with studio hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Radio-Television-Film 343, 367L, or 368; and consent of instructor.

Topic 1: Film Production Thesis. Intensive production workshop, designed for students who wish to produce a film for a portfolio.
Topic 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. Additional prerequisite: Upper-division standing and consent of instructor.

## RTF 369. Advanced Screenwriting.

Restricted to radio-television-film majors. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Radio-Television-Film 333 with a grade of at least B-.

Topic 1: Advanced Screenwriting for Feature Films.
Topic 2: Advanced Screenwriting for Television.

## RTF 370. Film Analysis and Criticism.

Restricted to radio-television-film majors. Analysis of critical methods, selected films, and selected critics. Three lecture hours a week for one semester, with two hours of film screening a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing, Radio-Television-Film 314 or 316, and nine additional semester hours of lower-division coursework in radio-television-film.

## RTF 178. Radio-Television-Film Internship.

Restricted to radio-television-film majors. Practical work experience related to the study of film, television, radio, or other media. Students must make their own arrangements to secure relevant internships. The equivalent of ten lecture hours a week for one semester. May be repeated, but only one hour may be counted toward the Bachelor of Science in Radio-Television-Film. Offered on the pass/fail basis only. Prerequisite: Radio-Television-Film 330L and consent of the internship coordinator.

## RTF 378H. Honors Tutorial Course.

Restricted to radio-television-film majors. Intensive reading, research, and/or production project. Individual instruction. May be repeated once for credit. Prerequisite: Upper-division standing, twelve semester hours of lower-division coursework in radio-television-film, a University grade point average of at least 3.00, a grade point average in radio-television- film of at least 3.50 , and consent of the department.

# College of Education 

Manuel J. Justiz, PhD, Dean<br>Marilyn C. Kameen, EdD, Senior Associate Dean<br>Beth Maloch, PhD, Associate Dean<br>http://www.edb.utexas.edu/education/

## General Information

## Mission

The University of Texas at Austin, through the College of Education, is committed to the preparation of teachers and other educators who are dedicated to the employment and advancement of education for all people. In pursuing this mission, the College of Education performs several functions.

It is a professional school offering two teacher certification degrees. The first degree, the Bachelor of Science in Applied Learning and Development, allows students to pursue early childhood through grade six generalist, bilingual generalist teacher certification, or generic special education certification for early childhood through grade twelve. The second degree, the Bachelor of Science in Kinesiology and Health, offers a major that leads to all-level physical education certification.

The college provides the professional sequence of education courses and serves as the certification agent for all University students pursuing certification to teach in Texas, whether they are enrolled in the College of Education or in another division of the University. Accountability information for the teacher preparation program is given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/teacher-certification).

The college also offers degree programs that do not lead to teacher certification. These programs, in youth and community studies, athletic training, exercise science, health promotion, sport management, and physical culture and sports, are designed to meet the professional needs of public and private educational and community service agencies and to prepare students for advanced study.

As a unit of the Graduate School, the College of Education offers courses and curricula leading to advanced professional certificates and to master's and doctoral degrees in education. It also provides in-service training and consulting services for those engaged in the educational professions.

Departments in the college offer courses in general education as well as in various specialties suitable for students pursuing vocational objectives other than teaching.

The college is also a center for research, experimentation, and a wide variety of direct services to school systems and other educational and public service enterprises.

## Facilities

The instructional and research programs of the College of Education are carried out in six buildings. The primary facility, the George I. Sánchez Building, contains classrooms, extensive computer facilities, electronic media resources, observation rooms, a learning technology center, a distance learning classroom, and faculty offices. Bellmont Hall, the primary facility for the Department of Kinesiology and Health Education, houses classrooms, research and computer laboratories, gymnasium and locker facilities, racquet sport courts, and faculty offices. College of Education faculty members and programs are also housed in Anna

Hiss Gymnasium, Gregory Gymnasium, the Lee and Joe Jamail Texas Swimming Center, and the North End Zone.

## Financial Assistance Available through the College

Scholarships as well as graduate fellowships and assistantships are available to students in the College of Education. Application for all undergraduate awards and some graduate awards should be made to the Office of the Dean, George I. Sánchez Building 216; graduate students should also inquire in their departmental offices. Generally, applications are accepted online in March for the following academic year.

## Student Services

The Office of the Dean of the College of Education provides a variety of student services, including maintenance of student records, academic counseling, certification counseling, and official evaluations of the student's academic standing and progress toward a degree. Students are encouraged to contact the office whenever they have questions about degree requirements, academic standing, teacher certification, general University regulations, or registration. The office is also a good source of general information and referral that students are urged to use when they have questions or problems of any nature.

## Academic Advising

The College of Education encourages all students to see their advisers at least once a semester for a comprehensive discussion of their programs. Academic advisers are available in George I. Sánchez Building 216 and Bellmont Hall 1005.

## Career Services

The College of Education offers career services to assist University students in making informed career choices. Education Career Services makes job search materials, events, and counseling accessible to students on a regular basis. Information about these services is available at http://www.edb.utexas.edu/education/edservices/career/.

As a complement to the assistance available from the college, the University's Sanger Learning Center and the Center for Strategic Advising and Career Counseling in the School of Undergraduate Studies provide comprehensive career services to all students. The centers offer professional assistance to all University students in choosing or changing their majors or careers, seeking an internship, and planning for the job search or for graduate study.

## Student Organizations

The Education Council is the official channel for student participation in policy formulation and evaluation and in development of student activities in the college. Voluntary organizations in the college include the Bilingual Education Student Organization, the Kinesiology Club, Longhorn Athletic Training Student Association, Minorities in Education, the Student Council for Exceptional Children, and Teachers of Tomorrow. Pi Lambda Theta, Phi Delta Kappa, and Kappa Delta Pi are honorary organizations for men and women.

## Admission and Registration

## Admission*

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. Information about admission to the University is given in General Information (http://
catalog.utexas.edu/general-information/admission/undergraduateadmission).

Information about admission to teacher preparation programs and to majors in the Department of Kinesiology and Health is available in the Office of the Dean, George I. Sánchez Building 216 and the Kinesiology Advising Center, Bellmont Hall 1005.

Admission to majors in kinesiology is restricted for internal transfer students. Students should see an adviser in the Office of the Dean, George I. Sánchez Building 216 or the Kinesiology Advising Center for information.

## 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. Space availability may be a factor in the admission decision, as well as academic performance, completion of prerequisite courses, documented evidence of proficiency in reading and in oral and written communication, and the number of hours the student needs, at the time of application, to complete the program.

For students seeking early childhood through grade six, all-level generic special education, or all-level physical education certification, admission to the Professional Development Sequence is competitive and there is a specific University grade point average, as well as mandated grades in prerequisite courses required. Additionally, students seeking early childhood through grade six and all-level generic special education certification may only lack one class outside the sequence when they enter the Professional Development Sequence. To progress within the sequence, and to complete the sequence, the student must maintain a specific University grade point average and must earn the appropriate grade in each course in the sequence. Students are encouraged to speak to an adviser in the Office of the Dean, George I. Sánchez Building 216 or the Kinesiology Advising Center, Bellmont Hall 1005 for additional information about these requirements.

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.

## Registration

General Information gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule (http://registrar.utexas.edu/ schedules), published before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule (http:// registrar.utexas.edu/schedules) and General Information are published on the registrar's Web site, http://registrar.utexas.edu/.
*Changes pending approval by the University of Texas System.

## Academic Policies and Procedures

## Honors

## University Honors

The designation University Honors, awarded at the end of each longsession semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done
are considered. Criteria for University Honors are given in General Information.

## Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in General Information.

## Graduation

## Special Requirements of the College

All students must fulfill the General Requirements (p. 17) for graduation. In addition, students in the College of Education must be registered in the college either in residence or in absentia the semester or summer session the degree is to be awarded and must apply to the dean for the degree no later than the date specified in the official academic calendar. The student must have an official degree audit on file prior to applying for the degree.

## Applying for Graduation

Each student seeking a degree from the College of Education should apply for an official degree audit in the Student Dean's Office, George I. Sánchez Building 216 or the Kinesiology Advising Center, Bellmont Hall 1005. The degree audit is essential to ensure that the student meets all the degree requirements given in a catalog under which he or she is eligible to graduate.

In the final semester or summer session, a candidate for graduation must apply for the degree by the deadline given in the official academic calendar.

## Degrees and Programs

## General Requirements

1. All College of Education students seeking teacher certification must complete the entire Professional Development Sequence of coursework in residence. Residence credit includes only courses taken at the University; it does not include credit by examination, courses taken by extension or correspondence, or courses taken at another institution.
2. Students seeking teacher certification must adhere to current state requirements, even if they differ from the degree requirements described in this catalog.
3. Except as otherwise indicated, credit by examination is treated like any other earned credit in meeting degree requirements.
4. With the exception of credit earned by examination, each course counted toward the degree or toward certification requirements must be taken on the letter-grade basis, unless the course is offered only on the pass/fail basis.
5. To graduate, all students must have a University grade point average of at least 2.00.

## Applicability of Certain Courses Physical Activity Courses

Physical activity (PED) courses are offered by the Department of Kinesiology and Health Education. Up to three semester hours of physical activity coursework may be counted as electives toward any College of Education degree. All physical activity courses are counted among courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

A maximum of twelve semester hours of credit in air force science, military science, or naval science may be used as free electives in any degree plan of the College of Education.

## Concurrent Enrollment and University Extension Courses

In the semester they plan to graduate, students may not take any course to be counted toward the degree at another institution or through University Extension; students who plan to graduate at the end of the summer session may request approval to take transfer work only in the first summer term.

## Bachelor of Science in Applied Learning and Development

The curriculum for the degree has four components: (a) the Universitywide core curriculum; (b) prescribed work for the Bachelor of Science in Applied Learning and Development; (c) major requirements; and (d) electives. Students choose one of three majors: early childhood through grade six generalist, which can lead to early childhood through grade six generalist certification or early childhood through grade six bilingual generalist certification; all-level generic special education, which can lead to all-level generic special education certification; or youth and community studies, which does not lead to teacher certification.

The youth and community studies major requires 120 hours of coursework; the early childhood through grade six ESL generalist major requires 124 hours of coursework; and the all-level generic special education major requires 127 hours of coursework. Students in all majors must complete at least 36 hours of upper-division coursework.

## Core Curriculum

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags (p. 22).

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent. Applied Learning and Development 328 carries a writing flag.
2. Quantitative Reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course. Applied Learning and Development 327 carries a cultural diversity in the United States flag.
5. Ethic and Leadership: one flagged course
6. Independent Inquiry: one flagged course

In some cases, a course that is required for the Bachelor of Science in Applied Learning and Development may also be counted toward the core curriculum; these courses are identified above. Courses used to fulfill flag requirements may also be used to fulfill other requirements.

## Prescribed Work

All students must complete the following requirements. The youth and community studies major requires modifications to the prescribed work; these are described in the section for the major below.

1. Information Studies 322T.
2. Psychology 301. This course may also be used to fulfill the social and behavioral sciences requirement of the core curriculum.
3. Natural Sciences 306J, 306K, and 306L. These courses may also be used to fulfill parts I and II of the science and technology requirement of the core curriculum. In addition, students must complete Natural Sciences 306M.
4. Mathematics 316 K and 316 L .
5. Foreign language: Students must demonstrate proficiency in a single foreign language equivalent to that shown by completion of the second college semester in the language; proficiency is usually shown by earning credit for language courses 601D and 610D or the equivalent. Prospective Texas teachers are strongly encouraged to take Spanish to fulfill the language requirement.

Although the foreign language requirement is the attainment of a certain proficiency, rather than the completion of a specified number of hours, the courses taken to gain this proficiency are not electives and may not be taken on the pass/fail basis. Any part of the requirement may be fulfilled by credit by examination.

Students who completed two years of a single foreign language in high school and who are not pursuing teacher certification may substitute three courses in specific multicultural and language/communication courses for the foreign language requirement. A list of the acceptable substitute courses is available in the Student Dean's Office, George I. Sánchez Building 216, and in the Kinesiology Advising Center, Bellmont Hall 1005.

## Major Requirements

## Early Childhood Through Grade Six ESL Generalist

Students who have completed the early childhood through grade six ESL generalist major are eligible to teach pre-kindergarten through grade six after meeting additional state requirements.

For this major, students must complete the following:

1. Coursework in applied learning and development:
a. Three semester hours in cognition and learning chosen from Applied Learning and Development 320 and 321
b. Applied Learning and Development 322
c. Applied Learning and Development 327
d. Applied Learning and Development 328
e. Applied Learning and Development 329
f. Health Education 329K
g. Kinesiology 314
2. A curricular specialization consisting of Curriculum and Instruction 370E (Topic 1: Reading), 370E (Topic 2: Language Arts), 370E (Topic 20: Teaching English as a Second Language), and either Special Education 378T (Topic: Reading Difficulties) or Curriculum and Instruction 371R
3. The Professional Development Sequence described below. Admission to the Professional Development Sequence is restricted; admission requirements are given in Admission to the Professional Development Sequence (p. 124).
a. Methods courses: Curriculum and Instruction 370E (Topic 3: Science), 370E (Topic 4: Social Studies), and 370E (Topic 5: Mathematics)
b. Curriculum and Instruction 331E
c. Curriculum and Instruction 371G
d. Curriculum and Instruction 950E

## All-Level Generic Special Education

Students who have completed the all-level generic special education major are eligible to teach in special education classrooms from prekindergarten through grade twelve after meeting additional state requirements.

For this major, students must complete the following:

1. Coursework in applied learning and development and related areas:
a. Three semester hours in human development chosen from Human Development and Family Sciences 313 and Psychology 304
b. Three semester hours in cognition and learning chosen from Applied Learning and Development 320 and 321
c. Applied Learning and Development 322, 326, 327, and 328
2. Prescribed work in special education: Special Education 332, 337, 372, 375C, 376, 378D, 378E, 378R, and 378S
3. The Professional Development Sequence described below. Admission to the Professional Development Sequence is restricted; admission requirements are given in Admission to the Professional Development Sequence (p. 124).
a. Curriculum and Instruction 370E (Topic 5: Mathematics), 370E
(Topic 1: Reading), and 370E (Topic 2: Language Arts)
b. Curriculum and Instruction 331E
c. Special Education 960

## Youth and Community Studies

Completion of a major in youth and community studies does not entitle the student to receive a teaching certificate.

1. The Prescribed Work, with the following modifications:
a. A course in English or rhetoric and writing may be counted in place of Information Studies 322T. The course used to fulfill the humanities requirement of the core curriculum may not also be counted toward this requirement.
b. Students must complete a three-semester-hour course in anthropology, economics, geography, linguistics, or sociology in addition to the course used to fulfill the social and behavioral sciences requirement of the core curriculum.
c. Students are not required to take Natural Sciences 306J, 306K, 306L, and an additional natural sciences or computer science course. However, they must complete the science and technology, part I and part II, requirements of the core curriculum.
d. Mathematics 316 K and 316 L are not required.
e. Students must take a three-semester-hour computer applications course.
2. Coursework in applied learning and development and related fields:
a. Applied Learning and Development 320, 322, 327, and 329
b. Applied Learning and Development 321 or Educational Psychology 363M
c. Health Education 329K
d. Three semester hours of coursework in kinesiology or health education
3. A minor of at least fifteen semester hours, six of which must be upperdivision, in any approved field of study in the University outside of the College of Education. At least six of the required fifteen hours must be completed in residence. No more than six hours in the minor may also be counted toward other degree requirements. Information about approved areas of study and specific courses that may be used is available in the Student Dean's Office, George I. Sánchez Building 216 and in the Kinesiology Advising Center, Bellmont Hall 1005.
4. Professional concentration: Fifteen semester hours selected from one of the following four concentrations: Early Childhood, Special Populations, Coaching, and Youth and Social Services. A list of courses in each concentration is available in the Student Dean's Office, George I. Sánchez Building 216, and in the Kinesiology Advising Center, Bellmont Hall 1005.

## Electives

Additional elective coursework may be needed to provide the total number of semester hours required for the student's major. Students in all majors must complete at least thirty-six hours of upper-division coursework.

## Bachelor of Science in Athletic Training

Students who plan to major in athletic training must be admitted to the Athletic Training Program (ATP). Admission is based on a competitive application process. The student's grade point average and completion of prescribed coursework are factors in the admission decision. Applicants must also participate in the Directed Observation Program, meet a set of technical standards, pass a health assessment/physical examination, provide proof of immunizations and vaccinations, submit letters of recommendation, and submit additional application documents. More information about the admission process and requirements is available from an academic adviser and at http://www.edb.utexas.edu/education/ departments/undergrad/at/atep/.

In addition to completing the coursework associated with the athletic training major, students in the ATP must participate in clinical rotations and become adept in a set of educational competencies and clinical proficiencies. Students who plan to take the Board of Certification (BOC) examination or the state licensure examination for athletic trainers must complete the ATP.

The curriculum for the degree has four components: (a) the Universitywide core curriculum; (b) prescribed work; (c) major requirements; and (d) electives. A total of at least 120 semester hours of coursework is required; at least thirty-six hours must be in upper-division courses.

## Core Curriculum

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags (p. 22).

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent. Kinesiology 346 carries a writing flag.
2. Quantitative Reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course. Health Education 329K carries a cultural diversity in the United States flag
5. Ethic and Leadership: one flagged course. Kinesiology 347 carries an ethics and leadership flag
6. Independent Inquiry: one flagged course

In some cases, a course that is required for the Bachelor of Science in Athletic Training may also be counted toward the core curriculum; these courses are identified below. Courses used to fulfill flag requirements may also be used to fulfill other requirements.

## Prescribed Work

1. Writing: Three courses with a writing flag. These courses are identified in the Course Schedule (http://registrar.utexas.edu/ schedules).
2. Social science
a. Psychology 301, which may also be counted toward the social and behavioral sciences requirement of the core curriculum.
3. Mathematics: Mathematics 305G, calculus, or coursework in statistics. Mathematics 305 G and several calculus and statistics courses may also be counted toward the mathematics requirement of the core curriculum.
4. Natural science: Many courses that fulfill this natural science requirement may also be counted toward the science and technology requirements of the core curriculum.
a. Biology 301L and 309D, or 309D and 311C
b. Six hours of coursework in chemistry ( 304 K and 305 , or 301 and 302 ), physics ( 302 K and 302 L , or 309 K and 309 L , or 317 K and 317 L ), or physical science (303 and 304).
c. Nutrition 306 or 312
5. Classical Civilization 306M
6. Foreign language: In addition to the core curriculum requirements above, undergraduates are expected to have completed two years in a single foreign language in high school. Students without two years of high school foreign language coursework must earn credit for the second college-level course in a foreign language; this credit does not count toward the student's degree. Students can consult with their adviser and the degree requirements to determine whether additional foreign language requirements apply to them.

## Major Requirements

1. The following courses:
a. Kinesiology 312 (Topic 2: Care and Prevention of Athletic Injuries)
b. Kinesiology 219K (Topic 3: Introduction to Athletic Training)
c. Kinesiology 324K, Applied Human Anatomy
d. Kinesiology 325K, Physiology of Exercise
e. Kinesiology 320, Applied Biomechanics of Human Movement; or Kinesiology 326K, Kinesiology: Biomechanical Analysis of Movement
f. Kinesiology 341, Therapeutic Modalities in Athletic Training
g. Kinesiology 342, Clinical Evaluation of Athletic Injuries in the Lower Body
h. Kinesiology 343, Clinical Evaluation of Athletic Injuries in the Upper Body
i. Kinesiology 344, Therapeutic Exercise and Rehabilitation Techniques
j. Kinesiology 345, Topics in Athletic Training
k. Kinesiology 346, Athletic Training Program Administration
I. Kinesiology 119 (Topic 10: Conditioning)
m. Kinesiology 363, Theory and Practice in Strength Coaching
2. Students enrolled in the Athletic Training Program must complete a practicum course, determined by the faculty adviser, for each semester of their clinical rotations.
3. Nine hours of coursework in kinesiology, health education, or allied health profession prerequisites.

## Electives

Additional elective coursework may be required to provide the 120 semester hours required for the degree. Up to six hours of fieldwork may be counted toward the degree as electives. Up to three hours in physical education activity coursework (PED) may be counted as electives.

## Bachelor of Science in Kinesiology and Health

The field of kinesiology consists of biomechanical, physiological, psychological, managerial, epidemiological, rehabilitative, and sociocultural approaches to the study of human movement and personal and public health. The Bachelor of Science in Kinesiology and Health degree program offers five majors: exercise science, physical culture and sports, health promotion, sport management, and applied movement science.

The applied movement science program is designed for students interested in studying human movement as a background for helping others develop motor skills, physically active lifestyles and fitness. Students who successfully complete the program can be recommended for teacher certification in physical education. The exercise science program is appropriate preparation for further study in sport and exercise sciences or in movement-related areas such as physical therapy and sport medicine. The health promotion major is designed to prepare graduates for a number of professions involving wellness, fitness, rehabilitation, public health, and disease prevention. The sport management major is designed for students who are interested in the organization, marketing, and management of sports programs. The physical culture and sports major is designed to prepare students for graduate school and/or careers related to a social science approach to sport and exercise.

The curriculum for the degree has four components: (a) the Universitywide core curriculum; (b) prescribed work for the Bachelor of Science in Kinesiology and Health; (c) major requirements, which include a minor or specialization; and (d) electives. More information, including a list of specializations and minors, is available from the College of Education Student Dean's Office, George I. Sánchez Building 216, and the Kinesiology Advising Center, Bellmont Hall 1005.

A total of at least 120 semester hours of coursework is required for the Bachelor of Science in Kinesiology and Health. For all majors, at least thirty-six hours must be in upper-division coursework.

## Core Curriculum

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags (p. 22).

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course. Health Education 329K carries a cultural diversity in the United States flag
5. Ethics and Leadership: one flagged course. Kinesiology 347 carries an ethics and leadership flag
6. Independent Inquiry: one flagged course

In some cases, a course that is required for the Bachelor of Science in Kinesiology and Health may also be counted toward the core curriculum; these courses are identified above. Courses used to fulfill flag requirements may also be used to fulfill other requirements.

## Prescribed Work

All students must complete the following requirements. Some majors require modifications to the prescribed work; these are described in the section for each major below.

1. Writing: Three courses with a writing flag. These courses are identified in the Course Schedule (http://registrar.utexas.edu/ schedules).
2. Social science:
a. Psychology 301.
b. Three hours of coursework in anthropology, economics, geography, linguistics, or sociology.
Psychology 301 and several social science courses that fulfill requirement b may also be counted toward the social and behavioral sciences requirement of the core curriculum.
3. Mathematics: Three hours of coursework in mathematics. Several courses that fulfill this requirement may also be counted toward the mathematics requirement of the core curriculum.
4. Natural science:
a. Biology 301L or 311C.
b. Six hours of coursework in chemistry.
c. Six additional hours chosen from astronomy, biology, chemistry, computer applications, computer science, geological sciences, mathematics, physical science, physics, experimental psychology, physical anthropology, physical geography, history of science, and philosophy of science.
Many courses that fulfill this natural science requirement may also be counted toward the science and technology requirements of the core curriculum.
5. Foreign language: Students must demonstrate proficiency in a single foreign language equivalent to that shown by completion of the second college semester in the language; proficiency is usually shown by earning credit for language courses 506 and 507 or the equivalent. Prospective Texas teachers are strongly encouraged to take Spanish to fulfill the language requirement.
Although the foreign language requirement is the attainment of a certain proficiency rather than the completion of a specified number of hours, the courses taken to gain this proficiency are not electives and may not be taken on the pass/fail basis. Any part of the requirement may be fulfilled by credit by examination.

Students who completed two years of a single foreign language in high school and are not pursuing teacher certification may substitute three courses in specific multicultural and language/communication courses for the foreign language requirement. A list of acceptable substitute courses is available in the Student Dean's Office, George I. Sánchez Building 216, and in the Kinesiology Advising Center, Bellmont Hall 1005.

## Major Requirements

All students seeking the Bachelor of Science in Kinesiology and Health must complete the following eighteen-semester-hour core, so that they are exposed to all aspects of the fields of kinesiology and health. Each student then takes a set of courses, called the cognate, that is unique to the major; and either a specialization in the Department of Kinesiology and Health or a minor in another department.

1. Health Education 329K
2. Kinesiology 310
3. Kinesiology 312M
4. Kinesiology 315
5. Three semester hours in Kinesiology 119 or physical education courses. The courses must require substantial physical activity.
6. Kinesiology 347

## Exercise Science

Exercise science majors must complete the following:

1. The Prescribed Work described above, with the following modifications:
a. To fulfill the mathematics requirement, exercise science majors must complete Mathematics 408C or 408K. Either course may also be counted toward the mathematics requirement of the core curriculum.
b. To fulfill the natural science requirement, exercise science majors must complete Biology 311C, Chemistry 301 and 302, and Physics 302 K and 302 L . Biology 311 C may also be counted toward part I of the science and technology requirement of the core curriculum; either the chemistry or the physics coursework may also be counted toward part II of that requirement.
c. In addition to the core curriculum requirements above, exercise science undergraduates are expected to have completed two years in a single foreign language in high school. Students without two years of high school foreign language coursework must earn credit for the second college-level course in a foreign language;
this credit does not count toward the student's degree.
Students should consult their advisers to determine whether additional foreign language requirements apply to them.
2. Eighteen semester hours in the cognate in exercise science:
a. Kinesiology 321 M
b. Kinesiology 322
c. Kinesiology 324K
d. Kinesiology 325K
e. Kinesiology 326K
f. Kinesiology 336
3. Either a specialization in the Department of Kinesiology and Health Education or a minor outside the department; minors consist of fifteen hours of coursework, six of which must be upper-division. Students planning to attend medical school, physical therapy school, or graduate school in exercise physiology are encouraged to complete the pre-health sciences specialization to ensure that they complete the science coursework required for admission to those programs.

## Health Promotion*

Health promotion majors must complete the following:

1. The Prescribed Work above, with the following modifications:
a. In addition to the core curriculum requirements above, health promotion undergraduates are expected to have completed two years in a single foreign language in high school. Students without two years of high school foreign language coursework must earn credit for the second college-level course in a foreign language; this credit does not count toward the student's degree.
Students should consult their advisers to determine whether additional foreign language requirements apply to them.
b. Communication Studies 306M
2. Eighteen semester hours in the cognate in health promotion:
a. Health Education 343
b. Health Education 370K
c. Health Education 371 K
d. Health Education 373
e. Kinesiology 324K
f. Kinesiology 325K
3. Either a specialization in the Department of Kinesiology and Health Education or a minor outside the department; minors consist of fifteen hours of coursework, six of which must be upper-division.

A student planning a career as a physician, physical therapist, physician assistant, chiropractor, or other health professional is encouraged to complete the pre-health sciences specialization, to ensure that he or she completes the science coursework required for admission to those programs.

## Physical Culture and Sports

Physical culture and sports majors must complete the following:

1. The Prescribed Work, with the following modification to the natural science requirement:
a. In place of Biology 301L or 311C: Three hours in one of the fields of study that may be counted toward the science and technology, part II, requirement of the Core Curriculum (p. 20).
b. In place of six hours of coursework in chemistry: Six hours in one of the fields of study that may be counted toward the science and technology, part I, requirement of the Core Curriculum. The same field of study may not be used to fulfill both requirement a and requirement b .
c. In place of six additional hours of natural science (prescribed work requirement 4c): Three hours of coursework in computer applications.
2. Eighteen semester hours in the cognate in physical culture and sports:
a. Kinesiology 349
b. Six semester hours chosen from Kinesiology 311K, 348, and 361.
c. Kinesiology 350
d. Kinesiology 351
e. An additional upper-division course in kinesiology or health education.
3. Either a specialization in the Department of Kinesiology and Health Education or a minor outside the department; minors consist of fifteen hours of coursework, six of which must be upper-division.

## Sport Management

Students who plan to major in sport management must apply for admission to the program. A student's grade point average, volunteer and work experiences, and completion of prescribed prerequisite coursework are factors in the admission decision. Information about admission requirements is available from an academic adviser.

Sport management majors must complete the following:

1. The Prescribed Work described, with the following modifications:
a. Sport management majors must complete an economics course to fulfill the second part of the social science requirement.
b. In fulfilling the natural science requirement, the student must complete the following:
i In place of Biology 301L or 311C: Three hours in one of the fields of study that may be counted toward the science and technology, part II, requirement of the Core Curriculum ( p . 20).
ii In place of six hours of chemistry: Six hours in one of the fields of study that may be counted toward the science and technology, part I, requirement of the Core Curriculum. The same field of study may not be used to fulfill both requirement $i$ and requirement ii.
iii In place of six additional hours of natural science (prescribed work 4c): Three hours in computer applications.
c. Communication Studies 306M.
2. Twenty-four semester hours in the cognate in sport management:
a. Kinesiology 312 (Topic 5: The Sport Industry in America)
b. Kinesiology 628, or 327L and three semester hours of a kinesiology or health education elective
c. Kinesiology 350
d. Kinesiology 353
e. Kinesiology 354
f. Kinesiology 355
g. Kinesiology 357
3. Either a specialization in the Department of Kinesiology and Health Education or a minor outside the department; minors consist of fifteen hours of coursework, six of which must be upper-division.

## Applied Movement Science

Students who major in applied movement science must apply for admission to the Professional Development Sequence (PDS) by fall of their junior year. A student's grade point average, completion of prescribed prerequisite coursework, and volunteer and work experiences are factors in the admission decision. Students should see an academic adviser during the first year of coursework to ensure that they understand the application process and the requirements for the PDS.

Applied movement science majors must complete the following:

1. The Prescribed Work ( p .127 ), with the following modifications:
a. Applied movement science majors do not need to complete a course to fulfill the second part of the social science requirement (Prescribed Work 2b).
b. To fulfill the mathematics requirement, applied movement science majors must complete Mathematics 305G or a calculus course. Mathematics 305 G and some calculus courses may also be counted toward the mathematics requirement of the core curriculum.
c. In fulfilling the natural science requirement, the student must complete the following:
i In place of Biology 301L or 311C: Three hours in one of the fields of study that may be counted toward the science and technology, part II, requirement of the Core Curriculum.
ii In place of six hours of chemistry: Six hours in one of the fields of study that may be counted toward the science and technology, part I, requirement of the Core Curriculum. The same field of study may not be used to fulfill both requirement i and requirement ii.
iii Applied movement science majors do not need to complete the six additional hours of natural sciences (Prescribed Work 4 c ).
d. Some of the courses required for the applied movement science major should also be used to meet prescribed work requirements for the Bachelor of Science in Kinesiology and Health; information about these courses is available in the advising offices in George I. Sánchez Building 216 and Bellmont Hall 1005.
2. Twenty-one semester hours in the cognate in applied movement science:
a. Three of the following topics of Kinesiology 119: (Topic 11: Rhythmic Activities); (Topic 14: Tennis); (Topic 15: Volleyball); (Topic 16: Social Dance); (Topic 17: Basketball); (Topic 18: Adventure Activities); (Topic 19: Core Body Development)
b. Kinesiology 219T
c. Kinesiology 320
d. Kinesiology 321 M or 334
e. Kinesiology 322, or 332, or 338
f. Kinesiology 324 K
g. Kinesiology 127L
h. Kinesiology 360
3. Movement competency in two areas in addition to those counted toward requirement 2 above. Students may demonstrate competency by completing two additional topics of Kinesiology 119; these courses do not count toward the degree.
4. Twenty-four hours in the minor in curriculum and instruction. The minor provides the coursework required for all-level physical education teacher certification in Texas.
a. Applied Learning and Development 327. This course is required for admission to the Professional Development Sequence.
b. Curriculum and Instruction 370E (Topic 21: Teaching Elementary Physical Education). Note: This course is required for admission to the Professional Development Sequence.
c. Curriculum and Instruction 370 (Topic 12: Kinesiology)
d. Curriculum and Instruction 345
e. Curriculum and Instruction 950W

## Electives

Additional electives may be required to provide the total number of semester hours required for the student's major. No more than twelve semester hours in Kinesiology 127L, 227L, 327L, and 627L may be counted toward the degree.

## *Changes pending approval by the University of Texas System

## Middle Grades, Secondary, and All-Level Teacher Certification

*All middle grades (grades four through eight), secondary (grades eight through twelve), and all-level (prekindergarten through grade twelve) teacher certification programs are based on degrees with academic majors in the student's chosen teaching field. Certification requirements for students seeking middle grades, secondary, and all-level teacher certification include all the courses required for the student's major in the College of Education, Fine Arts, Liberal Arts, Natural Sciences, or the Jackson School of Geosciences, as well as the preprofessional and professional education courses.

UTeach-Urban Teachers (UTUT) is a teacher preparation program for students interested in secondary teacher certification in English or social studies. UTUT offers a three-semester program for undergraduate students, beginning the summer before their senior year, for students working towards a bachelor's degree in English, history, geography, government, economics, or other humanities disciplines. UTUT also offers a Masters of Education degree program with teacher certification for students who are interested in being certified to teach while pursuing a masters. These programs are designed to help English and social studies teacher candidates develop knowledge, skills, and dispositions to support teaching and learning in linguistically and culturally diverse urban settings. Program advising is housed in the College of Education. Information is available at http://www.edb.utexas.edu/education/departments/ci/utut/ and from the College of Education advising offices.

Students pursuing middle grades or secondary teacher certification in mathematics, computer science, science, or engineering must follow the curriculum prescribed by the UTeach-Natural Sciences program, a collaborative partnership between the College of Education
and the College of Natural Sciences. Program advising is housed in the College of Natural Sciences. Information is available at http:// www.uteach.utexas.edu/.

UTeach-Liberal Arts is a teacher preparation program for undergraduate liberal arts students pursuing a degree in Arabic, Chinese, economics, English, French, history, geography, German, government, Japanese, Latin, Russian, or Spanish. Students may seek certification to teach middle or high school grades. Program advising is housed in the College of Liberal Arts. Information is available at http://www.utexas.edu/cola/ progs/uteach/.

Program advising for students seeking all-level certification in art, music, and theatre arts is provided in the College of Fine Arts. Information is available at http://www.utexas.edu/finearts/students.

## Certification Requirements

Information about legal requirements for certification to teach is available from the teacher certification officer, George I. Sánchez Building 216, or from the Texas Education Agency. Application for the certificate should be made at the Certification Office, George I. Sánchez Building 216. State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current certification requirements, even if they differ from those listed in a University catalog.

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.

Students who have completed all necessary academic requirements for certification must also achieve a passing level of performance on the required state certification examinations. In addition, students seeking bilingual education certification or certification to teach French or Spanish in elementary or secondary school must earn a passing score at the advanced level on the appropriate language test.

## Minimum Scholastic Requirements

In addition to meeting the minimum coursework and scholastic requirements for the degree, students seeking middle grades, secondary, and all-level certification must meet other requirements to take the prescribed work in professional development. Admission to the Professional Development Sequence is restricted; information about admission requirements is available in the Office of the Dean, George I. Sánchez Building 216.

## Teaching Fields

All candidates for middle grades, secondary, and all-level teaching certificates must earn a degree in their primary teaching field by meeting all of the requirements for the appropriate major. While completing these requirements, the certification student must take a core set of courses in the major that fulfill certification requirements. This certification core includes at least twenty-four semester hours in a single teaching field or forty-eight semester hours in a composite teaching field, and incorporates the state-specified essential knowledge and skills needed for successful teaching in the field. Often, the student's major department requires more than these twenty-four semester hours, but the certification core in the major field must be taken.
Students seeking middle grades certification may choose from the following teaching fields: English language arts and reading, social studies, mathematics, and science. Students seeking secondary certification may choose from the following teaching fields: science,
social studies, computer science, English language arts and reading, history, and mathematics. Students seeking all-level teacher certification may choose from the following teaching fields: art, physical education, languages other than English (Arabic, Chinese, French, German, Japanese, Latin, Russian, or Spanish), music, special education, and theatre arts.
*Changes pending approval by the University of Texas System

## Courses

The faculty has approval to offer the following courses in the academic years 2014-2015 and 2015-2016; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/credit-value-and-course-numbers). In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits indicate the rank of the course: if they are 01 through 19, the course is of lower-division rank; if 20 through 79, of upperdivision rank; if 80 through 99 , of graduate rank.

## Applied Learning and Development

## Applied Learning and Development: ALD Lower-Division Courses

## ALD 301C. Freshman Seminar.

Restricted to first-semester freshmen. 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. Two lecture hours and one discussion hour a week for one semester.

## ALD 301D. Connecting Research Experience.

Restricted to freshmen and sophomores. Supervised research associated with the Connexus Bridging Disciplines Program. The equivalent of three lecture hours a week for one semester. With consent of the Connexus Bridging Disciplines Program, may be repeated for credit. Prerequisite: Admission to the Connexus Bridging Disciplines Program.

## ALD 118C, 218C, 318C. Forum Seminar Series.

Restricted to freshmen and sophomores. Lectures and discussions on various contemporary issues. Emphasis on multidisciplinary perspectives and critical discourse. For 118C, two lecture hours a week for eight weeks; for 218C, two lecture hours a week for one semester; for 318C, three lecture hours a week for one semester, or two lecture hours and one hour of supervised research a week for one semester. May be repeated for credit when the topics vary.

## ALD 119, 219, 319, 419, 519, 619. International Learning Seminars.

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Applied Learning and Development 119, 219, 319, 419, 519, 619 and Undergraduate Studies 119 may not both be counted unless the
topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Upper-Division Courses

## ALD 320. Cognition, Human Learning, and Motivation.

Current and classical theories concerning conditioning paradigms, learning and remembering, attention, knowledge representation and retrieval, comprehension and production of language, problem solving, and the ways emotion influences learning. Three lecture hours a week for one semester. Prerequisite: Three semester hours of coursework in psychology.

## ALD 320C. Connecting Research Experience.

Supervised research associated with the Connexus Bridging Disciplines Program. The equivalent of three lecture hours a week for one semester. With consent of the Connexus Bridging Disciplines Program, may be repeated for credit. Prerequisite: Upper-division standing and admission to the Connexus Bridging Disciplines Program.

## ALD 321. Play in Early Childhood Development.

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; motivational value of play. Three lecture hours a week for one semester, with field hours to be arranged. Prerequisite: Three semester hours of coursework in psychology.

## ALD 322. Individual Differences.

Introduction to individual differences among people through the life span. Examines 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. Orientation to assistive technology. Three lecture hours a week for one semester, with field hours to be arranged. Prerequisite: Three semester hours of coursework in psychology.

## ALD 323. Language Acquisition.

Language structure; sequence, process, cognitive and social aspects of language acquisition and use; language variation. Three lecture hours a week for one semester. Required for certification in early childhood education. Prerequisite: Three semester hours of coursework in psychology.

## ALD 324. Literacy Acquisition.

Processes of becoming literate; cognitive insights that move a child to literacy; relationships between reading and writing and among individual characteristics, social factors, and literacy growth. Three lecture hours a week for one semester. This course or Psychology 338 K is required for the reading specialization. Prerequisite: Three semester hours of coursework in psychology.

## ALD 325. Second Language Acquisition.

Acquisition by children or adults of English as a second language. Simultaneous acquisition of two languages, adding a second language, language processing, order of acquisition, role of the first language. Three lecture hours a week for one semester, with field hours to be arranged. Required for certification in bilingual education. Applied Learning and Development 325 and 329 may not both be counted. Prerequisite: Three semester hours of coursework in psychology.

## ALD 326. Language of Children with and without Disabilities.

Restricted to special education majors. Physiological, prelinguistic, and linguistic components of language; theoretical framework of communication and language development in monolingual and bilingual
populations; problems of language development in special populations; language assessment tools. Technological skills component. Three lecture hours a week for one semester. Required for certification in generic special education.

## ALD 327. Sociocultural Influences on Learning.

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. Three lecture hours a week for one semester, with field hours to be arranged. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Sociocultural Influences on Learning), 372D (Topic 2), Applied and Learning Development 327. Prerequisite: Three semester hours of coursework in psychology.

ALD 327G. Study Abroad: Education, Culture and Diversity. Comparative analysis of human learning in multisocial, multilingual, and multicultural contexts in the United States and Latin America. Social concerns such as prejudice, stereotyping, cross-cultural attitudes, bilingual issues, and parent and community involvement. Particular focus on transnationalism and immigration in the United States from Central America and Mexico. The equivalent of three lecture hours a week for one semester. Taught in Latin America.

## ALD 328. Applied Human Learning.

Development, cognition, language, and sociocultural influences in learning contexts; child assessment, identification of learning styles, and tests and measurements. Fieldwork to provide a theoretical basis for professional assessment, referral, and placement. Three lecture hours a week for one semester, with fieldwork to be arranged. Prerequisite: Admission to the professional development sequence of the Bachelor of Science in Applied Learning and Development degree program.

## ALD 329. Acquisition of Language and Literacies.

Subjects include 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. Three lecture hours a week for one semester. Additional fieldwork hours may be required. Applied Learning and Development 325 and 329 may not both be counted. Required for students seeking certification in early childhood through grade six generalist. Prerequisite: Three semester hours of coursework in psychology and completion of or concurrent enrollment in Applied Learning and Development 327.

## ALD 330. Language in Education.

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. Three lecture hours a week for one semester. Additional fieldwork hours may be required. Applied Learning and Development 330 and Curriculum and Instruction 371 (Topic 13: Applied Linguistics and Methods in English as a Second Language) may not both be counted. Prerequisite: Three semester hours of coursework in psychology.

## ALD 333. Children's Literature.

For future teachers, an investigation of literature written for children from early childhood through age twelve. Includes an investigation of genres, authors, themes, and forms, and an introduction to ways of bringing literature to children, facilitated by extensive discussion. Three lecture hours a week for one semester, with field hours to be arranged.

ALD 179, 279, 379, 479, 579, 679. International Learning Seminars.
Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Applied Learning and Development 179, 279, 379, 479, 579, 679 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

## Department of Curriculum and Instruction

Admission to the Professional Development Sequence of upper-division courses for teacher certification requires formal acceptance. Information about admission requirements is available from the Office of the Dean, George I. Sánchez Building 216.

## Curriculum and Instruction: EDC Lower-Division Courses

EDC 101E. Orientation to Teaching in the Elementary School.
Open to all University students. Discussion sessions and assignments in public schools; designed to help students make teaching career decisions. One discussion hour and three hours of fieldwork a week for one semester. May be repeated for credit.

EDC 101S. Orientation to Teaching in the Secondary School.
Open to all University students. Discussion sessions and assignments in public schools; designed to help students make teaching career decisions. One discussion hour and three hours of fieldwork a week for one semester. May be repeated for credit.

## Upper-Division Courses

EDC 331E. School Organization and Classroom Management in Elementary Schools.
Administrative structure of elementary schools; concepts, principles, and strategies for establishing an orderly classroom environment, preventing inappropriate behavior, and promoting student involvement in academic work. Three lecture hours a week for one semester, and sixteen to twenty hours of fieldwork a week in an elementary school. Prerequisite: Admission to the professional development sequence of courses, completion of seventy-two semester hours of coursework, and a University grade point average of at least 2.50.

## EDC 331S. 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. Three lecture hours a week for one semester, with at least sixty hours of fieldwork in a secondary school. Prerequisite: Admission to the professional development sequence of courses, completion of seventytwo semester hours of coursework, and a University grade point average of at least 2.50.

## EDC 332S. Designs for Instruction.

One of the beginning courses in the professional development sequence for approved programs in secondary education. Three lecture hours a week for one semester, with a single seven-hour media competency evaluation to be arranged. Prerequisite: Admission to the professional development sequence of courses, completion of seventy-two semester
hours of coursework, a University grade point average of at least 2.50, and concurrent enrollment in Curriculum and Instruction 331S.

## EDC 333W. Introduction to Teaching.

Open to all upper-division students. Overview of the objectives, organization, and operation of schools; the teaching process; teaching as a professional career. Two lecture hours and two hours of fieldwork a week for one semester. Prerequisite: Upper-division standing.

## EDC 339C. Community Literacy.

Three lecture hours a week for one semester. Curriculum and Instruction 339 C and 371 (Topic 1: Community Literacy) may not both be counted. Prerequisite: Admission to the professional development sequence of courses.

## EDC 339D. Reading Assessment and Development.

Three lecture hours a week for one semester. Curriculum and Instruction 339D and 371 (Topic 2: Reading Assessment and Development) may not both be counted. Prerequisite: Admission to the professional development sequence of courses.

## EDC 339E. Secondary School Literacy across the Disciplines.

Designed for students in a University secondary teacher preparation program. Three lecture hours a week for one semester. Curriculum and Instruction 339E and 371 (Topic 10: Secondary School Reading in the Content Subjects) may not both be counted.

## EDC 339F. 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. Three lecture hours a week for one semester. Curriculum and Instruction 339F and 371 (Topic 25: Adolescent Literacy) may not both be counted.

## EDC 339G. Literacy Seminar.

Three lecture hours a week for one semester. Curriculum and Instruction 339 G and 371 (Topic: Literacy Seminar) may not both be counted. Prerequisite: Admission to the professional development sequence of courses.

## EDC 340C. Spanish Language Methods for the Bilingual Classroom Teacher I.

Restricted to bilingual generalist certification students. Designed primarily to help prospective bilingual education teachers expand their oral Spanish proficiency for instructional purposes in the bilingual education classroom. Three lecture hours a week for one semester, with field hours to be arranged. Curriculum and Instruction 340C and 371 (Topic 4: Spanish Language and Methods for the Bilingual Classroom Teacher I) may not both be counted. Prerequisite: Credit or registration for Spanish 611D or 312L.

## EDC 340D. Spanish Language Methods for the Bilingual Classroom Teacher II.

Restricted to bilingual generalist certification students. Intensive practice in the various aspects and conventions governing literacy within the elementary bilingual education curriculum. Three lecture hours a week for one semester, with field hours to be arranged. Curriculum and Instruction 340D and 371 (Topic 6: Spanish Language and Methods for the Bilingual Classroom Teacher II) may not both be counted. Prerequisite: Curriculum
and Instruction 340C, Spanish 611D or 312L, and admission to the professional development sequence of courses.

## EDC 340E. Latino Children's Literature for Bilingual Teachers.

Restricted to students seeking certification in bilingual generalist. 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. Three lecture hours a week for one semester, with field hours to be arranged. Prerequisite: Knowledge of Spanish and completion of at least thirty-six semester hours of coursework.

## EDC 340F. Foundations of Bilingual Education.

Restricted to bilingual generalist certification students. 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. Three lecture hours a week for one semester, with field hours to be arranged. Curriculum and Instruction 340F and 371 (Topic: Foundations of Bilingual Education) may not both be counted.

## EDC 341C. Early Childhood Education.

Introductory exploration of historical antecedents and social and educational issues in early childhood education; analysis of curricula and behavioral practices in early childhood education; and development of sensitivity to particular needs of early childhood populations. Three lecture hours a week for one semester. Curriculum and Instruction 341C and 371 (Topic 7: Early Childhood Education) may not both be counted.

## EDC 341D. Early Childhood Program Development.

Preparation for developing appropriate curricula for early childhood education classrooms, including the contexts of curriculum decision making (community, state, culture, and politics); developmentallyappropriate practice and classroom environments; bases for selecting materials; and frameworks for reflecting on decisions. Three lecture hours a week for one semester. Curriculum and Instruction 341D and 371 (Topic 8: Early Childhood Program Development) may not both be counted.

## EDC 343. Informal Science Education.

Three lecture hours and one three-hour field laboratory a week for one semester, with one four-hour Saturday field trip to be arranged. Curriculum and Instruction 343 and 371 (Topic 3: Informal Science Education) may not both be counted. Prerequisite: Upper-division standing, six semester hours of coursework in science, or consent of instructor.

## EDC 344. 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 wordprocessing, 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 contentspecific, 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. Three lecture hours a week for one semester. Curriculum
and Instruction 344 and 371 (Topic 15: Computing Tools for Educators) may not both be counted.

## EDC 345. Curriculum Issues in Physical Education.

Study of personal teaching and physical education programs. Accompanies student teaching. Three lecture hours a week for one semester. Curriculum and Instruction 345 and 371 (Topic 26: Curriculum Issues in Physical Education) may not both be counted. Prerequisite: A major in applied movement science, admission to the professional development sequence of courses, and concurrent enrollment in Curriculum and Instruction 950W.

## EDC 350. Topics in Educational Studies.

Analysis of selected topics and problems in education. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## EDC 350E, 650E, 950E. 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. Two lecture hours and at least fifteen, thirty, or forty-five hours of fieldwork a week for one semester. Offered on the pass/fail basis only. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## EDC 350M, 650M, 950M. Middle Grade Teaching Practicum.

Supervised practicum in middle grade classroom teaching, conducted in cooperating schools, as part of the teacher preparation program. Consists of teaching, analysis, and evaluation. Two lecture hours and at least fifteen, thirty, or forty-five hours of fieldwork a week for one semester. Some sections are offered on the pass/fail basis only and some sections are offered on the letter-grade basis only; consult the Course Schedule. No more than nine semester hours of this course may be taken for credit. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## EDC 350S, 650S, 950S. 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. Two lecture hours and at least fifteen, thirty, or forty-five hours of fieldwork a week for one semester. Some sections are offered on the pass/fail basis only and some sections are offered on the letter-grade basis only; consult the Course Schedule. No more than nine semester hours of this course may be taken for credit. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## EDC 350W, 650W, 950W. 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. Two lecture hours and at least fifteen, thirty, or forty-five hours of fieldwork a week for one semester. Offered on the pass/fail basis only. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## EDC 364, 664. Internship.

Supervised fieldwork or clinical work in the student's area of study. For 364, at least one conference hour and six hours of fieldwork a week for one semester; for 664, at least one conference hour and twelve hours of
fieldwork a week for one semester. Offered on the pass/fail basis only. Prerequisite: Consent of instructor.

## EDC 365C. Knowing and Learning in Math and Science.

Same as UTeach-Natural Sciences 350. Restricted to students in the UTeach-Natural Sciences program. 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. Three lecture hours a week for one semester; additional hours may be required. Only one of the following may be counted: Curriculum and Instruction 365C, 371 (Topic 21: Knowing and Learning in Math and Science), UTeach-Natural Sciences 350. Prerequisite: Credit with a grade of at least C- or registration for UTeach-Natural Sciences 101.

## EDC 365D. Classroom Interactions.

Same as UTeach-Natural Sciences 355. Restricted to students in the UTeach-Natural Sciences program. 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. Three lecture hours a week for one semester; additional hours may be required. Only one of the following may be counted: Curriculum and Instruction 365D, 371 (Topic 20), UTeach-Natural Sciences 355. Prerequisite: The following courses with a grade of at least C-: Curriculum and Instruction 365C or UTeach-Natural Sciences 350, and UTeachNatural Sciences 110; and a University grade point average of at least 2.75.

## EDC 365E. Project-Based Instruction.

Same as UTeach-Natural Sciences 360 . Restricted to students in the UTeach-Natural Sciences program who have earned a passing score on the preliminary portfolio. Foundations of project-based, casebased, and problem-based learning environments; principles of projectbased curriculum development in mathematics and science education; classroom management and organization of project-based learning classrooms. Three lecture hours a week for one semester with additional fieldwork hours to be arranged. Only one of the following may be counted: Curriculum and Instruction 365E, 371 (Topic 22: Project-Based Instruction), UTeach-Natural Sciences 360. Prerequisite: Curriculum and Instruction 365D or UTeach-Natural Sciences 355 with a grade of at least C-, and a University grade point average of at least 2.75.

## EDC 370E. Elementary School Subjects.

Curriculum content and organization, teaching procedures, materials, and research in elementary school subjects. Three lecture hours a week for one semester, including field hours in elementary schools. May be repeated for credit when the topics vary. Prerequisite: A University grade point average of at least 2.50.

Topic 1: Reading. Additional prerequisite: Admission to the professional development sequence of courses.
Topic 2: Language Arts. Additional prerequisite: Admission to the professional development sequence of courses.
Topic 3: Science. Additional prerequisite: Admission to the professional development sequence of courses.
Topic 4: Social Studies. Additional prerequisite: Admission to the professional development sequence of courses.
Topic 5: Mathematics. Additional prerequisite: Mathematics 316L or consent of the mathematics education faculty; and admission to the professional development sequence of courses.
Topic 15: Special Adaptations for the Deaf.
Topic 19: Reading/Language Arts. Additional prerequisite: Admission to the professional development sequence of courses.

Topic 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.
Topic 21: Teaching Elementary Physical Education.

## EDC 370S. Secondary School Subjects.

Curriculum content and organization, teaching procedures, materials, and research in one secondary school subject. Three lecture hours a week for one semester. The topic in the appropriate field is required for secondary school teacher certification. May be repeated for credit when the topics vary. Prerequisite: Admission to the professional development sequence of courses, completion of ninety semester hours of coursework, and six semester hours of upper-division coursework in the appropriate subject; additional prerequisites vary with the topic.

Topic 1: Advanced Methods in English, Language Arts, and
Reading. Restricted to students in a secondary teacher preparation program in the Department of Curriculum and Instruction.
Topic 3: Advanced Methods in Social Studies. Restricted to students in a secondary teacher preparation program in the department of Curriculum and Instruction.
Topic 5: Advanced Methods in Foreign Language. Restricted to students in a secondary teacher preparation program in the Department of Curriculum and Instruction.
Topic 7: Art. Additional prerequisite: Curriculum and Instruction 331S and 332S.
Topic 8: Music (Vocal). Additional prerequisite: Curriculum and Instruction 331S and 332S.
Topic 9: Music (Instrumental). Additional prerequisite: Curriculum and Instruction 331S and 332S.
Topic 10: Drama. Additional prerequisite: Curriculum and Instruction 331 S and 332 S .
Topic 11: Speech. Additional prerequisite: Consent of instructor. Topic 12: Teaching Secondary Physical Education.

## EDC 370W. All-Level School Subjects.

Curriculum content and organization; teaching procedures, materials, and research in one school subject at all grade levels. Three lecture hours a week for one semester. The topic in the appropriate field is required for all-level school teacher certification. May be repeated for credit when the topics vary. Prerequisite: Admission to the professional development sequence of courses.

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Topic 1: English as a Second Language.
Topic 2: Art.
Topic 3: Music.
Topic 4: Theatre.
Topic 5: Foreign Language Education.
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## EDC 371G. Teaching Young Children.

Designed to provide students with frameworks for observing and interacting with young children in classroom settings, and to acquaint students with the teacher's varied roles in early childhood classrooms. Topics include cultural and linguistic diversity; supervising and interacting with children in a range of instructional groupings, including centerbased and play-based learning activities and whole-group experiences; planning and implementing appropriate practices and strategies; and record-keeping and assessment. Three lecture hours a week for one semester, and twelve to sixteen hours of fieldwork a week in a public school. Curriculum and Instruction 371 (Topic 19: Guiding Young Children in Groups) and 371G may not both be counted. Prerequisite: Upperdivision standing, twelve semester hours of upper-division coursework in education, or consent of the education adviser; and admission to the
professional development sequence of courses and a University grade point average of at least 2.50.

EDC 371R. Reading Difficulties.
Reading theory, assessment, materials, and instruction with emphasis on struggling readers; field experiences in reading tutoring. Three lecture hours a week for one semester with additional field hours to be arranged. Curriculum and Instruction 371 (Topic 24: Reading Difficulties) and 371R may not both be counted. Prerequisite: Upper-division standing, twelve semester hours of upper-division coursework in education, or consent of the education adviser; and admission to the professional development sequence of courses and a University grade point average of at least 2.50 .

## EDC 373. African Americans in Sports.

Same as African and African Diaspora Studies 374D (Topic 12). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: African Americans in Sports), 374D (Topic 12), Curriculum and Instruction 373.

EDC 377. Conference Course in Curriculum and Instruction. Independent studies in instructional methodology and curriculum. Conference course. May be repeated for credit. Prerequisite: Upperdivision standing and consent of instructor.

## Department of Educational Psychology

## Educational Psychology: EDP

## Lower-Division Courses

EDP 110, 210, 310. Introduction to Educational Psychology.
Principles of psychology, human development, learning, and teaching. One, two, or three lecture hours a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit when the topics vary.

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\begin{aligned}
& \text { Topic } 1 \text { (TCCN: EDUC 1300, PSYC 1300): Individual Learning } \\
& \text { Skills. } \\
& \text { Topic 2: Selected Topics. } \\
& \text { Topic 3: Intergroup Dialogue. Group discussion of the definitions } \\
& \text { and implications of social identities. Topics may include gender, race, } \\
& \text { ethnicity, religion, sexual orientation, physical ability, and age. }
\end{aligned}
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## EDP 312. Lower-Division Seminar.

Issues and research in various areas of educational psychology and the behavioral sciences. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

Topic 1: Issues and Debates in Life Development. Restricted to students in the Longhorn Scholars Program. Additional prerequisite: Consent of the School of Undergraduate Studies.

## Upper-Division Courses <br> EDP 332. Psychological Foundations of Education.

Scientific contributions to the understanding of human behavior and educational processes: cultural influences, processes of learning and socialization, classroom management, development, intellectual
functioning, and educational achievement. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## EDP 162, 262, 362. The Individual and Education.

Frames of reference for studying human behavior, self-concepts and individual attributes, individual and cultural nature of human learning, societal impacts on the individual personality, individualization of guidance and teaching. One, two, or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing. Additional prerequisites may be required for some topics; these are given in the Course Schedule.

> Topic 1: Emergent Views of Intelligent Behavior.
> Topic 2: Early Childhood.
> Topic 3: Selected Topics.
> Topic 4: Mexican Americans in the Schooling Process. Educational Psychology 362 is same as Mexican American Studies 374 (Topic 8: Mexican Americans in the Schooling Process).
> Topic 5: Chicano Educational Struggles. Educational Psychology 362 (Topic 5) is same as Mexican American Studies 374 (Topic 25: Chicano Educational Struggles).
> Topic 6: Psychology of Race and Racism. Educational Psychology 362 (Topic 6) is same as African and African Diaspora Studies $372 D$ (Topic 1: Psychology of Race and Racism). Only one of the following may be counted: African and African Diaspora 374D (Topic 8: Psychology of Race and Racism), 372D (Topic 1), Curriculum and Instruction 362 (Topic 6).
> Topic 7: Educational Disabilities in Schools.
> Topic 8: Mindfulness, Compassion, and the Self. Designed to give students firsthand experiential knowledge of mindfulness and compassion. Subjects include self-compassion, well-being, and self-concept. Additional prerequisite: Psychology 301 or consent of instructor.
> Topic 9: Psychology of the African American Experience. Same as African and African Diaspora Studies 374D (Topic 11). Examination of the psychology of people of African descent using an Africancentered liberatory model. Only one of the following may be counted: Educational Psychology 362 (Topic: Psychology of the AfricanAmerican Experience), 362 (Topic 9), African and African Diaspora Studies 374D (Topic: Psychology of the African-American Experience), $374 D ~(T o p i c ~ 11) . ~$
> Topic 10: Psychology of Women. Only one of the following may be counted: Educational Psychology 362 (Topic: Psychology of Women), 362 (Topic 10), Women's and Gender Studies 345 (Topic: Psychology of Women).

## EDP 362T. Tests and Measurements.

Fundamental psychometric concepts; educational and psychological measurement instruments; constructing, administering, scoring, and interpreting tests for educational and individual evaluation. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Tests and Measurements--Elementary.
Topic 2: Tests and Measurements--Secondary.
Topic 3: Tests and Measurements--Reading.
Topic 4: Tests and Measurements--Elementary/Secondary/ Reading.

## EDP 363. Personality and Behavior.

Selected approaches to the study of the dynamics of behavior, its antecedents and its appraisal. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Psychology 301 or another introductory behavioral science course.

Topic 1: Selected Topics.
Topic 2: Personality Development.
Topic 3: Human Sexuality.
Topic 4: Dynamics of Interpersonal Communication.
Topic 5: 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 we conceptualize and treat mental disorders. Three lecture hours a week for one semester, with additional laboratory hours to be arranged.
Topic 6: Forensic Psychology: Psychological Issues in Legal Contexts. Designed to familiarize students with various psychological roles and influences in the courtroom; case law as related to expert testimony; ethical practice in forensic psychology; and psychological testing and assessment procedures used and considered best practice in various forensic contexts.

## EDP 363M. Personality and Mental Health.

Exposition of theories of personality, research literature on mental health and character development, applications of principles and theories to the educative enterprise; applications of personality theory to the guidance of children and youth. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in education or other behavioral sciences.

Topic 1: Character Development.
Topic 2: School Promotion of Mental Health.
Topic 3: Adolescent Development. Addresses contemporary adolescent development in relation to major transitions, contextual influences, and psychosocial tasks, with additional emphases on aspects of adolescent identity development. Application to education and teaching adolescents is stressed.

## Topic 4: Life Span Adjustment.

Topic 5: Life Span Development of Black Women. Same as African and African Diaspora Studies 321 N and Women's and Gender Studies 340 (Topic 41). The psychological and social issues that affect the life span development of Black women. Discusses issues such as socioeconomic status, political climate, social norms, gender and ethnic identity, mental health, family dynamics, academic achievement, and social adjustment. Only one of the following may be counted: African and African Diaspora Studies 321N, 372D (Topic: Life Span Development of Black Women), 374D (Topic: Life Span Development of Black Women), Educational Psychology 363M (Topic 5), Women's and Gender Studies 340 (Topic: Life Span Development of Black Women), 340 (Topic 41). Additional prerequisite: Psychology 301 or another introductory behavioral science course.

## EDP 367. Studies in Counseling and Psychotherapy.

Nature of the counseling process, dynamics of behavior change, clientcounselor roles and relationships; an experiencing of the group process as a basis for studying dynamics of individual and group behavior. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Completion of ninety semester hours of coursework, twelve semester hours of upper-division coursework in behavioral sciences, and consent of instructor.

## Topic 1: Introduction to Individual Counseling and Psychotherapy.

Topic 2: A Multicultural Approach to Counseling and
Psychotherapy. Major theories of counseling, client-counselor roles and relationships, history and development of multicultural counseling as an area of study, cultural competency, and the impact of culture on the counseling process.
Topic 3: Substance Abuse Counseling and Theories. Studies in 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 169K, 269K, 369K, 469K. Upper-Division Seminar.

Issues and research in various areas of educational psychology and the behavioral sciences examined in relation to human development. One, two, three, or four lecture hours a week for one semester. Some topics are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in education or other behavioral sciences, and consent of instructor.

Topic 1: Career Planning. Additional laboratory hour to be arranged. Topic 2: Resident Assistant Development.
Topic 3: Students and Community Involvement.
Topic 4: Selected Topics.
Topic 5: Sorority and Fraternity Leadership Issues. Designed to facilitate development of leaders within University sororities and fraternities. Includes leadership skills development in areas such as academics, risk management, social justice, and community service. Additional prerequisite: Consent of the Office of the Dean of Students.
Topic 6: Minority Student Leadership Issues. Same as African and African Diaspora Studies 348C. Exploration of racial identity development and the psychological impact of racism on all students, regardless of ethnicity. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 348C, 374D (Topic: Minority Student Leadership Issues), Educational Psychology 369K (Topic: Minority Student Leadership Issues), 369K (Topic 6). Additional prerequisite: Six semester hours of upper-division coursework in education or other behavioral sciences, and consent of instructor.
Topic 7: Socially Responsible and Ethical Student Leadership. Additional prerequisite: Consent of the Office of the Dean of Students. Topic 8: Training Procedures in Intergroup Dialogue. Designed to develop the foundational skills and knowledge required to facilitate discussions in a culturally diverse group, particularly intergroup dialogues. Topics include social identity and group development; prejudice and stereotyping; intergroup communication; conflict intervention; and community-building techniques.
Topic 9: Practicum in Facilitating Intergroup Dialogue. Additional prerequisite: Consent of the Office of the Dean of Students.
Topic 10: Educational Neuroscience. Explores the interactions between neurobiological processes and education, examining how cognitive neuroscience can inform and guide educational practice, as well as how the impact of the educational experience on brain development and functioning can increase understanding of functional neural systems.

## EDP 371. Introduction to Statistics.

Measures of central tendency and variability; correlation and regression; probability and statistical inference; analysis of variance; nonparametric statistics. Three lecture hours a week for one semester, with additional laboratory hours to be arranged.

## EDP 379L. Problems in Educational Psychology.

Supervised individual research on selected problems in educational psychology. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Educational Psychology 310 or another introductory behavioral science course.

## Department of Kinesiology and Health Education

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Health Education: HED

## Lower-Division Courses

## HED 110. Freshman seminar.

Provides an overview of the life skills that are critical to success, such as academic, social, and health behaviors. Offered on the pass/fail basis only.

## Upper-Division Courses

## HED 127L, 227L, 327L, 627L. Fieldwork in Health Promotion.

Applied experiences in development, delivery, or evaluation of professional health promotion programs. For 127L, one conference hour and two hours of fieldwork a week for one semester; for 227L, one conference hour and five hours of fieldwork a week for one semester; for 327L, one conference hour and eight hours of fieldwork a week for one semester; for 627L, one conference hour and seventeen hours of fieldwork a week for one semester. No more than twelve semester hours in the following courses may be counted: Health Education 127L, 227L, 327L, 627L, Kinesiology 127L, 227L, 327L, 627L. Prerequisite: Upper-division standing, consent of the director of the degree program in kinesiology, and a University grade point average of at least 2.50. A higher grade point average may be required.

## HED 628. Internship in Health Promotion.

Applied experiences in development, delivery, or evaluation of professional health promotion programs. One conference hour and seventeen hours of fieldwork a week for one semester. May be repeated once for credit. Prerequisite: Upper-division standing, consent of the director of the degree program in kinesiology, and a University grade point average of at least 2.50. A higher grade point average may be required.

## HED 329K. Child, Adolescent, and Adult Health.

Restricted to students in the College of Education. The foundations of child, adolescent, and adult health; health education; and the biological, environmental, and behavioral health determinants of health. Includes the application of evidence-based child, adolescent, and adult 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. Three lecture hours a week for one semester.

## HED 335. 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. Three lecture hours a week for one semester.

## HED 343. Foundations of Epidemiology.

Designed to familiarize students with the basic tenets of epidemiology, as well as to provide an introduction to the different types of epidemiological study designs. Three lecture hours a week for one semester. Prerequisite: Consent of instructor.

## HED 352K. Studies in Health: Topical Studies.

Analysis and synthesis of the literature and discussion of current and specific issues in health. Three lecture hours a week for one semester. Laboratory work is required for some topics; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Psychosocial Issues in Women's Health. Psychosocial issues in women's physical and mental health. Includes a broad definition of women's health that considers 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.

## Topic 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.Topic 4: 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 366. Human Sexuality.

Analysis of the physiological, psychological, and social factors in human sexuality. Three lecture hours a week for one semester.

## HED 370K. Topical Seminar in Health Promotion.

Identification, causes, incidence, prevention, control, and social implications of major problems in health. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Foundations of Health Promotion I. Restricted to health promotion students. 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. Additional prerequisite: Upper-division standing and consent of instructor.
Topic 2: Adolescent Health Risk Behavior. Overview of the biological, psychological, social, and environmental determinants of adolescent risk-taking behavior. Risk behaviors of interest will include outcomes stemming from unintentional injuries, intentional injuries (self injury, suicide), tobacco use, alcohol and other drug use, diet, sedentary behavior, and pathological gambling.
Topic 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 371K. Foundations of Health Promotion II.

Introduction to the processes of planning, implementing, and evaluating health promotion programs. Three lecture hours a week for one semester. Health Education 352K (Topic 1: Foundations of Health Promotion II) and 371K may not both be counted. Prerequisite: Upper-division standing and Health Education 370K (Topic 1: Foundations of Health Promotion I).

## HED 373. Evaluation and Research Design.

Restricted to health promotion students. Research methods and program evaluations in health promotion settings. Topics include types of experimental and non-experimental research, validity, reliability, experimental and quasi-experimental research designs, data collection
procedures, measurement of health knowledge, attitudes and behaviors, data analysis, and the presentation of results. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HED 178C, 278C, 378C, 678C. 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. For each semester hour of credit earned, two laboratory hours a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and consent of instructor.

## Kinesiology: KIN

## Lower-Division Courses

## KIN 310. Physiological Basis of Conditioning.

Analysis and discussion of current issues and theories of physical conditioning. Three lecture hours a week for one semester. Kinesiology 310 and 339 may not both be counted.

## KIN 311. 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. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Kinesiology 311, 213 (Topic 2: Water Safety Instruction), 213 (Topic 4: Lifeguarding Instruction). Offered on the letter-grade basis only.

## KIN 311K. Sport Psychology.

The psychological response to sport-related stress and the influence of psychological variables on sport performance and coaching. Three lecture hours a week for one semester.

## KIN 312. Issues in Kinesiology: Topical Studies.

Analysis and discussion of current issues within the discipline of kinesiology. Three lecture hours a week for one semester. Additional hours may be required for some topics; these are identified in the Course Schedule. May be repeated for credit when the topics vary.

Topic 2 (TCCN: PHED 2356): Care and Prevention of Athletic Injuries. Principles of athletic training, including mechanisms, signs and symptoms, treatments, and basic rehabilitation of athletic injuries and illnesses. Three lecture hours and one laboratory/discussion hour a week for one semester.
Topic 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.
Topic 4: Philosophy and Leadership in Sport \& Physical Activity.

## KIN 312G. Golf Instruction.

Designed to train students to teach the game of golf. Three lecture hours a week for one semester, with additional fieldwork hours to be arranged. Prerequisite: Consent of instructor.

## KIN 312M. Management of Physical Activity and Sport Programs.

Introductory survey of the field of sport management. Examines various types of sport organizations and introduces the student to practices in marketing, management, sport law, and basic finance. Includes sport-
specific management challenges, particularly events and facilities, and considerations for the future, such as social issues. Three lecture hours a week for one semester.

## KIN 213. Safety Information and Procedures.

Factors affecting human safety; techniques and procedures to promote and ensure safe living. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## Topic 1 (TCCN: PHED 1206): First Aid.

Topic 2: Water Safety Instruction. Restricted to Kinesiology and Health Education majors; open to others with consent of instructor. 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. Prerequisite: swimming proficiency and confidence in deep water.
Topic 3: Lifeguarding.
Topic 4: Lifeguarding Instruction.

## KIN 314 (TCCN: PHED 1331). Children's Movement.

Introduction to children's movement, physical activity, and fitness; professional standards, policy, and legislation; physiological principles and learning principles. Movement skills and appropriate teaching strategies to provide future teachers with the knowledge and skills to provide and support positive, effective physical education classes for children. Three lecture hours a week for one semester, with additional off-campus service learning project hours to be arranged.

## KIN 315. Motor Learning.

Psychological factors affecting performance and acquisition of motor skills. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Psychology 301.

## KIN 316. 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. Three lecture hours a week for one semester. May be repeated once for credit. Prerequisite: Kinesiology 312M and consent of instructor.

## KIN 217. 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. Three lecture or open-water hours a week, and three internship hours a week for one semester participating in the training of entry-level students. Prerequisite: Certification as a scuba rescue diver and as a National Association of Underwater Instructor (NAUI) Master Scuba Diver, or equivalent knowledge and experience.

## KIN 119. Movement Competence.

Acquisition and knowledge of techniques, with emphasis on learning mechanical and perceptual principles, rules, strategy, and officiating. The equivalent of three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: A major or minor in the Department of Kinesiology and Health Education.

Topic 1: Archery.
Topic 2: Ballet.
Topic 3: Bowling.
Topic 4: Diving.

Topic 5: Fencing.
Topic 6: Golf.
Topic 7: Scuba Diving.
Topic 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. Additional prerequisite: Comfortable in deep water and able to swim two lengths using two strokes, or consent of instructor.
Topic 10: Conditioning. Basic principles involved in designing a sound conditioning program emphasizing resistance training techniques. Additional Prerequisite: Physical Education 106C (Topic 7: Weight Training), or consent of instructor.
Topic 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.
Topic 12: Gymnastics.
Topic 13: Manipulative Activities.
Topic 14: Tennis. Introduction to methods, progressions, strategies, and teaching cues appropriate for playing, teaching, and coaching basic tennis.
Topic 15: Volleyball. Introduction to methods, progressions, and teaching cues appropriate for playing, teaching, and coaching basic volleyball.
Topic 16: Social Dance. Designed for applied movement science majors, and kinesiology and health education majors. Introduction to popular social partner dances, including swing, waltz, salsa, tango, two-step and more. Emphasis on connecting with a dance partner and the art of both leading and following. Optional dance labs for additional practice are offered.
Topic 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.
Topic 18: Adventure Activities. Includes basic skills needed to participate in outdoor/adventure activities. Participants will learn methods, progressions, drills, and performance cues appropriate for participating in and leading outdoor/adventure activities. Includes offcampus activities. Additional prerequisite: Kinesiology 119 (Topic 8 : Swimming) and lifeguard, water safety instructor, or swimming level II certification.
Topic 19: Kinesthetic Awareness and Core Body Development. Introduces 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. Additional prerequisite: A major in applied movement science.

## KIN 219D. Movement Analysis: Dual Activities.

Application of biomechanics and motor learning principles to the analysis of selected movement activities, with particular emphasis on dual sports. Two lecture hours and one laboratory hour a week for one semester. Prerequisite: A major in applied movement science.

## KIN 219G. Advanced Golf.

Designed for the advanced golfer. Includes technical swing analysis and instruction, course management and course play, and tournament play. Two lecture hours a week for one semester, with additional fieldwork hours to be arranged. Prerequisite: Consent of instructor, and a certified Professional Golfers Association (PGA) handicap of 15 or below or equivalent proficiency.

## KIN 219K. Athletics.

Knowledge and skills required for officials, coaches, and athletic trainers of interschool sports. Two lecture hours and two laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Coaching.
Topic 2: Officiating.
Topic 3: Introduction to Athletic Training. 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 a one-day first aid and CPR workshop.

## KIN 219S. Movement Analysis: Individual Activities.

Restricted to kinesiology and health education majors. 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. Two lecture hours and one laboratory hour a week for one semester.

## KIN 219T. Movement Analysis: Team Activities.

Restricted to kinesiology and health education majors. 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. Two lecture hours and one laboratory hour a week for one semester.

## Upper-Division Courses

## KIN 320. 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. Three lecture hours and one and one half laboratory hours a week for one semester. Prerequisite: Kinesiology 324K, and Mathematics 305G or the equivalent.

## KIN 321M. Motor Development and Performance.

Development of fundamental motor patterns and skills from birth to adolescence; factors that influence motor skill development, such as growth, maturation, and neural and physiological mechanisms. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Upper-division standing.

## KIN 322. Diagnosis and Evaluation of Fitness.

Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Kinesiology 310, 324K, and 325K.

## KIN 324K. 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. Two lecture hours and three laboratory hours a week for one semester. Biology 478L and Kinesiology 324K may not both be counted.

## KIN 325K. Physiology of Exercise.

Application of principles of physiology to muscular activities. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Kinesiology 324 K or a course in human physiology.

## KIN 226. 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. Two lecture hours a week for one semester. Prerequisite: Weight training experience, or consent of instructor.

## KIN 326K. Kinesiology: Biomechanical Analysis of Movement.

Study of the principles of equilibrium, force, and motion as applied to human movement. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Kinesiology 324 K , Mathematics 408C, and Physics 302K.

## KIN 127L, 227L, 327L, 627L. Fieldwork.

Supervised fieldwork or clinical work in appropriate activities. For 127L, one conference hour and two hours of fieldwork a week for one semester; for 227L, one conference hour and five hours of fieldwork a week for one semester; for 327L, one conference hour and eight hours of fieldwork a week for one semester; for 627L, one conference hour and seventeen hours of fieldwork a week for one semester. May be repeated for credit up to twelve semester hours. No more than twelve semester hours in this course may be counted. No more than twelve semester hours in the following courses may be counted: Health Education 127L, 227L, 327L, 627L, Kinesiology 127L, 227L, 327L, 627L. No more than twelve semester hours in the following courses may be counted: Kinesiology 127L, 227L, 327L, 627L, 628. Students taking Kinesiology 127L, 227L, or 327 L as an elective outside the major must register on the pass/fail basis; those using it to fulfill a degree requirement must register on the lettergrade basis; those taking it as an elective within the major may register on either the pass/fail or the letter-grade basis. Prerequisite: Upper-division standing, consent of the director of the degree program in kinesiology, and a University grade point average of at least 2.50. A higher grade point average may be required. Students will be dropped from the course if they have not obtained the director's consent in advance.

Topic 3: Aiding in Fitness Leadership.
Topic 4: Fieldwork in Kinesiology.
Topic 5: Personal Training. Additional prerequisite: Kinesiology 332.
Topic 6: Clinical Exercise Testing. Additional prerequisite:
Kinesiology 322 and consent of instructor.
Topic 8: Teaching Physical Education. Introduction to the mission and standards for quality physical education. Designed to aid in career choice and the opportunity to experience teaching with master teachers in the school. Includes off-campus instruction with physical education teachers in elementary and secondary school physical education programs.
Topic 9: Sensory Motor Integration. Students participate in The Autism Project (TAP) to explore evidence-based practices and service learning options used with children and adults on the autism spectrum. Additional prerequisite: Consent of instructor.
Topic 10: Laboratory Research in Kinesiology.

## KIN 628. Fieldwork in Sport Management.

Twenty-seven hours of fieldwork a week for one semester. May be repeated once for credit. No more than twelve semester hours in the following courses may be counted: Kinesiology 127L, 227L, 327L, 627L, 628. Prerequisite: Upper-division standing, a University grade point
average of at least 2.50, completion of an online test, and consent of the faculty adviser.

## KIN 330E. Sport Nutrition.

The nutritional needs of people whose physical activity ranges from recreational to elite competitive athletics. Development of practical dietary strategies based upon understanding how macronutrients, vitamins, minerals, and water are digested and absorbed for metabolism. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and Chemistry 314 N or a course in human physiology.

## KIN 331. Physical Aging in America.

Three lecture hours a week for one semester. Kinesiology 331 and 352K (Topic: Physical Aging in America) may not both be counted. Prerequisite: Upper-division standing; Kinesiology 310, 315, or 325K; and six additional semester hours of coursework in kinesiology.

## KIN 332. 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. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Kinesiology 310 or 325 K.

## KIN 334. Children's Exercise and Physical Activity.

Children's changing capacity for performance in exercise and sport. Includes performance changes as a function of physical growth and maturation, physiological response to activity and training, the relationship between children's health and adult health, and the psychosocial parameters that influence participation in physical activity. Three lecture hours a week for one semester. Prerequisite: Kinesiology 310.

## KIN 336. Neuromuscular Control.

Central and peripheral nervous system control of human muscular contractions and limb movement. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Kinesiology 324K, or a course in human physiology.

## KIN 338. 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. Three lecture hours a week for one semester. Prerequisite: Kinesiology 321 M ; Kinesiology 360 is recommended.

## KIN 340. 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 140C. 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. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

## KIN 140D. 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 an approved clinical instructor. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

## KIN 140E. 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. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

## KIN 140F. 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 an approved clinical instructor. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

## KIN 140G. 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. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

## KIN 140J. 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 an approved clinical instructor. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

## KIN 341. Therapeutic Modalities in Athletic Training.

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. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Kinesiology 312 (Topic 2), or consent of instructor.

## KIN 342. Clinical Evaluation of Athletic Injuries in the Lower Body.

The study and practice of techniques involved in the evaluation of athletic injuries affecting the lower body. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Kinesiology 312 (Topic 2) and 324 K , and concurrent enrollment in Kinesiology 343; or consent of instructor.

## KIN 343. Clinical Evaluation of Athletic Injuries in the Upper Body.

The study and practice of techniques involved in the evaluation of athletic injuries affecting the upper body. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Kinesiology 312 (Topic 2), 324 K , and concurrent enrollment in 342 ; or consent of instructor.

## KIN 344. Therapeutic Exercise and Rehabilitation Techniques.

The study and practice of therapeutic exercise techniques and rehabilitation protocols in treating athletic injuries and illnesses. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Kinesiology 324K and 342, or consent of instructor; credit or registration for Kinesiology 119 (Topic 10) and 226 or 363.

## KIN 345. Topics in Athletic Training.

Presentations, including some by medical and allied medical specialists, covering topics in athletic training and sports medicine. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Consent of instructor.

## KIN 346. Athletic Training Program Administration.

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. Three lecture hours a week for one semester. Prerequisite: Kinesiology 219K (Topic 3), 341, 342, and 344; or consent of instructor.

## KIN 347. Historical and Ethical Issues in Physical Culture and

 Sports.Designed to provide an overview of the historical antecedents of the modern fitness movement and examine the intellectual and social motivations involved in the pursuit of health and physical fitness. Explores the history of sport science, how laboratory revelations lead to new fitness regimens, and 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. Three lecture hours a week for one semester.

## KIN 348. Psychological Aspects of Exercise.

Examines both the psychological benefits that accrue from exercise, such as reduced depression and stress, as well as the psychological predictors of exercise adherence. Three lecture hours a week for one semester.

## KIN 349. History of Sport and Physical Activity.

Restricted to students in the Bachelor of Science in Kinesiology and Health with a major in physical culture and sports or sport management. Significant developments in sport and physical activity since prehistoric time; emphasis on events influencing contemporary American programs and the International Olympic Games. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

KIN 350. Sociological Aspects of Sport and Physical Activity. Restricted to students in the Bachelor of Science in Kinesiology and Health with a major in physical culture and sports or sport management. Three lecture hours a week for one semester. Kinesiology 350 and 352 K
(Topic: Sociological Aspects of Sport and Physical Activity) may not both be counted.

## KIN 351. Philosophy of Sport and Physical Activity.

Restricted to students in the Bachelor of Science in Kinesiology and Health with a major in physical culture and sports or sport management. Designed to introduce the student 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## KIN 352K. Studies in Human Movement: Topical Studies.

Analysis and synthesis of the literature and discussion of current and specific issues in kinesiology. Three lecture hours a week for one semester. Laboratory work is required for some topics; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Women and Sport. Same as Women's and Gender Studies 345 (Topic 5: Women and Sport).
Topic 5: Sport, Fitness, and Mass Media. Same as American Studies 322 (Topic 3: Sport, Fitness, and Mass Media).
Topic 6: Race and Sport in African American Life. Same as African and African Diaspora Studies 372E (Topic 19) and Anthropology 324 L (Topic 26). Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 19), 374 (Topic 27), Anthropology 324L (Topic 26), Kinesiology 352K (Topic 6) Additional prerequisite: Upper-division standing.

## KIN 353. Sport Law.

Restricted to students in the Bachelor of Science in Kinesiology and Health with a major in sport management. Introduces the legal principles applicable to a variety of sport settings. Topics include tort liability, with a special emphasis on the effective management of risk; and constitutional law issues, focusing on the individual rights of amateur athletes and employees in sport organizations. Three lecture hours a week for one semester.

## KIN 354. Sport and Event Marketing.

Restricted to students in the Bachelor of Science in Kinesiology and Health with a major in sport management. Application of the fundamental principles used in the marketing of sport and events. An introduction to service quality for increasing customer satisfaction and effectiveness of sport organizations. Three lecture hours a week for one semester.

## KIN 355. Media and Public Relations in Sport.

Examination and application of the concepts of public and media relations to sport and leisure organizations. Topics include effective interpersonal communication, persuasion, media relations, publicity tactics, and writing and oral communications skills. Three lecture hours a week for one semester.

## KIN 356. Revenue and Budgeting in Sport.

Restricted to students in the Bachelor of Science in Kinesiology and Health with a major in sport management. 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. Three lecture hours a week for one semester.

## KIN 357. Strategic Management of Sport Organizations.

Restricted to students in the Bachelor of Science in Kinesiology and Health with a major in sport management. Examination of management and service delivery systems in sport organizations. Designed to develop specific knowledge and management skills in the areas of human
resources, events, facilities, and risk management. Three lecture hours a week for one semester. Prerequisite: Kinesiology 354 and 356.

## KIN 360. Programming for People with Disabilities.

Restricted to students with a major or minor in the Department of Kinesiology and Health Education. Designed for Applied Movement Science majors. Course investigates programming options for people with disabilities in the area of sport, recreation, and community involvement. Three lecture hours a week for one semester, with additional field observation hours to be arranged. Prerequisite: Six semester hours of coursework in kinesiology, or consent of instructor.

## KIN 361. Coaching Theory and Principles I.

Examines the philosophy, ethics, strategies, motivational techniques, performance analysis, program organization, contest administration, and facilities management related to coaching. Three lecture hours a week for one semester.

## KIN 362. Coaching Theory and Principles II.

Examines the process of becoming a successful coach and developing a coaching protocol for a specific sport. Three lecture hours a week for one semester. Prerequisite: Kinesiology 361 or consent of instructor.

## KIN 363. Theory and Practice in Strength Coaching.

Explores the physiology and biomechanics of strength training and conditioning, as well as popular assessment protocols and exercise prescription principles. Additional areas include the organization and administration of a strength/conditioning facility, staff utilization, integration of weight training with other training techniques, and other standard strength coaching practices. Three lecture hours a week for one semester.

## KIN 364. 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. Three lecture hours a week for one semester.

## KIN 365. The Business of Golf.

Restricted to students in the College of Education. Designed for students pursuing a career in the golf business. Includes clubhouse and links management, sales, agronomy, technology, and equipment. Three lecture hours a week for one semester.

## KIN 370K. Topical Seminar in Health Promotion.

Identification, causes, incidence, prevention, control, and social implications of major problems in health. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## Topic 1: Emergency Medical Technology.

## KIN 375. 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. Two lecture hours and three laboratory hours a week for one semester.

## KIN 376. 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. Three lecture hours a week for one semester. Prerequisite: Six semester hours of upper-division coursework in kinesiology.

## KIN 178, 278, 378, 678. 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. For each semester hour of credit earned, two laboratory hours a week for one semester. Some topics are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

Topic 1: Substance Abuse Prevention I.
Topic 2: Substance Abuse Prevention II.
Topic 3: Sexual Health I.
Topic 4: Substance Abuse Prevention III. Offered on the letter-grade basis only.

## KIN 379H. Honors Tutorial Course.

Readings or a research project, under the supervision of a faculty member, in specific areas of research within kinesiology. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: A University grade point average of at least 3.00 and consent of instructor.

## Physical Education: PED

## Lower-Division Courses

PED 101J. Swimming.
Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Swimming I. For nonswimmers. Elementary physical and mental adjustments, four basic strokes, water safety.
Topic 2: Beginning Swimming II. For well-adjusted but weak swimmers. Five basic strokes, elementary diving, water safety.
Topic 3: Intermediate Swimming. For the average swimmer. Six power strokes, diving, water safety, introduction to conditioning.
Topic 5: Stroke Technique and Fitness Swimming.

## PED 102G (TCCN: PHED 1151, PHED 1152). Skin Diving and Scuba Diving.

Training in underwater safety, skin and scuba skills, care of equipment. Culminates in PADI certification. Three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Advanced-level swimming skills. Strong swimming and survival skills required.

Topic 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.
Topic 2: Intermediate Scuba Diving. Open to divers with Basic Certification. Classroom, pool, and open water training with emphasis on navigation, air consumption, emergency procedures, night dives. Culminates in nationally recognized certification.
Topic 3: Advanced Scuba Diving. Open to experienced divers with Intermediate Certification. 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 103L. Social Dance.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Beginning Social Dance. Introduction to popular social partner dances, including swing, waltz, two-step, salsa, tango and more. Emphasis on connecting with a dance partner and the art of leading and following. May not be counted by students with credit for Kinesiology 119.
Topic 2: Intermediate Social Dance. An intermediate survey of popular social dances. Includes more complex partnering and variations in familiar and new dance styles. Additional prerequisite: Kinesiology 119 (Topic 16: Social Dance) or Physical Education 103L (Topic 1).
Topic 3: Advanced Social Dance. An advanced survey of popular social partner dances. Includes advanced partnering, role reversal, and an emphasis on creativity and style. Additional prerequisite: Physical Education 103L (Topic 2: Intermediate Social Dance), and audition on first class meeting.

## PED 104P. Tennis.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Tennis. For the nonplayer.
Topic 2: Advanced Beginning Tennis. For players with weak strokes and serves.
Topic 3: Intermediate Tennis. Prerequisite: A steady stroke and consistent serve.
Topic 4: Advanced Intermediate Tennis. Prerequisite: Skilled allcourt play.
Topic 5: Advanced Tennis. Prerequisite: Competence for tournament play.

## PED 104R. Racquetball.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Racquetball. For the nonplayer.
Topic 2: Intermediate Racquetball. Prerequisite: Racquetball experience.
Topic 3: Advanced Racquetball. Prerequisite: Competence for tournament play.

## PED 105C. Handball.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Handball. For the nonplayer.
Topic 2: Intermediate Handball. Prerequisite: Handball experience.
Topic 3: Advanced Handball. Prerequisite: Competence for tournament play.
Topic 4: Handball Doubles. Prerequisite: Handball experience.

## PED 105M. Fencing.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Fencing: Foil.
Topic 2: Beginning Fencing: Epee.
Topic 3: Intermediate Fencing: Foil. Prerequisite: Physical Education 105M (Topic 1).

Topic 4: Intermediate Fencing: Epee. Prerequisite: Physical Education 105M (Topic 2).
Topic 5: Intermediate Fencing: Saber. Prerequisite: Physical Education 105M (Topic 1).
Topic 6: Advanced Fencing: Foil. Prerequisite: Any intermediatelevel fencing course.

## PED 105R. Karate/Tae Kwon Do.

Includes self-defense. Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Karate/Tae Kwon Do. Prerequisite: No experience required.
Topic 2: Intermediate Karate/Tae Kwon Do. Prerequisite: Karate experience.
Topic 3: Advanced Karate/Tae Kwon Do. Prerequisite: Competence for tournament play.

## PED 105T. Judo.

Includes self-defense. Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Judo. No experience required.
Topic 2: Intermediate Judo. Prerequisite: Judo experience.
Topic 3: Advanced Judo. Prerequisite: Competence for tournament play.

## PED 106C. Conditioning.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Swim Conditioning.
Topic 2: Cardiovascular and Weight Training.
Topic 3: Aerobic Walking.
Topic 4: Aerobics.
Topic 5: Body Works.
Topic 6: Circuit Aerobics.
Topic 7: Weight Training.
Topic 8: Running.
PED 107C. Archery.
Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Archery. Basic form.
Topic 2: Intermediate Archery. Bow mechanics and competition. Prerequisite: Archery experience.
Topic 3: Intermediate Field Archery. Prerequisite: Archery experience.
Topic 4: Advanced Archery. Tournament shooting and psychology of competition. Prerequisite: Intermediate-level archery skills or 225 FITA average.

## PED 107D. Golf.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Golf.
Topic 2: Intermediate Golf. Prerequisite: One semester of beginning golf or an eighteen-hole scoring average of eighty to one hundred.

## PED 107L. Gymnastics.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Tumbling and Trampoline.

Topic 2: Intermediate Tumbling and Trampoline. Prerequisite: Tumbling and trampoline experience.
Topic 3: Rhythmic Gymnastics. Combination of gymnastics and dance movements performed to music using the hand apparatus of balls, hoops, ribbons, or ropes.
Topic 4: Beginning Gymnastics I. Apparatus work in either men's or women's Olympic gymnastics events.
Topic 5: Beginning Gymnastics II. Apparatus work in either men's or women's Olympic gymnastics events. Prerequisite: Limited gymnastics experience.
Topic 6: Intermediate Gymnastics. Apparatus work in either men's or women's Olympic gymnastics events. Prerequisite: Gymnastics experience.
Topic 7: Intermediate Advanced Gymnastics. Apparatus work in either men's or women's Olympic gymnastics events. Intense activity. Prerequisite: Gymnastics experience.
Topic 8: Advanced Gymnastics. Apparatus work in either men's or women's Olympic gymnastics events. Intense activity. Prerequisite: Intermediate-level gymnastics experience.

## PED 108C. Basketball.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Basketball. For those with little or no basketball experience.
Topic 2: Intermediate Basketball. For those with some skills in the game.
Topic 3: Advanced Basketball. For those with high skill and some competitive experience.

## PED 108J. Power Volleyball.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Power Volleyball. For those with few or no volleyball skills.
Topic 2: Intermediate Power Volleyball. For those with good basic skills: bump, set, spike, serve.
Topic 3: Advanced Power Volleyball. For those with high skills and knowledge of multiple offenses.

## PED 108S. Softball.

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Beginning Softball. For those with few softball skills. Topic 2: Intermediate Softball. For those with experience and good basic skills.

## Upper-Division Courses <br> Science

## Science: SCI

## Lower-Division Courses

## Upper-Division Courses

## SCI 360. Seminar on Recent Advances in Science.

Recent advances in the life, earth/space, and physical sciences. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For certified teachers, a bachelor's degree or consent of instructor; for others, six semester hours of coursework in science, in the biological sciences, in one of the physical sciences, or in one of the earth/space sciences, or consent of instructor.

Topic 1: Life Science.
Topic 2: Earth Science.
Topic 3: Physical Science.
Topic 4: Physics by Inquiry.

## Special Education

## Special Education: SED <br> Lower-Division Courses <br> Upper-Division Courses

## SED 332. Field Experiences in Special Education.

Observation and participation in a variety of educational settings that serve children with disabilities. Two lecture hours and two four-hour sessions of fieldwork a week for one semester. Fieldwork sessions must be arranged between 8:00 AM and noon. Required for all undergraduate students seeking special education certification.

## SED 337. 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. Three lecture hours a week for one semester. Required for undergraduate students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## SED 360, 660, 960. Apprenticeship: Research to Practice.

Supervised practicum in special education classroom teaching, conducted in cooperating schools, as part of the teacher preparation program. Consists of teaching, analysis, and evaluation. Two lecture hours and at least fifteen, thirty, or forty-five hours of fieldwork a week for one semester. Required for undergraduate students seeking special education certification. Offered on the pass/fail basis only. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

SED 366. Behavior Management for the Exceptional Learner.
Behavior management procedures used in a variety of educational environments with a wide range of learners. Emphasis on instructional procedures, behavior and program evaluation, and principles of applied behavior analysis. Instructional management, classroom management, functional assessment of behavior, procedures for increasing successful school behavior while decreasing undesirable behavior, social skills instruction, and crisis management. Three lecture hours and two one-hour field placement sessions a week for one semester. Required for students seeking special education certification. Prerequisite: Applied Learning and Development 322 and consent of the undergraduate adviser.

## SED 667. Student Teaching in Special Education.

Directed and closely supervised performance in the full range of duties of a teacher, conducted in cooperating schools; accompanying directed study and seminars. Required in the professional development sequence for elementary school teacher candidates also seeking special education certification. Forty hours a week for one semester. Offered on the pass/ fail basis only. Prerequisite: Completion of the twenty-four hours of coursework required for the special education academic specialization; consent of the undergraduate adviser; and admission to the professional development sequence of courses. Admission by application only, filed in the Office of Student Field Experiences by March 1 for fall semester registration and by October 1 for spring semester registration.

## SED 372. 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. Three lecture hours a week for one semester. Required for students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## SED 675. Instructional Methods in Special Education.

Procedures and practice in the instruction of students with mild or moderate exceptionalities. Emphasis on adaptations within the regular classroom and methods specific to exceptionalities. Three lecture hours a week for one semester, and six hours a week in an internship. Required for students seeking special education certification. Prerequisite: Applied Learning and Development 322, Special Education 376, and consent of the undergraduate adviser.

## SED 375C. Teaching Individuals with Mild to Moderate Disabilities.

Instructional practices associated with improved outcomes for students with mild to moderate disabilities receiving services in general and special education classrooms, including an emphasis on teaching reading in content areas, such as mathematics, science, and social studies. Three lecture hours and sixteen to twenty internship hours a week for one semester. Required for students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## SED 376. 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. Three lecture hours a week for one semester. Required for students seeking special education certification.

## SED 377. 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. Three lecture hours a week for one semester, with fieldwork to be arranged. Required for students seeking special education certification. Prerequisite: Applied Learning and Development 322 and consent of the undergraduate adviser.

## SED 378D. Assessment Practices in Autism and

 Developmental Disabilities.Assessment practices for developing and evaluating educational programs for individuals with autism and developmental disabilities. Considers the theoretical orientations that underlie the major assessment strategies, including standardized, behavioral, and informal practices. Three lecture hours and three hours of fieldwork a week for one semester. Required for students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## SED 378E. Advanced Early Childhood Intervention.

Designed to assist students in acquiring 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. Three lecture hours and eight hours of fieldwork a week for one semester. Required for students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## SED 378R. Reading Assessment and Development with Diverse Populations.

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. The emphasis is on reading, spelling, and writing for kindergarten through grade five. Three lecture hours and four hours of fieldwork a week for one semester. Required for students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## SED 378S. Teaching Individuals with Autism and Developmental Disabilities.

Assessment and instructional strategies for educating students with autism and other developmental and physical disabilities. Focuses 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. Three lecture hours and eight hours of fieldwork a week for one semester. Required for students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

## SED 378T. Topics in Special Education.

Three lecture hours and three and one-half hours of fieldwork a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Language-Minority Students in Special Education. Prerequisite: Applied Learning and Development 322.

## SED 379. Seminar in Special Education.

Specialized study in an identified area of interest in education of the exceptional child. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Applied Learning and Development 322 and consent of the undergraduate adviser.

# Cockrell School of Engineering 

Sharon L. Wood, PhD, PE, Dean<br>Gerald E. Speitel Jr., PhD, PE, Associate Dean for Academic Affairs John C. Halton III, MA, Associate Dean for School and Alumni Relations John G. Ekerdt, PhD, PE, Associate Dean for Research<br>Patricia A. Gore, MEd, Assistant Dean for Student Affairs Wesley G. Queen, BBA, Assistant Dean for Business Affairs http://www.engr.utexas.edu/

## General Information

## Mission

The mission of the Cockrell School of Engineering is to achieve excellence in undergraduate and graduate education, research, and public service. The school strives to provide an educational experience that inspires students to reach for the highest levels of intellectual attainment and personal growth throughout their lives, to provide a scholarly and professional environment that enables students and faculty members to make lasting contributions to the advancement of knowledge and the creative practice of engineering, to engage in service that enhances the public's understanding of technology and facilitates the use of technology for the betterment of society, and to lead the nation in providing equality of opportunity for engineering education.

Engineering education affords individuals the opportunity to prepare themselves for life in an era when human well-being depends more than ever before on the ability to apply technology for the benefit of society. It has become clear that in producing the goods and services demanded by an expanding population, we must consider the effects of technology on the environment. Solution of many of the problems faced by society today will involve a high level of technology.

Engineers are involved with all the devices and systems made by and for people-buildings and factories, transportation and communication systems, equipment for generating and distributing electrical energy, computers and electronic devices; indeed, all of the manufactured products we see around us. Engineers of diverse backgrounds working together and with other professionals have produced heart pumps, surgical lasers, robotics for manufacturing and construction, polymers, safer and more efficient nuclear reactors, advances in space research and in environmental protection, safe and attractive bridges, satellites and telecommunication systems, and small but powerful computers. Just as much of the technology being applied today has been developed within the past ten years, the solution of tomorrow's problems will require the development of new technology through engineering research.

In addition to its traditional function of giving men and women the opportunity to prepare for careers as professional engineers, the Cockrell School of Engineering also has a second function: providing the opportunity to acquire a technical background to students who plan to continue their education in areas such as business, public affairs, law, medicine, and scientific disciplines related to engineering. The engineering faculty willingly accepts its obligation to enhance cooperation between engineers and others working to improve the quality of life.

The school is organized into academic departments that offer a variety of degrees. Although there are distinct differences among the degree programs, they have much in common; all are based on a foundation of mathematics, natural sciences, and basic engineering subjects. Following the development of an adequate foundation during the first two years, an engineering student begins concentrated study in a particular area.

During the senior year the student delves into practical engineering problems, developing skills in defining a problem, translating available information into equations that can be analyzed logically, creating additional information when necessary, and choosing a course of action that has a reasonable chance of producing the desired results.

The school seeks to give students the knowledge necessary to take advantage of opportunities in a number of areas. The engineer who begins a professional career immediately following graduation usually will find opportunity for a variety of responsible positions in industry and government. The first assignments usually are of a technical nature. Later, one may choose to become a technical specialist or to move into positions involving administration and management. Either choice can lead to a rewarding professional career.

Many engineering graduates elect to continue their education. Studies by the American Society for Engineering Education indicate that nearly 50 percent of all engineering graduates eventually earn a master's degree. Most do their graduate work in engineering, either in a professional program where advanced design techniques are emphasized or in a graduate school where the emphasis is on research. Others elect to enroll in graduate programs in other disciplines. The flexibility to accommodate a broad spectrum of educational objectives has been incorporated into the degree structure of the Cockrell School of Engineering through technical area options and electives that permit students to define programs of study that best suit their needs.

## History

The Department of Engineering was established in 1884, an outgrowth of work in applied mathematics first offered in the Department of Literature, Science, and Arts. About 1920, the department became a college; in 2007, the college was renamed the Cockrell School of Engineering in honor of Ernest Cockrell Jr., an alumnus and benefactor of the University. The first degree in engineering, a Bachelor of Science with a major in civil engineering, was conferred in 1888. Civil engineering degrees have been conferred since 1894 and electrical engineering degrees since 1896.

Degrees in architecture were conferred in the College of Engineering from 1909 through 1951, when the School of Architecture became an autonomous division of the University. Degrees in chemical engineering have been conferred since 1916; degrees in mechanical engineering since 1919; degrees in architectural engineering since 1928; degrees in petroleum engineering since 1931; degrees in aeronautical engineering from 1943 to 1959 and in aerospace engineering since 1960; degrees in ceramic engineering from 1948 to 1961; degrees in meteorology from 1951 to 1963; degrees in geosystems engineering and hydrogeology, offered jointly with the College of Natural Sciences, since 1996; and undergraduate degrees in biomedical engineering beginning in 2002. A degree in engineering science was offered from 1960 until 1988.

## Facilities

The Cockrell School occupies six buildings on the central campus, with a total of 927,000 square feet for classrooms, laboratories, and offices. The Nuclear Engineering Teaching Laboratory and a substantial number of other engineering research laboratory facilities are housed at the J. J. Pickle Research Campus, about six miles north of the central campus.

## Research Organizations

Faculty members and students of the Cockrell School of Engineering may participate in a wide variety of research projects conducted under the Bureau of Engineering Research. The bureau and its component research units are supported by federal, state, and industrial research contracts and grants that provide part-time employment for selected undergraduate and graduate students and for some faculty members.

More than six hundred individual research projects are usually underway at any one time. In addition to providing students with experience in research methodology, these research projects enable faculty members to keep abreast of developments in their principal areas of interest.

Research units currently operating within the Bureau of Engineering Research are the Center for Aeromechanics Research; Center for Energy and Environmental Resources; Center for Energy Security; Center for Mechanics of Solids, Structures, and Materials; Center for Petroleum and Geosystems Engineering; Center for Research in Water Resources; Center for Space Research; Center for Transportation Research; Construction Industry Institute; Phil M. Ferguson Structural Engineering Laboratory; Microelectronics Research Center; Nanomanufacturing Systems for Mobile Computing and Mobile Energy Technologies Center; and the Wireless Networking and Communications Group.

The Nuclear Engineering Teaching Laboratory is an academic unit of the Cockrell School. Interdisciplinary research units operated cooperatively by the school and other colleges are the Energy Institute; Texas Materials Institute; the Center for Construction Industry Studies; the Center for Perceptual Systems; and the Institute for Computational Engineering and Sciences. Research organizations are located both on the main campus and at the J. J. Pickle Research Campus.

## Libraries

University libraries include Perry-Castañeda Library (social sciences and humanities), Mallet Chemistry Library, Kuehne Physics Math Astronomy Library, Life Science Library, and Walter Geology Library. The units together make up one of the largest academic libraries in the United States, with more than six million volumes covering almost all fields of academic and scientific research.

The Richard W. McKinney Engineering Library, a branch of the University Libraries located on the sixth floor of the Perry-Castañeda Library (PCL), supports teaching and research in all fields offered by the school. Extensive facilities are available for electronic retrieval of technical literature at http://www.lib.utexas.edu/. Special resources, such as the online Ask a Librarian, access to selected industry standards, several information tutorials, and US patent and trademark searching are available at http://www.lib.utexas.edu/engin/.

All units of the University Libraries offer reference services, circulation and reserve, access to electronic information, and interlibrary loan services. Reserve materials (such as textbooks) are available at the Kuehne Physics-Mathematics-Astronomy Library (PMA) in Robert Lee Moore Hall (RLM).

## Engineering Development Office

In 1955, the University of Texas System Board of Regents authorized establishment of the Engineering Foundation Advisory Council (renamed the Engineering Advisory Board in 2007) to promote academic excellence in engineering education. Since then, with the board's leadership, the Cockrell School of Engineering has received generous support from individuals and corporations to develop programs of excellence. This philanthropy supports academic and leadership programs for students, scholarships for undergraduate students, fellowships for graduate students, facility development, and faculty support in the forms of endowed chairs and professorships, fellowships, and innovations in teaching and research. The Cockrell School's development staff encourages gifts to the school through its Friends of Alec annual giving program, the establishment of endowments, estate planning, and the fostering of long-lasting relationships with alumni, friends, and corporate partners.

## Financial Assistance through the School Engineering Scholarship Program

The Engineering Scholarship Program recognizes students in the Cockrell School of Engineering with scholarship awards based primarily on merit and leadership. To be considered for engineering scholarships, future students should complete the scholarship section of the University's ApplyTexas admission application by December 1, marking engineering as their first-choice major.

Current engineering students should complete their online engineering scholarship application by March 1 each year to be considered for scholarship awards from the Cockrell School and from their department for the following year. Additional information, including current scholarship listings, awardee instructions and links to external scholarship resources is available at http://www.engr.utexas.edu/undergraduate/scholarships.

## Student Services

## Engineering Student Services and Advising

Engineering Student Services and Advising (ESSA) serves the University and the public by helping to recruit, retain, and graduate engineering students. The office aims to accomplish this mission by providing personal and responsive guidance and support throughout each student's University experience. The staff strives to provide a foundation for students to develop successful lives, careers, and long-term relationships with the Cockrell School of Engineering and the University of Texas at Austin.

The Assistant Dean for Students and the academic advisers represent the dean in all student matters. Academic advisers strive to build a strong foundation for academic and professional success for all engineering students, through personalized and responsive guidance throughout the four-year college experience. In addition, the ESSA helps students, staff, and faculty navigate the policies and procedures of the Cockrell School and the University. Students may seek assistance in person in the Engineering Student Services Building (ESS), by phone at (512) 471-4321, or by e-mail to student-affairs@engr.utexas.edu. The Engineering Student Services and Advising also provides information online at http://www.engr.utexas.edu/undergraduate/services/.

## Advising

## Academic Advising

There are several offices within the Cockrell School that work together to provide the engineering student with academic advising services. It is the engineering student's responsibility to be aware of these services and to take advantage of them. Faculty, departmental, and Engineering Student Services academic advisers are available throughout the year to discuss matters that affect the student's academic progress toward degree completion.

To facilitate movement through an academic program, each engineering student must be advised in his or her major department before registering for each semester or summer session. Each student should review his or her audit every semester through IDA, the University's Interactive Degree Audit system. The advising audit lists the courses remaining in the student's degree plan and the requirements the student has not yet fulfilled. It normally provides an accurate statement of requirements, but the student is responsible for knowing the exact requirements for the degree as stated in a catalog under which he or she is entitled to graduate.
Another advising tool for the student is the G4 Web-based application, which shows undergraduate students that they can complete a bachelor's degree in engineering from the University in four years. It provides a
visual representation of a student's degree plan, shows progress towards degree, and helps a student forecast the impact of course selection on time to graduation. Engineering students can access G4 online at http:// www.engr.utexas.edu/features/7583-g4-scheduling-for-graduation.

## Counseling and Referral Services

The Office of Student Affairs advises and counsels students about problems or concerns they have about their academic work or life in the school.

In addition, University counseling services are available from the Counseling and Mental Health Center, the Telephone Counseling Service, the Sanger Learning Center, and University Health Services. These offices are described in General Information.

## Student Organizations and Programs

## Engineering Student Life

Founded in 1999, Engineering Student Life (ESL) was the first leadership development office in an academic unit at the University of Texas at Austin. ESL programs provide various opportunities for engineering students to develop skills in leadership, teamwork, communications, and ethics outside the classroom, in addition to involving students in the Cockrell School community. Some of the programs include Gone to Engineering, Ramshorn Retreats, and the LeaderShape Institute. ESL is the Cockrell School's primary liaison to the over eighty-five engineering student organizations. Many organizations are student chapters of national professional engineering organizations.

More information about Engineering Student Life, its programs, and engineering student organizations is available in person in the Engineering Student Services Building, or online at http:// www.engr.utexas.edu/studentlife/.

## Equal Opportunity in Engineering Program

The Equal Opportunity in Engineering (EOE) Program invites students to become part of an exciting community that focuses on academic success and personal growth. EOE initiatives such as the Fall KickOff, First-Year Interest Groups (FIGs), and Engineering Peer Leaders help students establish a strong academic foundation and promote the formation of a peer support network. In addition, EOE provides students with access to tutoring, undergraduate research opportunities through the Texas Research Experience (TREX) program, and professional development workshops. In partnership with Pi Sigma Pi Minority Academic Engineering Society, the National Society of Black Engineers, and the Society of Hispanic Professional Engineers, the EOE Program builds a network that makes it easy to meet other engineering students, form study groups, and develop friendships that last well after graduation.

The Cockrell School established the EOE Program in 1970 to promote the recruitment and academic development of African American, Hispanic, and Native American students interested in pursuing careers in engineering. Since that time, EOE has expanded its goals and now seeks to increase the diversity of its student body by supporting students who come from historically underrepresented population groups in Texas or who have backgrounds or experiences that will contribute to the overall diversity of the Cockrell School of Engineering.

Additional information about the EOE Program is available in person on the first floor of the Bridgeway Building (BWY), online at http:// www.engr.utexas.edu/eoe/; by phone at (512) 475-5953; and by e-mail to eoe@engr.utexas.edu.

## Women in Engineering Program

The Women in Engineering Program (WEP) has a goal to increase the overall percentage of women enrolled in and graduating from the Cockrell School of Engineering. WEP connects students, educators, and professionals to the world of engineering through recruitment initiatives, supportive structures, and educational services to promote the success and advancement of women in engineering.

WEP's First-Year Initiative (FYI) provides academic and peer support to connect first-year students to the engineering community. The Women in their Second Year of Engineering (WISE) and Consider Every Option (CEO) programs and workshops provide career exploration opportunities to help second-year students and beyond discover possibilities and make informed decisions for the future. Graduates Linked with Undergraduates in Engineering (GLUE) gives students opportunities to gain practical research experience, and WEP leadership and career development seminars help prepare students for leadership roles in the engineering profession.

Additional information about WEP is available in person in Bridgeway Building (BWY) 109, online at http://www.engr.utexas.edu/wep/; by phone at (512) 471-5650; and by e-mail at wep@engr.utexas.edu.

## Career Services

The Engineering Career Assistance Center (ECAC) assists engineering students preparing for a job search through counseling, workshops, and a comprehensive on-campus recruiting program. Students should register with ECAC beginning in August each academic year to receive full benefit of the center's services.

ECAC offers individual career counseling services to engineering students on a walk-in basis and by appointment. Topics addressed in individual counseling sessions and workshops include résumé and cover letters, interviews, dressing for success, site visits, evaluating salary offers, job search, and career exploration.

The center hosts interviews in its twenty interview rooms throughout the fall and spring recruiting seasons. Interviewers represent employers that seek graduating students, co-op students, and summer interns in all engineering disciplines.

Students can visit the ECAC Office in person in Ernest Cockrell Jr. Hall (ECJ) 3.256, online at http://www.engr.utexas.edu/ecac/, by e-mail at ecac@engr.utexas.edu, or by phone at (512) 471-1915.

## Cooperative Engineering Education Program

The Cooperative Engineering Education (Co-op) Program is an academic program that allows undergraduate students to obtain fulltime engineering experience before they graduate. Students gain work experience directly related to their field of engineering by alternating semesters of full-time campus study with training in industry.

To realize the full academic and professional value of the Co-op Program, students complete either two or three semesters with the same employer in a cooperative engineering position. Students receive two or three hours of letter-grade credit that may be applied toward the engineering degree. Students should apply for the Co-op Program at least one semester before planning to begin a co-op work term.

Students may apply for the first work term after completing twenty-eight semester hours of basic sequence coursework, which includes eight hours of physics, eight hours of calculus, and at least one course in the selected engineering major. Students must have an overall University grade point average (GPA) of at least 2.50, a GPA in the major area of study of at least 2.00, and at least twelve semester hours of degree-
applicable coursework left to complete after the final co-op term. Students may apply for the program after one semester at the University.

Students can visit the Co-op Program Web site at http:// www.engr.utexas.edu/ecac/coop/, in person at Ernest Cockrell Jr. Hall (ECJ) 3.256, by e-mail to co-op@engr.utexas.edu, or by phone at (512) 471-5954.

## UTeach Engineering

UTeachEngineering is an innovative program that prepares engineering students to teach mathematics, physical science, and engineering to students in grades eight through twelve. The program, a collaboration between the Cockrell School of Engineering, the College of Natural Sciences, the College of Education, and area school districts, seeks to attract interested students to explore teaching in conjunction with their undergraduate experience. Upon completing the program, students graduate with a bachelor's degree and are recommended for a secondary school teaching certificate. The UTeachEngineering program invites students to explore their interest in teaching as early as the freshman year.

Key features of the program include field experience, mentorship, seminar instruction, cohort support and innovative use of technology. UTeachEngineering students gain experience in public school classrooms as they teach progressively longer lessons under the guidance of a mentor teacher. By working with some of Texas's most respected secondary school teachers, students quickly learn whether they are suited for the teaching profession.

More information about UTeachEngineering is available online at http:// www.uteachengineering.org/

## Study Abroad

International Engineering Education has study abroad programs designed specifically for Longhorn Engineers so they can experience a culture firsthand without delaying graduation. Participants remain enrolled at the University while studying abroad and therefore apply their scholarships and financial aid loans to all necessary costs including tuition, travel, insurance and living expenses. All of the engineering courses are taught in English by University and/or local professors. Some of the programs also allow taking a language course and exploring innovation, entrepreneurship, and service

Engineering is an increasingly international profession with a central role in the globalized marketplace. Industry leaders and government experts want engineers to immerse themselves in other cultures to learn to effectively collaborate with international peers on special projects, products, and solutions for the global challenges of the twenty-first century. Engineers lead the world in developing and managing high technology and find solutions that affect the quality of life, security, and world peace. The Cockrell School of Engineering, as all highranking engineering schools, leads in providing international education opportunities for its students

A variety of programs are available for engineering majors and levels of expertise. Several short summer courses under the mentorship of outstanding University faculty are available to students beginning as early as the end of their first year. Students may study for short or long semester periods and may participate in more than one study abroad program during their time at the University

The longer semester bilateral exchanges are notable for providing more advanced students with an excellent and affordable opportunity to distinguish themselves from their peers by taking semester courses at a carefully selected, prestigious international partner university.

Apart from traditional short or semester study abroad, International Engineering also offers programs that provide professional experience and research opportunities. Projects in Underserved Communities, a two-course fall and spring civil engineering and mechanical engineering course sequence focuses on project development and project management to prepare students for a summer implementation phase at a community abroad

Global Research matches students with researchers at laboratories of select partner universities to collaborate and be mentored by research faculty. BE Global Engineering provides a customized professional experience inside an industry, laboratory, or small company while teaching intercultural communication skills and exposing students to the basics of another language.

All engineering students interested in going abroad are encouraged to meet with the International Engineering Education Office program coordinator, who can help them decide which program will best suit their needs. More information is available at http://www.engr.utexas.edu/ undergraduate/iee.

## Admission and Registration

## Admission

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. All students who wish to major in engineering must be admitted to the University according to the procedures given in General Information.

Information is available from The University of Texas at Austin, Engineering Student Services and Advising, Cockrell School of Engineering, 2407 Speedway, C2108, Austin TX 78712. The telephone number is (512) 471-4321

Students who have questions about the requirements of a specific degree plan should contact the appropriate departmental advising office. Additional information about academic advising can be found at http:// www.engr.utexas.edu/undergraduate/advising.

## Freshman Admission

Freshman applicants seeking admission to the Cockrell School must meet the calculus readiness requirement by the official admissions application deadline. More information about calculus readiness is available at http:// www.engr.utexas.edu/undergraduate/admission/calculus/.

Applicants to the Cockrell School should use the online application at http://www.applytexas.org/ and select engineering as a first-choice major. When selecting a second-choice major, freshman applicants may choose from one of the many other majors offered at the University, but are encouraged to choose a second engineering major when applying to the Cockrell School

## Transfer Admission

## Internal Transfer

## Internal transfer within the Cockrell School

An engineering student who wants to transfer to another major within the Cockrell School of Engineering must submit an application by the December 15 deadline for spring admission and the May 15 deadline for summer/fall admission. Students who are applying during their first semester enrolled must meet the following requirements to be eligible for consideration

1. Completion of at least fourteen semester hours of coursework in residence.
2. Completion of Mathematics 408C, or a subsequent calculus course, taken in residence.
3. Completion of a second technical course in residence that counts toward the engineering degree. Technical courses include courses offered in math, physics, chemistry, biology, geology, or engineering.

Engineering students who are applying after completing at least one semester must meet the requirements listed in the internal transfer from another division of the University section below.

## Internal transfer from another division of the University

A student may transfer to the Cockrell School of Engineering from another division of the University in accordance with the regulations given in General Information. All students must submit an internal transfer application by the May 15 deadline for summer/fall admission.

Internal transfer applicants must meet the following requirements to be eligible for consideration:

1. Completion of at least twenty-eight semester hours of coursework in residence at the University.
2. A cumulative in-residence grade point average of at least 3.00.
3. Completion of Mathematics 408D, Physics 303K, and 103M, or their equivalents.
4. Completion of a minimum of four technical courses in residence that count toward the engineering degree. Technical courses include courses offered in math, physics, chemistry, biology, geology, or engineering.

Additional information for all internal transfer applicants:

- Only currently enrolled students may apply.
- Students may apply during the semester they are completing the minimum requirements to be eligible for consideration.
- Application forms are available online at http://www.engr.utexas.edu/ undergraduate/admissions/changeofmajor.
- Admission to all engineering majors is offered as space is available to the students who are best qualified. For equally qualified applicants, preference is given to the student who has completed more of the required technical courses for the requested major.

Some degree programs may have additional admission considerations; these are described in the individual degree plans.

## External Transfer

External transfer applicants will be required to meet the following minimum criteria to be considered for admission to an engineering major:

- Transfer credit for Mathematics 408L, 408M, or 408D
- Transfer credit for Physics 303K and 103M
- Transfer credit for a minimum of four technical courses. Technical courses include courses offered math, physics, chemistry, biology, geology, computer science, or engineering.

Admission applications that are not complete by the March 1 deadline may be held to a higher admissions standard than those that are complete if enrollment limits are reached.

## Guidelines for Transfer Students

1. Students who wish to transfer to the University from another college or university must apply to the Office of Admissions as described
in General Information. Requirements for admission as a transfer student vary, but all transfer applicants must submit transcripts of all college and high school coursework.
2. Only courses listed in the student's engineering degree program, or equivalent courses accepted by the department chair and approved by the dean, may be counted toward an engineering degree. A course may therefore be accepted for transfer credit but not be applicable toward an engineering degree.
3. Courses that are common to all degree programs in the Cockrell School are listed in Requirements Included in All Engineering Degree Plans (p. 158). These may be taken at any school offering courses acceptable for transfer to the University.
4. Completion of sequences of technical courses in the major area sometimes requires five or more semesters. Therefore, most transfer students should anticipate a minimum of five semesters or the equivalent in residence at the University.
5. Transfer students with more than forty semester hours of credit in an engineering or pre-engineering program may be eligible for admission to a major sequence as explained in the following section.

## Admission to a Major Sequence

The major sequence in an engineering degree program is a set of courses in which the student learns to put to engineering use the concepts learned in the basic sequence. Major sequence courses are normally taken in the last two years of undergraduate study.

Students must apply online for admission to a major sequence. The following requirements apply both to students seeking to transfer to the school from another institution and to those currently enrolled at the University, either in another college or school or in a basic sequence of courses in the Cockrell School. Those in another college or school must also meet the requirements given in General Information for transfer from one division to another within the University.

1. Applications for admission to the major sequence are evaluated by the engineering departments each semester. The criteria for admission vary from semester to semester; current criteria are published at http://www.engr.utexas.edu/undergraduate/policies/ sequence/.
2. To be eligible for admission to a major sequence, the applicant must have received credit from the University for the basic sequence of courses of the degree plan, either by completing the courses at the University or by receiving transfer credit for equivalent courses taken elsewhere. The student must not be on scholastic probation according to University regulations and must not be on engineering probation according to the regulations of the Cockrell School. For the basic sequence of courses in each degree plan, see the outline of the plan later in this section.
3. No engineering student may register for a course identified as a major sequence course in any of the degree plans of the Cockrell School unless the student has been admitted to the major sequence.
4. An applicant who has not previously been registered at the University must be admitted to the University as described in General Information. Admission to the University does not imply or guarantee admission to a major sequence in the Cockrell School. A student's application to the major sequence is considered only after the student has been admitted to the University.
5. Application for admission to a major sequence must be made online at http://www.engr.utexas.edu/undergraduate/policies/sequence/.
6. Priority deadlines for submitting completed applications for admission to a major sequence are October 1 for entrance in the following spring semester and March 1 for entrance in either the following summer session or the following fall semester.
7. A student who has been admitted to a major sequence but does not enroll, and who wishes to enter in a subsequent semester, must reapply for admission to a major sequence and must meet all requirements in place at the time of reapplication. A student who has been out of the University for at least one long-session semester must apply for readmission to the University.
8. Any student who has been denied admission to a major sequence will not be considered for admission for a subsequent semester unless reapplication is made.

## Registration

General Information gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule (http://registrar.utexas.edu/ schedules), published online before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes.

To register for a course, a student must fulfill the prerequisite given in the catalog or course schedule. If the student has not fulfilled the prerequisite, he or she must obtain the approval of the department offering the course before registering for it.

## Concurrent Enrollment

Concurrent enrollment refers to taking courses through The University of Texas at Austin Extension (UEX) program, or taking courses at another university or a community college. An engineering student must have the approval of the dean for concurrent enrollment. Application for this approval should be made online at http://www.engr.utexas.edu/ undergraduate/forms. A student may not enroll concurrently in any course counted toward the degree in the semester he or she will be graduating. More information about the approval process is available in the Engineering Student Services and Advising Office (ESSA), located in the Engineering Student Services Building (ESS), by email at studentaffairs@engr.utexas.edu; or by phone at (512) 471-4321.

## Academic Policies and Procedures

## Grade Point Average for Academic Decisions

In the Cockrell School of Engineering, the grade point average used in all academic decisions is the average of grades the student has earned in residence in courses applicable to the degree. Academic decisions are decisions about engineering probation, engineering dismissal, internal transfer (change of major), admission to the major sequence, admission to the Engineering Honors Program, designation as an Engineering Scholar, eligibility for graduation, and eligibility for graduation with University Honors.

## Quantity of Work Rule

## Maximum Number of Hours in the Long Session

As used in items 1 and 2 below, "coursework" includes correspondence courses, extension courses, distance education courses, nonrequired electives, physical activity courses, and courses for which the student is registered concurrently at another institution.

1. An engineering student may not register for more than seventeen semester hours of coursework without an approved application to
do so. Application is made online at http://www.engr.utexas.edu/ undergraduate/forms/.
2. No student may register for more than twenty-one semester hours of coursework during any long-session semester.

## Rules for the Summer Session

A student may not receive credit for more than fourteen semester hours during a twelve-week summer session or for more than eight semester hours in a six-week summer term. These limits apply whether the courses are taken at the University or another institution. For more information about the quantity of work allowed in the summer, see General Information.

## Repetition of a Course

An undergraduate in the Cockrell School who has not earned admission into the major sequence may not enroll in any course required by the engineering degree plan more than twice. A symbol of $Q$ or $W$ counts as an enrollment unless it is recognized as nonacademic by the dean's office.

To request permission to enroll in a course for a third or more attempt a student must submit a written appeal at https://utdirect.utexas.edu/ link2/appeal_entry.WBX. A student may receive departmental adviser approval to enroll in a course a third or more times only if the student has a substantiated nonacademic reason for not successfully completing the course in earlier attempts. Documentation may be required by the departmental adviser to support the substantiated nonacademic reason. If the student is denied approval to enroll in a required course, he or she will be placed in the undeclared major code and must consider other degree options.

A student who is denied approval to repeat a course in residence at the University will also be denied approval to complete the course by transfer, extension, correspondence, distance education, or credit by examination and then count it toward the degree.

A student in the Cockrell School may not repeat for a letter grade a course in which he or she has earned a grade of $C$ - or better.

## Attendance

Engineering students are expected to attend all meetings of the classes for which they are registered. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes. With the approval of the dean, a student may be dropped from a course with a grade of $F$ for repeated unexcused absences.

## Portable Computing Devices

The degree programs in the following engineering fields have specific expectations regarding portable computing devices: Aerospace Engineering, Biomedical Engineering, Chemical Engineering, Electrical and Computer Engineering, and Mechanical Engineering. For more information, please see the catalog sections for these programs.

## Academic Standards

In addition to the scholastic standards described in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/scholastic-probation-and-dismissal), the Cockrell School imposes the following academic standards. Students who fail to meet the standards stated in General Information are placed on "scholastic
probation" by the University. The probationary status given to those who fail to meet the following school standards is "engineering probation."

In cases with extenuating circumstances, the student may appeal to the dean for a waiver of any of the following requirements.

A student is placed on academic probation in engineering under the following circumstances:

- If his or her grade point average in courses in the major area of study taken in residence falls below 2.00. The "major area of study" includes all courses in the student's discipline (biomedical, chemical, electrical, mechanical, or petroleum and geosystems engineering) and required under the student's engineering degree plan. For architectural engineering and civil engineering majors, the major area includes all courses in both architectural engineering and civil engineering; for aerospace engineering majors, the major area includes all courses in both aerospace engineering and engineering mechanics; for geosystems engineering and hydrogeology majors, the major area includes all courses in both geological sciences and petroleum and geosystems engineering.
- If the student's grade point average in required technical courses taken in residence falls below 2.00. "Required technical courses" are courses taken in the Cockrell School, the College of Natural Sciences, or the Jackson School of Geosciences and required under the student's engineering degree plan; they include approved technical elective courses.

Courses required to overcome admission or prerequisite deficiencies are not considered in decisions on engineering probation.

Grades received at the University in all courses in the major area, including grades in courses that have been repeated, are included in computing the student's grade point average.

A student on engineering probation will be removed from probation at the end of a long-session semester or summer session if the student is no longer subject to engineering probation under either of the criteria above.

After being placed on engineering probation, a student must be removed from probation within the next two long-session semesters in which he or she is registered. A student who fails to be removed from engineering probation within this time will be placed on engineering dismissal from the school.

A student seeking to reenter the school after having been scholastically dismissed from the University must enroll as an undeclared major unless there is a reasonable likelihood that the student can complete the degree plan under which he or she last registered. A student seeking to reenter the school after having been dismissed from engineering must enroll as an undeclared major. Students who are undeclared majors may not enroll in engineering courses.

Any student having academic difficulty should discuss his or her status with an academic adviser in the Engineering Student Services and Advising Office. Call (512) 471-4321 to set up an appointment with an academic adviser.

## Pass/Fail Option

All courses required for all engineering degrees must be taken for a letter grade unless the course is offered only on the pass/fail basis. A student may elect to take courses that do not count toward the degree or are being taken to remove a deficiency on the pass/fail basis rather than for a letter grade. To elect the pass/fail system of grading:

1. The student must have received at least thirty 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.
2. The student may take no more than two courses a semester on the pass/fail basis.
3. The student may take up to five one-semester courses, including correspondence courses, on the pass/fail basis.
4. The student must submit an application no later than the deadline given in the academic calendar at https://utdirect.utexas.edu/engine/ pass_fail/index.WBX.

For information on how to receive credit by examination, see General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/center-for-teaching-and-learning/course-placement-and-credit-by-examination).

## Certificates

## National Academy of Engineering Grand Challenges Scholars Program*

The National Academy of Engineering Grand Challenges Scholars Program (GCSP) certificate is designed to be complementary, not additive, to a student's traditional academic path. The GCSP certificate provides students with the scholarship network and formal recognition from the National Academy of Engineering, while typically requiring only one course beyond their standard degree program.

The GCSP certificate program is designed to offer students from all majors and all years an introduction to the program through Engineering Studies 377, an array of university-wide course connections, and mentorship. GC Scholars choose between eighteen and twenty-four hours of approved coursework from a broad range of offerings that align with the five key program components. The five key curriculum components include facing the 21st Century Engineering Grand Challenges with (1) entrepreneurship and (2) service-learning by (3) understanding global dimensions through (4) research and (5) interdisciplinary curriculum. Each Scholar must choose at least one class that emphasizes each one of the components. Scholars will be advised on progress regularly by faculty affiliated with the program, and will present their work at an annual GCSP colloquium.

The certificate requirements are:

1. Complete Engineering Studies 377 Grand Challenges topic
2. At least eighteen hours of approved courses from GC Scholar Coursework Program Plan
3. Be a student of good standing
4. Complete courses, a research project, a community project, a comprehensive reflective report, and a final design, which are evaluated with aligned rubrics.

For more information, students should visit the GCSP Web site at: http:// gcsp.engr.utexas.edu/.

## Certificate in Computational Science and Engineering

The Cockrell School sponsors the transcript-recognized Certificate in Computational Science and Engineering (p. 14) along with the Jackson School of Geosciences, the College of Liberal Arts, and the College of Natural Sciences.

## Honors

## University Honors

The designation University Honors, awarded at the end of each longsession semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered. Criteria for University Honors are given in General Information.

## Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in General Information.

## Cockrell School Honors Program

The Cockrell School of Engineering offers a select group of students the opportunity to participate in the Engineering Honors Program (EHP), a non-curriculum based program designed to enhance the undergraduate experience outside the classroom. Participants gain access to scholarships for first-year students, honors housing, faculty mentors and community building events hosted by the University Honors Center and the EHP.

When submitting an admission application to the University through ApplyTexas, incoming first-year students should mark engineering as their first-choice major and indicate their intent to apply for honors. Students will receive additional instructions to complete the EHP application separately. Both the admission application and the EHP application are due December 1.

The Cockrell School also sends current students invitations to apply for the EHP after they complete twenty-four hours in residence and rank in the top 10 percent of their class and major. Eligible students must have at least sixty hours remaining in their degree program in order to receive an invitation to apply.

To remain in the EHP, students must maintain an in-residence grade point average of at least 3.50 . The grade point average is evaluated each year after grades for the spring and summer semester have been awarded.

An EHP student who completes an optional undergraduate honors thesis will receive special honors designation on his or her transcript and is recognized during the graduation ceremony. Additional information about the honors thesis and the EHP is available at http://www.engr.utexas.edu/ undergraduate/services/honors.

## Engineering Scholars

Engineering Scholars are designated each spring semester from the sophomore, junior, and senior classes. To be eligible, a student must be enrolled in the Cockrell School, must have completed at least twenty-four semester hours of coursework in residence while enrolled in the school, must have a grade point average that places him or her in the top 5 percent of the class, be of good character, and show promise of continued success in engineering. The grade point average used to determine the student's class rank includes only courses that the student has completed in residence and that are applicable to the degree.

## Professional and Honor Societies

Professional student organizations play an important role in the life of an engineering student. Many of these are student branches of national professional engineering organizations that endeavor to advance the profession of engineering by education, service, professional
development, publication, and support of meetings, activities, and conferences. In addition to a variety of professional development and social activities, engineering student organizations frequently support projects that aid students and benefit the Cockrell School of Engineering, the University, and the community.

Honor societies are also an important part of the Cockrell School student community. Honor societies admit students who have established outstanding scholastic records and have demonstrated desirable character and leadership traits. The engineering honor societies are Beta Mu Epsilon (biomedical engineering); Chi Epsilon (civil engineering); Eta Kappa Nu (electrical and computer engineering); Omega Chi Epsilon (chemical engineering); Phi Alpha Epsilon (architectural engineering); Pi Epsilon Tau (petroleum and geosystems engineering); Pi Tau Sigma (mechanical engineering); and Sigma Gamma Tau (aerospace engineering); Tau Beta Pi selects top students from all engineering disciplines. Only students in the upper-fifth of the senior class or the upper-eighth of the junior class, and a few graduate students, qualify scholastically for Tau Beta Pi membership consideration. Generally, the chapter elects fewer members than the number of eligible students. Kappa Theta Epsilon is the cooperative engineering education honor society for all engineering majors. Students considered for membership must be enrolled in the cooperative engineering program and are in the top 20 percent of their class.

The Student Engineering Council is the governing body representing all undergraduate engineering students. Representatives to the council are elected by the professional student organizations and honor societies in the Cockrell School; members-at-large are elected annually. The Graduate Engineering Council is the governing body representing all graduate engineering students.

Engineering student organizations and honor societies are overseen by Engineering Student Life. A complete list of engineering societies is available at http://www.engr.utexas.edu/studentlife/learn/.

## *Changes pending approval by the Texas Higher Education Coordinating Board

## Graduation

## Special Requirements of the School

All University students must have a grade point average of at least 2.00 to graduate. Students in the Cockrell School must also have an in-residence grade point average of at least 2.00 in all courses applicable to the degree, the major area of study and required technical courses. "Major area of study" and "required technical courses" are defined in the section "Academic Standards."

A candidate for a degree in engineering must be registered in the Cockrell School either in residence or in absentia the semester or summer session the degree is to be awarded. No later than the date given in the official academic calendar, the candidate must complete an online application form for graduation or graduation in absentia at http:// www.engr.utexas.edu/graduation/application/apply.

All individual degree programs must include at least forty-eight semester hours of engineering coursework.

## Residence Rules

All University students must complete in residence at least sixty semester hours of the coursework counted toward the degree. In the Cockrell School, thirty of these sixty hours must be in the major field or in a field
closely related to the major as approved by the major department and the dean.

At least the last twenty-four hours of technical coursework counted toward an engineering degree must be taken while the student is registered as an undergraduate engineering major at the University. A student seeking an exception to this requirement must obtain written approval in advance from the dean. Information about the petition process is available in the Engineering Student Services and Advising Office, located in the Engineering Student Services Building (ESS).

## Degree Audit

Each student should review his or her degree audit every semester through IDA (http://catalog.utexas.edu/undergraduate/engineering/ graduation/registrar.utexas.edu/students/degrees/ida), the University's Interactive Degree Audit system. The degree audit normally provides an accurate statement of requirements, but the student is responsible for knowing the requirements for the degree as stated in a catalog under which he or she is eligible to graduate and for registering so as to fulfill these requirements; see the rules on graduation under a particular catalog. Since the student is responsible for correct registration toward completion of the degree program, he or she should seek an official ruling in the Engineering Student Services and Advising Office before registering if in doubt about any requirement. Avoidance of errors is the main purpose of the degree audit, but it remains the responsibility of the student to fulfill all catalog requirements.

## Applying for Graduation

Students must apply for graduation the first semester they are eligible to graduate. Failure to do so will jeopardize the student's future registration in the Cockrell School. Any subsequent registration must be recommended by the undergraduate adviser and approved by the dean.

A student is considered eligible to graduate if he or she can complete all remaining course requirements by registering for twelve semester hours or fewer.

Any student who does not graduate when eligible must contact the Engineering Student Services and Advising Office, located in the Engineering Student Services Building (ESS) or by phone at (512) 471-4321. The degree auditor will advise the student what steps are needed for future registration and graduation.

## Nonresidence Coursework

A student in his or her final semester may not enroll concurrently at another institution in any course, including a distance education course, to be counted toward the degree. In the final semester, the student may also not enroll by extension or correspondence in coursework to be counted toward the degree. All transfer, extension, and correspondence coursework must be added to the student's official record before his or her last semester.

## Final Degree Audit

The student must complete all procedures associated with the final degree audit.

Any student who does not graduate when eligible must contact the Engineering Student Services and Advising Office in the Engineering Student Services Building (ESS). The degree auditor will advise the student what steps are needed for future registration and graduation.

## Second Degrees

A student who completes a bachelor's degree in engineering may receive a second bachelor's degree in a second engineering discipline if the student (1) completes at least twenty-four hours of approved coursework beyond the work counted toward the first bachelor's degree; and (2) meets all the requirements of the second degree that he or she did not meet in completing the first degree. No student may receive two bachelor's degrees in the same discipline of engineering, even if the technical area options are different. For example, a student may receive the degree of Bachelor of Science in Chemical Engineering and that of Bachelor of Science in Mechanical Engineering but may not receive two Bachelor of Science in Chemical Engineering degrees. A student may not receive bachelor's degrees in both architectural engineering and civil engineering.

## Commencement

In addition to the University commencement ceremony held each spring, the Cockrell School holds graduation ceremonies in December and May. August degree candidates who have completed a degree audit and online graduation application may participate in the May graduation ceremony. Information about graduation is available at http://www.engr.utexas.edu/ graduation.

## Registration as a Professional Engineer

The practice of engineering has a profound effect on public health, safety, and welfare. Therefore, the commitment to the public good through the licensing or registration provisions available in all states and many foreign countries is an important step in the professional development of an engineer. Becoming licensed in Texas as a professional engineer requires graduation from an approved curriculum in engineering, passage of the examination requirements, and a specific record of an additional four years or more of active practice in engineering work indicating that the applicant is competent to be placed in responsible charge of such work. Additional requirements include good character and reputation.

Engineering students are encouraged to take the Fundamentals of Engineering examination during their last long-session semester and to seek certification as an "engineer in training."

For additional information, contact the Texas Board of Professional Engineers or the equivalent agency in another state.

## Degrees and Programs

To satisfy the course requirements for an engineering degree, a student must earn credit for all of the courses listed in the curriculum for that degree.

All University curricula leading to bachelor's degrees in engineering are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone: (410) 347-7700. ABET sets minimum standards for engineering education, defined in terms of curriculum content, the quality of the faculty, and the adequacy of facilities. Graduation from an accredited program is an advantage when applying for membership in a professional society or for registration as a professional engineer.

## Dual Degree Programs

## Engineering/Plan II Honors Program

A limited number of students whose high school class standing and admission test scores indicate strong academic potential and motivation may pursue a curriculum leading to both a bachelor's degree in
engineering and the Bachelor of Arts, Plan II. This dual degree option, offered jointly by the Cockrell School and the Plan II Honors Program of the College of Liberal Arts, provides the student with challenging liberal arts courses while he or she also pursues a professional degree in engineering. Admission to this program requires at least two separate applications: one to the University and one to the Plan II Honors Program. Students should contact both the Cockrell School Engineering Student Services and Advising Office, located in the Engineering Student Services Building (ESS), and the Plan II office, located in the Liberal Arts Building (CLA), for more information on applications and early deadlines.

## Architectural Engineering/Architecture

A program that leads to both the Bachelor of Science in Architectural Engineering degree and the Bachelor of Architecture degree is available to qualified students. The program combines the course requirements of both degrees and requires six years for completion. Students who wish to pursue both degrees must apply for admission to the School of Architecture according to the procedures and deadlines established by the school. The program is described in Bachelor of Architecture/ Bachelor of Science in Architectural Engineering Dual Degree Program (p. 34); additional information is available from the undergraduate adviser for architectural engineering.

## Simultaneous Majors

An engineering student may pursue two majors simultaneously. The student must follow all procedures and meet all requirements associated with both majors. An engineering student may not pursue two engineering majors simultaneously.

The simultaneous major option is available only to undergraduates who have completed thirty hours of coursework in residence at the University and who have been admitted to both degree programs.

## Technical Area Options

Several engineering degree programs require a student to select a "technical area option" and to complete a specified number of courses in that area. Other degree programs do not require a student to specify a particular option but allow the student to choose courses either within an area of specialty or more broadly across technical areas. Although most options are designed to help the student develop greater competence in a particular aspect of the major, others permit the student to develop background knowledge in areas outside the major. In many cases, students who elect the latter options intend to continue their education in professional or graduate school; these options are particularly appropriate for students who plan to work in those interdisciplinary areas where the creation of new technology through research and development is very important.

## Preparation for Professional School

Technical area options also allow the student to fulfill the special course requirements for admission to professional schools. For more information, students should consult an adviser who is familiar with the admission requirements of the professional program in which the student is interested.

## Medical School

A properly constructed program in engineering provides excellent preparation for entering medical school. The engineer's strong background in mathematics and natural science--combined with a knowledge of such subjects as applied mechanics, fluid dynamics, heat transfer, thermodynamics, chemical kinetics, diffusion, and electricity and magnetism--enhance the mastery of many aspects of medical science. An engineering background is also useful to those who develop and use
new instruments for detecting and monitoring medical abnormalities. The engineering/premedical programs described in this catalog usually afford opportunities to pursue alternative vocations for those who do not enter medical school. Students who intend to apply for admission to a medical school should contact the University's Health Professions Office for information about admission requirements and application and test deadlines.

## Dental School

Much of the information above about medical school applies also to dental school. All applicants must take the Dental Admission Test. Certain courses not taken by all engineers are also required, but these vary markedly from school to school. Students who are interested in dentistry can obtain specific information from the University's Health Professions Office.

## Law School

Each year a few graduates, representing all engineering disciplines, elect to enter law school, where they find their training in careful and objective analysis is a distinct asset. Many of these students are preparing for careers in patent or corporate law that will enable them to draw on their combined knowledge of engineering and law. Others may not plan to use their engineering knowledge directly, but they still find that the discipline in logical reasoning acquired in an engineering education provides excellent preparation for the study of law. Students interested in admission to the law school of the University should consult the Law School Catalog.

## Graduate Study in Business

Since many engineering graduates advance rapidly into positions of administrative responsibility, it is not surprising that they often elect to do graduate work in the area of business administration. In addition to an understanding of the technical aspects of manufacturing, the engineer has the facility with mathematics to master the quantitative methods of modern business administration.

Requirements for admission to the University's graduate business programs are outlined in the Graduate Catalog. Many engineering degree programs offer technical area options that include business and management courses. These can be used with advantage by students who plan to do graduate-level work in business.

## The Minor

While a minor is not required as part of any engineering degree program, the student may choose to complete a minor in a field outside the Cockrell School. A student may complete only one minor. The minor consists of at least twelve semester hours in a single field, including at least six hours of upper-division coursework. Six of these hours must be completed in residence. A course to be counted toward the minor may not be taken on the pass/fail basis, unless the course is offered only on that basis. Only one course counted toward the standard requirements of the student's degree may also be counted toward the minor.

If the minor is in a foreign language other than that used to fulfill the basic education foreign language requirement, the twelve hours may be lowerdivision but must include at least six hours completed in residence and at least six hours beyond course 507 or the equivalent.

All minors must be approved by the student's major department faculty adviser and the Office of the Dean.

The Cockrell School allows the student to minor in any field outside the school in which the University offers a major. However, prerequisites and other enrollment restrictions may prevent the student from pursuing a minor in some fields. Before planning to use specific courses to make up
the minor, the student should consult the department that offers those courses.

## ABET Criteria

To be accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), a degree plan of the Cockrell School must include the following:

1. One year of a combination of college level mathematics and basic sciences (some with experimental experience) appropriate to the discipline. Basic sciences are defined as biological, chemical, and physical sciences.
2. One and one-half years of engineering topics, consisting of engineering sciences and engineering design appropriate to the student's field of study. The engineering sciences have their roots in mathematics and basic sciences but carry knowledge further toward creative application. These studies provide a bridge between mathematics and basic sciences on the one hand and engineering practice on the other. Engineering design is the process of devising a system, component, or process to meet desired needs. It is a decision-making process (often iterative), in which the basic sciences, mathematics, and the engineering sciences are applied to convert resources optimally to meet these stated needs.
3. A general education component that complements the technical content of the curriculum and is consistent with the program and institution objectives.

Students must be prepared for engineering practice through a curriculum culminating in a major design experience based on the knowledge and skills acquired in earlier course work and incorporating appropriate engineering standards and multiple realistic constraints.

Here, one year is defined as either thirty-two semester hours (or equivalent), or one-fourth of the total credits required for graduation, whichever is lesser.

## Liberal Education of Engineers

Each student must complete the University's core curriculum (p. 20). The core curriculum includes the first-year signature course and courses in English composition, American and Texas government, American history, mathematics, science and technology, visual and performing arts, humanities, and social and behavioral sciences. It must be an integral part of all engineering degree programs, so that engineering graduates will be aware of their social responsibilities and the effects of technology on society.

With the appropriate selection of courses, the University's core curriculum and ABET general education requirements can be satisfied simultaneously. Particular attention must be paid to course selection for the social and behavioral sciences and visual and performing arts requirements of the core curriculum, such that the courses selected also fulfill the $A B E T$ general education requirements. Guidance for courses that fulfill the ABET requirements is given below.

## Social and Behavioral Sciences Requirement

As part of the University's core curriculum, each student must complete three semester hours of coursework in social and behavioral sciences. Engineering students should work with an academic adviser to select a social and behavioral sciences course that will fulfill the core curriculum requirement and the ABET criteria given above. Students preparing for the professional practice of engineering are encouraged to select coursework in economics to fulfill this requirement. Engineering students
should not choose courses in logic, cartography, or mapping, because these courses do not meet the ABET criteria given above.

## Visual and Performing Arts Requirement

As part of the University's core curriculum, each student must complete three semester hours of coursework in visual and performing arts. Engineering students should work with an academic adviser to select a Visual and Performing Arts course that will fulfill the core curriculum requirement and the $A B E T$ criteria given above. Engineering students should not choose performance, studio, or ensemble courses to fulfill this requirement, because these courses do not meet the ABET criteria given above.

Architectural engineering majors must take an approved architectural history course as part of the Bachelor of Science in Architectural Engineering requirement. This course (or its prerequisite) will fulfill the visual and performing arts requirement of the core curriculum.

## Foreign Language Requirement

In accordance with the University's basic education requirements, all students must demonstrate proficiency in a foreign language equivalent to that shown by completion of two semesters of college coursework. Credit earned at the college level to achieve the proficiency may not be counted toward a degree. For a student admitted to the University as a freshman, this requirement is fulfilled by completion of the two high school units in a single foreign language that are required for admission; students admitted with a deficiency in foreign language must remove that deficiency as specified in General Information.

## Applicability of Certain Courses

## Physical Activity Courses

Physical activity (PED) courses are offered by the Department of Kinesiology and Health Education. They may not be counted toward a degree in the Cockrell School. However, they are counted as courses for which the student is enrolled, and the grades are included in the University grade point average.

## ROTC Courses

The dean, on the recommendation of the department chair, may substitute three semester hours of credit for air force science, military science, or naval science courses for three semester hours of elective coursework in an engineering degree program. The elective for which an ROTC course is substituted must be approved by the student's major department faculty adviser. All ROTC students should consult their undergraduate adviser. The total number of semester hours required for the degree remains unchanged. Substitution is permitted only upon the student's completion of the last two years of ROTC coursework and receipt at the University of a commission in the service.

## Correspondence and Extension Courses

Credit that a University student in residence earns simultaneously by correspondence or extension from the University or elsewhere or in residence or through distance education at another school will not be counted toward a degree in the Cockrell School unless specifically approved in advance by the dean. Application for this approval should be made online or at the Engineering Student Services and Advising Office, located in the Engineering Student Services Building (ESS). No more than twenty semester hours required for any degree offered in the Cockrell School may be taken by correspondence and extension.

## Requirements Included in All Engineering Degree Plans

Each student must complete the University's core curriculum (p. 20). In the process of fulfilling engineering degree requirements, students must also complete: one independent inquiry flag, one quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag and at least one writing flag are carried by courses specifically required for each engineering degree plan. As applicable, students are advised to fulfill the second writing flag and global culture and cultural diversity requirements with a course that meets another requirement of the core curriculum, such as the first-year signature course. Students are encouraged to discuss options with his or her departmental academic adviser. Courses that may be used to fulfill flag requirements (p.22) are identified in the Course Schedule.

In addition, students in all engineering degree plans must complete the following requirements. In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below.

## Courses

## Engineering Communication

- Aerospace Engineering 333T, Biomedical Engineering

333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T (This course may also be counted toward the writing flag requirement. This course may also be counted toward the ethics and leadership flag requirement, with the exception of Civil Engineering 333T.)

## Mathematics

- Mathematics 408C, Differential and Integral Calculus (This course may also be used to fulfill the mathematics requirement of the core curriculum and the quantitative reasoning flag requirement.)
- Mathematics 408D, Sequences, Series, and Multivariable Calculus
- Mathematics 427K, Advanced Calculus for Applications $I$ (This course may also be used to fulfill the quantitative reasoning flag requirement.)
Physics
- Physics 303K, Engineering Physics I (This course may also be counted toward the science and technology, part I, requirement of the core curriculum and the quantitative reasoning flag requirement.)
- Physics 103M, Laboratory for Physics 303K
- Physics 303L, Engineering Physics II (This course may also be counted toward the science and technology, part I, requirement of the core curriculum and the quantitative reasoning flag requirement.)
- Physics 103N, Laboratory for Physics 303L


## Length of Degree Program

An eight-semester arrangement of courses leading to the bachelor's degree is given for each of the engineering degree plans. The exact order in which the courses are taken is not critical, as long as the prerequisite for each course is fulfilled. A student who registers for fewer than the
indicated number of hours each semester will need more than eight semesters to complete the degree. The student is responsible for including in each semester's work any courses that are prerequisite to those he or she will take the following semester.

The first three semesters of all curricula contain many of the same courses. This commonality gives students some freedom to change degree plans without undue loss of credit.

## Bachelor of Science in Aerospace Engineering

The field of aerospace engineering developed because of humanity's desire for aircraft systems for military, commercial, and civilian purposes; it was first called aeronautical engineering or aeronautics. When the space age began, it was natural for aeronautical engineers to participate in the development of spacecraft systems for space exploration. This branch of engineering became known as astronautical engineering or astronautics, and the combined field is called aerospace engineering or aeronautics and astronautics. Because of the diverse nature of the work, the aerospace engineer must have a basic knowledge of physics, mathematics, digital computation, and the various disciplines of aerospace engineering: aerodynamics and propulsion, structural mechanics, flight mechanics and orbital mechanics, and control. Because of their extensive education in fundamental disciplines, aerospace engineers can work in areas other than aerospace engineering and are employed in a wide range of careers.

The objectives of the aerospace engineering degree program are to prepare students for professional practice in aerospace engineering and related engineering and scientific fields; to prepare students for such postbaccalaureate study as their aptitudes and professional goals may dictate; to instill in students a commitment to lifelong education and to ethical behavior throughout their professional careers; and to make students aware of the global and societal effects of technology. To meet these objectives, the faculty has designed a rigorous curriculum that emphasizes fundamentals in the basic sciences, mathematics, and the humanities, and integrates classroom and laboratory experiences in the engineering disciplines of aerodynamics and propulsion, structural mechanics, mechanics of materials, flight and orbital mechanics, controls, computation, measurements and instrumentation, design, and technical communication. The curriculum requires students to use modern engineering tools, to work individually, and to practice teamwork.

The first two years of the aerospace engineering curriculum emphasize fundamental material along with engineering sciences, while the third year introduces concepts in the areas of fluid mechanics, structural mechanics, system dynamics and control, and experimentation. The fourth year provides further depth in aerospace engineering, with emphasis on design and laboratory courses. After acceptance into the major sequence, usually during the junior year, the student elects to pursue one of two technical areas, atmospheric flight or space flight. Both area options are complemented by general education courses and courses offered in other engineering disciplines. In addition, the student may choose technical electives that increase the breadth of the program or that provide additional depth within one or more subdisciplines. All of the following subdisciplines are also represented in the required courses for both technical area options.

## Aerodynamics and Propulsion

This subdiscipline embraces study in one of the more traditional areas of aerospace engineering. It involves fluid motion, propulsion, lift and drag on wings and other bodies, high-speed heating effects, and wind tunnel investigation of these problems. Topics of study include fluid mechanics,
gas dynamics, heat transfer, aerodynamics, propulsion, and experimental fluid mechanics.

## Structural Mechanics

This subdiscipline includes the study of airplane, spacecraft, and missile structures, the materials that make them efficient, and methods for testing, analysis, and design of new structural systems. Course topics include structural analysis, structural dynamics, materials (including advanced composites), aeroelasticity, experimental structural mechanics, and computer-aided design of structures.

## Flight Mechanics and Orbital Mechanics

Flight mechanics involves the analysis of the motion of aircraft, missiles, rockets, reentry vehicles, and spacecraft that are subjected to gravitational, propulsive, and aerodynamic forces; the study of uncontrolled motion of satellites and coasting spacecraft is usually referred to as orbital mechanics. Subject matter in these areas includes trajectory analysis and optimization; attitude dynamics, stability, and control; flight test; orbit determination; orbital operations; systems engineering; sensors; satellite hardware applications; and simulation.

## Flight Control

Control theory is applied in aerospace engineering to the development of automatic flight control systems for aircraft (autopilots and stability augmentation systems), attitude control systems for satellites, and guidance and control systems for missiles, rockets, reentry vehicles, and spacecraft. Course topics include linear system theory, classical control theory, digital control, and probability theory.

## Portable Computing Devices

Students entering aerospace engineering are required to have access to a portable computing device capable of running the software tools required for undergraduate engineering analyses (MatLab, Word, Excel, etc). This device does not need to be brought to campus on a daily basis, but individual courses may require that the device be brought to certain lectures, labs, and/or exams. Once admitted, students will be informed by the Aerospace Engineering and Engineering Mechanics Department office about specific device requirements.

## Curriculum

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. In addition, each student much complete the University's Core Curriculum (p. 20). In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below. To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet ABET criteria, students should follow the guidance given in ABET Criteria (p. 157).

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag, and both writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p. 22) are identified in the Course Schedule.

Enrollment in major sequence courses is restricted to students who have received credit for all of the basic sequence courses and have been admitted to the major sequence. Requirements for admission to a
major sequence are given in Admission to a Major Sequence (p. 151). Enrollment in other required courses is not restricted by completion of the basic sequence.

Courses used to fulfill technical elective requirements must be approved by the aerospace engineering faculty before the student enrolls in them.

The student must take all courses required for the degree on the lettergrade basis and must earn a grade of at least $C$ - in each course, except for those listed as Remaining Core Curriculum Courses. He or she must also maintain grade point averages of at least 2.00 in the major area of study and in required technical courses as described in Academic Standards (p. 152), and a cumulative University grade point average of at least 2.00 as described in General Information (http:// registrar.utexas.edu/catalogs).

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Basic Sequence Courses |  |  |
| Aerospace Engineering |  |  |
| ASE 301 | Introduction to Computer Programming | 3 |
| ASE 211 K | Engineering Computation | 2 |
| ASE 333T | Engineering Communication (writing flag and ethics and leadership flag) | 3 |
| Chemistry |  |  |
| CH 301 | Principles of Chemistry I (part II science and technology) | 3 |
| Engineering Mechanics |  |  |
| E M 306 | Statics | 3 |
| EM 311M | Dynamics | 3 |
| E M 319 | Mechanics of Solids | 3 |
| Mathematics |  |  |
| M 408C | Differential and Integral Calculus (mathematics; quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| M 427K | Advanced Calculus for Applications I (quantitative reasoning flag) | 4 |
| M 427L | Advanced Calculus for Applications II | 4 |
| Physics |  |  |
| PHY 303K | Engineering Physics I (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 303L | Engineering Physics II (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| Rhetoric and Writing |  |  |

RHE $306 \quad$ Rhetoric and Writing (English composition) 3
Major Sequence Courses
Aerospace Engineering
ASE 320 Low-Speed Aerodynamics 3
ASE 119K Low-Speed Aerodynamics Laboratory 1
ASE 324L Aerospace Materials Laboratory 3
ASE 330M Linear System Analysis 3
ASE 362K Compressible Flow 3
ASE 365 Structural Dynamics 3
ASE 366K Spacecraft Dynamics 3

ASE 367K Flight Dynamics 3
ASE 370L Flight Control Systems 3
ASE 375 Electromechanical Systems 3
ASE 376K Propulsion 3

| Technical area courses |  | 13 |
| :---: | :---: | :---: |
| Approved tec | al electives | 6 |
| Other required courses |  |  |
| M E 210 | Engineering Design Graphics | 2 |
| M E 320 | Applied Thermodynamics | 3 |
| Remaining Core Curriculum Courses |  |  |
| E 316L | British Literature (humanities) | 3 |
| or E 316M | American Literature |  |
| or E 316N | World Literature |  |
| or E 316P | Masterworks of Literature |  |
| American and Texas government |  | 6 |
| American history |  | 6 |
| Social and behavioral sciences |  | 3 |
| Visual and performing arts |  | 3 |
| UGS 302 | First-Year Signature Course (some sections carry writing flag) | 3 |
| or UGS 303 | First-Year Signature Course |  |

Total Hours

## Technical Area Options

The technical area option allows the student to choose thirteen semester hours of technical area courses in either atmospheric flight or space flight. Each student should choose a technical area by the end of the first semester of the junior year and plan an academic program to meet the area requirements in the next three semesters. Many students choose technical electives that will strengthen their backgrounds in one specialty area, but this is not required. It should be noted that a student may choose the technical area courses in the other technical area as technical electives.

## Area 1, Atmospheric Flight

Also called aeronautics, this area provides the student with a well-rounded program of study emphasizing the major disciplines of aerodynamics, propulsion, structures, design, performance, and control of aircraft. These subjects are treated at a fundamental level that lays a foundation for work in a broad variety of specialties in the aircraft industry. This option is intended for the undergraduate student whose primary interest is aircraft.

Aerospace Engineering 321K, Computational Methods for Structural Analysis
Aerospace Engineering 361K, Aircraft Design I (carries an independent inquiry flag)
Aerospace Engineering 361L, Aircraft Design II (carries a writing flag)
Aerospace Engineering 119L, High-Speed Aerodynamics Laboratory
Aerospace Engineering 364, Applied Aerodynamics

## Area 2, Space Flight

Also called astronautics, this area offers a well-rounded program of study that provides a background in the traditional areas of fluid mechanics, materials, structures, propulsion, controls, and flight mechanics, while also giving the student a chance to learn about the space environment, attitude determination and control, orbital mechanics, mission design, and spacecraft systems engineering. These subjects are treated at a fundamental level that lays a foundation for work in a broad variety of specialties in space-related industries. This option is intended for the undergraduate student whose primary interest is space and spacecraft.

Aerospace Engineering 366L, Applied Orbital Mechanics
Aerospace Engineering 119M, Spacecraft Systems Laboratory
Aerospace Engineering 372K, Attitude Dynamics
Aerospace Engineering 374K, Space Systems Engineering Design

Aerospace Engineering 374L, Spacecraft/Mission Design (carries an independent inquiry flag and a writing flag)

## Special Projects Laboratories

The department offers students the opportunity to participate in special projects such as student-built radio-controlled aircraft competitions and student satellite-building projects. These time-intensive projects are open to all aerospace engineering students with at least fifteen semester hours of University credit toward the degree and a grade point average of at least 2.50. Academic credit for participation in departmentally approved student projects is available on the pass/fail basis through the course Aerospace Engineering 128 (p. 158). Three such laboratory courses can be combined to count as one three-hour technical elective; one such laboratory course can be combined with a two-hour cooperative program to count as one three-hour technical elective.

## Suggested Arrangement of Courses

| First Year |  |  |
| :---: | :---: | :---: |
| First Term | Hours Second Term | Hours |
| UGS 302 or 303 | 3 ASE 301 | 3 |
| CH 301 | $3 \mathrm{M} \mathrm{408D}$ | 4 |
| M 408C | 4 PHY 303K | 3 |
| RHE 306 | 3 PHY 103M | 1 |
| Social and behavioral sciences or visual and performing arts | 3 American and Texas government | 3 |
|  | American history | 3 |
|  | 16 | 17 |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| E M 306 | 3 ASE 211 K | 2 |
| M 427K | 4 EM 311 M | 3 |
| PHY 303L | 3 E M 319 | 3 |
| PHY 103N | 1 M 427 L | 4 |
| M E 210 | 2 ASE 333T | 3 |
| M E 320 | 3 |  |
|  | 16 | 15 |
| Third Year |  |  |
| First Term | Hours Second Term | Hours |
| ASE 320 | 3 ASE 362K | 3 |
| ASE 119K | 1 ASE 367K | 3 |
| ASE 330M | 3 Social and behavioral sciences or visual and performing arts | 3 |
| ASE 366K | 3 Technical area courses | 7 |
| ASE 375 | 3 |  |
| E 316L, 316M, 316N, or 316P | 3 |  |
|  | 16 | 16 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| ASE 324L | 3 ASE 370L | 3 |
| ASE 376K | 3 ASE 365 | 3 |
| Technical area courses | 6 American history | 3 |
| Technical elective | 3 American and Texas government | 3 |
|  | Technical area elective | 3 |
|  | 15 | 15 |

Total credit hours: 126

## Bachelor of Science in Architectural Engineering

An unprecedented growth in the building industry, already one of the largest industries in the nation, has created a pressing demand for
engineers with specialized training to plan and direct the activities of the industry. This need has been further intensified by the introduction of new materials, new structural systems, and new methods and management techniques. The curriculum in architectural engineering is designed to meet this demand. It offers training in the fundamentals of engineering, with specialization in structures, building energy and environments, or building construction and materials.

This curriculum affords the student the opportunity to attain competence in the structural design of buildings from high-rise to long-span structures and from commercial buildings to complex industrial facilities. Courses in environmental control systems permit graduates to integrate modern electrical, mechanical, and utility distribution systems with the structural and architectural elements of buildings. Courses in construction methods and project management offer the student an opportunity to obtain a versatile background suitable for all areas of the building industry.

The extensive technical requirements, coupled with courses in arts and sciences, provide the architectural engineering student with an opportunity to obtain a background that is ideally suited for careers and positions of responsibility with consulting engineers, general contractors, manufacturers, government agencies, and architecture firms. The curriculum also serves as an excellent springboard to graduate study in the areas of structural engineering, building energy and environments, construction engineering and project management, or construction materials.

## Program Outcomes

Graduates of the architectural engineering program are expected to have

- An ability to apply knowledge of mathematics, science, and engineering
- An ability to design and conduct experiments, as well as to analyze and interpret data
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- An ability to function on multidisciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The broad education necessary to understand what impact engineering solutions have in global, economic, environmental, and societal contexts
- Recognition of the need for and an ability to engage in lifelong learning
- Knowledge of contemporary issues
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice


## Program Educational Objectives

Graduates of the architectural engineering program should solve architectural engineering problems within a greater societal context. They should:

- Act professionally and ethically
- Apply knowledge, strong reasoning, and quantitative skills to design and implement creative and sustainable solutions
- Engage in lifelong learning in order to meet the challenges facing the profession
- Exhibit strong communication, interpersonal, and resourcemanagement skills as leaders in the architectural engineering profession


## Dual Degree program in Architectural Engineering and Architecture

A program that leads to both the Bachelor of Science in Architectural Engineering degree and the Bachelor of Architecture degree is available to qualified students. The program combines the course requirements of both degrees and requires six years for completion. Students who wish to pursue both degrees must apply for admission to the School of Architecture according to the procedures and deadlines established by the school. The program is described in Bachelor of Architecture/ Bachelor of Science in Architectural Engineering Dual Degree Program (p. 34); additional information is available from the undergraduate adviser for architectural engineering.

## Curriculum

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. In addition, each student must complete the University's Core Curriculum (p. 20). In some cases, a course required for the Bachelor of Science in Architectural Engineering may also be counted toward the core curriculum; these courses are identified below. To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet ABET criteria, students should follow the guidance given in ABET Criteria (p. 157).

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag, and one writing flag are carried by courses specifically required for the degree; these courses are identified below. Students are advised to fulfill the second writing flag requirement with a course that meets another requirement of the core curriculum, such as the first-year signature course. Courses that may be used to fulfill flag requirements (p.22) are identified in the Course Schedule (http://registrar.utexas.edu/schedules).

Enrollment in major sequence courses is restricted to students who have received credit for all of the basic sequence courses and have been admitted to the major sequence. Requirements for admission to a major sequence are given in Admission and Registration (p. 151). Enrollment in other required courses is not restricted by completion of the basic sequence.
Requirements

Basic Sequence Courses
Architectural Engineering

| ARE 102 | Introduction to Architectural Engineering | 1 |
| :--- | :--- | :--- |
| ARE 217 | Computer-Aided Design and Graphics | 2 |

Chemistry
CH 301 Principles of Chemistry I (part II science and 3 technology)
Civil Engineering
C E 311K Introduction to Computer Methods 3
C E 311S Probability and Statistics for Civil Engineers 3
C E 319F Elementary Mechanics of Fluids 3
Engineering Mechanics
E M 306 Statics

E M 319
Mechanics of Solids

| Mathematics | Differential and Integral Calculus (mathematics; |
| :--- | :--- |
| M 408C | quantitative reasoning flag) |
| M 408D | Sequences, Series, and Multivariable Calculus |

## Major Sequence Courses

Architectural Engineering

| ARE 320K | Introduction to Design I | 3 |
| :--- | :--- | :--- |
| ARE 320L | Introduction to Design II | 3 |
| ARE 323K | Project Management and Economics | 3 |
| ARE 335 | Materials and Methods of Building Construction | 3 |
| ARE 346N | Building Environmental Systems | 3 |
| ARE 346P | HVAC Design | 3 |
| or ARE 370 | Design of Energy Efficient and Healthy Buildings |  |
| ARE 465 | Integrated Design Project (independent inquiry <br> flag) | 4 |
| ARE 366 | Contracts, Liability, and Ethics (ethics and <br> leadership flag) | 3 |


| Civil Engineering |  |  |
| :--- | :--- | :--- |
| C E 324P | Properties and Behavior of Engineering Materials | 3 |
| C E 329 | Structural Analysis | 3 |
| C E 331 | Reinforced Concrete Design | 3 |
| or C E 335 | Elements of Steel Design |  |
| C E 333T | Engineering Communication (writing flag) | 3 |
| C E 357 | Geotechnical Engineering | 3 |
| Approved technical electives | 9 |  |

## Other Required Courses

| M 427K | Advanced Calculus for Applications I (quantitative reasoning flag) | 4 |
| :---: | :---: | :---: |
| GEO 303 | Introduction to Geology | 3 |
| M E 320 | Applied Thermodynamics | 3 |
| Approved architectural history elective (visual and performing arts) |  | 3 |
| Approved mathematics or science elective |  | 3 |
| Remaining Core Curriculum Courses |  |  |
| E 316L | British Literature (humanities) | 3 |
| or E 316M | American Literature |  |
| or E 316N | World Literature |  |
| or E 316P | Masterworks of Literature |  |
| American and Texas government |  | 6 |
| American history |  | 6 |
| Social and behavorial science |  | 3 |
| Total Hours |  | 126 |

3 Technical Electives
Technical electives in architectural engineering are listed in three areas of specialization below. Nine semester hours must be chosen from the following approved technical elective courses or selected with the approval of the department undergraduate adviser. Lower-division courses may not be used as technical electives.

## Area 1, Structures

Civil Engineering 363, Advanced Structural Analysis
Civil Engineering 375, Earth Slopes and Retaining Structures
Engineering Mechanics 339, Advanced Strength of Materials

Area 2, Building Energy and Environments<br>Architectural Engineering 346P, HVAC Design or 370, Design of Energy Efficient and Healthy Buildings<br>Architectural Engineering 371, Energy Simulation in Building Design Architectural Engineering 372, Modeling of Air and Pollutant Flows in Buildings<br>Civil Engineering 341, Introduction to Environmental Engineering Mechanical Engineering 339, Heat Transfer<br>Mechanical Engineering 374F, Fire Science<br>Mechanical Engineering 374S, Solar Energy Systems Design<br>Mechanical Engineering 379N, Engineering Acoustics

## Area 3, Construction and Materials

Architectural Engineering 358, Cost Estimating in Building Construction Civil Engineering 351, Concrete Materials
Mechanical Engineering 349, Corrosion Engineering
Mechanical Engineering 378K, Mechanical Behavior of Materials
Mechanical Engineering 378P, Properties and Applications of Polymers

## Suggested Arrangement of Courses

First Year
First Term
ARE 102
CH 301
M 408 C
RHE 306
UGS 302 or 303

| Hours Second Term | Hours |
| :---: | ---: |
| 1 Approved architectural history elective | 3 |
| 3 GEO 303 | 3 |
| 4 M 408D | 4 |
| 3 PHY 303K | 3 |
| 3 PHY 103M | 1 |
| Social and behavioral sciences | 3 |
| $\mathbf{1 4}$ | $\mathbf{1 7}$ |

## Second Year

## First Term

C E 311 K
E M 306
M 427K
PHY 303L
PHY 103N
American history

Hours Second Term Hours 3 ARE 2172
3 CE311S 3
4 EM 319
3 C E 319F
1 M E 320
3 American history
17
urs

## Third Year

## First Term

ARE 320K
Hours Second Term
Hours

C E 324P
3 ARE 320L

C E 329
ARE 323K
E 316L, 316M, 316N, or 316P

Fourth Year
First Term
C E 357
ARE 346P or 370
Approved math/science elective
Approved technical elective
American and Texas government

3 ARE 335
3 ARE 346N
3 C E 331 or 335

15

> Hours Second Term

Total credit hours: 126

## Bachelor of Science in Biomedical Engineering

The mission of the Department of Biomedical Engineering is to develop clinically translatable solutions for human health by training the next generation of biomedical engineers, cultivating leaders, and nurturing the integration of science, engineering, and medicine in a discovery-centered environment. The main educational objective is to provide a thorough training in the fundamentals of engineering science, design, and biology. The curriculum is designed to provide concepts central to understanding living systems from the molecular and cellular levels to the tissue and organismal levels. The curriculum incorporates principles of vertical integration, leading to the choice of a technical area (biomedical imaging and instrumentation, cell and biomolecular engineering, computational biomedical engineering, or biomechanics), and culminates in a team capstone design experience. Students are expected to develop an understanding of industrial, research, and clinical biomedical engineering environments; an understanding of regulatory issues and biomedical ethics; the ability to create, identify, formulate, and solve biomedical engineering problems; the ability to design systems to meet needs in medical/life science applications; an understanding of life processes at the molecular, cellular, tissue, and organismal levels; the ability to use instrumentation and to make measurements and interpret data in living systems; and an appreciation of the interdisciplinary nature of biomedical engineering research.

## Portable Computing Devices

Students entering biomedical engineering are required to have a laptop computer at their disposal. Laptops do not need to be brought to campus on a daily basis, but individual courses may require that a laptop be brought to certain lectures, labs, and/or exams. Minimum requirements for the laptop are listed on the department's website.

## Program Outcomes

Graduates of the biomedical engineering program are expected to have:

- An ability to apply knowledge of mathematics, science, and engineering
- An ability to design and conduct experiments, as well as to analyze and interpret data
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- An ability to function on multidisciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The broad education necessary to understand what impact engineering solutions have in global, economic, environmental, and societal contexts
- A recognition of the need for and an ability to engage in lifelong learning
- A knowledge of contemporary issues
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice


## Program Educational Objectives

Achievement of the preceding program outcomes gives students the foundation for accomplishing the biomedical engineering program educational objectives. A few years after graduation, students are expected to be able to:

- Conduct themselves with exemplary professional ethics and highest integrity
- Demonstrate a quantitative, analytical, and systems approach to problem solving in their professional practice
- Demonstrate a continuous quest for professional excellence and success
- Participate in continuing education to expand their knowledge of contemporary professional issues
- Exhibit effective scientific, technical, communication, and resource management skills in their professional practice


## Curriculum

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. In addition, each student must complete the University's core curriculum (p. 20). In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below.

To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet ABET criteria, students should follow the guidance given in Degrees (p. 157).

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag, and the two writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements ( p .22 ) are identified in the Course Schedule.

The first three long semesters of the curriculum consist of basic sequence and supporting courses for all biomedical engineering students.
Subsequent enrollment in major sequence courses starting the fourth semester, and one of four technical areas is restricted to students who have received credit for all of the basic sequence courses and have been admitted to the major sequence. Requirements for admission to a major sequence are given in Admission and Registration (p. 151). Enrollment in other required courses is not restricted by completion of the basic sequence.

Prior to registration, students must receive approval from the Biomedical Engineering Academic Advising Office for courses to be used to fulfill technical and nontechnical course requirements. The student must take all courses required for the degree on the letter-grade basis and must earn a grade of at least $C$ - in each, except for those listed as Remaining Core Curriculum Courses.

## Requirements

| Basic Sequence Courses |  |
| :--- | :--- |
| Biology |  |
| BIO 206L | Introductory Laboratory Experiments in Biology |
| BIO 311C | Introductory Biology I |

Biomedical Engineering
BME 203L Introduction to Biomedical Engineering Design 2
BME 303 Introduction to Computing 3
BME 311 Network Analysis in Biomedical Engineering 3
BME 113L Introduction to Numerical Methods in Biomedical 1 Engineering
$\begin{array}{ll}\text { BME 214L } & \text { Computational Fundamentals of Biomedical } \\ & \text { Engineering Design }\end{array}$
$\begin{array}{ll}\text { BME 333T } & \begin{array}{l}\text { Engineering Communication (writing and an ethics } \\ \text { and leadership flag) }\end{array}\end{array}$

| Chemistry |  |
| :--- | :--- |
| CH 301 | Principles of Chemistry I |
| CH 302 | Principles of Chemistry II |
| CH 204 | Introduction to Chemical Practice |
| CH 320M | Organic Chemistry I |
| or CH 328M | Organic Chemistry I |
| Mathematics | Differential and Integral Calculus (mathematics; |
| M 408C | quantitative reasoning flag) |
| M 408D | Sequences, Series, and Multivariable Calculus <br> M 427K |

## Physics

| PHY 303K | Engineering Physics I (part I science and <br> technology; quantitative reasoning flag) | 3 |
| :--- | :--- | :--- |


| PHY 303L | Engineering Physics II (part I science and <br> technology; quantitative reasoning flag) | 3 |
| :--- | :--- | :--- |

PHY 103M Laboratory for Physics 303K 1
PHY 103N Laboratory for Physics 303L 1

Rhetoric and Writing
RHE $306 \quad$ Rhetoric and Writing (English composition)

| Major Sequence Courses |  |  |
| :---: | :---: | :---: |
| Biomedical Engineering |  |  |
| BME 335 | Engineering Probability and Statistics | 3 |
| BME 343 | Biomedical Engineering Signal and Systems Analysis | 3 |
| BME 344 | Biomechanics | 3 |
| BME 245L | Experimental Principles of Biomedical Engineering Design (writing flag) | 2 |
| BME 349 | Biomedical Instrumentation | 3 |
| BME 352 | Engineering Biomaterials | 3 |
| BME 353 | Transport Phenomena in Living Systems | 3 |
| BME 355 | Molecular Engineering | 3 |
| BME 261L | Development and Analysis in Biomedical Engineering Design | 2 |
| BME 365R | Quantitative Engineering Physiology 1 | 3 |

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| BME 365S | Quantitative Engineering Physiology II <br> BME 370 | Biomedical Engineering Capstone Design I (writing <br> flag) |
| :--- | :--- | :--- |
| BME 371 | Biomedical Engineering Capstone Design II <br> (independent inquiry flag) | 3 |

Hours Other Required Courses

| CH 128K | Organic Chemistry Laboratory | 1 |
| :--- | :--- | :--- |
| CH 353 | Physical Chemistry I | 3 |

or CH 353M Physical Chemistry I for Life Sciences
BCH 369 Fundamentals of Biochemistry 3
Remaining Core Curriculum Courses
E 316L British Literature (humanities) 3
or E 316M American Literature
or E 316N World Literature
or E 316P Masterworks of Literature
American and Texas government 6
American history 6
Social and behavioral sciences 3
Visual and performing arts 3
UGS 302 First-Year Signature Course (some sections carry 3 a writing flag)
or UGS 303 First-Year Signature Course
Minimum Required

## Technical Area Options

The technical area option allows the student to build on the biomedical engineering core curriculum by choosing twelve semester hours of technical area coursework in biomedical imaging and instrumentation, cell and biomolecular engineering, computational biomedical engineering, or biomechanics. Within some technical areas, career emphases are available for students to focus coursework toward a particular career track. Students have flexibility to take technical elective coursework from more than one career emphasis under the same technical area. Each student should choose a technical area by the end of the sophomore year and plan an academic program to meet the area requirements during the next two years.

Preparation for health professions. Students who plan to attend medical, veterinary, or dental school in Texas must complete coursework in addition to that required for the BS in Biomedical Engineering in order to meet professional school admission requirements; those who plan to attend schools outside Texas may need additional coursework. The student is responsible for knowing and meeting these additional requirements, but assistance and information are available from full-time pre-health professions coaches and part-time peer mentors in the Health Professions Office in the College of Natural Sciences, PAI 5.03. Additional information about preparation for health professions is available online at http://cns.utexas.edu/careers/health-professions/.

Preparation for law. There is no sequential arrangement of courses prescribed for a pre-law program. The Association of American Law Schools puts special emphasis on comprehension and expression in words, critical understanding of the human institutions and values with which the law deals, and analytical power in thinking. Courses relevant to these objectives deal with communication of ideas, logic, mathematics, social sciences, history, philosophy, and the physical sciences. Services for pre-law students are provided to students in all colleges by the Center for Strategic Advising \& Career Counseling, JES A115 and to engineering
students by the Engineering Career Assistance Center (ECAC) in ECJ 2.400. Additional information about preparation for law is available online.

Plan II Honors Program. Students enrolled in the Plan II Honors Program are encouraged to contact the Biomedical Engineering Academic Advising Office, in addition to the Plan II Office to ensure that requirements for both programs are met. Plan II courses may count toward biomedical engineering program requirements.

Certificate programs. Biomedical engineering students may enrich their education through the following certificate programs.

Business Foundations Program. Students who wish to learn about fundamental business concepts and practices may take supplemental coursework that leads to the Business Foundations Certificate, awarded by the Red McCombs School of Business. The program is described in Degrees and Programs (p. 48) of the McCombs School. More information about the Business Foundations Program is available at http://new.mccombs.utexas.edu/bba/business-foundations and from the McCombs School.

Elements of Computing. Students who wish to learn about computer science may take the coursework that leads to the certificate in the Elements of Computing, awarded by the Department of Computer Science. The program is described in Degrees (p.540) of the College of Natural Science. More information about the Elements of Computing Program is available at https://www.cs.utexas.edu/undergraduate-program/academics/elements-computing, and from the Department of Computer Science.

## Technical Area 1, Biomedical Imaging and Instrumentation

This technical area is designed for students interested in the general area of medical imaging science and instrumentation design. Two career emphases are available in this area: biomedical imaging and biomedical instrumentation.

## Career Emphasis A: Biomedical Imaging

The main objective of this emphasis is to prepare students for a career in biomedical imaging. A solid foundation, practical knowledge, and skills are established in optics, imaging modalities, and image and signal processing.

While students are required to select twelve hours from any of the Technical Area 1 electives, the following are recommended for the biomedical imaging career emphasis:

Biomedical Engineering 347, Fundamentals of Biomedical Optics Biomedical Engineering 357, Biomedical Imaging Modalities
Electrical Engineering 347, Modern Optics
Electrical Engineering 351M, Digital Signal Processing
Electrical Engineering 371R, Digital Image and Video Processing
An approved upper-division biomedical engineering, electrical engineering, or physics course

## Career Emphasis B: Biomedical Instrumentation

The main objective of this emphasis is to prepare students to design and use biomedical instrumentation for imaging, diagnostic, and therapeutic applications. A solid foundation, practical knowledge, and skills are established in analog and digital network analysis, software and hardware programming, electronic circuits, sensors, data acquisition systems, image and signal processing, and computational analysis of data as it applies to living systems.

While students are required to select twelve hours from any of the Technical Area 1 course options, the following are recommended for the biomedical instrumentation career emphasis:

Biomedical Engineering 374K, Biomedical Instrument Design Biomedical Engineering 374L, Applications of Biomedical Engineering Laboratory
Electrical Engineering 312, Software Design and Implementation I
Electrical Engineering 319K, Introduction to Embedded Systems
Electrical Engineering 438, Fundamentals of Electronic Circuits I
Laboratory
Electrical Engineering 445L, Embedded Systems Design Laboratory
Electrical Engineering 445M, Embedded and Real-Time Systems Laboratory
Electrical Engineering 445S, Real-Time Digital Signal Processing Laboratory
Electrical Engineering 351M, Digital Signal Processing

## Technical Area 2, Cellular and Biomolecular Engineering

The major objective of this area is to teach students how to integrate knowledge in cell and molecular biology with engineering analysis, so that they can address problems in molecular-based medicine. Two career emphases are available in this area: biomaterials/regenerative medicine and nanotechnology.

## Career Emphasis A: Biomaterials/Regenerative Medicine

The objective of this emphasis is to prepare students for a career in biomaterials and regenerative medicine engineering. This emphasis includes solid foundation in cell and tissue engineering, biomaterials, and pharmacology. While students are required to select twelve hours from any of the Technical Area 2 course options, the following are recommended for the biomaterials/regenerative medicine career emphasis:

Biology 320, Cell Biology
Biology 325, Genetics
Biology 326M, Introductory Medical Microbiology and Immunology
Biomedical Engineering 339, Biochemical Engineering
Biomedical Engineering 376, Cell Engineering
Biomedical Engineering 379, Tissue Engineering
An approved topic of Chemical Engineering 379, Topics in Chemical Engineering
Chemistry 320N, Organic Chemistry II and 220C, Organic Chemistry Laboratory; or 328N, Organic Chemistry II and 128L, Organic Chemistry Laboratory
Pharmacy 338, Introduction to Pharmacology
An approved upper-division biomedical engineering, chemical engineering or mechanical engineering course

## Career Emphasis B: Nanotechnology

The objective of this emphasis is to prepare students for a career in nanotechnology. This emphasis includes solid foundation in nanodevices and sensors, biological physics, and nanocomposites. While students are required to select twelve hours from any of the Technical Area 2 course options, the following are recommended for the nanotechnology career emphasis:

Biomedical Engineering 346, Computational Biomolecular Engineering Biomedical Engineering 354, Molecular Sensors and Nanodevices for Biomedical Engineering Applications
Chemical Engineering 322, Thermodynamics
Chemical Engineering 339P, Introduction to Biological Physics

An approved topic of Chemical Engineering 379, Topics in Chemical Engineering
Chemistry 320N, Organic Chemistry II and 220C, Organic Chemistry Laboratory; or 328N, Organic Chemistry II and 128L, Organic Chemistry Laboratory
An approved topic of Mechanical Engineering 379M, Topics in Mechanical Engineering
An approved upper-division biomedical engineering, chemical engineering or mechanical engineering course

## Technical Area 3, Computational Biomedical Engineering

The objective of this area is to provide students with the knowledge and skills that will enable them to design and use computational algorithms to address problems in biomedical research and health care. Examples include (a) designing medical decision aids using statistical and machine learning models, (b) dynamic modeling and computer simulation to study the biomechanics and control of movement, (c) development of thermodynamic models of dynamic processes at the microscopic and macroscopic scales in biological systems, and (d) image processing techniques for quantitative measurement and interpretation of biomedical images.

Students must select twelve hours from the following:
Biomedical Engineering 345, Graphics and Visualization Laboratory
Biomedical Engineering 346, Computational Biomolecular Engineering
Biomedical Engineering 348, Modeling of Biomedical Engineering
Systems
Biomedical Engineering 358, Medical Decision Making
Electrical Engineering 312, Software Design and Implementation I
Electrical Engineering 319K, Introduction to Embedded Systems
Electrical Engineering 422C, Software Design and Implementation II
Electrical Engineering 360C, Algorithms
Electrical Engineering 371R, Digital Image and Video Processing Mathematics 325K, Discrete Mathematics
Mathematics 340L, Matrices and Matrix Calculations
A computer science course from an approved list

## Technical Area 4, Biomechanics

The major objective of this area is to provide students with knowledge of the structure and function of biological systems by means of the methods of mechanics. Students will learn skills to apply engineering principles to understand how living systems function at all scales of organization and to translate this understanding to the design of devices and procedures that will improve diagnostic and therapeutic methods in health care.

Students must select twelve hours from the following:
Biomedical Engineering 342, Biomechanics of Human Movement
Biomedical Engineering 359, Cellular and Molecular Biomechanics
Biomedical Engineering 362, Introduction to Nonlinear Dynamics in Biological Systems
Chemical Engineering 339P, Introduction to Biological Physics
Kinesiology 326K, Kinesiology: Biomechanical Analysis of Movement
Mechanical Engineering 324, Dynamics
Mechanical Engineering 326, Thermodynamics
Mechanical Engineering 344, Dynamic Systems and Controls and 144L, Dynamic Systems and Controls Laboratory
Mechanical Engineering 354, Introduction to Biomechanical Engineering
Mechanical Engineering 372J, Robotics and Automation
An approved upper-division biomedical engineering or mechanical engineering course

## Suggested Arrangement of Courses

| First Year |  |  |
| :---: | :---: | :---: |
| First Term | Hours Second Term | Hours |
| BIO 311C | 3 BME 303 | 3 |
| BME 203L | 2 CH 302 | 3 |
| UGS 302 or 303 | 3 CH 204 | 2 |
| BIO 206L | $2 \mathrm{M} \mathrm{408D}$ | 4 |
| CH 301 | 3 PHY 303K | 3 |
| M 408C | 4 PHY 103M | 1 |
|  | RHE 306 | 3 |
|  | 17 | 19 |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| BME 214L | 2 BME 333T | 3 |
| CH 320M or 328M | 3 BME 113L | 1 |
| CH 128K | 1 BME 343 | 3 |
| BME 311 | 3 BME 335 | 3 |
| M 427K | 4 CH 353 or 353M | 3 |
| PHY 303L | 3 BCH 369 | 3 |
| PHY 103N | 1 |  |
|  | 17 | 16 |
| Third Year |  |  |
| First Term | Hours Second Term | Hours |
| BME 245L | 2 BME 261L | 2 |
| BME 344 | 3 BME 355 | 3 |
| BME 349 | 3 BME 352 | 3 |
| BME 365R | 3 BME 365S | 3 |
| BME 353 | 3 Technical area elective | 3 |
| Technical area elective | 3 E 316L, 316M, 316N, or 316P | 3 |
|  | 17 | 17 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| BME 370 | 3 BME 371 | 3 |
| GOV 310L | 3 GOV 312L | 3 |
| Technical area elective | 3 Visual and performing arts | 3 |
| American history | 3 Technical area elective | 3 |
| Social and behavioral sciences | 3 American history | 3 |
|  | 15 | 15 |

Total credit hours: 133

## Bachelor of Science in Chemical Engineering

Chemical engineering is one of the most broadly based engineering disciplines. Its field of practice covers the development, design, and control of processes and products that involve molecular change, both chemical and biological, and the operation of such processes. Because many of the products that sustain and improve life are produced by carefully designed and controlled molecular changes, the chemical engineer serves in a wide variety of industries. These industries range from chemical and energy companies to producers of all types of consumer and specialty products, pharmaceuticals, textiles, polymers, advanced materials, and solid-state and biomedical devices.

Careers are available in industry, government, consulting, and education. Areas of professional work include research and development, operations, technical service, product development, process and plant design, market analysis and development, process control, and pollution abatement.

The objective of the chemical engineering degree program is to prepare students for professional practice in chemically related careers after the bachelor's degree or an advanced degree. Chemical engineering
graduates are expected to apply fundamentals of science and engineering to solve problems of analysis and design of components, systems, and processes important in chemical engineering practice and research; demonstrate interpersonal skills required to lead and/or participate effectively in interdisciplinary projects; recognize the importance of lifelong learning in meeting professional and personal goals so they can be successful in their chosen profession, including graduate school; exhibit effectiveness in communication skills; and articulate and practice professional, ethical, environmental, and societal responsibilities, and value different global and cultural perspectives. To meet the program objective, the faculty has designed a rigorous, demanding, and state-of-the-art curriculum that integrates lectures and laboratory experience in basic science, mathematics, engineering science, engineering design, and the liberal arts.

## Portable Computing Devices

Students entering chemical engineering are required to have a laptop computer at their disposal. Laptops do not need to be brought to campus on a daily basis, but individual courses may require that a laptop be brought to certain lectures, labs, and/or exams. Minimum requirements for the laptop are listed on the department's Web site (http://www.che.utexas.edu/current-students/undergraduate-students/ undergraduate-office/laptop-requirements).

## Curriculum

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. In addition each student must complete the University's core curriculum (p.20). In some cases a course required for the Bachelor of Science in Chemical Engineering may also be counted toward the core curriculum; these courses are identified below. To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet $A B E T$ criteria, students should follow the guidance given in Liberal Education for Engineers (p. 157).

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag, and one writing flag are carried by courses specifically required for the degree; these courses are identified below. Students are advised to fulfill the second writing flag requirement with a course that meets another requirement of the core curriculum, such as the first-year signature course. Courses that may be used to fulfill flag requirements (p. 22) are identified in the Course Schedule.

Enrollment in major sequence courses is restricted to students who have received credit for all of the basic sequence courses and have been admitted to the major sequence. Requirements for admission to a major sequence are given in Admission and Registration (p. 151). Enrollment in other required courses is not restricted by completion of the basic sequence.

## Requirements

## Basic Sequence Courses

Chemical Engineering
CHE 210 Introduction to Computing
2
CHE 317 Introduction to Chemical Engineering Analysis
CHE 353 Transport Phenomena
Chemistry

| CH 302 | Principles of Chemistry II (part II science and technology; quantitative reasoning flag) | 3 |
| :---: | :---: | :---: |
| CH 204 | Introduction to Chemical Practice (quantitative reasoning flag) | 2 |
| CH 128K | Organic Chemistry Laboratory | 1 |
| CH 328M | Organic Chemistry I | 3 |
| CH 353 | Physical Chemistry I (quantitative reasoning flag) | 3 |
| Mathematics |  |  |
| M 408C | Differential and Integral Calculus (mathematics; quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| M 427K | Advanced Calculus for Applications I (quantitative reasoning flag) | 4 |
| Physics |  |  |
| PHY 303K | Engineering Physics I (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 303L | Engineering Physics II (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| Rhetoric and Writing |  |  |
| RHE 306 | Rhetoric and Writing (English composition) | 3 |

Major Sequence Courses
Chemical Engineering

| CHE 322 | Thermodynamics | 3 |
| :--- | :--- | :--- |
| CHE 333T | Engineering Communication (writing flag and <br> ethics and leadership flag) | 3 |
| CHE 348 | Numerical Methods in Chemical Engineering and | 3 |
| CHE 350 | Problem Solving | 3 |

CHE 253K Applied Statistics 2
CHE 253M Measurement, Control, and Data Analysis 2
CHE 354 Transport Processes 3
CHE 360 Process Control 3

CHE 363 Separation Processes and Mass Transfer 3
CHE 264 Chemical Engineering Process and Projects 2 Laboratory (writing flag)
CHE 372 Chemical Reactor Analysis and Design 3
CHE 473K Process Design and Operations (independent 4 inquiry flag)
Approved technical focus area electives in chemical engineering 6
Approved technical focus area electives 6
Other Required Courses
BIO 311C Introductory Biology I 3
CH 128L Organic Chemistry Laboratory 1
CH 328N Organic Chemistry II 3
CH 153K Physical Chemistry Laboratory (writing flag) 1
Chemistry elective with a laboratory experience chosen from 4

| CH 354 | Quantum Chemistry and Spectroscopy |
| :---: | :---: |
| \& CH 154K | and Physical Chemistry Laboratory |
| CH 354L | Physical Chemistry II |
| \& CH 154K | and Physical Chemistry Laboratory |
| CH 455 | Fundamentals of Analytical Chemistry |
| BCH 369 | Fundamentals of Biochemistry |
| \& CHE 179 | and Topics in Chemical Engineering |


| $\begin{aligned} & \text { CH } 354 \\ & \text { \& CHE } 179 \end{aligned}$ | Quantum Chemistry and Spectroscopy and Topics in Chemical Engineering |
| :---: | :---: |
| Approved advan elective | ed mathematics, physics, chemistry or biology |
| Remaining Core Curriculum Courses |  |
| E 316L | British Literature (humanities) |
| or E 316M | American Literature |
| or E 316N | World Literature |
| or E 316P | Masterworks of Literature |
| American and Texas government |  |
| American history |  |
| Visual and performing arts |  |
| Social and behavioral sciences |  |
| UGS 302 | First-Year Signature Course (some sections carry writing flag) |
| or UGS 303 | First-Year Signature Course |

Total Hours

## Honors Program

Chemical engineering students who maintain a grade point average of at least 3.50 may take the honors research course, Chemical Engineering 679 H . In this course the student performs research over two consecutive semesters under the supervision of a faculty member, makes two oral presentations, and writes a thesis. Chemical Engineering 679H may be used to fulfill either the approved area electives requirement or the approved area electives in chemical engineering requirement.

## Technical Focus Areas

Because of the broad training in natural sciences and engineering received by the chemical engineer, opportunities are provided for students also to develop particular talents and interests in one or two areas of emphasis. Each student must complete twelve semester hours in one of the following areas or six semester hours in each of two areas, including at least two chemical engineering courses. The technical focus area courses should be selected in consultation with a faculty adviser and must be approved by the department chair. The courses listed in each area do not constitute a complete list of technical focus area courses but illustrate the types of courses that are generally suitable for a given area. A list of suggested complementary biology, physics, mathematics, and chemistry electives for each of the technical focus areas is available from the Chemical Engineering Undergraduate Office and published on the departmental Web page.

Students with a grade point average of at least 3.50 who are interested in seeking an advanced degree in chemical engineering are encouraged to discuss their plans with the graduate adviser or another faculty member. These students are encouraged to take at least one advanced mathematics course among their electives. They should also inquire about undergraduate research positions in the department.

For all areas, Chemical Engineering 325L and 377K may be counted as chemical engineering electives only with the approval of the student's undergraduate faculty adviser. Chemical Engineering 377K may be counted only once toward the degree.

## Area 1, Process Systems and Product Engineering

The chemical process industry is one of the most advanced in the applications of modern design and control techniques and computer technology. Competence in design, economics, fault detection, optimization, control, and simulation is essential in this industry. Chemical
engineers are also frequently involved in the development of new consumer and specialty products, an assignment that requires not only technical skills but also an understanding of the principles of successful marketing and quality control. Chemical engineering courses in this technical focus area cover topics such as optimization and statistical quality control, while courses in mechanical engineering and electrical engineering deal with both theory and applications in statistics, computer control, economic analysis, and operations research.

Chemical Engineering 341, Design for Environment<br>Chemical Engineering 342, Chemical Engineering Economics and Business Analysis<br>Chemical Engineering 356, Optimization: Theory and Practice Chemical Engineering 376K, Process Evaluation and Quality Control Electrical Engineering 370K, Computer Control Systems Electrical Engineering 379K, Topic: Statistical Quality Control Architectural Engineering 323K, Project Management and Economics Mechanical Engineering 335, Engineering Statistics<br>Mechanical Engineering 348D, Introduction to Mechatronics II Mechanical Engineering 353, Engineering Finance Mechanical Engineering 366L, Operations Research Models Marketing 320F, Foundations of Marketing International Business 378, International Business Operations Marketing 460, Information and Analysis (carries a quantitative reasoning flag)<br>Upper-division mathematics course

## Area 2, Materials Engineering

Advances in technology and improvements in our quality of life are linked to the development, processing, and manufacture of engineering materials. Materials span the spectrum from "hard" to "soft" materials and include metals, ceramics, semiconductors, and polymers; all are prepared in carefully controlled chemical processes. These materials are used technologically in objects such as catalysts, fuel cells, microelectronic devices, membranes, solar cells, and high-performance plastics. With advancements in analytical probes and modeling, our understanding of materials has become increasingly more molecular and the traditional boundaries between disciplines have faded to the extent that this is a truly interdisciplinary area. Chemical engineers can assume a creative role in this area when provided with the appropriate fundamentals and applications background.

Chemistry 341, Special Topics in Laboratory Chemistry Chemistry 354, Quantum Chemistry and Spectroscopy Chemistry 354L, Physical Chemistry II
Chemistry 367L, Macromolecular Chemistry
Chemistry 376K, Advanced Analytical Chemistry
Chemical Engineering 322M, Molecular Thermodynamics
Chemical Engineering 323, Chemical Engineering for Micro- and Nanofabrication
Chemical Engineering 355, Introduction to Polymers
Chemical Engineering 379, Topic: Computation Methods with Applications to Materials
Chemical Engineering 379, Topic: Polymerization Kinetics and Reaction Engineering
Electrical Engineering 339, Solid-State Electronic Devices
Mechanical Engineering 349, Corrosion Engineering
Mechanical Engineering 359, Materials Selection
Mechanical Engineering 374S, Solar Energy Systems Design
Mechanical Engineering 378C, Electroceramics
Mechanical Engineering 378S, Structural Ceramics
Physics 338K, Electronic Techniques
Physics 355, Modern Physics and Thermodynamics
Physics 375S, Introductory Solid-State Physics

## Area 3, Environmental Engineering

Chemical engineers are uniquely qualified to contribute to the solution of environmental problems and to design processes and products that minimize environmental hazards. From pollution prevention by process optimization, to new understanding of chemical processes that occur in the environment, to new materials for advanced catalysts and carbon-free energy sources, chemical engineers are creating the "green" technologies needed to sustain the planet.

Civil Engineering 341, Introduction to Environmental Engineering Civil Engineering 342, Water and Wastewater Treatment Engineering Civil Engineering 364, Design of Wastewater and Water Treatment Facilities
Civil Engineering 369L, Air Pollution Engineering
Civil Engineering 370K, Environmental Sampling and Analysis
Chemical Engineering 341, Design for Environment
Chemical Engineering 357, Technology and Its Impact on the Environment
Chemical Engineering 359, Energy Technology and Policy Chemical Engineering 376K, Process Evaluation and Quality Control Mechanical Engineering 374S, Solar Energy Systems Design Mechanical Engineering 379M, Topics in Mechanical Engineering

## Area 4, Biochemical, Biomolecular, and Biomedical Engineering

## Track A: Cellular and Bioprocess Engineering

Chemical engineers are developing innovative solutions to practical problems in biotechnology and in the biochemical, pharmaceutical, and life science industries. This track is designed to prepare students for a career or research in the areas of applied cellular engineering and bioprocess engineering in the chemicals and pharmaceutical industry. Chemical engineering and elective courses are available that cover chemical engineering principles applied to biological systems and the fundamentals of biomolecular, cellular, and metabolic processes. This track is also suitable for students interested in biofuels.

Biology 311D, Introductory Biology II
Biology 325, Genetics
Biology 326R, General Microbiology
Chemical Engineering 339, Introduction to Biochemical Engineering
Chemical Engineering 339P, Introduction to Biological Physics
Biochemistry 369, Fundamentals of Biochemistry
Biochemistry 370, Physical Methods of Biochemistry

## Track B: Biomedical Engineering

This track is designed to prepare students for careers in the biomedical and pharmaceutical industries that deal with medical systems or improvement of health treatment alternatives. This is also a natural track to be followed by students who plan to attend medical school. Chemical engineering courses and electives are available that cover the application of chemical engineering principles to the design of new medical and therapeutic devices, as well as to the understanding of physiological processes.

Biology 311D, Introductory Biology II
Biology 320, Cell Biology
Biology 325, Genetics
Biology 326R, General Microbiology
Neuroscience 365R, Vertebrate Neurobiology
Biology 365S, Systems Physiology
Biomedical Engineering 352, Engineering Biomaterials
Biomedical Engineering 353, Transport Phenomena in Living Systems
Biomedical Engineering 365R, Quantitative Engineering Physiology I
Chemical Engineering 339, Introduction to Biochemical Engineering

Chemical Engineering 339P, Introduction to Biological Physics
Chemical Engineering 339T, Cell and Tissue Engineering
Chemical Engineering 355, Introduction to Polymers
Biochemistry 369, Fundamentals of Biochemistry
Electrical Engineering 374K, Biomedical Electronic Instrument Design
Mechanical Engineering 354, Introduction to Biomechanical Engineering

## Area 5, Energy Technologies

The need for energy sustainability and new energy technologies provides some of the most significant scientific and engineering challenges that face society. Chemical engineers are uniquely qualified to address these issues and contribute new solutions to the problem. Technologies include solar energy utilization in the form of photovoltaics, biofuels and solar fuels; new and more efficient ways to extract fossil fuels from existing reservoirs; alternative power sources like wind, geothermal, and nuclear. Policy is also an important and active area that involves chemical engineers. Chemical engineering and other elective courses are available that teach fundamentals of energy technology and policy.

Chemical Engineering 323, Chemical Engineering for Micro- and Nanofabrication
Chemical Engineering 339, Introduction to Biochemical Engineering
Chemical Engineering 341, Design for Environment
Chemical Engineering 355, Introduction to Polymers
Chemical Engineering 357, Technology and Its Impact on the Environment
Chemical Engineering 359, Energy Technology and Policy Civil Engineering 341, Introduction to Environmental Engineering Electrical Engineering 339, Solid-State Electronic Devices Mechanical Engineering 374S, Solar Energy Systems Design Mechanical Engineering 379M, Topics in Mechanical Engineering Petroleum and Geosystems Engineering 305, Energy and the Environment

## Area 6, Engineering Economics and Business Leadership

Chemical engineers who understand the economic and policy issues faced by modern chemical and materials companies are needed to solve the challenges of modern industry. Globalization, sustainability, safety and modern labor practices, intellectual property protection, and the process of innovation are all issues facing modern industry. This focus area is designed to prepare students for business leadership in a technical arena.

Chemical Engineering 342, Chemical Engineering Economics and Business Analysis
Chemical Engineering 356, Optimization: Theory and Practice
Architectural Engineering 323K, Project Management and Economics
Economics 304 K , Introduction to Microeconomics
Economics 304L, Introduction to Macroeconomics
Economics 328, Industrial Organization
Economics 339K, International Trade and Investment
Economics 351K, Current Issues in Business Economics
Mechanical Engineering 353, Engineering Finance
Mechanical Engineering 366L, Operations Research Models
Marketing 320F, Foundations of Marketing
International Business 378, International Business Operations
Marketing 460, Information and Analysis (carries a quantitative reasoning flag)
Science, Technology, and Society 332, The Nanotechnology and Science Revolution

## Suggested Arrangement of Courses

First Year

| First Term | Hours Second Term | Hours |
| :---: | :---: | :---: |
| CH 302 | 3 BIO 311C |  |
| CHE $102{ }^{1}$ | 1 CH 204 | 2 |
| CHE 210 | 2 M 408D |  |
| M 408C | 4 PHY 303K |  |
| RHE 306 | 3 PHY 103M |  |
| Social and behavioral sciences | 3 UGS 302 or 303 |  |
|  | 16 | 16 |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| CH 128K | 1 CH 128 L |  |
| CH 328M | 3 CH 328 N |  |
| CHE 317 | 3 CH 353 |  |
| M 427K | 4 CHE 353 |  |
| PHY 303L | 3 E 316L, 316M, 316N, or 316P |  |
| PHY 103N | 1 American and Texas government |  |
|  | 15 | 16 |
| Third Year |  |  |
| First Term | Hours Second Term | Hour |
| CH 153K | 1 CHE 253M |  |
| CHE 322 | 3 CHE 363 |  |
| CHE 333T | 3 CHE 348 |  |
| CHE 253K | 2 American history |  |
| CHE 354 | 3 Approved technical area course |  |
| Chemistry elective | 4 Visual and performing arts |  |
|  | 16 | 1 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hour |
| CHE 350 | 3 CHE 360 |  |
| CHE 264 | 2 CHE 473K |  |
| CHE 372 | 3 American history |  |
| Approved chemical engineering area course | 3 Approved chemical engineering area course |  |
| American and Texas Government | 3 Approved technical area course |  |
| Approved advanced math, physics, chemistry or biology elective | 3 |  |
|  | 17 | 16 |

Total credit hours: 129
1 Optional; students who do not take this course will take fifteen hours of coursework in the fall semester of the first year.

## Bachelor of Science in Civil Engineering

Engineering is the application of scientific principles and technical knowledge to real-world problems. Civil engineering is the segment of the engineering profession that strives to provide for the basic needs of humanity. The civil engineer is involved with the physical environment through the planning, design, construction, and operation of building and housing systems, transportation systems, and systems for the protection and use of air and water resources.

The civil engineering student has the opportunity to obtain a broad background in mathematics and the physical sciences and their applications to all areas of civil engineering. This flexible curriculum allows the student to elect eighteen semester hours of approved technical coursework to emphasize the areas of civil engineering of most interest to
the student. In addition, courses in the humanities and social sciences are included.

To excel as a civil engineer, a student should have an aptitude for mathematics and science, an interest in the practical application of technical knowledge to societal problems, the motivation to study and prepare for engineering practice, and the desire to be a professional. Civil engineering graduates of the University may seek a wide variety of positions in planning, design, and construction with government agencies, industry, and private consulting firms. Those who plan to pursue graduate work in engineering, or in other professions such as business, medicine, law, or journalism, have an excellent base on which to build.

## Program Outcomes

Graduates of the civil engineering program should attain the following outcomes:

- An ability to apply knowledge of mathematics, science, and engineering
- An ability to design and conduct experiments, as well as to analyze and interpret data
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- An ability to function on multidisciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The broad education necessary to understand what impact engineering solutions have in global, economic, environmental, and societal contexts
- Recognition of the need for and an ability to engage in lifelong learning
- Knowledge of contemporary issues
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice


## Program Educational Objectives

Graduates of the civil engineering program should solve civil engineering problems within a greater societal context. They should:

- Act professionally and ethically
- Apply knowledge, strong reasoning, and quantitative skills to design and implement creative and sustainable solutions
- Engage in lifelong learning in order to meet the challenges facing the profession
- Exhibit strong communication, interpersonal, and resourcemanagement skills as leaders in the civil engineering profession


## Curriculum

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. In addition, each student must complete the University's core curriculum (p. 20). In some cases, a course required as part of the basic sequence may also be counted toward the core curriculum; these courses are identified below. To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet ABET criteria, students should follow the guidance given in ABET Criteria (p. 157).

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag and one writing flag are carried by courses specifically required for the degree; these courses are identified below. Students are advised to fulfill the second writing flag requirement with a course that meets another requirement of the core curriculum, such as the first-year signature course. Courses that may be used to fulfill flag requirements (p.22) are identified in the Course Schedule.

Enrollment in major sequence courses is restricted to students who have received credit for all of the basic sequence courses and have been admitted to the major sequence. Requirements for admission to a major sequence are given in Admission to a Major Sequence (p. 151). Enrollment in other required courses is not restricted by completion of the basic sequence.

## Requirements

Basic Sequence Courses

| Chemistry |  |  |
| :--- | :--- | :--- |
| CH 301 | Principles of Chemistry I (part II science and <br> technology) | 3 |
| CH 302 | Principles of Chemistry II | 3 |
| Civil Engineering |  |  |

C E 301 Civil Engineering Systems 3

C E 311K Introduction to Computer Methods 3
C E 311S Probability and Statistics for Civil Engineers 3
C E 319F Elementary Mechanics of Fluids 3

Engineering Mechanics

| E M 306 | Statics | 3 |
| :--- | :--- | ---: |
| E M 319 | Mechanics of Solids | 3 |
| Mathematics |  | 4 |
| M 408C | Differential and Integral Calculus (mathematics; <br> quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |

## Mechanical Engineering

M E $210 \quad 2$
Physics
PHY 303K Engineering Physics I (part I science and

|  | technology; quantitative reasoning flag) |
| :--- | :--- |
| PHY 303L | Engineering Physics II (part I science and |


|  | technology; quantitative reasoning flag) |  |
| :--- | :--- | ---: |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |

Rhetoric and Writing
RHE $306 \quad$ Rhetoric and Writing (English composition)
or E 316N
or E 316P Masterworks of Literature
American and Texas government 6
American history 6
Social and behavioral science 3
Visual and performing arts 3

Total Hours

## Level I and Level II Technical Electives

The civil engineering curriculum does not require the student to declare a specific technical area option. However, for the guidance of students with particular interests, level I electives in civil engineering are listed in areas of specialization. The fifteen semester hours of level I electives must be chosen from the following civil engineering and architectural engineering courses; in special cases, with the written permission of the department chair, this requirement may be relaxed, provided the student demonstrates in advance that the courses to be substituted for civil engineering or architectural engineering courses are part of a consistent educational plan. To provide a broad general background, at least one technical elective from each of three different areas of specialization must be included in each student's program.

Each student must take at least one technical area option level II elective. Level II electives may be substituted for technical area option level I electives, but the requirement of at least one technical elective from each of three different areas of specialization still applies.

The following lists reflect current course offerings and are subject to change by the faculty. Current lists are available in the departmental undergraduate office.

## Level I Electives

Construction Engineering and Project Management Architectural Engineering 358, Cost Estimating in Building Construction Architectural Engineering 366, Contracts, Liability, and Ethics (carries an ethics and leadership flag)

## Construction Materials

Civil Engineering 351, Concrete Materials
Civil Engineering 366K, Design of Bituminous Mixtures
Environmental Engineering
Civil Engineering 342, Water and Wastewater Treatment Engineering
Civil Engineering 346, Solid Waste Engineering and Management

Civil Engineering 369L, Air Pollution Engineering
Civil Engineering 370K, Environmental Sampling and Analysis
Geotechnical Engineering
Civil Engineering 375, Earth Slopes and Retaining Structures

## Structures

Architectural Engineering 345K, Masonry Engineering
Architectural Engineering 362L, Structural Design in Wood
Civil Engineering 331, Reinforced Concrete Design
Civil Engineering 335, Elements of Steel Design
Civil Engineering 363, Advanced Structural Analysis
Transportation
Civil Engineering 367P, Pavement Design and Performance
Civil Engineering 367T, Traffic Engineering

## Water Resources

Civil Engineering 358, Introductory Ocean Engineering
Civil Engineering 374K, Hydrology
Civil Engineering 374L, Groundwater Hydraulics

## Level II Electives (Design)

## Environmental Engineering

Civil Engineering 364, Design of Wastewater and Water Treatment
Facilities (carries an independent inquiry flag)

## Geotechnical Engineering

Civil Engineering 360K, Foundation Engineering (carries an independent inquiry flag)

## Structures

Civil Engineering 362M, Advanced Reinforced Concrete Design (carries an independent inquiry flag)
Civil Engineering 362N, Advanced Steel Design (carries an independent inquiry flag)

## Transportation

Civil Engineering 367G, Design and Evaluation of Ground-Based Transportation Systems (carries an independent inquiry flag)

## Water Resources

Civil Engineering 365K, Hydraulic Engineering Design (carries an independent inquiry flag)

## Suggested Arrangement of Courses

First Year

| First Term | Hours Second Term |
| :--- | :---: |
| C E 301 | 3 CH 302 |
| CH 301 | 3 M E 210 |
| M 408C | 4 M 408D |
| RHE 306 | 3 PHY 303K |
| UGS 302 or 303 | 3 PHY 103M |
|  | Social and behavioral sciences or |
|  | visual and performing arts (may be |
|  | taken in any semester) |
|  | $\mathbf{1 6}$ |

## Second Year

## First Term

> Hours Second Term $\begin{aligned} & 3 \text { C E } 311 \mathrm{~S} \\ & 3 \text { E M } 319 \\ & 4 \text { C E } 319 \mathrm{~F} \\ & 3 \text { E M } 311 \mathrm{M} \text { or M E } 320 \\ & \text { 1 American history }\end{aligned}$

PHY 303L
PHY 103N

| American history | 3 |  |
| :---: | :---: | :---: |
|  | 17 | 15 |
| Third Year |  |  |
| First Term | Hours Second Term | Hours |
| C E 324P | 3 C E 333T | 3 |
| Base level course | 3 Base level course | 3 |
| Base level course | 3 Base level course | 3 |
| Base level course | 3 Base level course | 3 |
| E 316L, 316M, 316N, or 316P | 3 Social and behavioral sciences or visual and performing arts (may be taken in any semester) | 3 |
|  | 15 | 15 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| Level I elective | 3 C E 171P | 1 |
| Level I elective | 3 Level I elective | 3 |
| Level I elective | 3 Level I elective | 3 |
| Approved science elective | 3 Level II elective | 3 |
| American and Texas government | 3 American government | 3 |
|  | Approved math, science, or engineering science elective | 3 |
|  | 15 | 16 |

Total credit hours: 125

## Bachelor of Science in Electrical Engineering

Students seeking the Bachelor of Science in Electrical Engineering pursue one of two curricula-electrical engineering or computer engineering. Both curricula contain the fundamentals of electrical engineering and computer engineering; they differ in their technical core requirements in order to suit different career objectives.

The curricula in electrical engineering and computer engineering are designed to educate students in the fundamentals of engineering, which are built upon a foundation of mathematics, science, communication, and the liberal arts. Graduates should be equipped to advance their knowledge while contributing professionally to a rapidly changing technology. Areas in which electrical and computer engineers contribute significantly are: communications, signal processing, networks and systems, electronics and integrated circuits, energy systems and renewable energy, fields, waves and electromagnetic systems, nanoelectronics and nanotechnology, computer architecture and embedded systems, and software engineering and design. Typical career paths of graduates include design, development, management, consulting, teaching, and research. Many graduates seek further education in law, medicine, business, or engineering.

- An ability to design and conduct experiments, as well as analyze and interpret data
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- An ability to function on multidisciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The broad education necessary to understand what impact engineering solutions have in global, economic, environmental, and societal contexts
- A recognition of the need for and an ability to engage in lifelong learning
- A knowledge of contemporary issues
- An ability to use techniques, skills, and modern engineering tools necessary for engineering practice


## Program Educational Objectives

Within a few years of graduation, electrical and computer engineering graduates should:

- Contribute to the economic development of Texas and beyond
through the ethical practice of electrical and computer engineering in
industry and public service
- Exhibit leadership in technical or business activity through engineering ability, communication skills, and knowledge of contemporary and global issues
- Continue to educate themselves through professional study and personal research
- Be prepared for admission to, and to excel in, the best graduate programs in the world
- Design systems to collect, encode, store, transmit, and process energy and information, and to evaluate system performance, either individually or in teams
- Use their engineering ability and creative potential to create technology that will improve the quality of life in society


## Portable Computing Devices

Students enrolled in a degree program in electrical and computer engineering will be expected to own a portable computing device capable of compiling and running a program suitable for use in the classroom and on the University wireless network. Use of these devices in the classroom and as a general part of the learning experience within our programs is at the discretion of faculty and not all classes or courses of instruction will require the use of these devices. Once admitted, students will be informed by the Electrical and Computer Engineering Department (ECE) office about specific device requirements.

## Curriculum

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. In addition, each student must complete the University's core curriculum (p.20). In some cases, a course required as part of the basic sequence may also be counted toward the core curriculum; these courses are identified below. To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet ABET criteria, students should follow the guidance given in ABET Criteria (p. 157).

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag, and two writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p.22) are identified in the Course Schedule. More information about flags is given in Skills and Experiences Flags (p. 22).

Enrollment in major sequence courses is restricted to students who have been admitted to the major sequence. Requirements for admission to a major sequence are given in Admission to a Major Sequence (p. 151). Enrollment in other required courses is not restricted by completion of the basic sequence.

Pre-approved courses are used to fulfill technical core, advanced math and/or science and core technical electives; other elective courses must be approved by the electrical and computer engineering faculty before the student enrolls in them.

Transfer Coursework: No more than twenty-five semester credit hours of transfer electrical engineering coursework may be counted for credit toward the electrical engineering degree.

## Requirements <br> Basic Sequence Courses

Mathematics

| M 408C | Differential and Integral Calculus |  |
| :---: | :--- | :---: |
| \& M 408D | and Sequences, Series, and Multivariable <br> Calculus (mathematics; quantitative reasoning flag) | 8 |
| or |  |  |
| M 408K | Differential Calculus |  |
| \& M 408L | and Integral Calculus <br> \& M 408M | and Multivariable Calculus |
| M 427K | Advanced Calculus for Applications I (quantitative <br> reasoning flag) | 4 |
| M 340L | Matrices and Matrix Calculations | 3 |

Electrical Engineering

| E E 302 | Introduction to Electrical Engineering (part II <br> science and technology) | 3 |
| :--- | :--- | :---: |
| E E 306 | Introduction to Computing | 3 |

E E 411 Circuit Theory 4
E E 312 Software Design and Implementation I 3
E E 313 Linear Systems and Signals 3
E E 319K Introduction to Embedded Systems 3

Physics

| PHY 303K | Engineering Physics I (part I science and <br> technology; quantitative reasoning flag) | 3 |
| :--- | :--- | :---: |
| PHY 303L | Engineering Physics II (part I science and <br> technology; quantitative reasoning flag) | 3 |

PHY 103M Laboratory for Physics 303K 1
PHY 103N Laboratory for Physics 303L 1
Rhetoric and Writing
RHE $306 \quad$ Rhetoric and Writing (English composition)

## Major Sequence Courses

Electrical Engineering
E E 333T Engineering Communication (writing flag) 3

E E 351K Probability and Random Processes 3
E E 364D Introduction to Engineering Design (writing flag) 3
or E E $364 \mathrm{E} \quad$ Interdisciplinary Entrepreneurship
One of the following senior design project courses:

| E E 464G | Multidisciplinary Senior Design Project <br> (independent inquiry flag) |
| :--- | :--- |
| E E 464H | Honors Senior Design Project (independent inquiry <br> flag) |
| E E 464K | Senior Design Project (independent inquiry flag) |
| E E 464R | Research Senior Design Project (independent <br> inquiry flag) |
| E E 464S | Start-Up Senior Design Project |

Primary technical core: Core courses (six hours), core laboratory
course (four hours), advanced mathematics course (four hours)
Primary core electives: Four courses (twelve to fourteen hours)
Secondary technical core: Core courses (six hours), core laboratory 14 course (four hours), advanced mathematics course (four hours)
Other Required Courses
Approved elective

## Remaining Core Curriculum Courses

E 316L British Literature (humanities) 3
or E 316M American Literature
or E 316N World Literature
or E 316P Masterworks of Literature
American and Texas government 6
American history 6
Visual and performing arts 3
Social and behavioral sciences
3
UGS 302 First-Year Signature Course (some sections carry 3 a writing flag)
or UGS 303 First-Year Signature Course
Total Hours

## Integrated BSEE/MSE program

The integrated degree program results in simultaneously awarding a Bachelor of Science in Electrical Engineering: Integrated Option (BSEE) degree, and a Master's of Science in Engineering (MSE) degree in any one of the ten graduate tracks offered by the graduate program in electrical and computer engineering (ECE).

There are two stages to admission, an informal non-binding department based stage and a second stage in which the student formally applies to the Graduate School within the integrated BSEE/MSE program and within one of the available ECE graduate tracks. At stage one, undergraduate students in the ECE department may apply to the integrated degree program after qualifying for admission to major sequence. The purpose of stage one is primarily to provide appropriate advising to students interested in and appropriate for the integrated program. Admission to the integrated program at stage one is based on the applicant's grade point average, letters of recommendation, a statement of purpose, and other relevant examples of academic ability and leadership. Students will be advised by the integrated program adviser about the appropriate courses to take and reserve for graduate credit in their senior year in order to complete the integrated program as efficiently as possible. As for admission to the regular standalone MSE program, all admissions decisions at stage two are made by the admissions committee in the respective graduate track, with admission requirements set by the graduate track, with the exception that Graduate Record Exam (GRE) test scores are not required of integrated program participants. While optimal, application and admission at stage one are not required for application and admission to the integrated program at stage two.

The integrated program requires 120 semester credit hours (SCH) for the BSEE portion of the integrated program, as opposed to the 125 SCH minimum required for the BSEE degree alone. Students in the integrated program begin taking graduate courses as seniors. Students admitted to the integrated program will normally take and reserve for graduate credit two graduate courses in place of approved electives from the primary and secondary technical cores that would otherwise be required in the regular/ standalone BSEE program. However, precisely which BSEE electives are to be replaced by the graduate courses can be adjusted as approved by technical core faculty advisers.

Students in this program will receive the BSEE and MSE degrees simultaneously after successfully completing a minimum total of 150 semester credit hours, thirty of which must qualify for the MSE program of work in electrical and computer engineering. Students unable to successfully complete the integrated program may obtain a BSEE degree by satisfying all of the requirements for the standalone BSEE degree. Since the regular BSEE degree requirements are a subset of the Integrated BSEE/MSE Program degree requirements, an undergraduate student should still be on a trajectory to graduate with the regular BSEE degree in the same timeframe that the student was on when applying to the Integrated BSEE/MSE Program. A student dismissed from the integrated program while a graduate student should already meet the degree requirements for the regular BSEE degree.

Information regarding the integrated program requirements and policies may be obtained from the ECE advising offices.

## Upper-Division Technical Core Areas

Both electrical engineering and computer engineering students must choose a primary and a secondary technical core area. Electrical engineering students must choose their primary technical core area from the electrical engineering technical core areas listed below; computer engineering students must choose their primary technical core area from the computer engineering core areas. For the secondary technical core area, students may choose any technical core area, including academic enrichment.

For all technical core areas, the student must complete all courses in the core area on the letter-grade basis. A course may not be counted toward more than one technical core area.

In cases where a single electrical engineering course appears on both the primary and secondary technical core area list, the student must replace the secondary technical core area course with an elective from the same secondary technical core area list or obtain approval from a faculty adviser for course substitution. In the case of a duplicate mathematics course, the student must choose an approved mathematics or science course to replace it.

## Academic Enrichment Technical Core Area

A student may choose the academic enrichment technical core area, but only as his or her secondary technical core area. For this core area, the student selects a minimum of fourteen hours of elective coursework to support his or her personal or career goals, which must include an upperdivision course in either mathematics or science. Before registering for these courses, the student must prepare a career plan statement and a list of relevant electives; this plan must be approved by the undergraduate adviser.

These electives may include traditional upper-division technical courses in electrical engineering and other engineering fields; courses in other fields at the University that satisfy degree requirements, such as business, economics, communication, music, and philosophy; or research done with a faculty member in Electrical Engineering 160, 260, 360, or 460,

Special Problems in Electrical and Computer Engineering. The courses must be completed in residence; courses in an approved study abroad program require the approval of the undergraduate adviser. A minimum of fourteen semester credit hours is required, which may include Electrical Engineering 155R, Undergraduate Research Seminar and 325L, Cooperative Engineering, or up to three hours in Electrical Engineering 125S, Internship in Electrical and Computer Engineering, but not both. Students selecting software engineering and design as their primary technical core and academic enrichment as their secondary technical core must also ensure that their program of work includes adequate hardware coursework. That is:

1. If the senior design project consists of software only, then the electives include at least two of the following: Electrical Engineering 316, Electrical Engineering 445L, Electrical Engineering 445M.
2. If the senior design project involves a significant hardware design component, then the electives must include at least one of the following: Electrical Engineering 316, Electrical Engineering 445L, Electrical Engineering 445M.

## Electrical Engineering Technical Cores

## Communications, Signal Processing, Networks, and Systems

Communications, signal processing, networks, and systems broadly encompasses the principles underlying the design and implementation of systems for information transmission. The field considers how information is represented, compressed, and transmitted on wired and wireless links and how communication networks can be, and are, designed and operated. A student who chooses this technical core area should recognize that communications and networking is a broad application domain where many engineering tools come into play: from circuit design for wireless phones to embedded network processors to system and application software for networked systems.

Students complete the following:

1. Electrical Engineering 325, Electromagnetic Engineering
2. Either Electrical Engineering 351M, Digital Signal Processing or Electrical Engineering 362K, Introduction to Automatic Control
3. Core laboratory course: Electrical Engineering 445S, Real-Time Digital Signal Processing Laboratory
4. Core mathematics course: Mathematics 427L, Advanced Calculus for Applications II
5. Four courses from the following list:

Electrical Engineering 325K, Antennas and Wireless Propagation
Electrical Engineering 351M, Digital Signal Processing
Electrical Engineering 360C, Algorithms
Electrical Engineering 360K, Introduction to Digital Communications Electrical Engineering 361M, Introduction to Data Mining
Electrical Engineering 362K, Introduction to Automatic Control Electrical Engineering 363M, Microwave and Radio Frequency

## Engineering

Electrical Engineering 370K, Computer Control Systems
Electrical Engineering 370N, Introduction to Robotics and

## Mechatronics

Electrical Engineering 471C, Wireless Communications Laboratory
Electrical Engineering 371R, Digital Image and Video Processing
Electrical Engineering 372N, Telecommunication Networks
Mathematics 325K, Discrete Mathematics
Mathematics 362M, Introduction to Stochastic Processes (carries a quantitative reasoning flag)
Mathematics 365C, Real Analysis I

## Electronics and Integrated Circuits

The electronics and integrated circuits technical core area involves the design and analysis of the circuits that provide the functionality of a system. The types of circuits that students encounter include analog and digital integrated circuits, radio frequency circuits, mixed signal (combination of analog and digital) circuits, power electronics, and biomedical electronics. The design and implementation of integrated circuits and systems using analog and digital building blocks are included in this core area. A student should choose this technical core area if he or she is interested in designing chips for applications, such as computing, telecommunications, and signal processing.

Students complete the following:

1. Electrical Engineering 325, Electromagnetic Engineering
2. Electrical Engineering 339, Solid-State Electronic Devices
3. Core laboratory course: Electrical Engineering 438, Fundamentals of Electronic Circuits I Laboratory
4. Core mathematics course: Mathematics 427L, Advanced Calculus for Applications II
5. Electrical Engineering 316, Digital Logic Design
6. Three courses from the following list:

Electrical Engineering 321K, Mixed Signal and Circuits Laboratory Electrical Engineering 438K, Analog Electronics
Electrical Engineering 338L, Analog Integrated Circuit Design Electrical Engineering 440, Integrated Circuit Nanomanufacturing Techniques
Electrical Engineering 445L, Embedded Systems Design Laboratory Electrical Engineering 445S, Real-Time Digital Signal Processing Laboratory
Electrical Engineering 460M, Digital Systems Design Using HDL Electrical Engineering 460N, Computer Architecture
Electrical Engineering 460R, Introduction to VLSI Design
Electrical Engineering 360S, Digital Integrated Circuit Design
Electrical Engineering 361R, Radio-Frequency Electronics Electrical Engineering 363M, Microwave and Radio Frequency Engineering
Electrical Engineering 374K, Biomedical Electronic Instrument Design
Electrical Engineering 374L, Applications of Biomedical Engineering

## Energy Systems and Renewable Energy

This technical core area provides the foundation for a career in electric power systems, generation, grid operation, motors and drives, and renewable energy sources. This core area involves the study and design of reliable and economic electric power systems, including both traditional and renewable resources. Energy conversion involves conversion to and from electrical energy, including the study and design of electrical machines.

Students complete the following:

1. Electrical Engineering 325, Electromagnetic Engineering
2. Electrical Engineering 368L, Power Systems Apparatus and Laboratory or Electrical Engineering 369, Power Systems Engineering
3. Core laboratory course: Electrical Engineering 462L, Power Electronics Laboratory
4. Core mathematics course: Mathematics 427L, Advanced Calculus for Applications II
5. Electrical Engineering 362K, Introduction to Automatic Control
6. Three courses from the following list:

Electrical Engineering 339, Solid-State Electronic Devices
Electrical Engineering 341, Electric Drives and Machines
Electrical Engineering 362Q, Power Quality and Harmonics Electrical Engineering 362R, Renewable Energy and Power Systems

Electrical Engineering 362S, Development of a Solar-Powered Vehicle<br>Electrical Engineering 368L, Power Systems Apparatus and Laboratory<br>Electrical Engineering 369, Power Systems Engineering Electrical Engineering 339S, Solar Energy Conversion Devices Mechanical Engineering 337C, Introduction to Nuclear Power Systems

## Fields, Waves, and Electromagnetic Systems

Students in this technical core area study different aspects of applied electromagnetics, including antennas, radio wave propagation, microwave and radio frequency circuits and transmission structures, optical components and lasers, and engineering acoustics. A student should choose the electromagnetic engineering core area if he or she is interested in engineering that involves the physical layer in modern communication and radar systems. Graduates are well positioned for jobs in antenna design and testing, propagation channel characterization, microwave and radio frequency circuit design, electromagnetic emission testing from electronic devices and systems, radar system design and development, optical telecommunication, optical information and signal processing systems, and component design and development.

Students complete the following:

1. Electrical Engineering 325, Electromagnetic Engineering
2. Electrical Engineering 339, Solid-State Electronic Devices
3. Core laboratory course: Electrical Engineering 438, Fundamentals of Electronic Circuits I Laboratory or Electrical Engineering 462L, Power Electronics Laboratory
4. Core mathematics course: Mathematics 427L, Advanced Calculus for Applications II
5. Either Electrical Engineering 325K, Antennas and Wireless Propagation or Electrical Engineering 363M, Microwave and Radio Frequency Engineering
6. Three courses from the following list:

Electrical Engineering 321K, Mixed Signal and Circuits Laboratory
Electrical Engineering 325K, Antennas and Wireless Propagation
Electrical Engineering 334K, Quantum Theory of Engineering Electronic Materials
Electrical Engineering 341, Electric Drives and Machines
Electrical Engineering 347, Modern Optics
Electrical Engineering 348, Laser and Optical Engineering
Electrical Engineering 361R, Radio-Frequency Electronics
Electrical Engineering 363M, Microwave and Radio Frequency Engineering
Electrical Engineering 363N, Engineering Acoustics
Electrical Engineering 369, Power Systems Engineering
Electrical Engineering 374K, Biomedical Electronic Instrument Design
Electrical Engineering 374L, Applications of Biomedical Engineering

## Nanoelectronics and Nanotechnology

Students in this technical core area learn about the materials and devices used in modern electronic and optoelectronic systems. Through required and electives courses, students learn about the fundamentals of charge transport and interactions with light in semiconductors. They learn about devices beginning with diodes and transistors, the building blocks of integrated circuits, and extending to photodiodes, semiconductor lasers, photodetectors and photovoltaic devices. They learn about microelectronics fabrication techniques. And they are introduced to quantum mechanics, particularly as it applies to electronic and optoelectronic materials and devices. Students may also explore device applications through digital and analog circuit design. With exposure to the topics in this area, students are well positioned to work in a wide
variety of fields that rely on semiconductor devices, such as computers, telecommunications, the automotive industry, and consumer electronics.

Students complete the following:

1. Electrical Engineering 325, Electromagnetic Engineering
2. Electrical Engineering 339, Solid-State Electronic Devices
3. Core laboratory course: Electrical Engineering 440, Integrated Circuit Nanomanufacturing Techniques
4. Core mathematics course: Mathematics 427L, Advanced Calculus for Applications II
5. Four courses from the following list:

Electrical Engineering 334K, Quantum Theory of Engineering Electronic Materials
Electrical Engineering 438, Fundamentals of Electronic Circuits I Laboratory
Electrical Engineering 338L, Analog Integrated Circuit Design
Electrical Engineering 347, Modern Optics
Electrical Engineering 348, Laser and Optical Engineering
Electrical Engineering 360S, Digital Integrated Circuit Design
Electrical Engineering 339S, Solar Energy Conversion Devices
Electrical Engineering 438, Fundamentals of Electronic Circuits I Laboratory
Electrical Engineering 460R, Introduction to VLSI Design

## Computer Engineering Technical Core Areas

 Computer Architecture and Embedded SystemsComputer architecture involves understanding the operation and design of computers on many different levels. These levels include the instruction set, microarchitecture, and logic design. Embedded systems represent the combination of software and hardware that are designed to perform specific functions. These systems may be stand-alone items or an integral part of a larger system. Within this technical core area, students are exposed to logic design, programming, computer architecture, systems design, and digital signal processing. The student studying computer architecture will be well positioned to join the microprocessor design industry as a logic designer or a circuit designer. After a good deal of experience on the job, the student would be well positioned to become the chief architect of a new design.

Jobs in embedded systems involve defining, designing, and fabricating application-specific processors and computers in areas such as automotive electronics, consumer devices, and telecommunications.

Students complete the following:

1. Electrical Engineering 316, Digital Logic Design
2. Electrical Engineering 460N, Computer Architecture
3. Core laboratory course: Electrical Engineering 445L, Embedded Systems Design Laboratory
4. Core mathematics course: Mathematics 325K, Discrete Mathematics
5. Electrical Engineering 360C, Algorithms
6. Three courses from the following list:

Electrical Engineering 422C, Software Design and Implementation II Electrical Engineering 445M, Embedded and Real-Time Systems Laboratory
Electrical Engineering 445S, Real-Time Digital Signal Processing Laboratory
Electrical Engineering 460M, Digital Systems Design Using HDL
Electrical Engineering 360P, Concurrent and Distributed Systems
Electrical Engineering 460R, Introduction to VLSI Design
Electrical Engineering 362K, Introduction to Automatic Control
Computer Science 375, Compilers

## Software Engineering and Design

Courses in this area cover the engineering life cycle of software systems, including requirement analysis and specification, design, construction/ programming, testing, deployment, maintenance, and evolution. Area courses are intended to teach students theory, practical methods, and tools for designing, building, delivering, maintaining, and evolving software to meet stakeholder requirements. Every software engineer must understand how software systems operate and how they can be used to solve engineering problems and deliver solutions. The courses in this area are designed to educate students about a diverse and relevant set of technologies and about the ways that technology can be used to design and build software systems.

Students complete the following:

1. Electrical Engineering 422C, Software Design and Implementation II
2. Electrical Engineering 360C, Algorithms
3. Core laboratory course: Electrical Engineering 461L, Software Engineering and Design Laboratory
4. Core mathematics course: Mathematics 325K, Discrete Mathematics
5. Four courses from the following list:

Electrical Engineering 316, Digital Logic Design
Electrical Engineering 445L, Embedded Systems Design Laboratory Electrical Engineering 445M, Embedded and Real-Time Systems Laboratory
Electrical Engineering 360F, Introduction to Software Engineering
Electrical Engineering 460N, Computer Architecture
Electrical Engineering 360P, Concurrent and Distributed Systems
Electrical Engineering 361Q, Requirements Engineering
Electrical Engineering 372N, Telecommunication Networks
Electrical Engineering 360T, Software Testing
Electrical Engineering 361M, Introduction to Data Mining
Alternate Mathematics Courses
For students who choose both primary and secondary technical core areas in computer engineering:

Mathematics 427L, Advanced Calculus for Applications II
Mathematics 328K, Introduction to Number Theory
Mathematics 343K, Introduction to Algebraic Structures
Mathematics 344K, Intermediate Symbolic Logic
Mathematics 348, Scientific Computation in Numerical Analysis (carries a quantitative reasoning flag)
Mathematics 358K, Applied Statistics (carries a quantitative reasoning flag)
Mathematics 374M, Mathematical Modeling in Science and Engineering
Computer Science 341, Automata Theory
Computer Science 346, Cryptography
For students who choose both primary and secondary technical core areas in electrical engineering:

Mathematics 325K, Discrete Mathematics
Mathematics 328 K , Introduction to Number Theory
Mathematics 346, Applied Linear Algebra
Mathematics 348, Scientific Computation in Numerical Analysis (carries a quantitative reasoning flag)
Mathematics 358K, Applied Statistics (carries a quantitative reasoning flag)
Mathematics 361, Theory of Functions of a Complex Variable
Mathematics 362M, Introduction to Stochastic Processes
Mathematics 372K, Partial Differential Equations and Applications
Mathematics 374, Fourier and Laplace Transforms
Mathematics 374M, Mathematical Modeling in Science and Engineering

## Suggested Arrangement of Courses



## Total credit hours: 123-127

## Bachelor of Science in Geosystems Engineering and Hydrogeology

Geosystems engineers and hydrogeologists are concerned with the development and use of engineering approaches in the management of natural resources from the earth's surface and subsurface, environmental restoration of subsurface sites, and other processes related to the earth sciences. This degree program, offered jointly by the Cockrell School of Engineering and the Jackson School of Geosciences, is designed to teach students the geological and engineering principles needed to solve subsurface resource development and environmental problems. The curriculum includes a fundamental sequence of engineering and geological sciences courses in such areas as multiphase fluid flow, physical hydrology, heat and mass transfer, field methods, and engineering design. This interdisciplinary systems approach, combining engineering and geological sciences, is increasingly required to address complex real-world problems such as characterization and remediation of aquifers. The degree program is designed to prepare graduates for employment with environmental, water resource management, and
energy companies in addition to many government agencies. Betterqualified graduates of the program may pursue graduate study in subsurface environmental engineering, petroleum engineering, geology, and other related fields.

The objective of the degree program is to prepare graduates for successful careers in the fields of subsurface environmental engineering (including carbon dioxide sequestration), oil and gas production and services, or similar pursuits. Graduates are expected to understand the fundamental principles of science and engineering behind the technology of geosystems engineering and hydrogeology to keep their education from becoming outdated and to give them the capability of self-instruction after graduation. They should also be prepared to serve society by applying the ideals of ethical behavior, professionalism, and environmentally responsible stewardship of natural resources.

Containing the following elements, the technical curriculum provides both breadth and depth in a range of topics.

- A combination of college-level mathematics and basic sciences (some with experimental work) that includes mathematics through differential equations, physics, chemistry, and geology
- Basic engineering and geologic topics that develop a working knowledge of fluid mechanics, strength of materials, transport phenomena, material properties, phase behavior, and thermodynamics
- Engineering and geosciences topics that develop competence in characterization and evaluation of subsurface geological formations and their resources using geoscientific and engineering methods, including field methods; design and analysis of systems for producing, injecting, and handling fluids; application of hydrogeologic and reservoir engineering principles and practices for water and energy resource development and management; contamination evaluation and remediation methods for hydrologic resources; and use of project economics and resource valuation methods for design and decision making under conditions of risk and uncertainty
- A major capstone design experience that prepares students for engineering and hydrogeologic practice, based on the knowledge and skills acquired in earlier coursework and incorporating engineering and geological standards and realistic constraints


## Curriculum

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. In addition, each student must complete the University's core curriculum (p. 20). In some cases, a course required as part of the basic sequence may also be counted toward the core curriculum; these courses are identified below. To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet ABET criteria, students should follow the guidance given in ABET Criteria (p. 157).

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag, and both writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p. 22) are identified in the Course Schedule.

Enrollment in major sequence courses is restricted to students who have received credit for all of the basic sequence courses and have been admitted to the major sequence. Requirements for admission to a
major sequence are given in Admission to a Major Sequence (p. 151). Enrollment in other required courses is not restricted by completion of the basic sequence.

Courses used to fulfill technical and nontechnical elective requirements must be approved by the petroleum and geosystems engineering faculty and the geological sciences faculty before the student registers for them.

## Requirements

Basic Sequence Courses

| Chemistry |  |  |
| :---: | :---: | :---: |
| CH 301 | Principles of Chemistry I (part II science and technology) | 3 |
| CH 302 | Principles of Chemistry II | 3 |
| Engineering Mechanics |  |  |
| E M 306 | Statics | 3 |
| E M 319 | Mechanics of Solids | 3 |
| Geological Sciences |  |  |
| GEO 303 | Introduction to Geology | 3 |
| GEO 416K | Earth Materials | 4 |
| GEO 416M | Sedimentary Rocks | 4 |
| Mathematics |  |  |
| M 408C | Differential and Integral Calculus (mathematics; quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| M 427K | Advanced Calculus for Applications I (quantitative reasoning flag) | 4 |
| Petroleum and Geosystems Engineering |  |  |
| PGE 310 | Formulation and Solution of Geosystems Engineering Problems | 3 |
| PGE 427 | Properties of Petroleum Fluids (Properties of Petroleum Fluids) | 4 |
| PGE 322K | Transport Phenomena in Geosystems | 3 |
| PGE 326 | Thermodynamics and Phase Behavior | 3 |
| PGE 333T | Engineering Communication (writing flag and ethics and leadership flag) | 3 |

## Physics

| PHY 303K | Engineering Physics I (part I science and <br> technology; quantitative reasoning flag) | 3 |
| :--- | :--- | ---: |
| PHY 303L | Engineering Physics II (part I science and <br> technology; quantitative reasoning flag) | 3 |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |

Rhetoric and Writing
RHE $306 \quad$ Rhetoric and Writing (English composition) 3

Undergraduate Studies

| UGS 302 | First-Year Signature Course (some sections carry <br> a writing flag) | 3 |
| :--- | :--- | :--- |
| or UGS 303 | First-Year Signature Course |  |

Major Sequence Courses
Geological Sciences
GEO 420K Introduction to Field and Stratigraphic Methods 4
GEO 428 Structural Geology 4
GEO 476K Groundwater Hydrology (writing flag) 4
GEO 376L Field Methods in Groundwater Hydrology 3

GEO 376S Physical Hydrology 3
Petroleum and Geosystems Engineering
PGE 323K Reservoir Engineering I: Primary Recovery

| PGE 323L | Reservoir Engineering II: Secondary and Tertiary <br> Recovery | 3 |
| :--- | :--- | :--- |
| PGE 424 | Petrophysics | 4 |
| PGE 365 | Resource Economics and Valuation | 3 |
| PGE 368 | Fundamentals of Well Logging | 3 |
| PGE 373L | Geosystems Engineering Design and Analysis <br> (independent inquiry flag) | 3 |


| Civil Engineering |  |
| :--- | :--- |
| C E 357 | Geotechnical Engineering |

Approved engineering elective 3

Approved geosciences technical elective 3
Remaining Core Curriculum Courses
E 316L British Literature (humanities) 3
or E 316M American Literature
or E 316N World Literature
or E 316P Masterworks of Literature
American government 6
American history 6
Visual and performing arts 3
Social and behavioral sciences 3

Total Hours

## Suggested Arrangement of Courses

## First Year

| First Term | Hours Second Term | Hours |
| :--- | :---: | ---: |
| CH 301 | 3 CH 302 | 3 |
| GEO 303 | 3 M 408D | 4 |
| M 408C | 4 PHY 303K | 3 |
| RHE 306 | 3 PHY 103M | 1 |
| UGS 302 or 303 | 3 PGE 333T | 3 |
|  | American history | 3 |
|  | $\mathbf{1 6}$ | $\mathbf{1 7}$ |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| E M 306 | 3 E M 319 | 3 |
| GEO 416K | 4 PGE 310 | 3 |
| GEO 416M | 4 PGE 427 | 4 |
| M 427K | 4 PGE 326 | 3 |
|  | PHY 303L | 3 |
|  | PHY 103N | 1 |
|  | $\mathbf{1 5}$ | $\mathbf{1 7}$ |

## Third Year

First Term

| Hours Second Term | Hours Summer Term |
| :---: | :---: |
| 4 C E 357 | 3 GEO 376L |
| 3 GEO 420K | 4 |
| 3 PGE 323L | 3 |
| 4 PGE 368 | 3 |
| 3 American | 3 |
| $\quad$ government | $\mathbf{1 6}$ |



Mechanical engineering is one of the largest and broadest fields of technical study. Mechanical engineers are concerned with the engineering systems used to control and transform energy to meet the needs of humanity. In mechanical engineering, students develop an understanding of basic topics and fundamental principles upon which engineered systems are conceived and developed in a modern society. It is an excellent foundation for a rewarding career in engineering, as well as for further study in business, law, medicine, and other professions that require a solid foundation in science and technology, and the ability to solve problems.

The mechanical engineering department is dedicated to graduating mechanical engineers who practice mechanical engineering in the general stems of thermal/fluid systems, mechanical systems and design, and materials and manufacturing in industry and government settings; pursue advanced education, research and development, and other creative efforts in science and technology; conduct themselves in a responsible, professional, and ethical manner; and participate as leaders in activities that support service to and economic development of the region, state, and nation.

The mechanical engineering faculty has defined ten educational outcomes that students in the program are expected to achieve by the time of graduation. These outcomes are

- Knowledge of and ability to apply engineering and science fundamentals to real problems
- Ability to formulate and solve open-ended problems
- Ability to design mechanical components, systems, and processes
- Ability to set up, conduct, and interpret experiments, and to present the results in a professional manner
- Ability to use modern computer tools in mechanical engineering
- Ability to communicate in written, oral, and graphical forms
- Ability to work in teams and apply interpersonal skills in engineering contexts
- Ability and desire to lay a foundation for continued learning beyond the baccalaureate degree
- Awareness of professional issues in engineering practice, including ethical responsibility, safety, the creative enterprise, and loyalty and commitment to the profession
- Awareness of contemporary issues in engineering practice, including economic, social, political, and environmental issues and global impact

The mechanical engineering curriculum meets these outcomes by providing breadth and depth across a range of topics.

- A combination of college-level mathematics and basic science courses (some with experimental work) that includes mathematics through differential equations, probability and statistics, physics, and chemistry
- Engineering courses that develop a working knowledge of graphics and computer-aided design, engineering mechanics, thermodynamics, kinematics, dynamics and control of mechanical systems, computational methods, fluid mechanics, heat transfer,
materials science and engineering, mechatronics, technical communication, and engineering economics
- Mechanical engineering project and laboratory experiences that develop competence in measurements and instrumentation, interpretation of data, reverse engineering analysis of mechanical systems, use of computational tools for engineering analysis, integration of multidisciplinary topics in design of complex systems, teamwork and project planning, and written and oral communication
- A sequence of engineering design courses, culminating in a major capstone design experience in collaboration with an industrial sponsor, that draws on the knowledge and skills students have acquired in earlier coursework and incorporates modern engineering standards and realistic constraints
- Core curriculum courses, including social and behavioral sciences, humanities, and visual and performing arts electives, that complement the technical content of the curriculum
- A variety of senior elective options that provide a career gateway to further study and lifelong learning in the practice of engineering and other professions


## PROCEED (Project-Centered Education)

The undergraduate curriculum in mechanical engineering is built on the principle of project-centered education, or PROCEED. A number of courses throughout the curriculum are structured to motivate the study of engineering science by challenging students with in-depth analysis of real mechanical components and systems. In PROCEED, students address real-world projects based on current industrial methods and practices. Undergraduate laboratories and computer facilities are integrated into the curriculum to connect theory with practice.

## Portable Computing Devices

Students entering Mechanical Engineering are expected to have a laptop computer at their disposal. The use of laptop computers will be necessary in many required courses, and individual instructors may require that a laptop be brought to class or lab sessions. For a list of minimum system requirements see: http://www.me.utexas.edu/laptopreq.

## Curriculum

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. In addition, each student must complete the University's core curriculum (p.20). In some cases, a course required as part of the basic sequence may also be counted toward the core curriculum; these courses are identified below. To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet ABET criteria, students should follow the guidance given in Liberal Education of Engineers.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the University's flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the United States flag, and three writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag, and three writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p.22) are identified in the Course Schedule.

Enrollment in major sequence courses is restricted to students who have received credit for all of the basic sequence courses and have been admitted to the major sequence. Requirements for admission to a major sequence are given in Admission to a Major Sequence (p. 151).

Enrollment in other required courses is not restricted by completion of the basic sequence.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Basic Sequence Courses |  |  |
| Chemistry |  |  |
| CH 301 | Principles of Chemistry I (part II science and technology) | 3 |
| Engineering Mechanics |  |  |
| E M 306 | Statics | 3 |
| E M 319 | Mechanics of Solids | 3 |
| Mathematics |  |  |
| M 408C | Differential and Integral Calculus (mathematics; quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| M 427K | Advanced Calculus for Applications I (quantitative reasoning flag) | 4 |
| Mechnical Engineering |  |  |
| M E 302 | Introduction to Engineering Design and Graphics | 3 |
| M E 318M | Programming and Engineering Computational Methods | 3 |
| M E 324 | Dynamics | 3 |
| M E 326 | Thermodynamics | 3 |
| M E 330 | Fluid Mechanics | 3 |
| M E 130L | Experimental Fluid Mechanics | 1 |
| M E 333T | Engineering Communication (writing flag and ethics and leadership flag) | 3 |
| Physics |  |  |
| PHY 303K | Engineering Physics I (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 303L | Engineering Physics II (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| Rhetoric and Writing |  |  |
| RHE 306 | Rhetoric and Writing (English composition) | 3 |
| Major Sequence Courses |  |  |
| Mechanical Engineering |  |  |
| M E 334 | Materials Engineering | 3 |
| M E 134L | Materials Engineering Laboratory | 1 |
| M E 338 | Machine Elements | 3 |
| M E 339 | Heat Transfer | 3 |
| M E 139L | Experimental Heat Transfer | 1 |
| M E 340 | Mechatronics | 3 |
| M E 140L | Mechatronics Laboratory | 1 |
| M E 344 | Dynamic Systems and Controls | 3 |
| M E 144L | Dynamic Systems and Controls Laboratory | 1 |
| M E 366J | Mechanical Engineering Design Methodology (writing flag) | 3 |
| M E 266K | Mechanical Engineering Design Project (independent inquiry flag and writing flag) | 2 |
| M E 266P | Design Project Laboratory | 2 |
| Other Required Courses |  |  |
| M E 335 | Engineering Statistics | 3 |
| M E 353 | Engineering Finance | 3 |
| Approved career gateway electives |  | 12 |
| Approved mathematics elective |  | 3 |

Approved natural science/mathematics elective

| Remaining Core Curriculum Requirements |  |
| :--- | :--- |
| E 316L | British Literature (humanities) |
| or E 316M | American Literature |
| or E 316N | World Literature |
| or E 316P | Masterworks of Literature |

American and Texas government 6
American history 6
Social and behavioral sciences 3
Visual and performing arts 3

| UGS 302 | First-Year Signature Course (some sections carry <br> a writing flag) |
| :--- | :--- |
| or UGS 303 | First-Year Signature Course |

Total Hours

## Bridges to the Future Certificate Program

The Department of Mechanical Engineering offers highly qualified senior-level undergraduate students an opportunity for in-depth study and research in an emerging area of mechanical engineering through the Bridges to the Future Certificate Program. Upon completion of a prescribed series of technical electives and an independent research study under the direction of a faculty member and a doctoral student mentor, students receive a certificate and a letter from the department chair that describes the program and the work completed. The certificate and its supporting documentation, plus supporting letters from supervising faculty and mentors, can be valuable assets for students applying to graduate school or pursuing competitive job opportunities. This certificate will not appear on the student's transcript.

Students must apply for admission to a certificate program during the junior year; they must have completed all basic sequence courses and must have been admitted to the major sequence in mechanical engineering. In some cases, the coursework may include a graduate course, which may be credited toward a University graduate degree.

Details on course offerings and admission procedures are available from the Department of Mechanical Engineering undergraduate office and on the mechanical engineering Web site (http://www.me.utexas.edu/ undergrad).

## Career Gateway Elective Options

The mechanical engineering curriculum includes twelve hours of career gateway electives, which are to be selected by the student to support his or her career goals. These courses should be chosen carefully and must be pertinent to each other and to the student's career goals.

To assist students in thinking about career options, the advising section of the mechanical engineering Web site contains information that describes potential career paths in traditional and nontraditional areas. Students are required to review these materials and to meet with a faculty elective adviser to discuss their options prior to selecting their career gateway elective courses.

Before registering for any career gateway elective courses, students must prepare a career statement and a list of relevant, related courses, and a mechanical engineering faculty elective adviser must provide preliminary approval. Ultimately, the faculty undergraduate adviser in mechanical engineering must provide final approval before the student's first degree audit for graduation.

By the beginning of the semester in which he or she will take the first career gateway elective, the student must have completed all basic sequence courses with a grade of at least $C$ - in each and must have
been admitted unconditionally to the major sequence in mechanical engineering. from mechanical engineering and other engineering departments, as well as upper-division courses from a number of other colleges and departments. A detailed description of courses that satisfy the career gateway elective requirements is available on the advising section of the mechanical engineering Web site. Highly qualified students are encouraged to fulfill career gateway elective requirements as part of the Bridges to the Future Certificate Program described above.

## Suggested Arrangement of Courses

| First Year |  |  |
| :---: | :---: | :---: |
| First Term | Hours Second Term | Hours |
| CH 301 | 3 PHY 303K | 3 |
| M 408C | $4 \mathrm{M} \mathrm{408D}$ | 4 |
| M E 302 | 3 PHY 103M | 1 |
| RHE 306 | 3 Social and behavioral sciences | 3 |
| UGS 302 or 303 | 3 Visual and performing arts | 3 |
|  | American history | 3 |
|  | 16 | 17 |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| EM 306 | 3 E M 319 | 3 |
| M 427K | $4 \mathrm{M} \mathrm{E} \mathrm{318M}$ | 3 |
| M E 326 | 3 M E 324 | 3 |
| PHY 303L | 3 ME 333 T | 3 |
| PHY 103N | 1 ME 330 | 3 |
|  | M E 130L | 1 |
|  | 14 | 16 |
| Third Year |  |  |
| First Term | Hours Second Term | Hours |
| M E 334 | 3 M E 338 | 3 |
| M E 134L | 1 M E 340 | 3 |
| M E 335 | 3 M E 140L | 1 |
| M E 339 | 3 M E 353 | 3 |
| M E 139L | 1 Approved career gateway elective | 3 |
| Approved career gateway elective | 3 American and Texas government | 3 |
|  | 14 | 16 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| M E 344 | 3 M E 266K | 2 |
| M E 144L | 1 M E 266P | 2 |
| M E 366J | 3 Approved career gateway elective | 3 |
| Approved career gateway elective | 3 Approved mathematics/natural science elective | 3 |
| Approved mathematics elective | $3 \mathrm{E} \mathrm{316L}, \mathrm{316M}, \mathrm{316N} ,\mathrm{or} \mathrm{316P}$ | 3 |
| American and Texas government | 3 American history | 3 |
|  | 16 | 16 |

Total credit hours: 125

## Bachelor of Science in Petroleum Engineering

Energy is a key component to people's everyday lives. Petroleum engineers are able to address and solve important technology challenges that will lead to energy security and societal prosperity, so the position is in high demand. This challenging and rewarding field of engineering requires creative application of a wide spectrum of knowledge, including, but not limited to mathematics, physics, geology, and chemistry.

Worldwide energy demand is growing, and experts agree that oil and gas will continue to play an important role in the world's energy supply. The decision making for complex projects falls to a great extent upon petroleum engineers, providing them with a high degree of responsibility. In addition, since hydrocarbon reserves are found in such diverse areas as Asia, South America, and Europe, petroleum engineers will have opportunities for exciting assignments all over the globe.

Petroleum engineers play a variety of roles within the energy business. They design and monitor the drilling of exploratory and development wells used to locate and produce the oil and gas from the subsurface They work with technologies that can describe the characteristics of rocks deep beneath the surface and detect the type of fluids contained in those rocks. They install and maintain the equipment that lifts fluids from subsurface reservoirs to the surface, and they design surface collection and treatment facilities to prepare produced hydrocarbons for delivery to a refinery or pipeline. Hydraulic fracturing of shale gas and tight oil is the responsibility of a petroleum engineer, as is the development and implementation of enhanced oil recovery methods that capture stranded or bypassed hydrocarbons from old oilfields. In addition to these traditional petroleum engineering career choices, there are other emerging careers for petroleum engineering graduates in pollution clean up, underground waste disposal (including the subsurface injection of carbon dioxide to reduce atmospheric greenhouse gases), and hydrology.

The objective of the petroleum engineering program is to graduate practical, qualified engineers who can successfully pursue careers in the oil and gas production and services industries or similar areas. Graduates of the program are expected to understand the fundamental principles of science and engineering behind the technology of petroleum engineering to keep their education current and to give them the capability of selfinstruction after graduation. They should be prepared to serve society by using the ideals of ethical behavior, professionalism, and environmentally responsible stewardship of natural resources.

The technical curriculum contains the following elements:

- A combination of college-level mathematics and basic sciences (some with experimental work) that includes mathematics through differential equations, probability and statistics, physics, chemistry, and geology
- Engineering topics that develop a working knowledge of fluid mechanics, strength of materials, transport phenomena, material properties, phase behavior, and thermodynamics
- Petroleum engineering topics that develop competence in (1) design and analysis of well systems and procedures for drilling and completing wells; (2) characterization and evaluation of subsurface geological formations and their resources using geoscientific and engineering methods; (3) design and analysis of systems for producing, injecting, and handling fluids; (4) application of reservoir engineering principles and practices to optimize resource development and management; and (5) use of project economics and resource valuation methods for design and decision making under conditions of risk and uncertainty
- A major capstone design experience that prepares students for engineering practice, based on the knowledge and skills acquired in earlier coursework and incorporating engineering standards and realistic constraints


## Curriculum

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. In addition, each student must complete the University's core curriculum (p. 20). In some cases, a course required as part of the basic sequence may also be counted toward the core curriculum; these courses are identified below. To ensure that courses used to fulfill the social and
behavioral sciences and visual and performing arts requirements of the core curriculum also meet ABET criteria, students should follow the guidance given in ABET Criteria (p. 157).

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag, and both writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p. 22) are identified in the Course Schedule (http://registrar.utexas.edu/schedules).

Enrollment in major sequence courses is restricted to students who have received credit for all of the basic sequence courses and have been admitted to the major sequence. Requirements for admission to a major sequence are given in Admission to a Major Sequence (p. 151). Enrollment in other required courses is not restricted by completion of the basic sequence.

Courses used to fulfill technical and nontechnical elective requirements must be approved by the petroleum and geosystems engineering undergraduate adviser before the student enrolls in them.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Basic Sequenc | Courses |  |
| Chemistry |  |  |
| CH 301 | Principles of Chemistry I (part II science and technology) | 3 |
| CH 302 | Principles of Chemistry II | 3 |
| Engineering Mechanics |  |  |
| E M 306 | Statics | 3 |
| E M 319 | Mechanics of Solids | 3 |
| Geological Sciences |  |  |
| GEO 303 | Introduction to Geology | 3 |
| GEO 316P | Sedimentary Rocks | 3 |
| Mathematics |  |  |
| M 408C | Differential and Integral Calculus (mathematics; quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| M 427K | Advanced Calculus for Applications I (quantitative reasoning flag) | 4 |
| Petroleum and Geosystems Engineering |  |  |
| PGE 301 | Engineering, Energy, and the Environment | 3 |
| PGE 310 | Formulation and Solution of Geosystems Engineering Problems | 3 |
| PGE 427 | Properties of Petroleum Fluids | 4 |
| PGE 322K | Transport Phenomena in Geosystems | 3 |
| PGE 326 | Thermodynamics and Phase Behavior | 3 |
| PGE 333T | Engineering Communication (writing flag and ethics and leadership flag) | 3 |
| Physics |  |  |
| PHY 303K | Engineering Physics I (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 303L | Engineering Physics II (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| Rhetoric and Writing |  |  |


be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## E S 377E. Interdisciplinary Entrepreneurship: Elective.

Same as Electrical Engineering 377E. Restricted to engineering students. 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. The equivalent of three lecture hours a week for one semester. Prerequisite: Consent of instructor.

## E S 279K. Undergraduate Research Experience.

Restricted to undergraduate students in the Graduates Linking with Undergraduates in Engineering (GLUE) program. Directed study or research in a selected area of engineering. One lecture hour and three laboratory hours a week for one semester. Engineering Studies 279K and General Engineering 279K may not both be counted. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: A major in engineering and a University grade point average of at least 3.00.

## E S 279L. Women in Engineering Leadership Seminar.

Restricted to engineering students. Lectures, discussions, and exercises related to various leadership issues. Two lecture hours a week for one semester. Engineering Studies 279L and General Engineering 279L may not both be counted. Offered on the pass/fail basis only.

## E S 079M. Undergraduate Research Experience.

Restricted to undergraduate students in the Equal Opportunity in Engineering Program. One lecture hour a week for one semester. Prerequisite: A major in engineering and a University grade point average of at least 3.00.

## General Engineering

## General Engineering: G E

Lower-Division Courses
G E 206D. Supplemental Instruction for Chemistry 301.
Restricted to engineering students. Development of problem-solving skills in the material covered in Chemistry 301. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Chemistry 301.

## G E 206E. Supplemental Instruction for Chemistry 302.

Restricted to engineering students. Development of problem-solving skills in the material covered in Chemistry 302. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Chemistry 302.

G E 207C. Supplemental Instruction for Mathematics 408C.
Restricted to engineering students. Development of problem-solving skills in the material covered in Mathematics 408C. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Mathematics 408C.

G E 207D. Supplemental Instruction for Mathematics 408D.
Restricted to engineering students. Development of problem-solving skills in the material covered in Mathematics 408D. Two two-hour laboratory
sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Mathematics 408D.

G E 207E. Supplemental Instruction for Mathematics 340L. Restricted to engineering students. Development of problem-solving skills in the material covered in Mathematics 340L. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Mathematics 340L.

## G E 207K. Supplemental Instruction for Mathematics 427K.

Restricted to engineering students. Development of problem-solving skills in the material covered in Mathematics 427K. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Mathematics 427K.

## G E 207L. Supplemental Instruction for Mathematics 427L.

Restricted to engineering students. Development of problem-solving skills in the material covered in Mathematics 427L. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Mathematics 427L.

## G E 207R. Supplemental Instruction for Mathematics 408K.

Restricted to engineering students. Four lecture hours a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Mathematics 408K.

## G E 207S. Supplemental Instruction for Mathematics 408L.

Restricted to engineering students. Four lecture hours a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Mathematics 408L.

## G E 207T. Supplemental Instruction for Mathematics 408M.

Restricted to engineering students. Four lecture hours a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Mathematics 408M.

## G E 208K. Supplemental Instruction for Physics 303K.

Restricted to engineering students. Development of problem-solving skills in the material covered in Physics 303K. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Physics 303K.

## G E 208L. Supplemental Instruction for Physics 303L.

Restricted to engineering students. Development of problem-solving skills in the material covered in Physics 303L. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Physics 303L.

## G E 209. Supplemental Instruction for Engineering Courses.

Restricted to engineering students. Development of problem-solving skills in the material covered in selected engineering courses. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

G E 212. Supplemental Instruction for Electrical Engineering 312.

Restricted to engineering students. Development of problem-solving skills in the material covered in Electrical Engineering 312. Two two-hour laboratory sessions a week for one semester. May not be counted toward
any engineering degree. Prerequisite: Concurrent enrollment in Electrical Engineering 312.

## G E 119, 219, 319. Topics in Engineering.

Restricted to engineering students. Topics to supplement lower-division engineering curriculum. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Some topics are offered on the pass/fail basis only. Engineering Studies 119, 219, 319 and General Engineering 119, 219, 319 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## Upper-Division Courses

## G E 222. Topics in Professional Development.

Restricted to engineering students. Small-group seminar involving reading, discussion, and oral reports. Two lecture hours a week for one semester. Engineering Studies 222 and General Engineering 222 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

## Department of Aerospace Engineering and Engineering Mechanics

Students should note that all prerequisite courses for the following courses must be completed on the letter-grade basis with a grade of at least $C$ -

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Aerospace Engineering: ASE Lower-Division Courses

ASE 301. Introduction to Computer Programming.
Basic computer programming concepts for engineering computations.
Programming in MATLAB or similar computing environments is emphasized, but more advanced languages may also be discussed. Three lecture hours a week for one semester.

## ASE 102. Introduction to Aerospace Engineering.

Restricted to first year students. Introduction to aerospace engineering, including problem solving and study skills. Examines opportunities and responsibilities of careers in aerospace engineering. One lecture hour a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only.

## ASE 211K. Engineering Computation.

Fundamental numerical methods and software tools used in engineering computation. Topics include linear systems of equations, matrix computations, nonlinear equations, least squares approximations, interpolation, numerical integration and numerical solution of differential equations. Two lecture hours a week for one semester. Aerospace Engineering 311 and 211 K may not both be counted. Prerequisite: Aerospace Engineering 301 (or 201) and Mathematics 427K with a grade of at least $C$ - in each.

## ASE 118. Student Leadership Seminar.

Principles of human development, strategic learning, and teaching. Smallgroup seminar involving reading, discussion, and written reports. One
lecture hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Consent of the engineering undergraduate adviser.

## ASE 119K. Low-Speed Aerodynamics Laboratory.

Restricted to students in the aerospace engineering major sequence. Wind tunnel and water channel experiments at subsonic speeds; use of instrumentation and written reports. One lecture hour and three laboratory hours a week for one semester. Aerospace Engineering 119K and 120K may not both be counted.

## ASE 119L. High-Speed Aerodynamics Laboratory.

Restricted to students in the aerospace engineering major sequence. Experiments using a variable-Mach number supersonic wind tunnel and ballistics range, and an investigation of aerodynamics of blunt bodies and simple airfoils in supersonic flow. One lecture hour and three laboratory hours a week for one semester. Aerospace Engineering 119L and 162M may not both be counted.

## ASE 119M. Spacecraft Systems Laboratory.

Restricted to students in the aerospace engineering major sequence. Overview of spacecraft subsystems, mission design tools, numerical techniques, mission planning references, mission constraints, and mission design projects. Includes written reports. One lecture hour and one and one-half laboratory hours a week for one semester. Aerospace Engineering 119 M and 166 M may not both be counted.

## ASE 119N. Flight Dynamics Laboratory.

Restricted to students in the aerospace engineering major sequence Introduction to flight testing; instrumentation and methodology; performance testing. Computer modeling and dynamic simulation of aircraft motion; aircraft sizing. Written reports. One lecture hour and three laboratory hours a week for one semester. Aerospace Engineering 119N and 167 M may not be both counted.

ASE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. 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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Upper-Division Courses

## ASE 320. Low-Speed Aerodynamics.

Fundamental concepts, fluid statics; integral and differential analysis; detailed analysis of inviscid, incompressible flows; aerodynamics of airfoils and wings. Three lecture hours a week for one semester. Prerequisite: Mathematics 427L and Mechanical Engineering 320 with a grade of at least $C$ - in each.

## ASE 321K. 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. Three lecture hours a week for one semester, with discussion hours to be arranged. Prerequisite: Aerospace Engineering 211K (or 311) and Engineering Mechanics 319 with a grade of at least $C$ - in each.

## ASE 324L. 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. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Engineering Mechanics 319 with a grade of at least C-.

## ASE 325L. Cooperative Engineering.

This course covers the work period of aerospace engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Aerospace Engineering $325 \mathrm{LX}, 325 \mathrm{LY}$, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Aerospace Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Aerospace Engineering 325LY and appointment for a full-time cooperative work tour.

## ASE 225M. Cooperative Engineering.

This course covers the work period of aerospace engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Aerospace Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Aerospace Engineering 225MA and appointment for a full-time cooperative work tour.

## ASE 125N. Cooperative Engineering.

This course covers the work period of aerospace engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Aerospace Engineering 325 LZ or 225 MB , application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

## ASE 128. Aerospace Engineering Projects Laboratory.

Directed work on an organized student project in aerospace engineering or engineering mechanics. The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: At least fifteen semester hours of coursework, a University grade point average of at least 2.50 , preparation of a laboratory participation log, and approval by both the faculty member directing the student project and the undergraduate adviser.

## ASE 330M. Linear System Analysis.

Fundamentals of signals and systems; convolution; Laplace transforms; response of linear, time-invariant systems to standard inputs; frequency response methods; time-domain analysis; introduction to control systems. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 311 M and Mathematics 427 K with a grade of at least C - in each.

## ASE 333T. Engineering Communication.

Open only to aerospace engineering majors. Technical communication skills for engineers: written and oral reports; individual and collaborative composition; online and traditional research; editing techniques; document design for electronic and hard copy. Three lecture hours a week for one
semester. Prerequisite: Rhetoric and Writing 306 or the equivalent with a grade of at least C-.

## ASE 339. Advanced Strength of Materials.

Same as Engineering Mechanics 339. Curved beams, shear deformation, beam columns, beams on elastic foundations; inelastic behavior of members; elementary plate bending. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 319 with a grade of at least C-.

## ASE 346. Viscous Fluid Flow.

Navier-Stokes equations, laminar and turbulent boundary layers, transition, effects of pressure gradients and compressibility. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 320 with a grade of at least C-.

## ASE 347. 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. Three lecture hours a week for one semester. Aerospace Engineering 347 and Mechanical Engineering 369L may not both be counted. Prerequisite: Aerospace Engineering 211K (or 311) and 320 with a grade of at least $C$ - in each.

## ASE 355. Aeroelasticity.

Studies 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. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 321K and 330M with a grade of at least C - in each.

## ASE 357. 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. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 321 K with a grade of at least C-

## ASE 361K. Aircraft Design I.

Conceptual design of an aircraft to meet a mission specification. Includes estimation of weight, cost from payload, and range requirements; selection of configuration; preliminary sizing of wing, fuselage, and tail/ canard; aerodynamic design of wing and tail; weight and balance; and performance estimation. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 320 with a grade of at least C-, and credit with a grade of at least C- or registration for Aerospace Engineering 367K.

## ASE 361L. Aircraft Design II.

Preliminary design of an aircraft from a conceptual design to satisfy a given set of requirements. Includes preliminary structural design; detailed estimates of weight, balance, and performance; and satisfaction of stability, control, and handling quality requirements. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 119 K (or 120 K ) and 361 K with a grade of at least C- in each, and credit with a grade of at least C- or registration for Aerospace Engineering 364.

## ASE 362K. Compressible Flow.

Shock and expansion waves, quasi-one-dimensional flow, convergingdiverging nozzles, diffusers, wind tunnel operation, linearized flow,
and compressibility effects on aerodynamics of airfoils and bodies. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 320 with a grade of at least C-.

## ASE 363L. History of Space Flight.

History and principles of space flight from early Chinese rocket experiments to Apollo 17 and the Space Shuttle; technological benefits from the space program and future space projects, including commercial space activities and those related to national security. Three lecture hours a week for one semester. May not be counted as an aerospace engineering course for the Bachelor of Science in Aerospace Engineering; may not be counted as a technical elective, a technical area course, or an engineering elective for any engineering degree. Prerequisite: Upperdivision standing or consent of instructor.

## ASE 364. 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. Three lecture hours a week for one semester. Aerospace Engineering 364 and 379L (Topic: Airfoil and Wing Design Theory) may not both be counted. Prerequisite: Aerospace Engineering 362 K with a grade of at least C-, and credit with a grade of at least C- or registration for Aerospace Engineering 162M.

## ASE 365. Structural Dynamics.

Analysis of discrete and continuous vibrating systems; deriving equations of motion; determining response; and natural frequencies and modes of vibration. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 330M with a grade of at least C-.

## ASE 366K. Spacecraft Dynamics.

Basic satellite and spacecraft motion, orbital elements, coordinate systems, and transformations; orbit/trajectory design principles; basic three-dimensional spacecraft attitude dynamics. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 311M and Mathematics 427 K with a grade of at least C - in each.

## ASE 366L. 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. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 366 K with a grade of at least C-.

## ASE 367K. Flight Dynamics.

Equations of motion for rigid aircraft; aircraft performance, weight and balance, static stability and control, and dynamic stability; design implications. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 320 and 330 M with a grade of at least C- in each.

## ASE 370L. Flight Control Systems.

Fundamentals of linear control analysis and design for single-input, singleoutput systems; stability and performance measures; Routh Hurwitz analysis; root locus methods; frequency response (Bode and Nyquist); introduction to full-state feedback. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 330M with a grade of at least C-.

## ASE 170P. Controls Laboratory.

Three laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 370L with a grade of at least C-.

## ASE 372K. Attitude Dynamics.

Studies attitude representations, rotational kinematics, rigid-body dynamics, sensors and actuators, attitude determination, and passive and active attitude control systems. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 366K with a grade of at least C-.

## ASE 372L. Satellite Applications.

Classical and modern orbit determination, remote sensors and their outputs, pattern recognition, image enhancement, satellite data analysis projects. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 366 K with a grade of at least C-.

## ASE 372N. Satellite-Based Navigation.

Satellite-based navigation systems, with focus on the Global Positioning System (GPS), ground and space segments, navigation receivers, satellite signal coordinate/time systems, denial of signal, differential techniques, GPS data analysis. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 366K with a grade of at least C-.

## ASE 374K. 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. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 366 K with a grade of at least C-, and credit with a grade of at least C- or registration for Aerospace Engineering 366L and 166M.

## ASE 374L. Spacecraft/Mission Design.

Spacecraft 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. Includes written reports. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 166 M and 374 K with a grade of at least C - in each, and credit with a grade of at least C- or registration for Aerospace Engineering 376K.

## ASE 375. Electromechanical Systems.

Restricted to aerospace engineering majors. Subjects include basic electronic circuits, operational amplifiers, concepts of impedance and feedback, sensors to measure displacement, strain and acceleration, actuators such as DC motors, stepper motors and servo hydraulics, data acquisition and sampling. These concepts will be implemented via experiments that illustrate interesting phenomena in solids and structures. Two lecture hours and three laboratory hours a week for one semester. Aerospace Engineering 375 and Mechanical Engineering 340 may not both be counted. Prerequisite: Engineering Mechanics 319 and Physics 303 L with a grade of at least C - in each.

## ASE 376K. Propulsion.

Review of control volume analysis and quasi-one-dimensional compressible flow. Analysis and design of rocket nozzles and airbreathing engines, including performance and cycle analysis; the flow in nozzles, diffusers, compressors, and turbines; and combustion chamber processes and propellants. Includes an introduction to chemical and electric rocket propulsion. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 362 K with a grade of at least C-.

## ASE 679H. 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. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a Bachelor of Science in Engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Aerospace Engineering 679HA and enrollment in the Engineering Honors Program.

ASE 179K, 279K, 379K. Research in Aerospace Engineering. Directed study or research in a selected area of aerospace engineering. One, two, or three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, a University grade point average of at least 3.00 , selection of project, and consent of the faculty member directing project and the undergraduate adviser.

## ASE 379L. Studies in Aerospace Engineering.

Courses on current topics in aerospace engineering. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Selected Topics in Fluid Mechanics. Three lecture hours a week for one semester.
Topic 2: Selected Topics in Structural Mechanics. Three lecture hours a week for one semester.
Topic 3: Selected Topics in Flight Mechanics. Three lecture hours a week for one semester.
Topic 4: Selected Topics in Orbital Mechanics. Three lecture hours a week for one semester.
Topic 9: Selected Topics in Controls. Three lecture hours a week for one semester.

## ASE 179R. Research Seminar.

Designed for students who plan to pursue a substantial research project or undergraduate honors thesis in aerospace engineering. Department faculty present information and lead discussions about their current research projects so that students can learn about available research opportunities. One lecture hour a week for one semester. May not be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Completion of at least twenty-four semester hours of coursework and a University grade point average of at least 3.50 .

ASE 179S, 279S, 379S, 479S, 579S, 679S, 779S, 879S, 979 S. 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. 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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Engineering Mechanics: E M

## Lower-Division Courses

E M 306 (TCCN: ENGR 2301). Statics.
Vector algebra, force systems, free-body diagrams; engineering applications of equilibrium, including frames, friction, distributed loads; centroids, moments of inertia. Three lecture hours and two discussion hours a week for one semester. Prerequisite: Mathematics 408D or 408L, and Physics 303 K with a grade of at least C- in each.

## E M 311M (TCCN: ENGR 2302). Dynamics.

Two- and three-dimensional kinematics and dynamics, applied to a broad class of engineering problems. Three lecture hours and two discussion
hours a week for one semester. Prerequisite: Engineering Mechanics 306, Mathematics 408D or 408M, and Physics 303K with a grade of at least Cin each.

## E M 319 (TCCN: ENGR 2332). Mechanics of Solids.

Internal forces and deformations in solids; stress and strain in elastic and plastic solids; application to simple engineering problems. Three lecture hours a week for one semester, with discussion hours if necessary. Prerequisite: Engineering Mechanics 306, Mathematics 408D or 408M, and Physics 303K with a grade of at least C- in each.

E M 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, $919 S$. 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. 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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Upper-Division Courses

## E M 339. Advanced Strength of Materials.

Same as Aerospace Engineering 339. Curved beams, shear deformation, beam columns, beams on elastic foundations; inelastic behavior of members; elementary plate bending. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 319 with a grade of at least C-.

## E M 360. Studies in Engineering Mechanics.

Advanced work in the various areas of engineering mechanics, based on recent developments. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing in engineering and consent of instructor.

## Topic 4: Theory of Material Science.

Topic 13: Applications of Finite Element Methods.
E M 179S, 279S, 379S, 479S, 579S, 679S, 779S, 879S, $979 S$. 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. 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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Department of Biomedical Engineering

## Biomedical Engineering: BME

## Lower-Division Courses

[^2]
## BME 303. Introduction to Computing.

Restricted to biomedical engineering majors. Introduction to computing and programming, focusing on arithmetic and logic operations, processor architecture, and programming structures. Programming skills for solving problems using machine and assembly language programming. Emphasis is on biomedical engineering applications of computing. Three lecture hours and two recitation hours a week for one semester.

## BME 203L. Introduction to Biomedical Engineering Design.

Restricted to biomedical engineering majors. Biomedical engineering design concepts with hands-on learning applications. Two lecture hours and three laboratory hours a week for one semester. Biomedical Engineering 102L and 203L may not both be counted. Offered on the letter-grade basis only.

## BME 311. Network Analysis in Biomedical Engineering.

Restricted to biomedical engineering majors. 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. Three lecture hours and two laboratory/project hours a week for one semester. Prerequisite: Biomedical Engineering 303, Physics 303K, and credit or registration for Mathematics 427K.

## BME 313. Numerical Methods and Modeling in Biomedical Engineering.

Restricted to biomedical engineering majors. Principles and techniques of numerical analysis of biomedical engineering problems using high-level programming languages such as C++, Java, MATLAB, and LabVIEW. Numerical methods of integration, differentiation, interpolation, curve fitting, data analysis, sampling and estimation, error analysis, and analysis of ordinary differential equations. Numerical modeling of biomedical engineering systems, symbolic computation and scientific visualization, and integration of hardware and software. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 303 and Mathematics 408C.

## BME 113L. Introduction to Numerical Methods in Biomedical Engineering.

Restricted to biomedical engineering majors. Introduces principles and techniques of numerical analysis of biomedical engineering problems. Covers 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. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 303, Mathematics 427K, and credit or registration for Biomedical Engineering 311 and 335.

## BME 314. Engineering Foundations of Biomedical Engineering.

Application of engineering and mathematics to analysis and constructive manipulation of biological systems and the development of biomedical therapies. Includes physiological mass and momentum transfer; biomechanics; structure, properties, and behavior of biological materials; electrophysiology and linear circuits; and biomedical imaging. Three lecture hours and two recitation hours a week for one semester. Prerequisite: Biology 311C, Biomedical Engineering 102L, Chemistry 302, Physics 303K and 103M, and credit or registration for Electrical Engineering 312 or 319K, Mathematics 427K, Physics 303L, and 103N.

## BME 214L. Computational Fundamentals of Biomedical Engineering Design.

Restricted to biomedical engineering majors. Development of biomedical engineering design concepts, including hands-on learning applications in the lab. Two lecture hours and three laboratory hours a week for one semester. Biomedical Engineering 314 and 214 L may not both be counted. Offered on the letter-grade basis only. Prerequisite: Biology 311C, Biomedical Engineering 203L, 303, Chemistry 302, Physics 303K, 103M, and credit or registration for Mathematics 427K, Physics 303L, and 103N.

## Upper-Division Courses

## BME 221. Measurement and Instrumentation Laboratory.

Restricted to biomedical engineering majors. Introduction to the basics of assembling and using instrumentation for the purposes of recording and displaying electrophysiological signals. Mechanical, chemical, and biological principles for biomedical instrumentation. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 311, 113L, 314, 333T, and 335, and credit or registration for Biomedical Engineering 343 and 365R.

## BME 325L. Cooperative Engineering.

Restricted to biomedical engineering majors. This course covers the work period of biomedical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Biomedical Engineering 325LX, 325LY, and 325 LZ before a grade and degree credit are awarded. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a fulltime cooperative work tour; for 325LY, Biomedical Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Biomedical Engineering 325LY and appointment for a full-time cooperative work tour.

## BME 225M. Cooperative Engineering.

Restricted to biomedical engineering majors. This course covers the work period of biomedical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Biomedical Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a fulltime cooperative work tour; for 225MB, Biomedical Engineering 225MA and appointment for a full-time cooperative work tour.

## BME 125N. Cooperative Engineering.

Restricted to biomedical engineering majors. Covers the work period of biomedical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Biomedical Engineering 325LZ or 225 MB , application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

BME 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## BME 333T. Engineering Communication.

Restricted to biomedical engineering majors. Advanced communication skills for engineers, with emphasis on biomedical engineering topics. Strategies for written, visual, and interpersonal communication, and for oral presentation. Introduction to library research and to ethical decision making in biomedical engineering. Three lecture hours and one recitation hour a week for one semester. Prerequisite: Rhetoric and Writing 306, and credit or registration for Biomedical Engineering 314 or 214L.

## BME 335. Engineering Probability and Statistics.

Restricted to biomedical engineering majors. Fundamentals of probability, random processes, and statistics with emphasis on biomedical engineering applications. Includes hypothesis testing, regression, and sample size calculations. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Biomedical Engineering 303 and Mathematics 408D.

## BME 339. Biochemical Engineering.

Restricted to biomedical engineering majors. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 335, Biomedical Engineering 339, Chemical Engineering 339, 379 (Topic: Introduction to Biochemical Engineering). Prerequisite: Biology 311C; Chemistry 353 or 353M; and Chemistry 339K or 369.

## BME 342. Biomechanics of Human Movement.

Introduction to computational modeling and simulation of musculoskeletal systems, with emphasis on lumped-parameter models of muscle, bone, tendon, and ligament. Three lecture hours a week for one semester. Prerequisite: Mathematics 340L, and Physics 303K and 103M.

## BME 343. Biomedical Engineering Signal and Systems Analysis.

Restricted to biomedical engineering majors. 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. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 314 or 214L, and Mathematics 427K.

## BME 344. Biomechanics.

Restricted to biomedical engineering majors. Analysis and modeling of biomechanical systems at the macroscopic scale based on principles of statics, dynamics, and strength of materials. Three lecture hours a week for one semester. Biomedical Engineering 344 and 377T (Topic: Biomechanics) may not both be counted. Prerequisite: Biomedical Engineering 314, Mathematics 427K, and Physics 303K.

## BME 345. Graphics and Visualization Laboratory.

Restricted to biomedical engineering majors. Introduction to techniques for graphical display of biological data. Topics include transformations, geometric modeling, and two- and three-dimensional display algorithms. Includes computational projects with biomedical applications. Four and one half laboratory hours a week for one semester. Prerequisite: Electrical Engineering 422C (or 322C) and Mathematics 340L.

## BME 245L. Experimental Principles of Biomedical Engineering Design.

Restricted to biomedical engineering majors. Further exploration of biomedical engineering design principles through open-ended hands-on applications. Two lecture hours and three laboratory hours a week for
one semester. Biomedical Engineering 221 and 245L may not both be counted. Offered on the letter-grade basis only. Prerequisite: Biomedical Engineering 311, 113L, 214L, 333T, 335, and credit or registration for Biomedical Engineering 343 and 365R.

## BME 346. 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. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Biology 311C, Biomedical Engineering 113L, and Chemistry 353 or 353 M .

## BME 347. Fundamentals of Biomedical Optics.

Restricted to biomedical engineering majors. 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. Three lecture hours a week for one semester. Biomedical Engineering 347 and 377 T (Topic: Fundamentals of Biomedical Engineering Optical Imaging) may not both be counted. Prerequisite: Biomedical Engineering 251.

## BME 348. Modeling of Biomedical Engineering Systems.

Restricted to biomedical engineering majors. 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. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 311, 113L, and 314, and Mathematics 427 K .

## BME 349. Biomedical Instrumentation.

Restricted to biomedical engineering majors. Biomedical diagnostic and therapeutic instrumentation devices and application. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Biomedical Engineering 343.

## BME 251. Biomedical Image, Signal, and Transport Process Laboratory.

Restricted to biomedical engineering majors. Processing and analysis of signals and images recorded from human studies or models. Lab projects are drawn from image digitization and reconstruction, mechanical studies conducted by students, and transport models. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 221 and Mathematics 427K.

## BME 352. Engineering Biomaterials.

Restricted to biomedical engineering majors. 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. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 314 and 221.

## BME 353. Transport Phenomena in Living Systems.

Restricted to biomedical engineering majors. Modeling and analysis of momentum, energy, and mass transport in living systems. Three lecture
hours a week for one semester. Prerequisite: Biomedical Engineering 113L, 314, Chemistry 353 or 353M, and Mathematics 427K.

## BME 354. 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; microarray analysis of biomolecules; semiconductor and metal nanosensors; microfluidic systems; and microelectromechanical systems (MEMS, BioMEMS) fabrication and applications for biomedical engineering. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 314 and 352.

## BME 355. Molecular Engineering.

Restricted to biomedical engineering majors. Biomedical applications of molecular engineering, including manufacturing of chemical, protein, and genetic materials. Three hours of lecture a week for one semester. Offered on the letter-grade basis only. Prerequisite: Chemistry 353 or 353M.

## BME 357. 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. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 348 and 251.

## BME 358. Medical Decision Making.

Restricted to biomedical engineering majors. 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. Three lecture hours a week for one semester. Biomedical Engineering 358 and 377T (Topic: Medical Decision-Making) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Biomedical Engineering 335 and 365R.

## BME 359. Cellular and Molecular Biomechanics.

Restricted to biomedical engineering majors. Understanding concepts of biomechanics at the cellular and molecular level. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 344 and 353.

## BME 261L. Development and Analysis in Biomedical Engineering Design.

Restricted to biomedical engineering majors. Further exploration of biomedical engineering design principles through open-ended hands-on applications. Two lecture hours and three laboratory hours a week for one semester. Biomedical Engineering 251 and 261L may not both be counted. Offered on the letter-grade basis only. Prerequisite: Biomedical Engineering 245L and 343.

## BME 362. Introduction to Nonlinear Dynamics in Biological Systems.

Restricted to biomedical engineering majors. Three lecture hours a week for one semester. Biomedical Engineering 362, and 377T (Topic: Introduction to Nonlinear Dynamics in Biological Systems) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Biomedical Engineering 344.

## BME 365R. Quantitative Engineering Physiology I.

Restricted to biomedical engineering majors. A quantitative, modeloriented approach to vertebrate systems physiology, including basic cellular physiology, electrophysiology of nerve and muscle, the motor system, the central nervous system, and the cardiovascular system. Three lecture hours and two recitation hours a week for one semester. Prerequisite: Biology 205L or 206L; Biomedical Engineering 311, and 214L or 314; Chemistry 339K or 369; Mathematics 427K; Physics 303L and 103 N ; and credit or registration for Biomedical Engineering 343.

## BME 365S. Quantitative Engineering Physiology II.

Restricted to biomedical engineering majors. Biological control systems: sensory, renal, respiratory, and immune systems. Focuses on a quantitative, model-oriented approach to physiological systems. Three lecture hours and two recitation hours a week for one semester. Prerequisite: Biomedical Engineering 365R.

## BME 370. Biomedical Engineering Capstone Design I.

Restricted to biomedical engineering majors. Structured methodologies for designing systems or to interface with living systems. Creative design, analysis, selection, development, and fabrication of biomedical components and systems. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 348, 251, 353 , and 365 S .

## BME 371. Biomedical Engineering Capstone Design II.

Restricted to biomedical engineering majors. Development of team projects in biomedical engineering with emphasis on prototype development and quantitative analysis, and written and oral reporting of the outcome. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 335 and 370.

## BME 374K. Biomedical Instrument Design.

Restricted to biomedical engineering, electrical engineering, or mechanical engineering majors. 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. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 311 and Electrical Engineering 438, or Electrical Engineering 313 and 438.

## BME 374L. Applications of Biomedical Engineering Laboratory.

Restricted to biomedical engineering, electrical engineering, or mechanical engineering majors. An in-depth examination of selected topics 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. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 374K or Electrical Engineering 374K.

## BME 376. 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. Three lecture hours a week for one semester. Prerequisite: Biology 311C, Biomedical Engineering 314, and Mathematics 408C.

## BME 177, 277, 377 . Undergraduate Research Project.

Restricted to biomedical engineering majors. Recommended for students considering graduate study. Topic is selected in conjunction with a faculty member in the Department of Biomedical Engineering or in another approved University department. A final written report or the equivalent is required. Three, six, or nine laboratory hours a week for one semester.

## BME 377M. Medical Internship.

Restricted to biomedical engineering majors. Designed for students considering medical school. Students participate in a variety of medical and clinical activities, including clinical inpatient rounds, outpatient visits, operating room procedures, and medical grand rounds. The equivalent of three lecture hours a week for one semester.

## BME 377P. Integrated Clinical Research Internship.

Restricted to biomedical engineering majors. Students perform integrated clinical research at the University of Texas M.D. Anderson Cancer Center and the University of Texas Health Science Center at Houston. Requires a substantial final report. The equivalent of three lecture hours a week for one semester.

## BME 377Q. Integrated Clinical Medical Internship.

Restricted to biomedical engineering majors. Students work with physicians at either the University of Texas M.D. Anderson Cancer Center or the University of Texas Health Science Center at Houston and participate in a variety of clinical routines. Requires a substantial final report. The equivalent of three lecture hours a week for one semester.

## BME 377R. Research Internship.

Restricted to biomedical engineering majors. Students perform biomedical research with a faculty member at an approved institution. Requires a substantial final report. The equivalent of three lecture hours a week for one semester.

## BME 377S. Industrial Internship.

Restricted to biomedical engineering majors. Students conduct research in biomedical companies in Texas and nationwide. Research may include development, management, business administration, and other topics.
Requires a substantial final report. The equivalent of three lecture hours a week for one semester.

## BME 177T, 277T, 377T. Topics in Biomedical Engineering.

Restricted to biomedical engineering majors. One, two, or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

BME 678. Undergraduate Thesis in Biomedical Engineering.
Restricted to biomedical engineering majors. 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. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a Bachelor of Science in Biomedical Engineering may use this course to fulfill the thesis requirements for the Bachelor of Arts, Plan II. Prerequisite: For 678A, admission to the major sequence in biomedical engineering and a University grade point average of at least
3.50; for 678B, a University grade point average of at least 3.50 and Biomedical Engineering 678A.

## BME 379. Tissue Engineering.

Restricted to biomedical engineering majors. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 379, Chemical Engineering 339T, 379 (Topic: Cell and Tissue Engineering). Prerequisite: Biology 311C and Biomedical Engineering 352 and 365S.

## BME 679H. Undergraduate Honors Thesis.

Restricted to biomedical engineering majors. 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. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Biomedical Engineering 679HA and enrollment in the Engineering Honors Program.

## Department of Chemical Engineering

## Chemical Engineering: CHE

## Lower-Division Courses

## CHE 102. Introduction to Chemical Engineering.

Restricted to freshmen. Introduction to chemical engineering, including problem solving and study skills. Opportunities and responsibilities of a career in chemical engineering. One lecture hour and one recitation hour a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only.

## CHE 210. Introduction to Computing.

Computer programming focusing on basics of computing, high-level programming environments, and spreadsheets, with application to chemical engineering. Two lecture hours and one laboratory hour a week for one semester. Chemical engineering majors must make a grade of at least C - in this course. Prerequisite: A major in chemical engineering or consent of instructor.

## CHE 311. 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. Three lecture hours a week for one semester. Prerequisite: A high school course in chemistry and experience with Internet searches.

## CHE 317. Introduction to Chemical Engineering Analysis.

Principles and applications of material and energy balances in process analysis. Three lecture hours and one to two recitation hours a week for one semester. Chemical engineering majors must make a grade of at least C - in this course in order to take upper-division courses in chemical
engineering. Prerequisite: Chemical Engineering 210, Chemistry 302, and Mathematics 408D with a grade of at least C- in each.

CHE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Upper-Division Courses

## CHE 322. 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. Three lecture hours and one recitation hour a week for one semester. Chemical engineering majors must make a grade of at least C - in this course. Prerequisite: Chemical Engineering 210, 317, Chemistry 353, and Mathematics 427 K with a grade of at least C - in each.

## CHE 322M. Molecular Thermodynamics.

Statistical and molecular concepts, especially the role of the microscopic chemical potential. Three lecture hours a week for one semester.
Chemical Engineering 322M and 379 (Topic: Molecular Thermodynamics) may not both be counted. Prerequisite: Upper-division standing, Chemical Engineering 322 or the equivalent, and admission to an appropriate major sequence in engineering or consent of the department.

## CHE 323. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Chemistry 318 M or 310 M , and 318 N or 310 N , and admission to an appropriate major sequence in engineering or consent of department.

## CHE 325L. Cooperative Engineering.

This course covers the work period of chemical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Chemical Engineering $325 \mathrm{LX}, 325 \mathrm{LY}$, and 325 LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Chemical Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Chemical Engineering 325LY and appointment for a full-time cooperative work tour.

## CHE 225M. Cooperative Engineering.

This course covers the work period of chemical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Chemical Engineering

225MA and 225MB before a grade and degree credit are awarded.
Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Chemical Engineering 225MA and appointment for a full-time cooperative work tour.

## CHE 125N. Cooperative Engineering.

This course covers the work period of chemical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Chemical Engineering 325 LZ or 225 MB , application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

CHE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## CHE 333T. Engineering Communication.

Advanced technical communication skills, with emphasis on writing strategies for technical documents, oral presentations, and visual aids. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and admission to an appropriate major sequence in engineering.

## CHE 339. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 335, Biomedical Engineering 339, Chemical Engineering 339, 379 (Topic: Introduction to Biochemical Engineering). Prerequisite: Upperdivision standing; Biology 311C and Chemistry 353; and admission to an appropriate major sequence in engineering or consent of the undergraduate faculty adviser.

## CHE 339P. 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. Three lecture hours a week for one semester. Chemical Engineering 339P and 379 (Topic: Molecular Driving Force in Biology) may not both be counted. Prerequisite: Chemical Engineering 322, 353, and 253K with a grade of at least C-in each, or consent of the department.

## CHE 339T. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 379, Chemical Engineering 339T, 379 (Topic: Cell and Tissue Engineering). Prerequisite: Biology 311C and Chemical Engineering 350.

## CHE 341. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Chemical Engineering 341, 384 (Topic: Design for Environment), 395K. Prerequisite: Upper-division standing, and admission to an appropriate major sequence in engineering or consent of the department.

## CHE 342. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Chemical Engineering 342, 384 (Topic: Chemical Engineering Economics and Business Analysis), 395G. Prerequisite: Upper-division standing, and admission to an appropriate major sequence in engineering or consent of the department.

## CHE 348. 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. Three lecture hours and one recitation hour a week for one semester. Chemical engineering majors must make a grade of at least C - in this course. Prerequisite: Chemical Engineering 210, 317, and Mathematics 427 K with a grade of at least Cin each.

## CHE 350. Chemical Engineering Materials.

Metallic, ceramic, polymeric, and composite materials. Crystal structures, phase diagrams, diffusion, and mechanical properties. Emphasis on structure-property-processing relationships. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; Chemistry 353 with a grade of at least C-; and admission to an appropriate major sequence in engineering or consent of the department.

## CHE 353. Transport Phenomena.

Basic study of momentum, energy and mass transport; includes viscous and turbulent flow; heat transfer and mass diffusion. Three lecture hours and one to two recitation hours a week for one semester. Chemical engineering majors must make a grade of at least $C$ - in this course. Prerequisite: Chemical Engineering 317 and Mathematics 427K with a grade of at least $C$ - in each.

## CHE 253K. 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. Two lecture hours a week for one semester. Chemical engineering majors must make a grade of at least $C$ - in this course. Prerequisite: Chemical Engineering 210, 317, and Mathematics 427 K with a grade of at least $C$ - in each.

## CHE 253M. 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. Five laboratory hours a week for one semester. Prerequisite: Chemical Engineering 333T, 353, and 253 K with a grade of at least C- in each.

## CHE 354. Transport Processes.

Design and analysis of heat exchangers, fluid-flow systems and equipment, and interphase-contact devices. Three lecture hours and one recitation hour a week for one semester. Chemical engineering majors must make a grade of at least C - in this course. Prerequisite: Chemical Engineering 348 and 353 with a grade of at least C- in each.

## CHE 355. Introduction to Polymers.

Synthesis, structural characterization, physical properties, and applications of polymers. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Chemical Engineering 322, and admission to an appropriate major sequence in engineering or consent of the department.

## CHE 356. 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 processindustry problems. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Chemical Engineering 348 and 353, and admission to an appropriate major sequence in engineering or consent of the department.

## CHE 357. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and admission to an appropriate major sequence in engineering or consent of the department.

## CHE 359. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Chemical Engineering 359, 379 (Topic: Energy Technology and Policy), 384 (Topic: Energy Technology and Policy). Prerequisite: Upper-division standing, and admission to an appropriate major sequence in engineering or consent of the department.

## CHE 360. Process Control.

Analysis of process dynamics and methods for the design of automatic control systems for chemical process plants. Three lecture hours and one to two recitation hours a week for one semester. Prerequisite: Chemical Engineering 322, 253M, and 354 with a grade of at least C- in each.

## CHE 363. 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. Three lecture hours and one to two recitation hours a week for one semester. Chemical engineering majors must make a grade of at least $C$ - in this course. Prerequisite: Chemical Engineering 322 and 353 with a grade of at least $C$ - in each.

## CHE 264. Chemical Engineering Process and Projects Laboratory.

Experimental studies of unit operations. Laboratory safety. Statistical data analysis. Written and oral reports. Six laboratory hours a week for one semester. Prerequisite: Chemical Engineering 253M and 363 with a grade of at least $C$ - in each. Students must register in the undergraduate advising office.

CHE 372. 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. Three lecture hours and one recitation hour a week for one semester. Chemical engineering majors must make a grade of at least C - in this course. Prerequisite: Chemical Engineering 322, 348, and 354 with a grade of at least C - in each.

## CHE 473K. Process Design and Operations.

Process design, economics, and safety; design projects representing a variety of industries and products. Three lecture hours and two recitation hours a week for one semester. Prerequisite: Chemical Engineering 354, 363 , and 372 with a grade of at least C- in each.

## CHE 376K. Process Evaluation and Quality Control.

Use of statistical techniques to evaluate, compare, and optimize processes. Design of experiments for improved product quality control. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and admission to an appropriate major sequence in engineering or consent of the department.

CHE 177K, 277K, 377K. 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. Three, six, or nine laboratory hours a week for one semester. Prerequisite: A grade point average of at least 3.00 in chemical engineering courses. Students must register in the undergraduate advising office.

CHE 179, 279, 379, 479. Topics in Chemical Engineering.
Special topics of current interest. The equivalent of one, two, three, or four lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and admission to an appropriate major sequence in engineering or consent of the department.

## CHE 679H. 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. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and the Bachelor of Science in Chemical Engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Chemical Engineering Honors Program; for 679HB, enrollment in the Chemical Engineering Honors Program and credit for Chemical Engineering 679HA.

## Department of Civil, Architectural, and Environmental Engineering

## Architectural Engineering: ARE Lower-Division Courses

ARE 102. Introduction to Architectural Engineering. Introduction to architectural engineering as a career by use of case studies. One lecture hour a week for one semester. Offered in the fall semester only. Prerequisite: A major in architectural engineering, civil engineering, or architecture, or consent of instructor.

## ARE 217. 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. Three hours of lecture and laboratory a week for one semester.

ARE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## ARE 320K. Introduction to Design I.

Introduction to design principles, concepts, and problem-solving approaches. Issues addressed by a series of two- and three-dimensional studies. Nine laboratory hours a week for one semester. Offered in the fall semester only. Prerequisite: Credit or registration for Architectural Engineering 217.

## ARE 320L. Introduction to Design II.

Continuation of Architectural Engineering 320K. Focus on building design. Nine laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Architectural Engineering 320K and credit or registration for Architectural Engineering 335.

## ARE 323K. Project Management and Economics.

Solving economic problems related to construction and engineering; construction project management techniques; characteristics of construction organizations, equipment, and methods. Three lecture hours a week for one semester. Prerequisite: Mathematics 408D or 408M.

## ARE 325L. Cooperative Engineering.

This course covers the work period of architectural engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Architectural Engineering $325 \mathrm{LX}, 325 \mathrm{LY}$, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Architectural Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Architectural Engineering 325LY and appointment for a full-time cooperative work tour.

## ARE 225M. Cooperative Engineering.

This course covers the work period of architectural engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Architectural Engineering 225 MA and 225 MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Architectural Engineering 225MA and appointment for a full-time cooperative work tour.

## ARE 125N. Cooperative Engineering.

This course covers the work period of architectural engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Architectural Engineering 325 LZ or 225 MB , application to become a member of the

Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

ARE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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 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. May be repeated for credit when the topics vary.

## ARE 335. 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. Three or four lecture and discussion hours a week for one semester. Prerequisite: Architectural Engineering 320K, Civil Engineering 314K, and admission to the major sequence in architectural engineering.

## ARE 345K. Masonry Engineering.

Behavior and design of masonry with respect to architectural, economic, and structural criteria. Four and one-half hours a week for one semester, including lecture and laboratory. Prerequisite: Civil Engineering 329 and credit or registration for Civil Engineering 331.

## ARE 346N. 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. Three lecture hours a week for one semester. Prerequisite: Physics 303L and 103 N , and credit or registration for Mechanical Engineering 320 or 326.

## ARE 346P. 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. Three lecture hours a week for one semester. Prerequisite: Architectural Engineering 346N or consent of instructor.

## ARE 358. 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. Two lecture hours and three supervised laboratory hours a week for one semester. Prerequisite: Architectural Engineering 335 and admission to the major sequence in architectural engineering. Experience reading construction blueprints is recommended.

## ARE 362L. 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. Five hours of lecture and supervised work a week for one semester. Prerequisite: Civil Engineering 329.

## ARE 465. Integrated Design Project.

Design of low-rise buildings, including structural and environmental systems; preparation of contract documents. Six hours a week for one semester, including lecture and laboratory. Prerequisite: Architectural Engineering 217, 320L, 335, and 346N; Civil Engineering 331 or 335, and

357; with approval of the department, Civil Engineering 331, 335, or 357 may be taken concurrently with Architectural Engineering 465.

## ARE 366. 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. Two lecture hours and two laboratory hours a week for one semester. Prerequisite: Admission to the major sequence in civil engineering or architectural engineering.

## ARE 370. 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. Three lecture hours a week for one semester. Prerequisite: Architectural Engineering 346 N .

## ARE 371. 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. Three lecture hours a week for one semester. Prerequisite: Architectural Engineering 346 N or consent of instructor.

## ARE 372. 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. Three lecture hours a week for one semester. Prerequisite: Architectural Engineering 346N, Civil Engineering 319F, or consent of instructor.

## ARE 376. 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. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Architectural Engineering 323K.

## ARE 177K, 277K, 377K. Studies in Architectural Engineering.

Various specified topics or conference course. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; additional hours may be required for some topics. Some topics offered on the pass/fail basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## ARE 679H. 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. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Architectural Engineering 679HA and enrollment in the Engineering Honors Program.

## Civil Engineering: C E <br> Lower-Division Courses

## C E 301. 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. Two lecture hours and three laboratory hours a week for one semester.

## C E 311K. Introduction to Computer Methods.

Organization and programming of civil engineering problems for computer solutions. Five hours a week for one semester, including lecture and laboratory. Prerequisite: Credit or registration for Mathematics 408D or 308L.

## C E 311S. 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. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Mathematics 408D or 408M.

## C E 319F. Elementary Mechanics of Fluids.

Fluid properties, hydrostatics, elements of fluid dynamics, energy and momentum, boundary layers, similitude, pipe flow, metering instruments, drag forces. Three lecture hours and two laboratory hours a week for one semester. Civil Engineering 319F and Mechanical Engineering 330 may not both be counted. Prerequisite: Engineering Mechanics 306.

C E 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## C E 321. Transportation Systems.

Planning, economics, location, construction, operation, maintenance, and design of transportation systems; concepts of various modes of transportation. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 311S.

## C E 324P. 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. Six hours of lecture, laboratory, and supervised work a week for one semester. Civil Engineering 314K and 324P may not both be counted. Prerequisite: Chemistry 301 and Engineering Mechanics 319.

## C E 325L. Cooperative Engineering.

This course covers the work period of civil engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Civil Engineering 325LX, 325 LY , and 325 LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean,
and appointment for a full-time cooperative work tour; for 325 LY , Civil Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Civil Engineering 325LY and appointment for a full-time cooperative work tour.

## C E 225M. Cooperative Engineering.

This course covers the work period of civil engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Civil Engineering 225MA and 225 MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a fulltime cooperative work tour; for 225MB, Civil Engineering 225MA and appointment for a full-time cooperative work tour.

## C E 125N. Cooperative Engineering.

This course covers the work period of civil engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Civil Engineering 325 LZ or 225 MB , application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a fulltime cooperative work tour.

## C E 329. Structural Analysis.

Classical methods of analysis for determinate and indeterminate structures under stationary and moving loads. Four hours of lecture and supervised work a week for one semester. Prerequisite: Engineering Mechanics 319 and Civil Engineering 311K.

C E 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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 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. May be repeated for credit when the topics vary.

## C E 331. Reinforced Concrete Design.

Design of reinforced concrete beams and columns. Five hours of lecture and supervised work a week for one semester. Prerequisite: Civil Engineering 314 K and 329.

## C E 333T. 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. Two lecture hours and one and one half laboratory hours a week for one semester. Civil Engineering 333 H and 333T may not both be counted. Prerequisite: Rhetoric and Writing 306 and admission to an appropriate major sequence in architectural or civil engineering.

## C E 335. Elements of Steel Design.

Analysis and design of tension members, beams, columns, and bolted and welded connections. Five hours of lecture and supervised work a week for one semester. Prerequisite: Civil Engineering 314K and 329.

## C E 341. Introduction to Environmental Engineering.

Quantitative evaluation of the environmental, economic, and technical problems involved in control of pollutants of the air, water, and land. Three
lecture hours a week for one semester. Prerequisite: Chemistry 301 and 302 , or consent of instructor.

## C E 342. 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. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Civil Engineering 319F and credit for Civil Engineering 341, or consent of instructor.

## C E 346. Solid Waste Engineering and Management.

Characteristics of municipal and industrial solid wastes, generation rates, collection systems, recycling, processing, and disposal. Three lecture hours a week for one semester, with occasional field trips. Prerequisite: Civil Engineering 341 or consent of instructor.

## C E 351. Concrete Materials.

Portland cement, aggregates, supplementary cementing materials, properties of fresh and hardened concrete, concrete durability, mixture proportioning, concrete construction, special concretes. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Civil Engineering 314K.

## C E 356. Elements of Hydraulic Engineering.

Flow in closed conduits, hydraulic machinery; open-channel flow; flow measurement; design of storm sewers. Five hours a week for one semester, including lecture and laboratory. Prerequisite: Civil Engineering 319F.

## C E 357. 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. Six hours a week for one semester, including lecture and laboratory. Prerequisite: Civil Engineering 319F and Engineering Mechanics 319.

## C E 358. Introductory Ocean Engineering.

Wave theory and its applications to coastal engineering and offshore structure technology. Includes fundamentals of inviscid and viscous flow of incompressible fluids, and applications of computational fluid dynamics (CFD) in design. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 319F or consent of instructor.

## C E 360K. 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. Five hours a week for one semester, including lecture and discussion. Offered in the fall semester only. Prerequisite: Civil Engineering 357.

## C E 362M. Advanced Reinforced Concrete Design.

Design of reinforced concrete buildings, including floor systems and structural walls. Five hours of lecture and supervised work a week for one semester. Prerequisite: Civil Engineering 331.

## C E 362N. Advanced Steel Design.

Design of steel buildings, beam columns, composite beams, plate girders, and connections. Five hours of lecture and supervised work a week for one semester. Prerequisite: Civil Engineering 335.

## C E 363. 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. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 329.

## C E 364. Design of Wastewater and Water Treatment Facilities.

Analysis, synthesis, and integrated design of municipal wastewater treatment plants and water treatment systems. Three lecture hours a week for one semester; additional hours to be arranged for design laboratory and field trips. Prerequisite: Credit or registration for Civil Engineering 342 and credit for Civil Engineering 356, or consent of instructor.

## C E 365K. Hydraulic Engineering Design.

Application of engineering hydraulics to stormwater management; storm sewer design; engineering hydrology; open-channel hydraulics; hydraulic structures; culverts and bridges; stormwater detention facilities. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 356.

## C E 366K. Design of Bituminous Mixtures.

Fundamental properties of asphalt and aggregates; design and construction of asphalt mixtures; special mixtures; superpave design method. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

## C E 367G. 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. Three lecture hours and two laboratory hours a week for one semester. Civil Engineering 367G and 377K (Topic: Design of Ground-Based Transportation) may not both be counted. Prerequisite: Civil Engineering 321 or consent of instructor.

## C E 367P. Pavement Design and Performance.

Basic principles of design of pavements for highways, airfields, and railroads; pavement construction, maintenance, and rehabilitation. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 321, 357, and 366K.

## C E 367T. 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. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 321 or consent of instructor.

## C E 369L. Air Pollution Engineering.

Characterization of sources, emissions, transport, transformation, effects, and control of air pollutants. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 341 or consent of instructor.

## C E 369R. 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. Three lecture hours a week for one semester. Civil Engineering 369R and 377K (Topic: Indoor Air Quality) may not both be counted. Prerequisite: Civil Engineering 319F and admission to an appropriate major sequence in architectural or civil engineering, or consent of instructor.

## C E 370K. Environmental Sampling and Analysis.

Principles of environmental chemistry; measurement of contaminants in air, water, and land environments; applications to municipal, industrial, and ambient samples. Six hours a week for one semester, including lecture and laboratory. Prerequisite: Upper-division standing in engineering and Civil Engineering 341, or consent of instructor.

## C E 171P. 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 public service project. Two lecture hours a week for one semester, with additional fieldwork hours to be arranged. Prerequisite: Admission to the major sequence in civil engineering and credit or registration for one of the following: Civil Engineering 360K, 362M, 362N, 364, 365K, 367, 376.

## C E 374K. Hydrology.

Phases of the hydrologic cycle, unit hydrograph, flow routing, hydrologic statistics, design storms and flows, design of storm sewers, detention ponds and water supply reservoirs. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 311S and 356.

## C E 374L. Groundwater Hydraulics.

Darcy's law, steady flow in aquifers, aquifer and well testing, regional flow, numerical simulation of groundwater flow, unsaturated flow, and groundwater recharge. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 356 or consent of instructor.

## C E 375. 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. Three lecture hours a week for one semester. Offered in the spring semester only. Prerequisite: Civil Engineering 357.

## C E 177K, 277K, 377K. Studies in Civil Engineering.

Various specified topics or conference course. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Additional hours may be required for some topics. Some topics are offered on the pass/fail basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## C E 679H. 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. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Civil Engineering 679HA and enrollment in the Engineering Honors Program.

## Department of Electrical and Computer Engineering

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University
courses are listed here. Additional TCCN information is given in Appendix A (p.675).

## Electrical Engineering: E E <br> Lower-Division Courses

## E E 302 (TCCN: ENGR 2305). Introduction to Electrical Engineering.

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). Substantial teamwork is required for laboratory work in this course. Three lecture hours and two laboratory hours a week for one semester. Electrical Engineering 302 and 302H may not both be counted. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 408C or 408 K .

## E E 302H. Introduction to Electrical Engineering: Honors.

Restricted to students in the Engineering Honors Program. 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). Three lecture hours and two laboratory hours a week for one semester. Electrical Engineering 302 and 302 H may not both be counted. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 408C or 408 K .

## E E 306. Introduction to Computing.

Motivated, bottom-up introduction to computing; bits and operations on bits; number formats; arithmetic and logic operations; digital logic; the Von Neumann model of processing, including memory, arithmetic logic unit, registers, and instruction decoding and execution; introduction to 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. Three lecture hours and one recitation hour a week for one semester. Prerequisite: Credit with a grade of at least a C- or registration for Mathemathics 408C or 408 K .

E E 107S, 207S, 307S, 407S, 507S, 607S, 707S, 807S, 907 S. Topics in Electrical 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 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. May be repeated for credit when the topics vary.

## E E 309K. Topics in Electrical Engineering.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## E E 309S. 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. Three lecture hours and three laboratory hours a week for one semester. Electrical Engineering 309K (Topic: Development of a Solar Car for NASC) and 309S may not both be counted.

## E E 411. Circuit Theory.

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 threephase systems; transformers; two-port networks (Z-parameters and Yparameters); and computer-aided analysis and design. Three lecture hours and two recitation hours a week for one semester. Prerequisite: Electrical Engineering 302 or 302 H with a grade of at least C-; credit with a grade of at least C - or registration for Mathematics 427 K ; and credit with a grade of at least C- or registration for Physics 303L and 103N.

## E E 312. Software Design and Implementation I.

Basic problem solving, design and implementation techniques for imperative programming; structured programming in the C/C++ language; programming idioms; introduction to software design principles, including modularity, coupling and cohesion; introduction to software engineering tools; elementary data structures; asymptotic analysis. Three lecture hours and one recitation hour a week for one semester. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 303 or Electrical Engineering 306, and Electrical Engineering 319K.

## E E 313. Linear Systems and Signals.

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. Computer analysis using MATLAB. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 411, 331, or Biomedical Engineering 311 with a grade of at least C-; Mathematics 427 K with a grade of at least C-; and credit with a grade of at least C- or registration for Mathematics 340L.

## E E 316. Digital Logic Design.

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 introduction to hardware description languages (HDLs) and field-programmable gate arrays (FPGAs). Three lecture hours and one recitation hour a week for one semester. Prerequisite: Computer Science 429 or Electrical Engineering 306 with a grade of at least C-.

## E E 319K. Introduction to Embedded Systems.

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. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Biomedical Engineering 303 or Electrical Engineering 306 with a grade of at least C-.

## Upper-Division Courses

## E E 321K. Mixed Signal and Circuits Laboratory.

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 v. noncoherent measurements; design for testability. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 438 with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 422C. Software Design and Implementation II.

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; introduction to algorithm analysis; teamwork models. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Computer Science 312 or Electrical Engineering 312 with a grade of at least C-.

## E E 325. Electromagnetic Engineering.

Electrostatics and magnetostatics; properties of conductive, dielectric, and magnetic materials; solutions of Maxwell's equations; uniform plane wave applications; frequency- and time-domain analyses of transmission lines. Three lecture hours a week for one semester. Prerequisite: Physics $303 \mathrm{~L}, 103 \mathrm{~N}$, and Mathematics 427K with a grade of at least C- in each, and credit with a grade of at least C- or registration for Mathematics 427L.

## E E 325K. Antennas and Wireless Propagation.

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; numerical methods for solving Maxwell's equations. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 325 with a grade of at least C-

## E E 325L. Cooperative Engineering.

This course covers the work period of electrical and computer engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Electrical Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Electrical Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Electrical Engineering 325LY and appointment for a full-time cooperative work tour.

## E E 225M. Cooperative Engineering.

This course covers the work period of electrical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Electrical Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Electrical Engineering 225MA and appointment for a full-time cooperative work tour.

## E E 125N. Cooperative Engineering.

This course covers the work period of electrical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Electrical Engineering 325LZ or 225 MB , application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

## E E 125S. 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. At least ten hours of work a week, for a total of 150 hours a semester or summer session. May be repeated for credit, but only three hours may be
counted toward an electrical engineering degree. Offered on the pass/fail basis only. Prerequisite: Consent of the undergraduate adviser.

## E E 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. Topics in Electrical 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. May be repeated for credit when the topics vary.

## E E 331. Electrical Circuits, Electronics, and Machinery.

Not open to electrical engineering majors. Brief theory of direct and alternating current circuits; single-phase and three-phase power transmission; electronic devices and instrumentation; electromechanics. Three lecture hours a week for one semester. Prerequisite: Mathematics 408D or 408M with a grade of at least C-, and Physics 303L and 103N with a grade of at least $C$ - in each.

## E E 333T. Engineering Communication.

Advanced engineering communication skills, with emphasis on technical documents, oral reports, and graphics; collaborative work involving online communication and research. Three lecture hours a week for one semester. Prerequisite: One of the following with a grade of at least C-: English 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316K).

## E E 334K. Quantum Theory of Engineering 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 427 K , Physics 303L, and 103 N with a grade of at least C- in each.

## E E 438. Fundamentals of Electronic Circuits I Laboratory.

Analysis and design of electronic circuits using semiconductor devices. 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; differential amplifiers and output stages. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 411 with a grade of at least C-; credit with a grade of at least C- or registration for Biomedical Engineering 343 or Electrical Engineering 313; and credit with a grade of at least C- or registration for one of the following: Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 438K. Analog Electronics.

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. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 438 with a grade of at least C-.

## E E 338L. Analog Integrated Circuit Design.

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; analog filters. CAD tools for circuit analysis and design. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 438 with a grade of at least C-.

## E E 339. Solid-State Electronic Devices.

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 filed-effect transistors; and introduction to optoelectronic devices. Three lecture hours a week for one semester. Prerequisite: Mathematics 427K, Physics 303L, and 103 N with a grade of at least C- in each.

## E E 339S. Solar Energy Conversion Devices.

An investigation of basic principles of photovoltaic devices which convert light into charger carriers (electrons and holes). Topics include 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. Electrical Engineering 339S and 379K (Topic 4: Solar Energy Conversion Devices) may not both be counted. Prerequisite: Credit with a grade of at least C- or registration for Electrical Engineering 339.

## E E 440. Integrated Circuit Nanomanufacturing Techniques.

Integrated circuit processing; crystal growth and wafer preparation; epitaxial growth; oxidation, diffusion, and ion implantation; thin-film deposition techniques; and lithography and etching. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 339 with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 341. Electric Drives and Machines.

Fundamentals of electric machines. Electromechanical energy conversion; magnetic circuits, transformers, and energy conversion devices; and an introduction to power electronics. Motor drive fundamentals and applications. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 313 or 331 with a grade of at least C-

## E E 445L. Embedded Systems Design Laboratory.

Design of microcontroller-based embedded systems; interfacing from both a hardware and software perspective; and applications, including audio, data acquisition, and communication systems. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 312 and 319 K with a grade of at least C-in each; Electrical Engineering 411 and 313, or Biomedical Engineering 311 and 343, with a grade of at least C - in each; and credit with a grade of at least C - or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 445M. Embedded and Real-Time Systems Laboratory.

Embedded microcomputer systems; implementation of multitasking, synchronization, protection, and paging; operating systems for embedded microcomputers; design, optimization, evaluation, and simulation of
digital and analog interfaces; real-time microcomputer software; and applications, including data acquisition and robotics. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 445L (or 345L) or 445S (or 345S) with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 445S. Real-Time Digital Signal Processing Laboratory.

Architectures of programmable digital signal processors; programming for real-time performance; design and implementation of digital filters, modulators, data scramblers, pulse shapers, and modems in real time; and interfaces to telecommunication systems. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 312 and 319 K with a grade of at least C- in each; Biomedical Engineering 343 or Electrical Engineering 313 with a grade of at least C-; credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T; and credit with a grade of at least C- or registration for Biomedical Engineering 335 or Electrical Engineering 351K.

## E E 347. Modern Optics.

Modern optical wave phenomena with applications to imaging, holography, fiber optics, lasers, and optical information processing. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 313 and 325 with a grade of at least C- in each, or Biomedical Engineering 343 with a grade of at least C-.

## E E 348. Laser and Optical Engineering.

Principles of operation and applications of lasers, optical modulators, and optical detectors. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 339 with a grade of at least C-.

## E E 351K. Probability and Random Processes.

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. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 313 with a grade of at least C-

## E E 351M. Digital Signal Processing.

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. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 343 or Electrical Engineering 313 with a grade of at least a C-, and credit with a grade of at least C- or registration for Biomedical Engineering 335 or Electrical Engineering 351K.

## E E 155. Electrical and Computer Engineering Seminar.

Presentations by speakers from industry, government, academia, and professional private practice. Topics include environmental and other ethical concerns, safety awareness, quality management, technical career descriptions, and professionalism. Substantial practice in engineering communication. One lecture hour a week for one semester. Electrical Engineering 155 and 364D may not both be counted. Prerequisite: One of
the following with a grade of at least C-: English 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316K).

## E E 155L. Engineering Leadership Seminar.

Presentations by speakers from industry, government, academia, and professional private practice. Topics include environmental and other ethical concerns, safety awareness, quality management, technical career descriptions, and professionalism. One lecture hour a week for one semester. Prerequisite: Consent of the dean and one of the following with a grade of at least C-: English 316L (or 316K), 316M (or 316K), 316N (or 316 K ), or 316P (or 316K).

## E E 155R. Undergraduate Research Seminar.

Restricted to students in electrical and computer engineering. Seminar on topics of research in electrical and computer engineering. One lecture hour a week for a semester. Offered on the pass/fail basis only.

## E E 160, 260, 360, 460. Special Problems in Electrical and Computer Engineering.

Elective course open to upper-division students in electrical engineering for original investigation of special problems approved by the department. For each semester hour of credit earned, the equivalent of three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor.

## E E 360C. Algorithms.

Advanced problem solving methods; algorithm design principles; complexity analysis; study of the nature, impact, and handling of intractability; study of common algorithmic classes and their applications. Three lecture hours a week for one semester. Prerequisite: Computer Science 312 or Electrical Engineering 312 with a grade of at least C-; and Computer Science 313K or Mathematics 325 K with a grade of at least C-

## E E 360F. Introduction to Software Engineering.

Introduction to the discipline of software engineering. Includes 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. Three lecture hours a week for one semester. Prerequisite: One of the following with a grade of at least C-: Computer Science 314 or 314H, or Electrical Engineering 422C (or 332C).

## E E 360K. Introduction to Digital Communications.

Communication channels and their impairments; modulation; demodulation; probability-of-error analysis; source coding; error control coding; link budget analysis; equalization; synchronization and multiple access; spread spectrum; applications in wireline and wireless communication systems. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 335 or Electrical Engineering 351K with a grade of at least C-, and Biomedical Engineering 343 or Electrical Engineering 313 with a grade of at least C-

## E E 460M. Digital Systems Design Using HDL.

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. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 316 and 319K with a grade of at least C- in each.

## E E 460N. Computer Architecture.

Characteristics of instruction set architecture and microarchitecture; physical and virtual memory; caches and cache design; interrupts and exceptions; integer and floating-point arithmetic; l/O processing; buses; pipelining, out-of-order execution, branch prediction, and other performance enhancements; design trade-offs; case studies of commercial microprocessors. Laboratory work includes completing the behavioral-level design of a microarchitecture. Three lecture hours and one and one-half laboratory/recitation hours a week for one semester. Prerequisite: Electrical Engineering 316 and 319 K with a grade of at least C- in each.

## E E 360P. Concurrent and Distributed Systems.

An investigation of 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, commit protocols. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 422C (or 322) with a grade of at least C-.

## E E 460R. Introduction to VLSI Design.

Theory and practice of very-large-scale integration (VLSI) circuit design. 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. CAD tools for layout, timing analysis, synthesis, physical design, and verification. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 316 and 438 with a grade of at least C- in each.

## E E 360S. Digital Integrated Circuit Design.

Circuit-level aspects of metal oxide silicon (MOS) and bipolar integrated circuit technologies. Logic gates and latches; propagation delays; circuit simulation models. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 438 and 339 with a grade of at least C- in each.

## E E 360T. Software Testing.

Basic concepts and techniques used in testing software and finding bugs. Includes 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. Three lecture hours a week for one semester. Electrical Engineering 360T and 379K (Topic: Software Testing) may not both be counted. Prerequisite: One of the following with a grade of at least C-: Computer Science 314 or 314H, or Electrical Engineering 422C (or 322C).

## E E 361D. System Design Metrics.

Survey of engineering design, manufacturing, and lifetime support issues; implications of customer perceptions of quality on design; economics of design; legal implications of design decisions. The equivalent of three lecture hours a week for one semester. Prerequisite: Electrical Engineering 364D with a grade of at least C-.

## E E 461L. Software Engineering and Design Laboratory.

The design and development of large-scale software systems using automated analysis tools. Generation of concrete software engineering artifacts at all stages of the software life-cycle. Design principles and methods; design and modeling tools; collaborative development environment; object-oriented design and analysis; design patterns and refactoring; integration and testing tools; debugger and bug finder; program comprehension; software life-cycle and evolution. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Computer Science 314, 314H, or Electrical Engineering 422C (or 322C) with a grade of at least C-; Mathematics 325 K with a grade of at least

C-; and credit or registration with a grade of at least C- for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 361M. Introduction to Data Mining.

Goals, methods, and applications of data mining. Includes data preprocessing, sampling, and visualization; algorithms for machine learning; clustering, classification, and predicting and forecasting; mining the Internet for content, link structure, and usage information; search engine design and social network analysis; and statistical methods. Three lecture hours a week for one semester. Electrical Engineering 361M and 379K (Topic: Introduction to Data Mining) may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 314 or 314H or Electrical Engineering 422C (or 322C); Electrical Engineering 351K or Mathematics 362K; and Mathematics 340L.

## E E 361Q. Requirements Engineering.

Methods and technology for acquiring, representing, documenting, verifying, validating, and maintaining requirements; text-based, graphicbased, and computational requirements model representations; requirements analysis to synthesize and resolve conflicts among disparate stakeholder viewpoints; requirements traceability and evolution, and change management. The equivalent of three lecture hours a week for one semester. Electrical Engineering 361Q and 379K (Topic: Requirements Engineering) may not both be counted. Prerequisite: Computer Science 312, 312H, or Electrical Engineering 312 with a grade of at least C-.

## E E 361R. Radio-Frequency Electronics.

Modeling of active and passive devices and transmission line structures at high frequencies. 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. The equivalent of three lecture hours a week for one semester. Electrical Engineering 361R and 379K (Topic: Radio Frequency Circuit Design) may not both be counted. Prerequisite: Electrical Engineering 325 and 438 with a grade of at least $C$ - in each.

## E E 362K. Introduction to Automatic Control.

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; lead and lag compensation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and Electrical Engineering 313 and Mathematics 340 L with a grade of at least C- in each.

## E E 462L. Power Electronics Laboratory.

Analysis, design, and operation of power electronic circuits; power conversion from $A C$ to $D C, D C$ to $D C$, and $D C$ to $A C$; rectifiers, inverters, and pulse width modulated motor drives. Laboratory work focuses on the use of energy from renewable sources such as photovoltaics and wind. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 362Q. Power Quality and Harmonics.

Introduction to and analysis of power quality and harmonic phenomena in electric power systems. Includes characteristics and definitions,
voltage sags, electrical transients, harmonics, mitigation techniques, and standards of power quality and harmonics. The equivalent of three lecture hours a week for one semester. Electrical Engineering 362Q and 379K (Topic: Power Quality and Harmonics) may not both be counted. Prerequisite: Electrical Engineering 331 or 411 with a grade of at least C-.

## E E 362R. Renewable Energy and Power Systems.

Introduction to renewable energy sources and their integration into power systems. Includes 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. Three lecture hours a week for one semester. Electrical Engineering 362R and 379K (Topic: Renewable Energy and Power Systems) may not both be counted. Prerequisite: Electrical Engineering 411 or 331 with a grade of at least C-

## E E 362S. 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. Three lecture hours and three laboratory hours a week for one semester. Electrical Engineering 362S and 379K (Topic: Development of a Solar Car for NASC) may not both be counted. Prerequisite: Upper-division standing.

## E E 363M. Microwave and Radio Frequency Engineering.

Design principles in microwave and radio frequency systems; transmission lines and waveguides; S-parameter representation; impedance matching; microwave network analysis; microwave devices and components; electromagnetic effects in high-speed/high-frequency applications. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 325 with a grade of at least C-.

## E E 363N. Engineering Acoustics.

Same as Mechanical Engineering 379N. Principles of acoustics, with applications drawn from audio engineering, biomedical ultrasound, industrial acoustics, noise control, room acoustics, and underwater sound. Three lecture hours a week for one semester. Prerequisite: Mathematics 427 K with a grade of at least C-.

## E E 464C. Corporate Senior Design Project.

Design and experimental projects, done in the laboratories of local companies, for electrical engineering students working full-time in industry; the ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Electrical Engineering 364D with a grade of at least C-; and Electrical Engineering 440, 445L (or 345L), 445S (or 345S), 461L, or 462L (or 362L) with a grade of at least C-.

## E E 364D. Introduction to Engineering Design.

Introduction to the engineering design process; assessing engineering problems and customer needs; acquiring, documenting, and verifying requirements; high-level system design principles; effects of economic, environmental, ethical, safety, and social issues in design; writing design specifications. Two lecture hours and three laboratory hours a week for one semester. Additional laboratory hours may be required for some sections; these are identified in the Course Schedule. Electrical Engineering 155 and 364D may not both be counted. Prerequisite: Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T, with a grade of at least C-; and credit with a grade of at
least C- or registration for Electrical Engineering 438, 440, 445L (or 345L), 445 S (or 345S), 461L, or 462L (or 362L).

## E E 364E. Interdisciplinary Entrepreneurship.

First course in a two-semester sequence that concludes with Electrical Engineering 464S. Teams of students starting companies 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 the role of intellectual property, the social issues in design, as well as ethical and safety considerations. Emphasis on written and oral presentation of start-up activities. The equivalent of three lecture hours a week for one semester, with additional hours to be arranged. Only one of the following may be counted: Computer Science 378 (Topic: Interdisciplinary Entrepreneurship), Electrical Engineering 364E, Engineering Studies 377 (Topic: Interdisciplinary Entrepreneurship), Management 337 (Topic: Interdisciplinary Entrepreneurship). Electrical Engineering 364E and 464 S may not be counted by students with credit for Electrical Engineering 364D, 464H, 464K, or 464R. Prerequisite: Credit with a grade of at least C- in Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T; credit with a grade of at least C- or registration for Electrical Engineering 440, 445L (or 345L), 445S (or 345 S ), and 461L or 462L (or 362L); and consent of instructor.

## E E 464G. Multidisciplinary Senior Design Project.

Design and experimental projects done with teams of students from multiple engineering disciplines; the ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Electrical Engineering 364D with a grade of at least C-; and Electrical Engineering 440, 445L (or 345L), 445S (or 345S), 461L, or 462L (or 362L) with a grade of at least C-.

## E E 464H. Honors Senior Design Project.

Restricted to students in the Engineering Honors Program. Design and experimental projects done under the direction of a University faculty member; the ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Electrical Engineering 364D with a grade of at least C-, and one of the following with a grade of at least C-: Electrical Engineering 438, $440,445 \mathrm{~L}$ (or 345L), 445S (or 345S), 461L, 462L (or 362L).

## E E 464K. Senior Design Project.

Design and experimental projects done in Department of Electrical and Computer Engineering laboratories; the ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Electrical Engineering 364D with a grade of at least C-, and one of the following with a grade of at least C-: Electrical Engineering 438, 440, 445L (or 345L), 445S (or 345S), 461L, 462L (or 362L).

## E E 464R. Research Senior Design Project.

Design and experimental projects done under the supervision of a University faculty member; the ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Electrical Engineering 364D with a grade of at least C-, and one of the following with a grade of at least C-: Electrical Engineering 438, 440, 445L (or 345L), 445S (or 345S), 461L, 462L (or 362L).

## E E 464S. Start-Up Senior Design Project.

Continuation of Electrical Engineering 364E. Completion of a practical engineering product design; validation of the design through prototype construction and testing, modeling and simulation, and manufacturability analysis. Development of a completed company prospectus, seeking venture funding for the project, and participating in an innovative technology forum to present the proposed start-up company to potential investors. Three lecture hours and six laboratory hours a week for one semester. Electrical Engineering 364E and 464S may not be counted by students with credit for 364D, 464H, 464K, or 464R. Prerequisite: Electrical Engineering 364E with a grade of at least C-; one of the following courses with a grade of at least C-: Electrical Engineering 438, $449,445 \mathrm{~L}$ (or 345L), 445S (or 345S), 461L, 462L (or 362L); and consent of instructor.

## E E 366. Engineering Economics I.

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; value of information. Three lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Electrical Engineering 351K.

## E E 366K. Engineering Economics II.

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. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 366 with a grade of at least C-.

## E E 366L. Statistics for Manufacturing.

Statistical analysis applied to the development and control of manufacturing operations; quality control, statistical process control, and design of experiments. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 351 K with a grade of at least C-.

## E E 368L. Power Systems Apparatus and Laboratory.

Fundamentals of power systems emphasized through laboratory experiments; complex power, three-phase circuits, per-unit system, transformers, synchronous machines, transmission line models, steadystate analysis, induction machines, capacitor banks, protective relaying, surge arrestors, and instrumentation. Three lecture hours and three laboratory hours a week for one semester. Electrical Engineering 368L and 379K (Topic: Power Systems Apparatus and Laboratory) may not both be counted. Prerequisite: Electrical Engineering 411 or 331 with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 369. Power Systems Engineering.

Three-phase power systems, system component models, symmetrical components, and admittance and impedance matrices. Formulation and analysis of loadflow, short circuit, and stability for electric grids. Economic operation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and Electrical Engineering 313 or 331 with a grade of at least C-

## E E 369L. Relay Protection of Power Systems.

Theory, principles, and practices for protecting medium-voltage industrial power systems and high-voltage transmission grids. Includes symmetrical components; fault calculations and grounding; protection of motors,
generators, cables, and transmission lines; and relay settings, fusing, and coordination of multiple protection devices. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 411 with a grade of at least C-

## E E 370. Automatic Control II.

Introduction to modern control theory, nonlinear and optimal control systems; controllability, observability, stability; state feedback, observers, eigenvalue assignment. Three lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Electrical Engineering 362K.

## E E 370K. Computer Control Systems.

Analysis and design of linear discrete time control systems; z-transform theory; modified z-transforms; stability; multirate systems; digital simulation of discrete time systems; synthesis of algorithms for computer controllers. Three lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Electrical Engineering 362K.

## E E 370L. Introduction to Manufacturing Systems Automation.

Applications of automation techniques to manufacturing systems; robotics and computer vision. Three lecture hours a week for one semester.
Prerequisite: Electrical Engineering 362K with a grade of at least C-.

## E E 370N. Introduction to Robotics and Mechatronics.

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; expert systems. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 362K with a grade of at least C-

## E E 471C. Wireless Communications Laboratory.

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. Three lecture hours and three laboratory hours a week for one semester. Electrical Engineering 371C and 379K (Topic: Wireless Communications Laboratory) may not both be counted. Prerequisite: Electrical Engineering 445 ( or 345S), 351M, or 360K with a grade of at least C-; and credit with a grade of at least C - or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 371D. Introduction to Neural Networks.

Characteristics of artificial neural networks, feedforward networks, and recurrent networks; learning algorithms; self-organization; biological links; data mining and other applications. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 351 K and Mathematics 340 L with a grade of at least C-in each.

## E E 371M. Communication Systems.

Analog and digital modulation; noise in communication systems; signal-to-noise ratio; coding; optimal receiver design; phase-locked loops; and performance analysis. Three lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biomedical Engineering 335 or Electrical Engineering 351K.

## E E 371R. Digital Image and Video Processing.

Digital image acquisition, processing, and analysis; algebraic and geometric image transformations; two-dimensional Fourier analysis;
image filtering and coding. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 335 or Electrical Engineering 351K with a grade of at least C-

## E E 372L. Network Engineering Laboratory.

Local, metropolitan, and wide-area operations; telecommunication common carrier organization and services; administrative and political considerations; premise distribution systems; name resolution, address assignment, and mail; datagrams, 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; local- and wide-area diagnostic tools. The equivalent of three lecture hours a week for one semester. Prerequisite: Electrical Engineering $372 N$ with a grade of at least C-; and credit with a grade of at least Cor registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 372N. Telecommunication Networks.

Circuit and packet-switched networks; local area networks; protocol stacks; ATM and broadband ISDN; Internet; routing, congestion control, and performance evaluation; multimedia applications. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 351 K with a grade of at least C-.

## E E 372S. Cryptography and Network Security.

Distributed information system security; cryptographic tools; authentication; message security; system management. The equivalent of three lecture hours a week for one semester. Prerequisite: Mathematics 325 K or 340 L with a grade of at least C-.

## E E 374K. Biomedical Electronic 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. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 438 with a grade of at least C-.

## E E 374L. Applications of Biomedical Engineering.

An in-depth examination of selected topics in 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; noninvasive cardiovascular measurements. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Electrical Engineering 374K with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

## E E 377E. Interdisciplinary Entrepreneurship: Elective.

Same as Engineering Studies 377E. Restricted to engineering students. 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. The equivalent of three lecture hours a week for one semester. Prerequisite: Consent of instructor.

## E E 679H. 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. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Electrical Engineering 679HA with a grade of at least C - and enrollment in the Engineering Honors Program.

## E E 379K. Topics in Electrical Engineering.

The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## Topic 1: Conference Course.

Topic 15: Information Theory. Measures of information; noiseless coding and data compression; discrete memoryless channels and channel capacity; broadcast channels; error-correcting codes. Additional prerequisite: Electrical Engineering 351 K with a grade of at least C-.
Topic 20: Computer Architecture: Personal Computer Design. Commercial general purpose processors, memory architecture, buses, storage devices, graphics subsystems, I/O devices and peripherals, audio subsystems, operating systems, benchmarking, manufacturing, and testing of personal computer systems. One class meeting may take place outside of normally scheduled class time for a tour of a PC manufacturing site. Additional prerequisite: Electrical Engineering 460N (or 360 N ) with a grade of at least C-.
Topic 21: Information and Cryptography. Information theory; construction of codes; cryptography, including security and randomized encryption; Kolmogorov complexity; statistics, including large deviations, nonparametrics, and information inequalities; VapnikCervonenkis methods for learning theory. Additional prerequisite: Electrical Engineering 351 K with a grade of at least C-.

## Department of Mechanical Engineering

## Mechanical Engineering: M E

## Lower-Division Courses

## M E 302. 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. Two lecture hours and four laboratory hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 302, 210, 210H. Prerequisite: Credit or registration for Mathematics 408C or 408 K (or credit for 308 K ).

## M E 103. 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. Three computer laboratory hours a week for one semester. May not be counted by students with credit for Mechanical Engineering 302, 210, or 210 H . Prerequisite: Consent of the undergraduate adviser.

## M E 205. 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. One lecture hour and three laboratory hours a week for one semester. May not be taken concurrently with Mechanical Engineering 302. Prerequisite: Credit or registration for Mathematics 408C or 408 K (or credit for 308 K ).

## M E 210. 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, computeraided design, rapid prototyping, and manufacturing. Application of the design process to problem solving. Individual and team design projects. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Mechanical Engineering $302,210,210 \mathrm{H}$. May not be counted toward the Bachelor of Science in Mechanical Engineering degree. Prerequisite: Credit or registration for Mathematics 408C or 408K (or credit for 308K).

## M E 210H. 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, computeraided design, rapid prototyping, and manufacturing. Application of the design process to problem solving. Individual and team design projects. One lecture hour and four laboratory hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 302, 210, 210 H . May not be counted toward the Bachelor of Science in Mechanical Engineering degree. Prerequisite: Credit or registration for Mathematics 408 C or 408 K (or credit for 308 K ), and admission to an engineering honors program.

## M E 311. Materials Engineering.

An exploration of fundamental aspects of the structure, properties, and behavior of engineering materials. Three lecture hours a week for one semester. Prerequisite: The following courses with a grade of at least C- in each: Chemistry 301, Mechanical Engineering 302, Physics 303K, 103M; and credit or registration for Mechanical Engineering 111L, Physics 303 L , and 103 N .

## M E 111L. Materials Engineering Laboratory.

Hands-on experiments in materials science and engineering topics and microstructure-property relationships discussed in Mechanical Engineering 311. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Mechanical Engineering 302 with a grade of at least C-, and credit or registration for Mechanical Engineering 311.

## M E 218. 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. One and one-half lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Mathematics 427K and Mechanical Engineering 205 with a grade of at least C- in each.

## M E 318M. 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. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Mathematics 427K with a grade of at least C-.

M E 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## M E 320. Applied Thermodynamics.

First and second laws of thermodynamics; thermodynamic processes, cycles, and heat transfer. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Mechanical Engineering degree. Prerequisite: Chemistry 301, Mathematics 408D, and Physics 303K.

## M E 324. Dynamics.

Analysis of motions, forces, momenta, and energies in mechanical systems. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Engineering Mechanics 306 and Mathematics 408D with a grade of at least C-in each.

## M E 325L. Cooperative Engineering.

This course covers the work period of mechanical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. Only one of the following may be counted: Mechanical Engineering 325L, 362K, 371K, 377K. The student must complete Mechanical Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Mechanical Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Mechanical Engineering 325LY and appointment for a full-time cooperative work tour.

## M E 225M. Cooperative Engineering.

This course covers the work period of mechanical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Mechanical Engineering 225 MA and 225 MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Mechanical Engineering 225MA and appointment for a full-time cooperative work tour.

## M E 125N. Cooperative Engineering.

This course covers the work period of mechanical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Mechanical Engineering 325LZ or 225 MB , application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

## M E 326. Thermodynamics.

Properties, heat and work, first and second laws, thermodynamic processes, introduction to ideal power cycles. Three lecture hours a week for one semester. For some sections, two discussion hours a week are also required. Mechanical Engineering 326 and 326H may not both be counted. Prerequisite: Chemistry 301, Mathematics 408D, and Physics 303 K with a grade of at least C- in each.

## M E 326H. Thermodynamics: Honors.

Properties, heat and work, first and second laws, thermodynamic processes, introduction to ideal power cycles. Three lecture hours a week for one semester. For some sections, two discussion hours a week are also required. Mechanical Engineering 326 and 326 H may not both be counted. Prerequisite: Chemistry 301, Mathematics 408D, and Physics 303 K with a grade of at least C - in each, and admission to an engineering honors program.

M E 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary. May be repeated for credit when the topics vary.

## M E 330. Fluid Mechanics.

Fluid properties, statics, conservation laws, inviscid and viscous incompressible flow, flow in confined streams and around objects. Three lecture hours a week for one semester. Prerequisite: Mathematics 427K, Engineering Mechanics 306, and Mechanical Engineering 326 or 326 H with a grade of at least C - in each; and credit or registration for Mechanical Engineering 130L.

## M E 130L. Experimental Fluid Mechanics.

Experimental design concepts, uncertainty analysis, and systems analysis as applied to thermodynamics, fluid mechanics, and heat transfer systems. One lecture hour and two laboratory hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 330, 333T.

## M E 333H. 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. Two lecture hours and two laboratory hours a week for one semester. Mechanical Engineering 333H and 333T may not both be counted. Prerequisite: Rhetoric and Writing 306 with a grade of at least C-, and admission to an appropriate major sequence in engineering and to an engineering honors program.

## M E 333T. Engineering Communication.

Professional communication skills for engineers, with emphasis on research, writing, and oral presentation on topics of social and technical significance in engineering. Two lecture hours and two laboratory hours a week for one semester. Mechanical Engineering 333H and 333T may not both be counted. Prerequisite: Rhetoric and Writing 306 with a grade of at least C-, and credit or registration for Mechanical Engineering 130L.

## M E 334. Materials Engineering.

Fundamental aspects of the structure, properties, and behavior of engineering materials. Three lecture hours a week for one semester. Prerequisite: The following courses with a grade of at least C- in each:

Chemistry 301, Mechanical Engineering 302, Physics 303K, Physics 103M; and credit or registration for Mechanical Engineering 134L, Physics 303L, 103N, and Engineering Mechanics 319; and admission to an appropriate major sequence in engineering.

## M E 134L. Materials Engineering Laboratory.

Hands-on experiments in materials science and engineering topics and microstructure-property relationships discussed in Mechanical Engineering 334. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Mechanical Engineering 302 with a grade of at least C-, concurrent enrollment in Mechanical Engineering 334, and admission to an appropriate major sequence in engineering.

## M E 335. Engineering Statistics.

Fundamentals of probability, distribution theory, data analysis and statistics, interval estimation, hypothesis testing, and statistical quality control. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Mathematics 408D and Mechanical Engineering 205 or 318 M with a grade of at least C- in each.

## M E 336. Materials Processing.

Effects of processing on materials properties; materials selection. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 334 (or 311) and 134L (or 111L) or the equivalent and Engineering Mechanics 319 with a grade of at least C- in each, concurrent enrollment in Mechanical Engineering 136L, and admission to an appropriate major sequence in engineering.

## M E 136L. Materials Processing Laboratory.

Hands-on study of selected materials processing procedures and processing-microstructure-property relationships discussed in Mechanical Engineering 336. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Mechanical Engineering 111L and Engineering Mechanics 319 with a grade of at least C- in each, concurrent enrollment in Mechanical Engineering 336, and admission to an appropriate major sequence in engineering.

## M E 136N, 236N. Concepts in Nuclear and Radiation Engineering.

Restricted to students in the Colleges of Engineering, Liberal Arts, and Natural Sciences, and the Jackson School of Geosciences. For Mechanical Engineering 136N, one lecture hour a week for one semester; for 236 N , the equivalent of two lecture hours a week for one semester. Prerequisite: Completion of at least thirty semester hours of college coursework, or consent of instructor.

## M E 337C. Introduction to Nuclear Power Systems.

Radioactivity, nuclear interactions: fission and fusion, fission reactors, nuclear power systems, nuclear power safety. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 218 and Physics 303L and 103N with a grade of at least Cin each, and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

## M E 337F. Nuclear Environmental Protection.

lonizing 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. Three lecture hours a week for one semester. May not be counted by students with credit for Mechanical Engineering 337D and 337E. Mechanical Engineering 337F and 389C may not both be counted. Prerequisite: For engineering majors, Physics 303L and 103N
with a grade of at least C - in each and admission to an appropriate major sequence in engineering; for others, upper-division standing.

## M E 337G. Nuclear Safety and Security.

An investigation of policy and technical aspects related to nuclear safety and security. Participants will evaluate the proliferation of risk from facilities within the nuclear fuel cycle. They will calculate the criticality conditions for a nuclear assembly and derive parent/daughter decay equations. Nuclear forensics evaluations will be conducted on real-world environmental measurements. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 337G, 388H, Operations Research and Industrial Engineering 390R (Topic 15: Nuclear Safety and Security). Prerequisite: For engineering majors, Physics 103 N and 303L with a grade of at least C - in each and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 338. 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. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 319 and Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C- in each, and admission to an appropriate major sequence in engineering.

## M E 339. Heat Transfer.

Steady and transient heat conduction; forced and natural convection; radiation; introduction to heat exchangers and applications. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 218 or $318 \mathrm{M}, 330$, and 130 L with a grade of at least C- in each, concurrent enrollment in Mechanical Engineering 139L, and admission to an appropriate major sequence in engineering.

## M E 139L. Experimental Heat Transfer.

Experimental design concepts, uncertainty analysis, and systems analysis as applied to thermodynamics, fluid mechanics, and heat transfer systems. One lecture hour and two laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Mechanical Engineering 339 and admission to an appropriate major sequence in engineering.

## M E 340. 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). Three lecture hours a week for one semester. Prerequisite: Mathematics 408D, Mechanical Engineering 205 or 318 M , and Physics 303 L and 103 N with a grade of at least C- in each, concurrent enrollment in Mechanical Engineering 140L, and admission to an appropriate major sequence in engineering.

## M E 140L. 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. One lecture hour and two laboratory hours a week for one semester. Prerequisite: Mechanical Engineering 205 or 318 M , concurrent enrollment in Mechanical Engineering 340, and admission to an appropriate major sequence in engineering.

## M E 343. 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. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Mechanical Engineering 330, 130L, 339, and 139L with a grade of at least C - in each; and admission to an appropriate major sequence in engineering.

## M E 344. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 427K and Mechanical Engineering 205 or 318 M , and 324 with a grade of at least C- in each; Mechanical Engineering 340 and 140 L or their equivalents with a grade of at least Cin each; concurrent enrollment in Mechanical Engineering 144L or 244L; and admission to an appropriate major sequence in engineering.

## M E 144L, 244L. 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. For 144L, one lecture hour and two laboratory hours a week for one semester; for 244L, one lecture hour and three laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Mechanical Engineering 344, and admission to an appropriate major sequence in engineering.

## M E 347. Processing of Materials.

Analysis of forces in processing operations; effects of friction and their control; metalworking efficiencies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For engineering majors, Mechanical Engineering 334 or the equivalent, and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

Topic 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.
Topic 2: Deformation Processing. Analysis of forces in processing operations; effects of friction and their control; slab method; upperbound force theory; slip-line field theory; metalworking efficiencies.

## M E 348C. Introduction to 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. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 340 or the equivalent and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

## M E 348D. Introduction to 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. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 340 or the equivalent and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

## M E 349. Corrosion Engineering.

Corrosion principles; electrochemical, environmental, and metallurgical effects; types of corrosion; corrosion testing and prevention; modern theories: principles and applications. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C-, Mechanical Engineering 326 (or 326 H ) or the equivalent with a grade of at least C-, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 350. Machine Tool Operations for Engineers.

Hands-on manual and computer-numerical-controlled machine tool operation. Part design and tool selection for production. One lecture hour and six laboratory hours a week for one semester. Mechanical Engineering 350 and 379M (Topic 7: Machine Tool Operations for Engineers) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Admission to an appropriate major sequence in engineering.

## M E 352K. Engineering Computer Graphics.

Introduction to interactive computer graphics as a tool in computer-aided design. Use of graphics software packages. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: For engineering majors, admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 353. 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. Three lecture hours and two discussion hours a week for one semester. Prerequisite: Mathematics 408C, Mechanical Engineering 205 or 318M, and 335 with a grade of at least C - in each.

## M E 354. 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. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mathematics 427 K with a grade of at least C - and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 354M. Biomechanics of Human Movement.

Modeling and simulation of human movement; neuromuscular control; computer applications; introduction to experimental techniques. Three lecture hours a week for one semester. Prerequisite: For engineering majors, admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

## M E 355K. Engineering Vibrations.

Time-domain and frequency-domain analysis of vibrating systems; matrix methods, instrumentation, and vibration control; numerical methods.
Three lecture hours a week for one semester. Prerequisite: Mechanical

Engineering 324 with a grade of at least C-, Mathematics 427 K with a grade of at least C -, and admission to an appropriate major sequence in engineering.

## M E 259, 359. 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. Two or three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 or the equivalent and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

## M E 360. Vehicle System Dynamics and Controls.

Fundamentals of ground vehicle dynamics, tire-road mechanics, vehicle control systems, vehicle stability, and simulation of vehicle systems. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 360, 379M (Topic: Vehicle System Dynamics and Controls), 390, 397 (Topic: Vehicle System Dynamics and Controls). Prerequisite: For engineering majors, upper-division standing, admission to an appropriate major sequence in engineering, and Mechanical Engineering 344 with a grade of at least C-; for others, upperdivision standing and written consent of instructor.

## M E 260K, 360K. 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 solidstate phase transformations. Two or three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C -, and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

## M E 360L. 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. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 330, 130L and 139L, and admission to an appropriate major sequence in engineering.

## M E 360N. Intermediate Heat Transfer.

Multidimensional and transient diffusion; laminar and turbulent convection; radiation exchange; special topics. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 339 and admission to an appropriate major sequence in engineering.

## M E 361E. Nuclear Reactor Operations and Engineering.

Fission and chain reactions; neutron diffusion and moderation; reactor equations; Fermi Age theory; and multigroup and multiregional analysis. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 218 and Physics 303L and 103 N with a grade of at least C- in each, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 361F. 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. Two lecture hours and three
laboratory hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 218 with a grade of at least C-, Physics 303 L and 103 N with a grade of at least C- in each, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 261M, 361M. Materials Thermodynamics.

First and second laws; heat of combustion; heat engine cycles; chemical equilibria and/or phase equilibria; point defects in crystals. Two or three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C-, Mechanical Engineering 326 or 326 H with a grade of at least C-, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 362K. Readings in Engineering.

A study of the interrelated problems of society, technology, and energy. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 325L, 362K, 371K, 377K. Prerequisite: Admission to an appropriate major sequence in engineering.

## M E 363L. 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. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Mechanical Engineering 339, 139L, and admission to an appropriate major sequence in engineering.

## M E 364L. Automatic Control System Design.

Feedback principles; control components; industrial compensators; Routh, Nyquist, Bode, and root locus methods; controller design; continuous and discrete time control. Three lecture hours and one-half laboratory hour a week for one semester. Prerequisite: Mechanical Engineering 344 and admission to an appropriate major sequence in engineering.

## M E 365K. Finite Element Method.

Introduction and application of the finite element method in engineering analysis and design problems; demonstration of techniques using commercial codes. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 319 and Mathematics 427K with a grade of at least C- in each, and admission to an appropriate major sequence in engineering.

## M E 365L. Industrial Design for Production.

Current techniques for making transitions from theoretical concepts to cost effective designs suitable for manufacturing. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 338 and admission to an appropriate major sequence in engineering.

## M E 366J. Mechanical Engineering Design Methodology.

Restricted to students admitted to an appropriate engineering major sequence. An examination of structured methodologies for designing mechanical systems; reverse engineering/redesign projects and conceptual design projects. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Mechanical Engineering 302, 330, $130 \mathrm{~L}, 335,338,339,139 \mathrm{~L}, 340$, and 140L; one of the following with a grade of at least C-: Mechanical Engineering 333H, 333T, Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering

333T, Civil Engineering 333T, Electrical Engineering 333T, or Petroleum and Geosystems Engineering.

## M E 266K. Mechanical Engineering Design Project.

Creative design, analysis, selection, development, and fabrication of engineering components and systems. Development of team project with faculty adviser and sponsoring engineer. Two lecture hours a week for one semester, with additional hours to be arranged. Prerequisite: Mechanical Engineering 344, 144L or 244L, 353, and 366J with a grade of at least C - in each.

## M E 366L. 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. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mathematics 408D and Mechanical Engineering 205 with a grade of at least C- in each, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 266P. Design Project Laboratory.

Development of individual team project in association with faculty adviser and sponsoring project engineer. Four laboratory hours a week for one semester. Prerequisite: Mechanical Engineering 344, 144L or 244L, 353, and 366 J with a grade of at least C - in each.

## M E 366Q. Deterministic Methods for Operations Research.

Theory and algorithms for deterministic operations research methods. Algorithms for solving linear, integer, and nonlinear optimization models. Three lecture hours a week for one semester. Prerequisite: For engineering majors, admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

## M E 366R. 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. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 335 or the equivalent, and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

## M E 367S. Simulation Modeling.

Basic concepts of discrete-event simulation. Statistical input and output analysis. Application of simulation software. Modeling of systems under uncertainty. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 205 with a grade of at least C-, Mechanical Engineering 335 or the equivalent, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 368J. Computer-Aided Design.

Application of computers to design problems and simulation of mechanical systems; creation of interactive special applications programs. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 338 and admission to an appropriate major sequence in engineering.

## M E 369L. 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. Three lecture hours a week for one semester. Aerospace Engineering 347 and Mechanical Engineering 369L may not both be counted. Prerequisite: Credit or registration for Mechanical Engineering 330 and 339 and admission to an appropriate major sequence in engineering.

## M E 369P. 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. Three lecture hours a week for one semester. Prerequisite: For engineering majors, upper-division standing, admission to an appropriate major sequence in engineering, and Mechanical Engineering 318M or the equivalent with a grade of at least C-; for others, upper-division standing and written consent of instructor.

## M E 371K. Legal Aspects of Engineering Practice.

Legal considerations in the practice of engineering; specifications and contracts for equipment and engineering services. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 325L, 362K, 371K, 377K. Prerequisite: Upperdivision standing and admission to an appropriate major sequence in engineering.

## M E 372J. Robotics and Automation.

Component technologies for precision machines based on dynamic modeling and motion programming: cams, linkages, planar manipulators. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 324 and admission to an appropriate major sequence in engineering.

## M E 372M. 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. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 324 and admission to an appropriate major sequence in engineering.

## M E 372N. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and consent of instructor.

## M E 373K. Basic Industrial Engineering.

Design and analysis of production systems, including plant layout and location, material flow, and flexible manufacturing. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 205 or the equivalent with a grade of at least C-, Mechanical Engineering 335 or the equivalent, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 374C. Combustion Engine Processes.

Principles of internal combustion engines, fuels, carburetion, combustion, exhaust emissions, knock, fuel injection, and factors affecting performance. Three lecture hours a week for one semester. Prerequisite:

Mechanical Engineering 339 or consent of instructor, and admission to an appropriate major sequence in engineering.

## M E 374D. 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. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 374C and admission to an appropriate major sequence in engineering.

## M E 374F. 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. Three lecture hours a week for one semester. Prerequisite: For engineering majors, upper-division standing and credit or registration for Mechanical Engineering 339 and 139L with a grade of at least C-in each; for others, upper-division standing and written consent of instructor.

## M E 374L. Design of Thermal Systems.

Methodology and approach to design of thermal energy systems; component and system modeling; optimization, including economic considerations. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 339 or the equivalent, and admission to an appropriate major sequence in engineering.

## M E 374R. Design of Air Conditioning Systems.

Load calculations, design of thermal distribution systems, component selection and control. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 339.

## M E 374S. Solar Energy Systems Design.

Insolation characteristics and measurement, component design, solar energy system modeling, introduction to photovoltaic systems, cost analysis, and case studies. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 339 or the equivalent and admission to an appropriate major sequence in engineering.

## M E 375K. Production Engineering Management.

Introduction to production and inventory models; basic factory dynamics; analysis of variability; push-and-pull production control; sequencing and dispatching. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 205 or the equivalent with a grade of at least C-, Mechanical Engineering 335 or the equivalent, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

M E 177K, 277K, 377K. 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. For 177K, three to five laboratory hours and one consultation hour with the faculty supervisor a week for one semester; for 277 K , five to ten laboratory hours and one consultation hour with the faculty supervisor a week for one semester; for 377 K , ten to fifteen laboratory hours and one consultation hour with the faculty supervisor a week for one semester. Only one of the following may be counted: Mechanical Engineering 325L, 362K, 371K, 377K. Prerequisite: A University grade point average of at least 2.50 and a grade point average in the major of at least 2.50; admission to an appropriate major sequence
in engineering; and approval of project proposal by the faculty committee on individual projects.

## M E 378C. Electroceramics.

Bonding; crystal structures; defects; phase diagrams; glass ceramics; electrical, dielectric, magnetic, and optical ceramics. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C- and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 378K. Mechanical Behavior of Materials.

Elastic deformation; viscoelasticity; yielding, plastic flow, plastic instability, strengthening mechanisms; fracture, fatigue, creep; significance of mechanical properties tests. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 or the equivalent and 134L with a grade of at least C- in each, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 378P. Properties and Applications of Polymers.

Introduction to polymers as structural materials: polymerization, polymer structure, physical and mechanical properties, processing and fabrication. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C-, Mechanical Engineering 326 or 326 H or the equivalent with a grade of at least C -, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 378S. Structural Ceramics.

Powder processing, powder characterization, forming techniques, densification, and development of microstructure; emphasis on understanding materials, selection, and microstructure-mechanical property relationships. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C-, and admission to an appropriate major sequence in engineering; for others, upper-division standing and written consent of instructor.

## M E 679H. 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. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Mechanical Engineering 679HA and enrollment in the Engineering Honors Program.

## M E 179M, 279M, 379M. Topics in Mechanical Engineering.

One, two, or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Admission to an appropriate major sequence in engineering; additional prerequisites vary with the topic and are given in the Course Schedule.

## M E 379N. Engineering Acoustics.

Same as Electrical Engineering 363N. Principles of acoustics, with applications drawn from audio engineering, biomedical ultrasound, industrial acoustics, noise control, room acoustics, and underwater sound. Three lecture hours a week for one semester. Prerequisite: Mathematics 427 K with a grade of at least C-.

# Department of Petroleum and Geosystems Engineering 

## Petroleum and Geosystems Engineering: PGE

## Lower-Division Courses

PGE 301. Engineering, Energy, and the Environment.

Enrollment limited to beginning students in petroleum and geosystems engineering. 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. Two lecture hours and three laboratory hours a week for one semester. May not be counted by students with credit for Petroleum and Geosystems Engineering 102 and 203. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C- or registration for Geological Sciences 401 or 303.

## PGE 305. Energy and the Environment.

The forms of current and potential energy sources, and how these might impact the earth's environment. Three lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in geological sciences, geosystems engineering and hydrology, or petroleum engineering.

## PGE 310. Formulation and Solution of Geosystems Engineering Problems.

Introduction to mathematical equations typically encountered in petroleum and geosystems engineering; methods to solve equations graphically, analytically, and with numerical methods; applications of computers to problem solving. Three lecture hours a week for one semester. Prerequisite: Physics 303K and 103M and credit or registration for Mathematics 427K.

## PGE 312. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Chemistry 302 with a grade of at least C-.

PGE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Upper-Division Courses

## PGE 421K. Physical and Chemical Behavior of Fluids II.

Applications of thermodynamics and physical chemistry to petroleum and geosystems engineering. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Petroleum and Geosystems Engineering 326, and admission to an appropriate major sequence in engineering or consent of instructor.

## PGE 322K. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Engineering Mechanics 306 and Mathematics 427 K with a grade of at least C - in each.

## PGE 323K. Reservoir Engineering I: Primary Recovery.

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. 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. Three lecture hours a week for one semester. Petroleum and Geosystems Engineering 323K and 331 may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following with a grade of at least C-: Petroleum and Geosystems Engineering 310, 326, and registration or credit with a grade of at least C- for 427.

## PGE 323L. Reservoir Engineering II: Secondary and Tertiary Recovery.

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. Introduction to reservoir displacement processes; water and gas injection; enhanced recovery. Three lecture hours a week for one semester. Petroleum and Geosystems Engineering 323 and 323L may not both be counted. Offered on the letter-grade basis only. Prerequisite: Mathematics 427K, Petroleum and Geosystems Engineering 310, 322K, 323K, and 424.

## PGE 323M. Reservoir Engineering III: Numerical Simulation.

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. 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.
Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Petroleum and Geosystems Engineering 323L.

## PGE 424. 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. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: For petroleum engineering majors and geosystems engineering and hydrogeology majors, the following coursework with a grade of least C- in each: Petroleum and Geosystems Engineering 333T and Physics 303L; credit or registration for Petroleum and Geosystems Engineering 322K; and admission to the major sequence; for others, consent of instructor.

## PGE 325L. Cooperative Engineering.

This course covers the work period of petroleum engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Petroleum and Geosystems Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Petroleum and Geosystems Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Petroleum and Geosystems Engineering 325LY and appointment for a full-time cooperative work tour.

## PGE 225M. Cooperative Engineering.

This course covers the work period of petroleum engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for
two semesters. The student must complete Petroleum and Geosystems Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225 MB , Petroleum and Geosystems Engineering 225MA and appointment for a full-time cooperative work tour.

## PGE 125N. Cooperative Engineering.

Covers the work period of petroleum engineering students in the Cooperative Engineering Program. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Petroleum and Geosystems Engineering 325L or 225M, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

## PGE 326. Thermodynamics and Phase Behavior.

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. Basics of phase behavior, classical thermodynamics in terms of material and energy balances, and applications to changes of state of petroleum fluids. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Chemistry 302 with a grade of at least C-, and credit with a grade of at least C- or registration for Mathematics 427 K .

## PGE 427. Properties of Petroleum Fluids.

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. 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. Three lecture hours and three laboratory hours a week for one semester. Petroleum and Geosystems Engineering 312 and 427 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Chemistry 302 with a grade of at least C-, and credit with a grade of at least C- or registration for Petroleum and Geosystems Engineering 326.

## PGE 430. Drilling and Well Completions.

Elements of rock mechanics, drilling fluids, factors affecting rate of penetration, and well completions, including casing and tubing design. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Engineering Mechanics 319 with a grade of at least C-, credit or registration for Petroleum and Geosystems Engineering 322 K , and admission to the major sequence.

## PGE 333T. Engineering Communication.

Advanced technical communication skills, with emphasis on writing strategies for technical documents, oral presentations, and visual aids. Three lecture hours a week for one semester. Prerequisite: Rhetoric and Writing 306 with a grade of at least C-

## PGE 334. Reservoir Geomechanics.

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. 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. Two lecture hours and three laboratory hours a week for one semester. Petroleum and Geosystems Engineering 432 and 334 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Engineering Mechanics 319 and Petroleum and Geosystems Engineering 301 with a grade of at least C- in each.

## PGE 337. Introduction to Geostatistics.

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. Basic probability and statistics, study of correlated variables, statistical interpolation and simulation, and global optimization. Emphasis is on the ways the results of these procedures are related to geology and fluid flow. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Mathematics 408D or equivalent, and Petroleum and Geosystems Engineering 310 with a grade of at least C-in each.

## PGE 361. Advanced Reservoir Engineering.

Secondary recovery methods; computer simulation of reservoir performance; applications to field problems. Three lecture hours a week for one semester. Prerequisite: Petroleum and Geosystems Engineering 326 and 323K (or 331).

## PGE 362. Production Technology and Design.

Restricted to students admitted to major sequence in petroleum engineering. Analysis, specification, and characteristics of production systems; inflow performance; wellbore and tubing hydraulics; and artificial lift. Three lecture hours a week for one semester. Offered on the lettergrade basis only. Prerequisite: Credit or registration for Petroleum and Geosystems Engineering 430.

## PGE 363. Petroleum Leasing Regulations and Practices.

Restricted to students admitted to major sequence in petroleum engineering. Domestic and worldwide regulations associated with petroleum leasing, including offshore areas, and environmental provisions concerning petroleum exploration and production. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Petroleum and Geosystems Engineering 365 or the equivalent.

## PGE 364. 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. Three lecture hours a week for one semester. Prerequisite: For petroleum engineering majors, Petroleum and Geosystems Engineering 326, 323K (or 331), and 362 and admission to the major sequence; for others, upper-division standing and consent of instructor.

## PGE 365. Resource Economics and Valuation.

Restricted to students admitted to major sequence in petroleum engineering. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Petroleum and Geosystems Engineering 310 with a grade of at least C-, and 323K.

## PGE 368. Fundamentals of Well Logging.

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. Principles, applications, and interpretation of well logs as used in exploration and evaluation of subsurface formations. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit for Geological Sciences 316M or 416P, Physics 303L, and 103N with at least a C-; and Petroleum and Geosystems Engineering 424.

## PGE 371. Energy Finance.

Restricted to students admitted to major sequence in petroleum engineering. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Petroleum and Geosystems Engineering 365.

## PGE 372. 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. Three lecture hours a week for one semester. Petroleum and Geosystems Engineering 372 and 379 (Topic: Advanced Drilling and Well Completions) may not both be counted. Prerequisite: Petroleum and Geosystems Engineering 430 and 334 (or 432).

## PGE 373L. Geosystems Engineering Design and Analysis.

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. 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. Three lecture hours a week for one semester, with one additional hour a week to be arranged. Petroleum and Geosystems Engineering 373L and 374 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Petroleum and Geosystems Engineering 323K (or 331), 323L, 362, and 368.

## PGE 176, 276, 376. Special Problems in Petroleum and Geosystems Engineering.

Independent investigation of an advanced subject in petroleum and geosystems engineering, for superior students only. Conference course. Prerequisite: Admission to an appropriate major sequence in engineering and written consent of instructor.

## PGE 377. Deepwater Operations.

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. Overview of various technical, logistical, and managerial elements that are functionally integrated in deepwater operations, with emphasis on applications in the Gulf of Mexico. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Petroleum and Geosystems Engineering 323K, 430, 334, and 362.

## PGE 378. Applied Reservoir Characterization.

Restricted to students admitted to major sequence in petroleum engineering. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Geological Sciences 416M or 316P with at least a C-, and Petroleum and Geosystems Engineering 323K (or 331), and 337.

## PGE 379. Studies in Petroleum and Geosystems Engineering.

Special courses or seminars on recent developments in engineering. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Admission to an appropriate major sequence in engineering or consent of instructor.

Topic 10: Artificial Lift. Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. Life of a well, well testing, gas and plunger lift, progressive cavity pumps, electric submersible pumps, and beam lift. Petroleum and Geosystems Engineering 379 (Topic: Artificial Lift) and 379 (Topic 10) may not both be counted. May be used to fulfill the technical
elective requirement for the Bachelor of Science in Petroleum Engineering degree. Offered on the letter-grade basis only. Additional prerequisite: Petroleum and Geosystems Engineering 430 and 362.
Topic 11: Facilities Management. Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. Petroleum fluid characteristics, process control, separators, metering, produced water, tanks, gas processing, gas compression, and liquid pumps. Petroleum and Geosystems Engineering 379 (Topic: Oil and Gas Production Facilities Design) and 379 (Topic 11) may not both be counted. May be used to fulfill the technical elective requirement for the Bachelor of Science in Petroleum Engineering degree. Offered on the letter-grade basis only. Additional prerequisite: Petroleum and Geosystems Engineering 362.

## PGE 679H. 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. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Petroleum and Geosystems Engineering 679HA and enrollment in the Engineering Honors Program.

# College of Fine Arts 

Douglas Dempster, PhD, Dean<br>Andrew F Dell'Antonio, PhD, Associate Dean for Undergraduate Studies<br>Hunter C March, PhD, Associate Dean for Arts Education<br>D. Rachel Martin, BFA, Assistant Dean<br>http://www.utexas.edu/finearts/

## General Information

## Mission

The College of Fine Arts was established by the state legislature in 1937; in the decades since then, the college has grown with the University to become a leading center for arts study. Both students and faculty members of the College of Fine Arts have regularly received national and international recognition for their achievements; such recognition indicates the degree of academic and artistic excellence to which the college is dedicated.

The College of Fine Arts strives to prepare students for the practice, study, criticism, and teaching of the arts; to lead in developing the arts through research and the creation of new works; and to provide performances and exhibitions that deepen the understanding of the arts, expand audiences, and develop a better quality of life in the University, community, state, and nation. The college prepares students and audiences for the coming decades by emphasizing cultural diversity and technological advancement and by exploring the interrelationships among all the arts.

## Facilities

The Office of the Dean of the College of Fine Arts is located in the E. William Doty Fine Arts Building, at the corner of 23rd and Trinity streets. General inquiries about the college should be directed to this office. The mailing address is The University of Texas at Austin, Office of the Dean, College of Fine Arts, 2305 Trinity Street D1400, Austin TX, 78712.

Within the college are three academic units-the Department of Art and Art History, the Sarah and Ernest Butler School of Music, and the Department of Theatre and Dance. Inquiries about a particular unit should be directed to that unit.

## The Visual Arts Center

The Visual Arts Center (VAC) is a place for the intersection of art education and art innovation, which draws together a uniquely diverse population of students, alumni, faculty, guest artists, and creative voices from around the world. Comprising 25,000 square feet, it is the heart of the Department of Art and Art History at The University of Texas at Austin, providing pivotal exhibition, education, outreach, and research space. Designed by renowned San Antonio architects Lake | Flato, the VAC features state-of-the-art exhibition galleries and community gathering spaces that form the intellectual and emotional center of UT's dynamic arts community.

For more information on the VAC's exhibitions and public programs, please visit http://www.utvac.org.

## Texas Performing Arts

Texas Performing Arts, one of the nation's most well-respected Universitybased arts centers, serves the campus and the Austin community at large through a diverse schedule of world-class performances, educational activities, and collaborative campus and community partnerships.

Texas Performing Arts presents an international season of music, theatre, dance, and conversation as well as the best in touring Broadway and concert attractions. As a university-based arts center, Texas Performing Arts also supports the academic mission of the College of Fine Arts by mentoring students and supporting the performance and research goals of faculty and staff members.

## Computer Facilities

In addition to the computer facilities available to all students at the University, the College of Fine Arts maintains facilities with special hardware and software for its own undergraduate and graduate majors. These include a central computer laboratory and learning resource center located in the Fine Arts Library and media-enhanced classrooms in each of the three academic units, and extensive wireless Internet coverage throughout the college.

Because of the rapidly growing importance of computers in College of Fine Arts curricula, students are strongly encouraged to come to the University with their own computers. Students should contact the area of academic interest for more information.

## Fine Arts Library

Located in the E. William Doty Fine Arts Building, the Fine Arts Library provides a broad range of services and materials for students in art, theatre, dance, and music, as well as audiovisual materials in other subject areas. Services include information and research assistance, instruction in getting the best from library databases including online and full-text journals, circulation and reserves (for checking out items), and media and technology support. The Fine Arts Library is wireless equipped and offers computing hardware and software to support the study of the fine arts. Students may borrow media equipment, including digital cameras and CD players, and reserve seminar and group study rooms. Lockers and carrels are also available. For more information go to: http:// www.lib.utexas.edu/fal/services.html.

The art collection includes materials on most art and design movements and schools, photography, and art education. Artists of most periods and nationalities and studies of their work are represented, as are most media and techniques. Art works on display include a large pre-Columbian pottery collection and modern prints. The digital image collection contains over 60,000 images from art, architecture, the performing arts, and fashion, and is accessible, with a UT EID, at http://dase.laits.utexas.edu.

The music collection includes materials on performance, composition, history, ethnomusicology, music education, and music therapy. Most historical periods and geographical areas are covered in both classical and popular idioms, and while the emphasis is on the Western classical tradition, many other musics are represented. Tens of thousands of scores are available for both study and performance, and over 50,000 CDs are available for listening, as well as musicals, operas, conducting and master classes on DVD.

The theatre and dance collection includes materials on performance, especially play production, theatrical design, playwriting, theatre education, and dance. Materials on other types of theatrical presentations, such as magic, circuses, and pantomime, are also included. The Fine Arts Library holds texts of major plays written in English or translated into English, with contemporary plays collected most heavily. The Perry-Castañeda Library also holds texts of plays in English and other languages, with emphasis on plays as a literary form and on literary criticism.

The audiovisual collection includes documentary and feature films, including popular movies, foreign films, Academy Award winners, and film
festival winners on DVDs, VHS tapes, and streaming online. Other media formats include 16-mm films, interactive media/CD-ROMs, and slides.

Most materials, including CDs and DVDs, can be checked out by anyone with a valid UT EID.

Special collections include materials from the Austin Theatre Alliance -Paramount and State Theatres, and the Historical Music Recordings Collection, which includes over 200,000 items in older formats such as 78 rpm and LP records, and audiocassettes.

## Financial Assistance Available through the College

Students in the College of Fine Arts are eligible for a variety of scholarships and awards. Most scholarship aid in the college is offered through the academic units (art and art history, music, and theatre and dance). For information about scholarship application procedures and deadlines, the student should contact the academic unit of interest.

## Student Services

## Office of the Dean, Student Affairs

In the College of Fine Arts, the Office of the Dean, Student Affairs offers a variety of student services, including general academic advising, maintenance of student records, evaluation of the student's academic standing and progress toward a degree, and information about programs in which students may study abroad. Students should contact the Office of the Dean, Student Affairs for answers to questions about degree requirements or other College of Fine Arts or University policies and regulations. This office is also a good source of general information and referral.

## Academic Advising

Each academic unit in the college (art and art history, music, and theatre and dance) has an undergraduate advising office with a faculty advising coordinator and one full-time staff adviser. Questions about advising policies and procedures should be directed to those offices.

A student enrolled in the College of Fine Arts is required to meet with a designated adviser before registering for any semester or summer session. This meeting must take place during the official advising period, and the student's proposed schedule of classes must be approved by the adviser. Subsequent changes or corrections in the schedule must also have the adviser's approval.

## Career Services

## Career Advising

Fine Arts Career Services, a division of the Office of the Dean, helps fine arts majors explore career options, plan for careers, and develop strategies for seeking jobs upon graduation. More information is available at http://www.utexas.edu/finearts/careers/. Career advising and planning services are also available from the Sanger Learning and Career Center in Jester Center and the Center for Strategic Advising and Career Counseling in the School of Undergraduate Studies.

The University makes no promise to secure employment for each graduate.

## Education Career Services

Education Career Services provides job placement services in educationrelated occupations at the elementary school, secondary school, and college level. Candidates for teacher certification should register with Education Career Services at the beginning of their student-teaching semester. Additional information is available on the Education Career

Services Web site at http://www.edb.utexas.edu/education/edServices/ career/.

## Student Organizations

In each of the units of the College of Fine Arts are various student organizations, including honor societies, professional associations, and service organizations. For information about current organizations and their eligibility requirements, contact the appropriate unit.

The Fine Arts Council is the official student organization of the college.

## Study Abroad

The University offers many opportunities for students to study abroad. Among these is the Learning Tuscany program, which offers instruction by University faculty members at the Santa Chiara Study Center in Castiglion Fiorentino, near Florence. More information is available from the undergraduate advising office in the Department of Art and Art History.

Casa Herrera is a research, conference, and teaching facility located in the heart of Antigua, Guatemala, operated by the Department of Art and Art History. As an extension of the department's Mesoamerica Center, Casa Herrera focuses on the varied and inter-related disciplines that contribute to the study of Pre-Columbian art, archeology, history, and culture.

The Butler School of Music offers an opera program in Salzburg, Austria. More information is available from the undergraduate advising office in the Butler School of Music.

Another international opportunity is the Institute for Digital Performing Arts program, which takes place in Costa Rica during the summer. More information is available from the undergraduate advising office in the Department of Theatre and Dance.

Maymester Abroad courses in fine arts are offered for five weeks in May and June. More information is available from the Study Abroad Office at http://www.utexas.edu/student/abroad/.

## Admission and Registration

## Admission

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. Information about admission to the University is given in General Information (http:// catalog.utexas.edu/general-information/admission).

Within the College of Fine Arts, the departmental advising offices and dean's office provide assistance to students who plan to attend the University. For information about a particular academic area, prospective students should consult the advising office in the Department of Art and Art History, the Butler School of Music, or the Department of Theatre and Dance. They should consult the Office of the Dean, Student Affairs for general information and for answers to questions about degree requirements. Because of the variety of degree options available in the college, prospective students are encouraged to visit the campus and meet with an academic adviser or admissions coordinator. An appointment should be arranged in advance.

## Admission Policies of the College

To major in any field in the College of Fine Arts, a student must be admitted to the University. He or she must also meet the following special requirements.

## Department of Art and Art History

To major in the Department of Art and Art History, a student must have the approval of the Art and Art History Admissions Committee. Information about admission requirements, procedures, and deadlines is available from the undergraduate admissions office in the department or online at https://www.utexas.edu/finearts/aah/admissions/undergraduate

Students admitted to the design major must pass annual performance reviews to continue in the major.

## Sarah and Ernest Butler School of Music

To major in music, a student must pass an audition conducted by the Butler School of Music. At the discretion of the school, a student who fails an audition may be allowed to reaudition at a later date. Information about audition requirements, procedures, dates, and deadlines is available from the undergraduate admissions office in the Butler School or online at http://www.music.utexas.edu/admissions/undergraduate/

## Department of Theatre and Dance

Admission to programs in the Department of Theatre and Dance requires the approval of the Theatre and Dance Admissions Committee. Information about admission requirements, procedures, and deadlines is available from the undergraduate admissions office in the department or online at http://www.utexas.edu/finearts/tad/undergraduate/how-apply

## Transfer

## Internal Transfer

A student may transfer from another division of the University to the College of Fine Arts in accordance with the procedures and policies given in General Information (http://catalog.utexas.edu/general-information/ registration-tuition-and-fees/transfer-from-one-division-to-another-within-the-university). However, a student seeking admission to any department of the college must also satisfy the special admission requirements described above.

## External Transfer

A student who begins study in the fine arts at another institution should consult the transfer adviser in the departmental undergraduate advising office (art and art history, music, theatre and dance) before applying to the University.

## Transfer Credit Evaluation

Most credit accepted from another college or university is evaluated by the Office of Admissions to determine equivalent courses at the University of Texas at Austin. For some transferred courses, especially in the fine arts, credit is accepted but no specific University equivalency is assigned. If, for example, a student has completed twelve semester hours of transferable coursework in studio art at another institution, the Office of Admissions may accept the work only as twelve semester hours of unspecified credit in art. The same will often be true for courses in theatre and dance and music.

Unspecified transfer credit outside the student's major is evaluated by the Office of the Dean, Student Affairs during the degree audit process described in the Degree Audit (p. 222) section. For unspecified transfer credit within the student's major, however, the student must seek a transfer evaluation from the designated adviser in art and art history, music, or theatre and dance. The adviser will identify courses in the major that are equivalent to University courses and forward his or her written recommendation to the Office of the Dean, Student Affairs.

Transfer credit in music performance may not be counted toward a degree in music until the student has completed additional music performance coursework at the University.

## Registration

General Information gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule, published each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and General Information are published on the registrar's Web site, http:// registrar.utexas.edu/.

## Approvals Required

Before registering for any semester or summer session, a student in the College of Fine Arts must obtain written approval of the proposed schedule of classes from his or her designated adviser.

## Prerequisites

The student must also meet the prerequisite for each course in which he or she enrolls. Prerequisites are given in the relevant catalog section and often appear in the Course Schedule. A student who registers for or adds a class without having met the prerequisite may be dropped from the class.

## Fine Arts Registration Requirements

In addition to individual course prerequisites, there are special registration requirements for certain courses and areas of study in the College of Fine Arts.

## Sarah and Ernest Butler School of Music

1. A student with transferred college credit in music theory must take a diagnostic examination in music theory. The results of the examination determine the level of music theory for which the student is advised to register.
2. Before beginning upper-division coursework in the major instrument, students majoring in music performance (including those pursuing the pedagogy option) must pass a full faculty jury examination in the major instrument and must be admitted to upper-division standing in that instrument.
3. Before beginning upper-division coursework in the major area, a student majoring in composition or music studies must obtain the approval of a designated committee composed of faculty members from that major.
4. Fulfillment of the music performance requirement signifies the attainment of a given level of artistic performance, rather than the completion of a specific number of semester hours of credit. At the discretion of the faculty, a student may be required to repeat any course in music performance; in such a case, the course may be repeated for credit. No music performance requirement is fulfilled unless approval of the faculty has been obtained.
5. A student who receives a grade lower than a $C$ - in any music performance course may not register for that course during the next semester or summer session until the requests of other students for such work have been met.
6. A student whose degree plan requires a piano proficiency of Music 210K must continue with group piano classes in consecutive semesters until the requirement is fulfilled. In exceptional cases, a student with permission from the group piano supervisor may enroll in private instruction Piano 201 until the Music 210K proficiency has
been reached. The student may not enroll in private instruction Piano 202 until the Music 210K proficiency has been completed.

## Department of Theatre and Dance

A student must enroll in an appropriate production or performance laboratory course, under the supervision of a Department of Theatre and Dance faculty member, in any semester he or she wishes to participate in a production sponsored by the department. A student majoring in the Department of Theatre and Dance must consult his or her adviser to determine the appropriate course. Nonmajors who wish to enroll in production or performance laboratory courses must consult the undergraduate advising office of the department.

## Academic Policies and Procedures

## Academic Standards

## Class Attendance and Absences

Regular and punctual attendance is required at all classes, laboratories, practice hours, and other activities for which the student is registered.

Absences from scheduled practice hours, rehearsals, and laboratories will be excused only for serious and substantiated reasons, and the final grade in the course may be lowered for unexcused absence. Absence from a theatre, dance, or music rehearsal, crew meeting, or performance may be deemed sufficient reason for giving the student a grade of $F$ for the semester's work in the course concerned.

If an instructor indicates that a student has fallen below a passing grade in a course because of excessive absences, the dean, upon written recommendation of the instructor, may drop the student from that course and assign a grade of $F$ for the semester.

## Special Regulations of the College

## Studio and Design Courses

Students retain copyright to all two-dimensional, three-dimensional, timebased, and electronic artwork created in the Department of Art and Art History; they grant a nonexclusive license to exhibit, display, reproduce, perform, or adapt these works at the discretion of the faculty. Works left in any departmental facility at the end of any semester or summer session may be removed or destroyed at the discretion of the faculty.

## Music Performances

A student majoring in the Butler School of Music must consult his or her faculty adviser before participating in any public performance.

## Honors

## University Honors

The designation University Honors, awarded at the end of each longsession semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered. Criteria for University Honors are given in General Information.

## Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in General Information.

## Special Honors in Art History

The Honors Program in Art History gives outstanding art history majors an opportunity to undertake an advanced research and writing project under the supervision of a faculty member. The notation "Special Honors in Art History" appears on the transcript of each graduate who completes the program.

## Admission to the Program

The honors program is available to qualified art history majors pursuing the degree of Bachelor of Arts in Art. At the beginning of the senior year, an interested art history major should apply to the honors adviser for admission to the program. The criteria for admission are

1. Completion of at least ninety semester hours of college credit.
2. A University grade point average of at least 3.00 .
3. A grade point average of at least 3.50 in all art history courses attempted, both at the University and elsewhere.
4. Completion of at least fifteen semester hours in art history. If the hours in art history were not earned at the University, admission is at the discretion of the honors adviser.
5. Approval of the honors adviser, who is responsible for maintaining the high standards for admission to and completion of the program.

## Graduation with Special Honors in Art History

To complete the program, students must meet the following requirements by the end of the semester in which they graduate.

1. Graduation as an art history major.
2. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.
3. A University grade point average of at least 3.00 .
4. A grade point average of at least 3.50 in all art history courses taken at the University.
5. Completion of Art History 375 with a grade of at least $B$.
6. Approval of the honors adviser.
7. Completion of Art History 379 H with a grade of $A$. This conference course, in which the student researches and writes a thesis, may not be counted toward the minimum number of hours of art history required for the degree.
To enroll in Art History 379H, the student must have the consent of the honors adviser. Consent is based on a written prospectus for the student's honors thesis and a letter of support from the art history faculty member who will supervise the thesis. The prospectus and the letter of support must be submitted to the honors adviser by the end of the semester preceding the semester in which the student plans to take Art History 379H.

The student may develop the honors project and prepare the prospectus either in Art History 376 or in another art history course:
a. With the approval of the honors adviser, the student must complete the independent study course Art History 376 with an art history faculty member who agrees to supervise the student's work. Art History 376 may be counted toward the degree as elective art history credit. The student must earn a grade of at least $B$ in order to progress to Art History 379H.
b. The student may also base the prospectus on a project undertaken in another art history course in which he or she earned a grade of at least $B$.
8. Submission of a departmental honors degree audit application to the Office of the Dean of the College of Fine Arts. This degree audit application may be submitted when the student is admitted to the
honors program; it must be on file when the student applies for graduation. Failure to meet this requirement will preclude graduation with special honors in art history.

## Certificate of Recognition in Music Performance

This certificate is offered to encourage undergraduate music students who are not music performance majors to pursue the intensive study of their instrument beyond the minimum requirements for their degree. The area of performance is indicated on the certificate.

## Eligibility

To apply for a Certificate of Recognition in Music Performance, a student must be enrolled as an undergraduate music major pursuing the Bachelor of Music degree or the Bachelor of Arts in Music degree. He or she must be enrolled in principal instrument course 260.

## Procedure

A student who meets the eligibility criteria must submit a petition to the appropriate music performance jury for permission to audition before the Butler School of Music faculty-that is, to perform at a full faculty jury examination. This petition may be submitted during any semester in which the student is enrolled in principal instrument course 260. Ordinarily, the student may not audition for the full faculty before the conclusion of his or her second semester of principal instrument course 260 . If the petition is approved, the student may audition at a full faculty jury examination.

If the student obtains approval at the full faculty jury examination, then he or she must present a certificate recital during the following academic year. The student may also enroll in Music 420R rather than principal instrument course 260 for the semester in which the certificate recital is to be given. A certificate recital must be equivalent to the junior recital required of a performance major and must offer a repertoire equivalent to that of an upper-division performance major. The recital is heard by the faculty of the student's principal instrument, who vote to approve or disapprove the granting of a Certificate of Recognition in Music Performance. If approval is given by the division faculty, the certificate is issued by the Butler School and signed by both the student's music performance instructor and the director of the school.

## Graduation

## Special Requirements of the College

All students must fulfill the general requirements (p.17) for graduation. Students in the College of Fine Arts must also fulfill the following requirements.

## Residence

See the University-wide general requirements (p. 17) on coursework to be taken in residence. Unless an exception is approved by the adviser and the dean, a student in the College of Fine Arts must also complete in residence the last eighteen semester hours in the major subject that are counted toward the degree.

## Grade Point Average

All University students must have a grade point average of at least 2.00 to graduate. In addition, a student in one of the following majors must meet special grade point requirements.

## Studio Art

A student majoring in studio art must have a grade point average of at least 2.50 for all upper-division studio art courses taken in residence at the University.

## Design

A student majoring in design must have a grade point average of at least 2.50 for all upper-division design courses taken in residence at the University.

## Art History

A student majoring in art history must have a grade point average of at least 2.50 for all upper-division art history courses taken in residence at the University

## Bachelor of Arts in Music

A student pursuing the Bachelor of Arts in Music must have a grade point average of at least 2.50 in all upper-division courses in the Butler School of Music (excluding ensemble) taken in residence at the University.

## Bachelor of Arts in Theatre and Dance

A student pursuing the Bachelor of Arts in Theatre and Dance must have a grade point average of at least 2.50 in all upper-division courses in the Department of Theatre and Dance.

## Teacher Certification in Art, Theatre Arts, Dance, or Music

A student pursuing teacher certification must meet certain grade point average requirements during the course of the certification program. For information, consult the teacher certification officer, College of Education.

## Butler School of Music Special Requirements Ensemble Requirement

Ensembles that may be used to fulfill the following requirements are designated by the Butler School. For information, the student should contact the undergraduate advising office of the school. With the approval of the designated adviser, a student may enroll in more than one ensemble in a semester, but no more than one ensemble a semester may be used to fulfill this requirement.

## Bachelor of Music

Students seeking the Bachelor of Music must complete in residence at least eight long-session semesters of approved ensemble. Transfer students must complete an approved ensemble each long-session semester in residence until they have met the ensemble requirement or until they graduate, whichever comes first. A transfer student may count toward this requirement two semesters of transferred ensemble approved by the Butler School.

The ensemble requirement is waived for music studies majors during the student teaching semester.

## Bachelor of Arts in Music

Students seeking this degree must complete in residence at least four long-session semesters of ensemble approved by the Butler School. Transfer students must complete an approved ensemble each longsession semester in residence until they have completed four semesters of ensemble or until they graduate, whichever comes first. A transfer student may count toward this requirement one semester of transferred ensemble approved by the Butler School.

## Recital Requirement for Music Studies Majors

Before the end of his or her last semester of study on the principal instrument, a music studies major must present either the recital required for a Certificate of Recognition in Music Performance (p. 221) or a community performance approved by the music studies faculty and the student's instructor in the principal instrument.

## Degree Audit

At registration periods, each student normally receives an advising audit that summarizes his or her progress toward a degree. An official degree audit, however, is the required statement from the Office of the Dean, Student Affairs of the student's official standing in a College of Fine Arts degree program

Official degree audits are printed and reviewed by the Office of the Dean, Student Affairs for students with a major in the College of Fine Arts who have completed at least sixty semester hours of coursework. The degree audit is mailed to the student, and the student is advised to retain this official degree audit for his or her records. If a student changes his or her catalog, principle instrument, major, or any degree option that affects the requirements of his or her degree program, a new official degree audit will be printed, reviewed, and mailed to the student.

The official degree audit provides an accurate statement of the requirements, but the student is responsible for meeting all deadlines, knowing the requirements, and registering for courses that fulfill all the requirements for the degree as stated in a catalog under which he or she is entitled to graduate. Before registering, the student should seek an official ruling from the Office of the Dean, Student Affairs if in doubt about any requirement.

## Applying for Graduation

In the semester or summer session in which the degree is to be conferred, the candidate must be registered at the University and must file a graduation application form with the Office of the Dean, Student Affairs. This should be done at the beginning of the semester in which the student intends to graduate; it must be done by the deadline to apply for an undergraduate degree, which is given in the official academic calendar. No degree will be conferred unless the graduation application form has been filed on time.

An official degree audit must be on file when the student submits the graduation application. Because the application process includes a review of all remaining degree requirements, candidates for graduation are encouraged to apply as early in the semester as possible. A student who applies for graduation but does not receive the degree must submit a new application in the semester he or she subsequently intends to graduate.

The student must be registered at the University for the semester or summer session in which the degree is to be granted. This requirement may be fulfilled by registering for courses in residence or by registering in absentia. For information about registration in absentia, the student should consult the Office of the Dean, Student Affairs no later than the second week of the semester in which he or she intends to graduate.

Credit received by examination, correspondence, or transfer does not fulfill the residence requirement. Students planning to receive credit by any of these means must consult the Office of the Dean, Student Affairs before the semester in which they intend to graduate for a ruling about whether the credit may be applied toward the degree and for information about the procedures and deadlines involving credit by examination, correspondence, and transfer.

No degree will be conferred unless all requirements have been fulfilled and all deadlines met.

## Teacher Certification

To be recommended for a certificate to teach in Texas public schools, an undergraduate or graduate student must complete a University of Texas at Austin approved program for teacher preparation. The University maintains approved programs for art, theatre arts, dance, and music, and students interested in one of these teaching areas ordinarily pursue the degree program in visual art studies, theatre studies, dance, or music studies. Students seeking teacher certification must be approved by the College of Education for the Professional Development Sequence (PDS). In addition, they must complete additional state exams/requirements. See State Board for Educator Certification (SBEC) at http://www.tea.state.tx.us for details.

## Degrees and Programs

## Degrees Offered

The College of Fine Arts offers a wide variety of degree programs. For undergraduate students who seek professional training in the arts or who feel the need for intensive training in their chosen art, the college offers the degrees of Bachelor of Fine Arts and Bachelor of Music. These degrees require that approximately two-thirds of the coursework be completed in the major area.

The student who wants a broad education with an emphasis in the arts may pursue the degree of Bachelor of Arts in Art, Bachelor of Arts in Music, or Bachelor of Arts in Theatre and Dance. These degrees require that approximately a third of the coursework be completed in the major area.

## Department of Art and Art History

The Department of Art and Art History offers academic programs in art history, design, studio art, and visual art studies.

The study of art history embraces a wide range of objects: paintings, drawings and prints of all kinds, including photographs and film; sculpture; buildings and their grouping into towns and cities; graves and tombs; gardens; books and manuscripts; objects made of precious stones and metals; performance; in short, all visual and material culture. There is a full range of art history instruction in ancient, medieval, Renaissance, baroque, modern, and contemporary art, as well as in the art from nonWestern areas (African, Asian, Islamic, Central and Latin American, Mesoamerican, Native American, and Oceanic).

Design as a complex cultural activity expresses the ideas and values of society while it contributes to the formulation of those ideas and values. Students in design focus on the connection between design and related disciplines, emphasizing the relationships the designer shares with others. Through in-depth investigation of social, cultural, technological, and aesthetic dimensions of design, students have the opportunity to increase their cognitive skills; develop critical analytical, research, and organizational skills; and gain facility with the technologies of design. The goal of the nontraditional design program is to encourage students to use the design process as a method of understanding their culture and to effectively articulate this understanding to others.

The purpose of the studio art program is to transmit a solid foundation in a wide range of studio practices by providing students with experiences in historical and theoretical models and by providing a vocabulary to understand and engage in art's critical discourse. Studio art instruction is given in drawing and painting (contemporary and historical practices), photography (black/white and digital), printmaking (intaglio, lithography,
serigraphy), sculpture (casting, hot and cold fabrication, installation), and transmedia (digital-time art, video art, performance art). Through an exploration of the ideas and forms at the leading edge of knowledge, our students develop the capacity for experimentation and invention to create new forms of studio art.

Art educators believe that art is an essential component of all societies and that an education is not complete without knowledge of art's history, purpose, function, and techniques. Visual art studies prepares students to strengthen art education in schools and communities through instruction in art criticism, philosophy, and current trends in art education, with art education history, philosophy, student development, teaching strategies, standards, objectives, and evaluation procedures. Field observations and practical classroom teaching are required of all students in our programs and leads to art teacher certification for early childhood through grade twelve.

The University's extensive resources for art research include the Fine Arts Library, the Blanton Museum of Art, the Perry-Castañeda Library, and specialized collections such as the Harry Ransom Center, the Classics Library, the Architecture and Planning Library, and the Benson Latin American Collection. While at the University, students also have access to the large permanent collection and traveling exhibitions.

Programs of study leading to the following undergraduate degrees are offered in the Department of Art and Art History:

- Bachelor of Arts in Art

Art history
Studio art

- Bachelor of Fine Arts

Design
Studio art
Visual art studies
Students who plan to pursue certification to teach art in Texas public schools should follow the visual art studies program.

## Sarah and Ernest Butler School of Music

Through professional education of the highest caliber, the Butler School of Music prepares students for productive careers as performers, teachers, composers, and scholars, and for satisfying lives as informed and responsible members of a democratic society. In accordance with the University's mission, the School also seeks to extend the boundaries of knowledge and human experience through research and the creation of new music.

Housed in two connected buildings, the physical facilities of the Butler School include performance spaces in the 700-seat Bates Recital Hall with its world-renowned Visser-Rowland pipe organ, Jessen Auditorium, Recital Studio, and MuCullough Theatre. For special events the school collaborates with Texas Performing Arts for performances in Bass Concert Hall. Other facilities include well-equipped classrooms and faculty studios/ offices, multiple large and small rehearsal halls, electronic music studios, recording studios, 130 practice rooms and modules (including dedicated rooms for organ, harp, and percussion), a music computer lab, chamber music rooms, two digital keyboard labs, and 250 well-maintained pianos. Also available to music students are libraries including manuscripts, rare editions, and performance collections; a Medieval and Renaissance instrument collection; a Javanese gamelan, and a Music Learning Laboratory.

Programs of study leading to the following undergraduate degrees are offered in the Butler School of Music:

- Bachelor of Arts in Music

Emphasis in Music

## Emphasis in Music Business

 Emphasis in Recording Technology- Bachelor of Music

Composition
Jazz (Emphasis in Composition or Performance): Double bass, drum set, guitar, piano, saxophone, trombone, and trumpet
Music performance: Voice, piano, organ, harp, harpsichord, and orchestral instruments
Music studies: Students who plan to pursue certification to teach music in Texas public schools should follow the music studies program.

## Department of Theatre and Dance

The Department of Theatre and Dance affords students opportunities for scholarship and practice in all the principal areas of theatre and dance. Students may choose programs of study leading to a variety of academic and professional goals, including teacher certification in both theatre and dance.

The facilities of the department are among the best available to university programs in the United States. In addition to the performance areas, studios, and shops of Texas Performing Arts, the department has the B. Iden Payne Theatre, the Oscar Brockett Theatre (a flexible space black box theatre), a 130-seat laboratory theatre, an extensive costume collection, four dance studios, a drafting studio, a design studio as well as numerous classrooms and rehearsal studios in the F. Loren Winship Drama Building. The Department also has a vital connection to the film and TV studios of the College of Communications, including collaborative courses with the Department of Radio-Television-Film. Of special interest to students pursuing theatre research is the Performing Arts Collection, housed in the Harry Ransom Humanities Research Center, which contains one of the world's most important collections of theatre material.

Programs of study leading to the following undergraduate degrees are offered in the Department of Theatre and Dance:

- Bachelor of Arts in Theatre and Dance
- Bachelor of Fine Arts


## Acting

Dance
Students who plan to pursue certification to teach dance in Texas public schools should follow the dance studies option under the dance program. Theatre studies
Students who plan to pursue certification to teach theatre arts in Texas public schools should follow the theatre studies program.

## Applicability of Certain Courses Physical Activity Courses

Physical activity courses (PED) are offered by the Department of Kinesiology and Health Education. A limited number of these courses may be counted as electives toward degrees in the College of Fine Arts, but only at the discretion of the dean. All physical activity courses are counted among courses for which the student is enrolled, and the grades are included in the grade point average. For further information, contact the Office of the Dean, Student Affairs.

## Bible Courses

Bible courses may be counted as lower-division electives in College of Fine Arts degree programs that have room for such electives. No more than twelve semester hours of such work may be counted toward any degree offered by the University.

## Courses Taken on the Pass/Fail Basis

Regulations concerning courses taken on the pass/fail basis are given in General Information (http://catalog.utexas.edu/general-information). For most degree programs in the College of Fine Arts, a very limited and restricted amount of coursework may be taken on the pass/fail basis. To be assured that a course taken on this basis will apply to the degree, the student must consult the Office of the Dean, Student Affairs before enrolling in the course.

## Credit by Examination, Correspondence, and Transfer

Credit that a student in residence earns by examination, correspondence, or extension will not be counted toward a degree in the College of Fine Arts unless specifically approved in advance by the dean.

Credit that the student earns at another institution while enrolled in residence at the University also will not be counted toward a degree in the college unless approved in advance by the dean.

A student planning to take coursework at another institution while not enrolled in residence at the University should also seek a ruling from the Office of the Dean, Student Affairs as to whether the credit may be applied toward a degree and for information about procedures and deadlines. This ruling should be obtained before registering for the coursework.

No more than 10 percent of the semester hours required for any degree offered in the College of Fine Arts may be completed by correspondence.

## Bachelor of Fine Arts

## Core Curriculum

All students must complete the University's core curriculum (p. 20). The specific requirements for the Bachelor of Fine Arts consist of prescribed work, major requirements, and electives. In some cases, a course required for a major in the Bachelor of Fine Arts (BFA) may also be counted toward the core curriculum; these courses are identified below.

## Studio Art Major

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with a global cultures flag, one course with a cultural diversity flag, one course with an ethics and leadership flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Studio art: Sixty semester hours, consisting of
a. Studio Art 303K, 303L, 304K, and 304L
b. Twelve semester hours, consisting of three hours from each of the following four areas:
i Area A: Drawing, life drawing, painting
ii Area B: Intaglio, lithography, photography, serigraphy
iii Area C: Digital-time art, performance art, video art iv Area D: Ceramics, metals, sculpture
c. Thirty-six additional semester hours of studio art, of which at least twenty-four hours must be upper-division
2. Art history: Twelve semester hours, consisting of
a. Art History 302 and 304
b. Six semester hours of upper-division coursework in art history, three semester hours of which may also be counted toward the visual and performing arts requirement of the core curriculum

## Electives

Six semester hours chosen from courses either within or outside the Department of Art and Art History. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BFA with a major in studio art: 120 semester hours as outlined above.

## Design Major

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with a global cultures flag, one course with a cultural diversity flag, one course with an ethics and leadership flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Studio art: Twelve semester hours, consisting of Studio Art 303K, 303L, 304K, and 304L.
2. Design: Forty-five semester hours, consisting of
a. Design 370 with a grade of at least $C$ and approval of the design faculty
b. Design 371 with a grade of at least $C$ and approval of the design faculty
c. Thirty-nine additional hours of design, of which at least twenty-four must be upper-division
3. Art history: Twelve semester hours, consisting of
a. Art History 302 and 304
b. Six semester hours of upper-division coursework in art history, three semester hours of which may also be counted toward the visual and performing arts requirement of the core curriculum

Approval of the design faculty is required before the student may begin upper-division design courses. A student with transfer credit in design must have approval of the design faculty before taking upper-division design courses at the University.

## Electives

Nine semester hours chosen from courses either within or outside the Department of Art and Art History. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BFA with a major in design: 120 semester hours as outlined above.

## Visual Art Studies Major

The major in visual art studies is a preprofessional academic program recommended for students seeking teacher certification (early childhood through grade twelve) in art or planning to pursue undergraduate or
graduate training for visual art careers in community art programs. Students seeking teacher certification must adhere to current state requirements in addition to the degree requirements described in this catalog. Students should contact the College of Education for current state certification requirements.

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with a global cultures flag, one course with a cultural diversity flag, one course with an ethics and leadership flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Studio art: Thirty-six semester hours, consisting of
a. Studio Art 303K, 303L, 304K, and 304L
b. Twelve semester hours, consisting of three hours from each of the following four areas:
i Area A: Drawing, life drawing, painting
ii Area B: Intaglio, lithography, photography, serigraphy
iii Area C: Digital-time art, performance art, video art iv Area D: Ceramics, metals, sculpture
c. Twelve additional semester hours of coursework in studio art, all of which must be upper-division
2. Art history: Twelve semester hours, consisting of
a. Art History 302 and 304
b. Six semester hours of upper-division coursework in art history, three semester hours of which may also be counted toward the visual and performing arts requirement of the core curriculum
3. Visual art studies: Twelve semester hours of coursework in visual art studies

## Minor

Twelve semester hours approved by the visual art studies adviser.

## Approved Electives

Six semester hours of coursework approved by the visual art studies adviser. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BFA with a major in visual art studies: 120 semester hours as outlined above.

## Theatre Studies Major

The major in theatre studies is a preprofessional academic program recommended for students seeking teacher certification in theatre arts. Students seeking teacher certification must adhere to current state requirements in addition to the degree requirements described in this catalog. Students should contact the College of Education for current state certification requirements.

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag
requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Theatre and dance core: Eighteen semester hours, consisting of Theatre and Dance 311, 313C, 314C, 314P, 317C, and 317D
2. Theatre studies emphasis: At least thirty-three semester hours, consisting of
a. Acting and directing: Theatre and Dance 313D, 323C, and 323D
b. Design and technical production: Theatre and Dance 314M; and nine semester hours chosen from topics of Theatre and Dance 354 T , including one course in each of the following three areas: costume, lighting, and scenery
c. Theatre studies: Theatre and Dance 326C, 326D, and 326E
d. Theatre and Dance 351T (Topic: Creative Drama II)
3. Nine additional semester hours of coursework in theatre and dance, of which at least six hours must be upper-division, with no more than three hours in production courses

## Approved Electives

Eighteen semester hours of coursework approved by the theatre studies adviser. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BFA with a major in theatre studies: 120 semester hours as outlined above.

## Dance Major

The option in Dance Studies is a preprofessional academic program recommended for students seeking teacher certification in dance. Students seeking teacher certification must adhere to current state requirements in addition to the degree requirements described in this catalog. Students should contact the College of Education for current state certification requirements.

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Theatre and dance core: Fifteen semester hours, consisting of Theatre and Dance 311, 312M, 314P, 317M, and 317N
2. Dance technique:
a. Contemporary dance technique: Twelve semester hours, consisting of two semesters of Theatre and Dance 312C and two semesters of 312D
b. Ballet technique: Twelve semester hours, consisting of two semesters of Theatre and Dance 312F and two semesters of 312G
3. Movement composition: Theatre and Dance 312N
4. Dance performance and repertory: Two semesters of Theatre and Dance 222P
5. Somatics/anatomy: Four semester hours, consisting of Theatre and Dance 112 and 352
6. Dance emphasis: Eleven semester hours, consisting of Theatre and Dance 332M, 332N, 232P, and 332R
7. Option in either Dance or Dance Studies:
a. For Option in Dance: Twenty-two semester hours, consisting of two semesters of Theatre and Dance 322E, two semesters of 322J, and ten semester hours chosen from 212P, 112T, 212T, 312T, 232Q, 332S, 152T, 252T, and 352T
b. For Option in Dance Studies: Twenty-one semester hours, consisting of three semesters of Theatre and Dance 352T and twelve hours of approved electives

To fulfill the degree requirements in dance technique, the student must achieve a suitable level of proficiency and obtain the approval of the dance faculty. At the discretion of the dance faculty, a student may be required to repeat specific dance technique courses in addition to those required for the degree. The student must be registered for dance technique each long-session semester in residence. To continue in this degree program, the student must pass an annual evaluation by the dance faculty. Students whose progress in dance technique is judged unsatisfactory by the faculty will be dismissed from the program.

## Electives

Elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Requirements

For the BFA with a major in dance: at least 124 or 125 semester hours as outlined above.

## Acting Major

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Theatre and dance core: Eighteen semester hours, consisting of Theatre and Dance 311, 314M, 314P, 317C, 317D, and 324P
2. Acting Emphasis: At least forty-eight semester hours, consisting of
a. Lower-division acting emphasis: Theatre and Dance 313C, 313D, 313E, 313F, 313G, 313K, 313L, 313M, and 313N
b. Upper-division acting emphasis: Theatre and Dance 323F, 323G, 321P or 323P, 353C, 353D, 353Q, and 353K or 353T

## Approved Electives

Twelve semester hours of approved electives within the Department of Theatre and Dance chosen from the following:

1. Industry Internship: Theatre and Dance 372, 672, or 972
2. Theatre and Dance 353E, 353R, 353T, or additional upper-division semester hours in the Department of Theatre and Dance approved by the acting adviser

## Total Minimum Requirements

For the BFA with a major in acting: at least 120 semester hours as outlined above.

## Bachelor of Music

## Core Curriculum

All students must complete the University's core curriculum (p. 20). The specific requirements for the Bachelor of Music consist of prescribed work, major requirements, and electives. In some cases, a course required for a major in the Bachelor of Music (BMusic) may also be counted toward the core curriculum; these courses are identified below.

## Voice Performance Major

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Performance: Twenty-six semester hours, consisting of four semesters of Voice 210, two semesters of Voice 362, Music 420R, Music 460R, Music 210 K and approval of the faculty, and Music 223J
2. Music literature and music theory: Music $605,411,612,313 \mathrm{M}, 313 \mathrm{~N}$, 321J, 330L, and three hours chosen from Music 334, 337, 342, 343J, and 379K
3. Diction: Music 111E, 311F, 311G, and 311J
4. Music pedagogy: Music 460PA
5. Music ensemble: Two semesters of Ensemble 103P and at least eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 221)

When taken in residence, Music 313M may also be counted toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 may also be used to fulfill the visual and performing arts requirement of the core curriculum.

## Electives

Two semester hours chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in voice performance: 120 semester hours as outlined above.

## Piano Performance Major Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Performance: With the recommendation of the faculty, given in advance, students may choose either of the following two options.
a. Normally suggested for students who wish to emphasize performance: Thirty-two semester hours, consisting of four semesters of Piano 312, two semesters of 362, Music 420R, 460P, 460R, and 222J or 223J
b. Normally suggested for students who wish to emphasize pedagogy: Thirty-two semester hours, consisting of four semesters of Piano 312, two semesters of 260, 362, Music 460P, 460R, 366P, and 222J or 223J
2. Music literature and music theory: Music 605, 411, 612, 313M, 313N, $321 \mathrm{~J}, 325 \mathrm{M}$, and 330 L ; two semesters of 259 N ; and three hours chosen from 334, 337, 342, 343J, and 379K
3. Music ensemble: Eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 221)

When taken in residence, Music 313M may also be counted toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 may also be used to fulfill the visual and performing arts requirement of the core curriculum.

## Electives

Three semester hours to be chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in piano performance: 120 semester hours as outlined above.

## Organ or Harpsichord Performance Major Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Performance: Twenty-eight semester hours, consisting of four semesters of major instrument course 312, two semesters of major instrument course 362, Music 420R, 460R, and 222J or 223J
2. Music literature and music theory: Music 605, 411, 612, 313M, 313N, $321 \mathrm{~J}, 325 \mathrm{~L}, 325 \mathrm{M}, 330 \mathrm{~L}$, and three semester hours chosen from 334, $337,342,343 \mathrm{~J}$, and 379 K
3. Music ensemble: Two semesters of Music 259 N and eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 221)

When taken in residence, Music 313M may also be counted toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 may also be used to fulfill the visual and performing arts requirement of the core curriculum.

## Electives

Four semester hours chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in organ or harpsichord performance: 120 semester hours as outlined above.

## Harp Performance Major

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Performance: Twenty-eight semester hours, consisting of four semesters of Harp 312, two semesters of 362, Music 420R, 460R, and 222J
2. Music literature and music theory: Music 605, 411, 612, 313M, 313N, 321 J , and 330L; three semester hours chosen from Music 334, 337, $342,343 \mathrm{~J}$, and 379 K ; and two courses chosen from the following: Music 214C, 325L, 325M, 226J, and 226K
3. Music ensemble: Two semesters of Music 259 N and eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 221)

When taken in residence, Music 313M may also be counted toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 may also be used to fulfill the visual and performing arts requirement of the core curriculum.

## Electives

Four to six semester hours to be chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in harp performance: 120 semester hours as outlined above.

## Orchestral Instrument Performance Major

This program is offered in the following instruments: violin, viola, violoncello, double bass, flute, oboe, clarinet, bassoon, saxophone, trumpet, French horn, euphonium, trombone, tuba, percussion, and guitar.

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Performance:
a. Thirty semester hours, consisting of four semesters of major instrument course 312, two semesters of major instrument course

362, Music 420R, 460R, 222J, and 210K, and approval of the faculty
b. For violin majors, proficiency in viola equivalent to Viola 201 and approval of the faculty
c. For euphonium majors, proficiency in trombone equivalent to Trombone 201 and approval of the faculty
2. Music literature and music theory:
a. Music $605,411,612,313 \mathrm{M}, 313 \mathrm{~N}, 321 \mathrm{~J}, 226 \mathrm{~J}$, and 330 L
b. Two semesters of either Music 259 N or 259P
c. One of the following options, chosen with the consent of the undergraduate adviser:
i Two additional semesters of Music 259N or 259P
ii One semester of Music 334, 342, or 379K
d. Music $334,337,342,343 \mathrm{~J}$, or 379 K
3. Music ensemble: Eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 221)

When taken in residence, Music 313M may also be counted toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 may also be used to fulfill the visual and performing arts requirement of the core curriculum.

## Electives

Two or three semester hours chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in orchestral instrument performance: 120 semester hours as outlined above.

## Jazz Major

This program is offered in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, and trumpet.

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Music literature and music theory: Music $605,411,612,313 \mathrm{M}, 313 \mathrm{~N}$, Music 321J, 226J, 228G, 228J, 228L, 328M, 330L, 343J, and Music Recording Technology 316M; majors and principals in instruments other than piano must also complete Music 228K.
2. Music ensemble: Eight semester hours of music ensemble courses as explained in Butler School of Music Special (p. 221) Requirements (p. 221)
3. For concentration in performance:
a. Piano: Twenty-four semester hours, consisting of three semesters of Piano 212, two semesters of 212J and approval of the faculty, two semesters of 362J, and Music 420J and 460J
b. Drum set: Twenty-four semester hours, consisting of two semesters of Percussion 212, two semesters of Drum Set 212J and approval of the faculty, two semesters of 362J, Music 210 J and approval of the faculty, and 420 J and 460 J
c. Other instruments: Twenty-four semester hours, consisting of two semesters of major instrument course 212, two semesters of major instrument course 212J and approval of the faculty, two semesters of major instrument course 362J, Music 420J and 460 J , and 210 J and approval of the faculty
4. For concentration in composition:
a. Piano: Twenty-five semester hours, consisting of Music 214C and three semesters of 228P, three semesters of Piano 210, two semesters of 212 J and approval of the faculty, one semester of 362J, and Music 420J
b. Other instruments: Twenty-five semester hours, consisting of Music 214C and three semesters of 228P, two semesters of principal instrument course 210, two semesters of principal instrument course 212 J and approval of the faculty, one semester of principal instrument course 362 J , Music 420 J , and 210 J and approval of the faculty

Each student must also complete a recital of compositions and/or arrangements. This recital is given in the senior year and must be approved by the jazz faculty

When taken in residence, Music 313M may also be counted toward the three-semester-hour writing flag portion of the core curriculum English composition requirement.

## Electives

For emphasis in performance: two to four semester hours chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

For emphasis in composition: one to three semester hours chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in jazz: 120 semester hours as outlined above.

## Composition Major

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Performance: At least fourteen semester hours, consisting of four semesters of principal instrument course 210, two semesters of principal instrument course 260 and approval of the faculty, and Music 222J or 223J. Proficiency in Piano 202, second semester, and approval of the faculty are required if the principal instrument is not piano.
2. Music literature and music theory: Music $605,411,612,313 \mathrm{M}, 313 \mathrm{~N}$, 321J, 325L, 325M, 226J, 226K, 330L, 164L, and three semester hours chosen from 334, 337, 342, 343J, and 379K.
3. Composition: Music 214C, two semesters of 224G, at least two semesters of 224 J and approval of the music theory and composition
faculty, 329E, and 329G. Fulfillment of this requirement signifies the completion of original compositions of a quality and a quantity sufficient to present the composition recital described below. At the discretion of the music theory and composition faculty, a student may be required to complete more than two semesters of Music 224J.
4. Recital: Music 160C. Upon approval of the music theory and composition faculty, a composition major must present a recital of his or her works. The recital must be approximately thirty minutes in length and must consist of works approved by the student's composition instructor. It is normally given during the student's last semester of Music 224J. It is graded by a jury of designated music theory and composition faculty members. The student must receive from the jury an average grade of at least $B$-for the recital; if the average grade is less than $B$-, the student, upon approval of the music theory and composition faculty, must present another composition recital.
5. Music ensemble: Eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 221).

When taken in residence, Music 313M may also be counted toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 may also be used to fulfill the visual and performing arts requirement of the core curriculum.

## Electives

Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in composition: 120 semester hours as outlined above.

## Music Studies Major

The major in music studies is a preprofessional academic program recommended for students seeking teacher certification in music or intending to pursue graduate preparation for careers in areas such as music and human learning, music therapy, music management, music merchandising, music publishing, and community music development. Students seeking teacher certification must adhere to current state requirements in addition to the degree requirements described in this catalog. Students should contact the College of Education for current state certification requirements.

## Prescribed Work

In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.

## Major Requirements

1. Performance: Twelve to fourteen semester hours, consisting of four semesters of principal instrument course 210; two semesters of principal instrument course 260 and approval of the faculty; and Music 210 K , or equivalent proficiency, and approval of the faculty. Music 210 K or equivalent proficiency is required of all music studies majors, regardless of principal instrument. In addition to these requirements, the student must make a recital appearance as described in Butler School of Music Special Requirements (p. 221).
2. Music theory and literature: Music 605, 411, 612, 313M, 313N, and 330L; two semester hours chosen from 226G, 226J, and 226N; and

321J, 334, 337, 342, 343J, or 379K. The choice of upper-division music literature course must be approved by the student's adviser.
3. Conducting: Four semester hours, consisting of either Music 222J and 222 K , or 223 J and 223 K .
4. Choral or instrumental music techniques, literature, and performance practices: Seventeen semester hours in one of the following areas of emphasis.
a. Choral music emphasis:
i Music 354C, 354F, 255V, and 356G.
ii Music 354D or three semester hours approved by the music studies adviser.
iii Two semester hours chosen from Music 255D (strings), 255E (brasses), and 255F (woodwinds).
iv One semester hour chosen from Music 115D (violin), 115E (trumpet), 115F (clarinet), 115G, and 155C. The course used to fulfill this requirement must involve the study of a family of instruments different from that used to fulfill the preceding requirement.
b. Instrumental music emphasis: Music 354C or 354F; 155C, 255D, 255E, 255F, and 356J; and, with the approval of the music studies adviser, four semester hours chosen from 115D, 115E, 115F, and 255M.
5. Music ensemble: Eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements. (p. 221)

When taken in residence, Music 313M may also be counted toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 may also be used to fulfill the visual and performing arts requirement of the core curriculum.

## Approved Electives

Eight to ten semester hours of coursework approved by the music studies adviser. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in music studies: 120 semester hours as outlined above.

## Bachelor of Arts in Art

## Core Curriculum

All students must complete the University's core curriculum (p. 20). The specific requirements for the Bachelor of Arts in Art consist of prescribed work, major requirements, and electives. In some cases, a course required for a major in the Bachelor of Arts in Art (BAArt) may also be counted toward the core curriculum; these courses are identified below.

## Studio Art Major

## Prescribed Work

1. In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with a global cultures flag, one course with a cultural diversity flag, one course with an ethics and leadership flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule (http://registrar.utexas.edu/schedules). They may also be used to fulfill other degree requirements.
2. Foreign language: Six semester hours beyond course $507,508 \mathrm{~K}$, or the equivalent in one foreign language.
3. Social and behavioral sciences: Six semester hours chosen from the following areas: anthropology, economics, geography, government, history, linguistics, psychology, and sociology. A course counted toward this requirement may not also be counted toward any core curriculum requirement.
4. General culture: Three semester hours chosen from the following areas: architecture, classics (including classical civilization, Greek, Latin), comparative literature, humanities, philosophy, and interdisciplinary fields outside the Department of Art and Art History such as American studies, African and African diaspora studies, Asian studies, Latin American studies, Mexican American studies, and women's and gender studies. The student is encouraged to choose coursework of a multicultural nature. Courses outside the Department of Art and Art History that are crosslisted with courses in the department may not be used to fulfill this requirement. A course used to fulfill this requirement may not also be counted toward any core curriculum requirement.
5. Science, technology, and mathematics: Six semester hours of coursework. Courses must be chosen from computer science, mathematics, and the fields of study included in the science and technology, part I, requirement of the core curriculum. A course counted toward this requirement may not also be counted toward any core curriculum requirement.

## Major Requirements

1. Studio art: Thirty semester hours, consisting of Studio Art 303K, 303L, $304 \mathrm{~K}, 304 \mathrm{~L}$, and eighteen additional semester hours of studio art, of which at least twelve hours must be upper-division.
2. Art history: Twelve semester hours, consisting of Art History 302, 304, and six hours of upper-division coursework in art history. Three semester hours of this coursework may also be counted toward the visual and performing arts requirement of the core curriculum.

## Electives

Fifteen semester hours chosen from courses either within or outside the Department of Art and Art History. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BAArt with a major in studio art: 120 semester hours as outlined above.

## Art History Major

## Prescribed Work

1. In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with a global cultures flag, one course with a cultural diversity flag, one course with an ethics and leadership flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule (http://registrar.utexas.edu/schedules). They may also be used to fulfill other degree requirements.
2. Foreign language: Fifteen to nineteen semester hours, consisting of
a. Nine semester hours beyond course $507,508 \mathrm{~K}$, or the equivalent in one foreign language
b. One of the following:
i Six additional hours of upper-division coursework in the foreign language used to fulfill requirement 2 a
ii Up to ten semester hours, consisting of course 506 and either 507 or 508 K , or the equivalent, in a second foreign language
3. Social and behavioral sciences: Six semester hours chosen from the following areas: anthropology, economics, geography, government, history, linguistics, psychology, and sociology. A course counted toward this requirement may not also be counted toward any core curriculum requirement.
4. General culture: Three semester hours in one of the following areas:
a. Architecture
b. Classics, including classical civilization, Greek, Latin (but excluding any courses in Greek or Latin that are used to fulfill the language requirement)
c. Music
d. Philosophy
e. Radio-television-film
f. Theatre and dance
g. Programs of special concentration, such as women's and gender studies and Latin American studies

A course used to fulfill requirement 4 may not also be counted toward any core curriculum requirement.

## Major Requirements

1. Studio Art 303K
2. Art history: Thirty semester hours, consisting of
a. Art History 302 and 304
b. Twelve semester hours of upper-division art history, consisting of three hours in each of the following four areas:
i Ancient
ii Medieval/Early Modern
iii Modern
iv Non-Western: African, Asian, Islamic, Latin American, Mesoamerican, Native American, Oceanic
c. Art History 375
d. Nine additional semester hours of art history

Three semester hours of the coursework counted toward requirement 2 may also be used to fulfill the visual and performing arts requirement of the core curriculum.

## Electives

Seventeen to twenty-one semester hours chosen from courses either within or outside the Department of Art and Art History. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BAArt with a major in art history: 120 semester hours as outlined above.

## Bachelor of Arts in Theatre and Dance

## Core Curriculum

All students must complete the University's core curriculum (p. 20). The specific requirements for the Bachelor of Arts in Theatre and Dance consist of prescribed work and major requirements. In some cases, a course required for the Bachelor of Arts in Theatre and Dance may also be counted toward the core curriculum; these courses are identified below.

## Prescribed Work

1. In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule (http://registrar.utexas.edu/schedules). They may also be used to fulfill other degree requirements.
2. Foreign language: Six semester hours beyond course $507,508 \mathrm{~K}$, or the equivalent in one foreign language.
3. General culture: Three semester hours chosen from the following areas: architecture, classics (including classical civilization, Greek, Latin), comparative literature, humanities, philosophy, and interdisciplinary fields outside the Department of Theatre and Dance such as American studies, African and African diaspora studies, Asian studies, Latin American studies, Mexican American studies, and women's and gender studies. The student is encouraged to choose coursework of a multicultural nature. Courses outside the Department of Theatre and Dance that are crosslisted with theatre and dance courses may not be used to fulfill this requirement. A course used to fulfill this requirement may not also be counted toward any core curriculum requirement.

## Major Requirements

1. Theatre and dance core: Twenty-seven semester hours, consisting of the following courses: Theatre and Dance 311; three semester hours chosen from 302T, 306, 313C, 152T, 252T, and 352T; three semester hours chosen from 312M, 323C, and 323C; 314M; 314P; either 317C and 317D, or 317 M and 317 N ; and two semesters of 324P. Theatre and Dance 302T may also be used to fulfill the visual and performing arts requirement of the core curriculum.
2. Additional courses in theatre and dance: Twenty-one semester hours of coursework in the Department of Theatre and Dance, of which at least fifteen must be in upper-division courses.
3. Approved concentration and electives: At least six semester hours of coursework in the approved concentration and electives must be upper-division, and at least nine semester hours must be from outside the Department of Theatre and Dance.
a. Approved concentration: Twelve semester hours in a concentration of courses within or outside the Department of Theatre and Dance approved by the student's designated adviser.
b. Electives: Nine semester hours of coursework within or outside the Department of Theatre and Dance. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

Students considering graduate study should consult their advisers about the most appropriate choice of courses.

## Total Minimum Requirements

For the Bachelor of Arts in Theatre and Dance: 120 semester hours as outlined above.

## Bachelor of Arts in Music

## Core Curriculum

All students must complete the University's core curriculum (p. 20). The specific requirements for the Bachelor of Arts in Music consist of prescribed work, major requirements, minor, and electives. In some
cases, a course required for the Bachelor of Arts in Music may also be counted toward the core curriculum; these courses are identified below.

## Prescribed Work

1. In the process of fulfilling degree requirements, students must complete two courses with a writing flag, one course with a quantitative reasoning flag, one course with an ethics and leadership flag, one course with a global cultures flag, one course with a cultural diversity flag, and one course with an independent inquiry flag. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
2. Foreign language: Six semester hours beyond course $507,508 \mathrm{~K}$, or the equivalent in one foreign language.
3. General culture: Three semester hours chosen from the following areas: architecture, classics (including classical civilization, Greek, Latin), comparative literature, humanities, philosophy, and interdisciplinary fields outside the Butler School of Music such as American studies, African and African diaspora studies, Asian studies, Latin American studies, Mexican American studies, and women's and gender studies. The student is encouraged to choose coursework of a multicultural nature. Courses outside the Butler School of Music that are crosslisted with music courses may not be used to fulfill this requirement. A course used to fulfill this requirement may not also be counted toward any core curriculum requirement.

## Major Requirements

1. Performance: At least twelve semester hours, consisting of four semesters of principal instrument course 210 and approval of the faculty; four semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 221); and Music 201 N (completed to the satisfaction of faculty) for students whose principal instrument is not piano
2. Music: Music 605, 411, 612, 313M, 313N, and 330L
3. Emphasis in Music, Music Business, or Recording Technology: a. For Emphasis in Music: Fifteen semester hours in a concentration of music courses approved by the coordinator of the Bachelor of Arts in Music program, at least eleven hours of which must be upper-division, and including at least three hours chosen from Music 334, 337, 342, 343J, or 379K
b. For Emphasis in Music Business: Three semester hours in addition to the requirements of the core curriculum chosen from Communication Studies $306 \mathrm{M}, 310 \mathrm{~K}, 331 \mathrm{~K}, 355 \mathrm{~K}, 359,365 \mathrm{~K}$, or any course with a writing flag; fifteen additional semester hours in a concentration consisting of Music Business 339M, 339N, 347M, 347 N , and 377P
c. For Emphasis in Recording Technology: Mathematics 408D; either Physics 303 K and 303 L , or 317 K and 317 L (physics courses that also fulfill part I of the natural science requirement of the core curriculum); fifteen additional semester hours in a concentration consisting of Music Recording Technology 316M, $316 \mathrm{~N}, 335 \mathrm{M}, 335 \mathrm{~N}$ or 336 C or 345 , and 377 P

When taken in residence, Music 313M (in requirement 2) may also be counted toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 (in requirement 3a) may also be used to fulfill the visual and performing arts requirement of the core curriculum.

## Minor

The minor must be approved by the coordinator of the Bachelor of Arts in Music program and must include at least six hours of upper-division coursework.

1. For Emphasis in Music: Twelve semester hours of coursework outside the Butler School of Music
2. For Emphasis in Music Business and Emphasis in Recording Technology: Twelve semester hours of coursework outside the Butler School of Music chosen from one of the following three areas:
a. Business Foundations (p. 48) courses as specified by the McCombs School of Business
b. Courses within the Bridging Disciplines Programs
c. Other topics determined in consultation with the coordinator of the Bachelor of Arts in Music program

## Electives

1. For Emphasis in Music: Six to eight semester hours of electives. At least six hours must be from outside the Butler School of Music, and three of these six hours must be upper-division. Courses that are crosslisted with music courses may not be counted toward this requirement. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.
2. For Emphasis in Music Business: Three to five semester hours of electives. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.
3. For Emphasis in Recording Technology: Two to four semester hours of electives. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the Bachelor of Arts in Music: 120 semester hours as outlined above.

## Advancement to Upper-Division Standing

To advance to upper-division standing in the program, the student must meet the following requirements:

1. Upper-division standing at the University
2. A grade point average of at least 2.50 for all coursework taken in residence at the University
3. Completion of the following courses or their equivalents with a grade point average of at least 2.50: Music 201 N (required only for students whose principal instrument is not piano), 605A, 605B, 411A, 411B, 612A, 612B, 313M, and 313N
4. Approval of the coordinator of the Bachelor of Arts in Music program

When taken in residence, Music 313M (in requirement 3) may also be counted toward the three-semester-hour writing flag portion of the core curriculum English composition requirement.

## Courses

The faculty has approval to offer the following courses in the academic years 2014-2015 and 2015-2016; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule, registrar.utexas.edu/schedules/, to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in General Information (http://registrar.utexas.edu/catalogs). In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits 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; if 80 through 99, of graduate rank.

## Fine Arts

## Fine Arts: F A

## Lower-Division Courses

## F A 301C. Freshman Seminar.

Restricted to first-semester freshmen. 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. Two lecture hours and one discussion hour a week for one semester.

## F A 102D, 202D, 302D. Connecting Internship Experience.

 Supervised internship experience related to interdisciplinary themes of a Bridging Disciplines Program. Internships may be on or off campus, be paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. For 102D, three hours of fieldwork a week for one semester; for 202D, six hours of fieldwork a week for one semester; for 302D, ten hours of fieldwork a week for one semester. With consent of the Bridging Disciplines Programs research coordinator, may be repeated once for credit. Prerequisite: Admission to the Bridging Disciplines Programs.
## F A 308. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

## F A 110, 210, 310. Topics in the Fine Arts.

Interdisciplinary studies within the fine arts or including the fine arts and other areas. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit when the topics vary.

## F A 311. Meanings in Visual Culture and Film.

An examination of how meaning is assigned to objects and images in the world of visual culture. Three lecture hours a week for one semester.

## F A 312. Aesthetics of Game Design.

Introduction to the design and aesthetics of games. Explores the meaning of playing games, the aesthetics of play and games, and the role of game design as both the creation of designed artifacts and sociocultural texts. Three lecture hours a week for one semester. Fine Arts 310 (Topic: Aesthetics of Game Design) and 312 may not both be counted.

## F A 118C, 218C, 318C. Forum Seminar Series.

Restricted to freshmen and sophomores. Lectures and discussions on various contemporary issues. Emphasis on multidisciplinary perspectives and critical discourse. For 118C, two lecture hours a week for eight weeks; for 218C, two lecture hours a week for one semester; for 318C, three lecture hours a week for one semester, or two lecture hours and one hour of supervised research a week for one semester. May be repeated for credit when the topics vary.

## F A 119, 219, 319, 419, 519, 619. International Learning Seminars.

Restricted to students participating in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of completing work in international locations. For
each semester hour of credit earned, one lecture hour a week for one semester. Fine Arts 119, 219, 319, 419, 519, 619 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

F A 119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, $919 Q$. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

F A 320. Exploring the Fine Arts.
Open to all University students except those in the College of Fine Arts. An interdisciplinary introduction to the fine arts: their basic concepts, meaning, aesthetics, and role in society. Three lecture hours a week for one semester, with field trips as required. May not be counted toward a degree in the College of Fine Arts. Prerequisite: Upper-division standing or consent of instructor.

## F A 129, 229, 329, 429, 529, 629. International Learning

 Seminars.Restricted to students participating in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of completing work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Fine Arts 129, 229, 339, 429, 529, 629 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

F A 129Q, 229Q, 329Q, 429Q, 529Q, 629Q, 729Q, 829Q, 929Q. 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. May be repeated for credit when the topics vary.

## F A 330. Film As Art.

A historical survey of the evolution of motion pictures from the invention of cinema in 1895 to the recent past and of works by artists in the film medium. Three lecture hours a week for one semester. Fine Arts 330 and Visual Art Studies 379S (Topic: Film as Art) may not both be counted.

## F A 331. Films of Alienation: 1966-1976.

An examination of a ten-year period of international film focusing on psychological issues of alienation and angst. Three lecture hours a week for one semester. Fine Arts 331 and Visual Art Studies 379S (Topic: Alienation, Angst, and Anomie: 1966-1976) may not both be counted.

## F A 332. Fifty Years of Nonfiction Films: 1962-2012.

A survey of documentary films that were made to reflect a variety of approaches to the nonfiction genre during the years 1962-2012. Three lecture hours a week for one semester. Fine Arts 332 and Visual Art Studies 379S (Topic: Fifty Years of Non-Fiction, 1960-2010) may not both be counted.

## F A 333. Fifty Years of Revisionist Westerns.

An examination of the revisionist response to the classic film genre featuring the American West. Three lecture hours a week for one semester. Fine Arts 333 and Visual Art Studies 379S (Topic: Revisionist Westerns 1962-2012) may not both be counted.

## F A 334. Films Projecting the Future.

A survey of motion pictures that disclose the evolving notion of the future in cinematic form. Three lecture hours a week for one semester.

## F A 335. 1962: Year of Crises, Change, and Creativity.

Examination of the events and individuals who made history and culture in the year 1962 and their relevance to today. Three lecture hours a week for one semester.

## F A 140, 240, 340. Fine Arts Internship.

Restricted to fine arts students. Requires completion of 50 hours of satisfactory on-site work per credit hour earned. May be repeated for credit. Prerequisite: Upper-division standing, a University grade point average of at least 2.50, and consent of instructor.

## F A 150, 250, 350. Special Topics in the Fine Arts.

Special interdisciplinary studies within the fine arts or including the fine arts and other areas. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Managing Performing Arts Organizations. Restricted to students in the College of Fine Arts; other students may contact the department for permission to register for this class. 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. Fine Arts 150, 250, 350 (Topic: Managing Performing Arts Organizations) and 150, 250, 350 (Topic 1) may not both be counted.

## F A 160, 260, 360. Advanced Topics in the Fine Arts.

Advanced interdisciplinary studies within the fine arts or including the fine arts and other areas. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing or consent of instructor.

## F A 361. Digital Production Art 3-D.

Restricted to computer science, fine arts, or radio-television-film majors. In-depth study and practice of 3-D modeling, surfacing, lighting, rendering, animation, compositing, and visual FX using Autodesk Maya, Adobe Photoshop, and other programs. Knowledge of Photoshop or equivalent, and laptop computer for classroom use is recommended. Three lecture hours a week for one semester. Fine Arts 360 (Topic: Digital Production Art 3D) and 361 may not both be counted. Prerequisite: Upper-division standing or consent of instructor.
F A 175, 375, 675. Independent Studies: Art, Drama, or Music. Independent study or research within the fine arts or between the fine arts and other disciplines. Individual instruction. May be repeated for credit. Prerequisite: Upper-division standing, a grade point average of at least 3.00, consent of instructor, and consent of the dean of the College of Fine Arts.

## Department of Art and Art History

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Art History: ARH

## Lower-Division Courses

ARH 301 (TCCN: ARTS 1301). Introduction to the Visual Arts. The visual elements, their nature, functions, and relationships in painting, sculpture, and architecture. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

## ARH 302 (TCCN: ARTS 1303). Survey of Ancient through Medieval Art.

A study of the major monuments of architecture, sculpture, painting, and metalwork from the ancient period through the end of the Middle Ages. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

## ARH 303 (TCCN: ARTS 1304). Survey of Renaissance through Modern Art.

A study of the major monuments of architecture, sculpture, painting, and metalwork from the Renaissance to the present. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

## ARH 304. Issues in Visual Culture.

Restricted to majors in the Department of Art and Art History. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

ARH 119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, 919 . 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## ARH 325. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 325, 361L (Topic: Art/Archeology of the Ancient Near East), Middle Eastern Studies 320 (Topic: Art/Archeology of the Ancient Near East), 320 (Topic 4: Survey of Ancient Near Eastern Art).

## ARH 326J. 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. Three lecture hours a week for one semester. Only one of the following may be counted:

Art History 326J, 362 (Topic: Parthenon through the Ages), Classical Civilization 340 (Topic: Parthenon through the Ages).

## ARH 326K. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 326K, 362 (Topic: Myth in Images in Classical Antiquity), Classical Civilization 340 (Topic: Myth in Images in Classical Antiquity).

## ARH 326L. 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. Three lecture hours a week for one semester.

## ARH 326M. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 326M, 362 (Topic: Art and Archaeology of Greek Sanctuaries), Classical Civilization 340 (Topic: Art and Archaeology of Greek Sanctuaries).

## ARH 326N. Hellenistic Art and Architecture.

Three lecture hours a week for one semester. Art of the Hellenistic period, from the reign of Alexander the Great to the beginning of the Roman Empire, ca. 336 to 31 BCE. Art History 326 N and 327M may not both be counted.

## ARH 327N. Art and Politics in Imperial Rome.

Same as Classical Civilization 340 (Topic 2: Roman Art). Public art of the Roman Empire from Augustus to late antiquity, ca. 31 BC to AD 350. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ARH 327P. Roman Imperial Architecture.

Republican and imperial Roman architecture. Three lecture hours a week for one semester.

## ARH 327R. 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. Three lecture hours a week for one semester.

## ARH 327S. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 327S, 362 (Topic: Art and Politics in Republican Rome), Classical Civilization 340 (Topic: Art and Politics in Republican Rome), European Studies 347 (Topic: Art and Politics in Republican Rome).

## ARH 327T. 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. Three lecture hours a week for one semester.

## ARH 328J. Arts of Islam, 650-1500.

Same as Religious Studies 358 (Topic 17). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328J, 363 (Topic: Arts of Islam: Caliphs-Sultans), Islamic Studies 372 (Topic: Arts of Islam: Caliphs-Sultans), Middle Eastern Languages and Cultures 321 (Topic: Arts of Islam: CaliphsSultans), Middle Eastern Studies 321K (Topic: Arts of Islam: CaliphsSultans), 328 (Topic: Arts of Islam: Caliphs-Sultans), 342 (Topic: Arts of Islam: Caliphs-Sultans), Religious Studies 358 (Topic: Arts of Islam: Caliphs-Sultans), 358 (Topic 17).

## ARH 328K. Arts of Islam 1500-Present

Same as Religious Studies 358 (Topic 18). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328K, 363 (Topic: Arts of Islam, 1500-1800), 363 (Topic: Arts of Islam: 1500-Present), Islamic Studies 372 (Topic: Arts of Islam, 1500-1800), 373 (Topic: Arts of Islam: 1500-Present), Middle Eastern Languages and Cultures 321 (Arts of Islam: 1500-Present), Middle Eastern Studies 321K (Topic: Arts of Islam, 1500-1800), 342 (Topic: Arts of Islam: 1500Present), Religious Studies 358 (Topic 18).

## ARH 329J. Byzantine Art.

Same as Religious Studies 357 (Topic 2: Byzantine Art). Examination of the medieval art and architecture of the eastern Roman empire, including related traditions (Coptic, Armenian, Georgian, Crusader, Norman). Three lecture hours a week for one semester.

## ARH 329K. Early Medieval Art.

Architecture, sculpture, painting, and metalwork in western Europe from the third to the eleventh century. Three lecture hours a week for one semester.

## ARH 329N. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 329N, 362R (Topic: Art and Architecture of Late Antiquity), Classical Civilization 340 (Topic: Art and Architecture of Late Antiquity). Prerequisite:

## ARH 329P. Medieval Italy.

Architecture, sculpture, painting, and metalwork in the Italian peninsula from the third to the fourteenth century, with a special focus on Rome, Venice, and Palermo. Three lecture hours a week for one semester.

ARH 129Q, 229Q, 329Q, 429Q, 529Q, 629Q, 729Q, 829Q, 929Q. 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. May be repeated for credit when the topics vary.

## ARH 329R. Romanesque Art and Architecture.

Form and function of religious art in twelfth-century Europe. Three lecture hours a week for one semester.

## ARH 330G. Art at Court: The Gothic Period.

Changing manifestations of Gothic art and architecture at selected court centers, 1140 to 1400 . Three lecture hours a week for one semester.

## ARH 330J. Gothic Cathedral: Amiens.

Same as Religious Studies 357 (Topic 14). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 330J, 374 (Topic: Gothic Cathedral: Amiens), European Studies 347 (Topic: Gothic Cathedral: Amiens), Religious Studies 357 (Topic: Gothic Cathedral: Amiens), 357 (Topic 14).

## ARH 331J. Art and Experience in Central Italy.

Restricted to students admitted to the Learning Tuscany program. Art and architecture of central Italy. The equivalent of three lecture hours a week for one semester. Taught in Castiglion Fiorentino, Italy. Prerequisite: Consent of instructor.

## ARH 331K. Early Italian Renaissance Art to 1470.

This course 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. Three lecture hours a week for one semester.

## ARH 331L. High Renaissance Art.

Analyzes the key artistic works of the high Renaissance as part of an evolving language of style and form and in relation to the intellectual, social, and political context of the period. Three lecture hours a week for one semester.

## ARH 331M. Mannerist and Early Baroque Art.

The art of western Europe from about 1520 to 1590. Emphasis on art in Italy, but developments in the northern countries are also considered. Three lecture hours a week for one semester.

## ARH 331N. 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. Three lecture hours a week for one semester.

## ARH 331P. Art and the City in Renaissance Italy.

Art, architecture, and emerging civic identity in Florence, Siena, Venice, and other Italian Renaissance city-states. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 331P, 364 (Topic: Art and the City in Renaissance Italy), Core Texts and Ideas 375 (Topic: Art and the City in Renaissance Italy), European Studies 347 (Topic: Art and the City in Renaissance Italy), Italian Civilization 349 (Topic: Art and the City in Renaissance Italy), Western Civilization 320 (Topic: Art and the City in Renaissance Italy).

## ARH 331Q. 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. Three lecture hours a week for one semester.

## ARH 332K. Northern Renaissance Art, 1350-1500.

Same as Religious Studies 357 (Topic 7). Northern European art from the International Style to van Eyck and Hieronymus Bosch. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 332K, European Studies 347 (Topic: Northern

Renaissance Art, 1350-1500), Religious Studies 357 (Topic: Northern Renaissance Art, 1350-1500), 357 (Topic 7).

## ARH 332L. Northern Renaissance Art, 1500-1600.

Same as Religious Studies 357 (Topic 6). Art and cultural development in the sixteenth century; artists include Duerer, Gruenewald, Holbein, and Brueghel. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 332L, European Studies 347 (Topic: Northern Renaissance Art, 1500-1600), Religious Studies 357 (Topic: Northern Renaissance Art, 1500-1600), 357 (Topic 6).

## ARH 333K. Italian Baroque Art.

The art of Italy in the seventeenth and eighteenth centuries; includes the sixteenth-century sources from which Roman baroque developed. Three lecture hours a week for one semester.

## ARH 333L. The Age of Rembrandt and Rubens: Northern Baroque Art.

Same as Religious Studies 357 (Topic 11). Northern European art in the seventeenth century, stressing the Netherlands and Flanders. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 333L, European Studies 347 (Topic: The Age of Rembrandt and Rubens: Northern Baroque Art), Religious Studies 357 (Topic: The Age of Rembrandt and Rubens: Northern Baroque Art), 357 (Topic 11).

## ARH 334. Eighteenth-Century European Art.

European painting, sculpture, and architecture as social and political events from the age of absolutism to the French Revolution. Three lecture hours a week for one semester.

## ARH 335H. 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. Three lecture hours a week for one semester.

## ARH 335J. Nineteenth-Century Art.

Examines European art and themes in art during the nineteenth century. Three lecture hours a week for one semester.

## ARH 335N. European Art, 1789-1848.

European painting and sculpture as social and political events from the French Revolution to the revolutionary crises of midcentury. Three lecture hours a week for one semester.

## ARH 335P. European Art, 1848-1900.

European painting and sculpture as social and political events from the revolutions of 1848 to the turn of the century. Three lecture hours a week for one semester.

## ARH 337K. Twentieth-Century European Art to 1940.

Major movements in the development of modern European painting and sculpture. Three lecture hours a week for one semester.

ARH 338L. 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. Three lecture hours a week for one semester.

## ARH 338M. Art and Culture: 1968 and After.

Artistic and critical activity in the United States and Europe from 1968 to the present. Three lecture hours a week for one semester.

## ARH 338N. 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. Three lecture hours a week for one semester.

## ARH 339J. American Art: Colonial Era to the Civil War.

 Painting, sculpture, and architecture from the early seventeenth century to 1860. Three lecture hours a week for one semester.ARH 339K. American Art: Civil War to the Armory Show. Painting, sculpture, and architecture from 1860 to 1913. Three lecture hours a week for one semester.

## ARH 339L. Twentieth-Century American Art to the 1950s.

Art in the United States from the Armory Show through abstract expressionism. Three lecture hours a week for one semester.

## ARH 339M. American Art, 1958-1985.

Survey of major movements from 1958 to 1985, from pop art to graffiti art and new expressionism. Three lecture hours a week for one semester.

## ARH 339N. Painting in America to 1860.

Same as American Studies 325 (Topic 2). Painting in British colonial North America and the United States prior to the Civil War. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 325 (Topic 2), Art History 339N, 374 (Topic 1).

ARH 339P. Painting in the United States, 1860-1913.
Same as American Studies 325 (Topic 3). Painting in the United States from the Civil War to the Armory Show. Three lecture hours a week for one semester Only one of the following may be counted: American Studies 325 (Topic 3), Art History 374 (Topic 2), 339P.

## ARH 339Q. Modernism in American Design and Architecture.

Same as American Studies 330 and Urban Studies 352 (Topic 5). A historical survey of artifacts, buildings, and urban environments, focusing on responses to machine-age civilization. Prerequisite: Upper-division standing.

## ARH 340L. 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. Three lecture hours a week for one semester. Art History 340L and 366 N (Topic: History of Photography) may not both be counted.

## ARH 341J. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341J, 361 (Topic: Reframing the Nation: Nineteenth-Century Latin American Art), Latin American Studies 327 (Topic: Reframing the Nation: Nineteenth-Century Latin American Art).

## ARH 341K. Modern Art of Mexico.

Same as Latin American Studies 327 (Topic 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."

## ARH 341L. Chicano Art Histories and Futures.

Same as Latin American Studies 327 (Topic 1: Modern Latin American Art). 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. Three lecture hours a week for one semester.

## ARH 341M. 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. Three lecture hours a week for one semester.

## ARH 341N. Other Modernities: Latin American Art.

Development and sources of twentieth-century art in the Caribbean and Central and South America. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341N, 361 (Topic: Other Modernities: Latin American Art), Latin American Studies 327 (Topic: Other Modernities: Latin American Art), Mexican American Studies 374 (Topic: Other Modernities: Latin American Art).

## ARH 341P. Contemporary Latin American Art.

Development and sources of art in the Caribbean and Central and South America from the 1960s to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341P, 361 (Topic: Contemporary Latin American Art), Latin American Studies 327 (Topic: Contemporary Latin American Art).

## ARH 341Q. Women in Latin American Art.

Development and sources of Latin American Women Artists considering feminist, gender and queer theories Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341Q, 361 (Topic: From Modern to Conceptual: Women Artists in Latin America), Women's and Gender Studies 340 (Topic: From Modern to Conceptual: Women Artists in Latin America).

## ARH 342J. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 342J, 359 (Topic: Intro to Women's and Gender Studies in the Fine Arts), Fine Arts 350 (Topic: Intro to Women's and Gender Studies in the Fine Arts), Women's and Gender Studies 345 (Topic: Intro to Women's and Gender Studies in the Fine Arts).

## ARH 344J. Twentieth-Century African American Art.

Same as African and African Diaspora Studies 374F (Topic 19). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic: Twentieth-Century African American Art), 374F (Topic: 20th-Century African American Art), 374F (Topic 19), Art History 344J, 366N (Topic: 20th-Century African American Art).

## ARH 345J. Contemporary Artists of the African Diaspora.

Same as African and African Diaspora Studies 374F (Topic 15). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Contemporary Artists of the African Diaspora), 374F (Topic 15), Art History 345J, 373D (Topic: Contemporary Artists of the African Diaspora), 374 (Topic: Contemporary Artists of the African Diaspora).

## ARH 345K. Contemporary British Artists of the African Diaspora.

Same as African and African Diaspora Studies 374F (Topic 14). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Contemporary British Artists of the African Diaspora), 374F (Topic 14), Art History 345K, 374 (Topic: Contemporary British Artists of the African Diaspora).

## ARH 345L. Diaspora Visions.

Same as African and African Diaspora Studies 374F (Topic 13) and Women's and Gender Studies 340 (Topic 48). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Diaspora Vision), 374F (Topic 13), Art History 345L, 373D (Topic: Diaspora Visions), 374 (Topic: Diaspora Vision), Women's and Gender Studies 340 (Topic: Diaspora Vision), 340 (Topic 48).

## ARH 345M. Visual Arts of the Caribbean.

Same as African and African Diaspora Studies 374F (Topic 12). A look at a wide range of artists from the countries of the Caribbean, including examples of cinema and reggae music packaging. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Visual Arts of the Caribbean), 374F (Topic: Visual Arts of the Caribbean), 374F (Topic 12), Art History 345M, 373D (Topic: Visual Arts of the Caribbean), 374 (Topic: Visual Arts of the Caribbean).

## ARH 346K. Introduction to African Art.

Same as African and African Diaspora Studies 374F (Topic 11). Investigates the lives and works of several artists who have made substantial contributions to the definition, history, and interpretation of the visual arts. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Introduction to African Art), 374F (Topic 11), Art History 346K, 373C (Topic: Introduction to African Art), 374 (Topic: Introduction to African Art), Women's and Gender Studies 340 (Topic: Introduction to African Art).

## ARH 346L. Africana Women's Art.

Same as African and African Diaspora Studies 374F (Topic 9) and Women's and Gender Studies 340 (Topic 46). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Africana Women's Art), 374F (Topic 9), Art History 346L, 373C (Topic: Africana Women's Art), Women's and Gender Studies

340 (Topic: Africana Women's Art), 340 (Topic 46). Prerequisite: Upperdivision standing.

## ARH 346M. Visual Cultures of Africa.

Same as African and African Diaspora Studies 374F (Topic 10). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Visual Cultures of Africa), 374F (Topic 10), Art History 346M, 373C (Topic: Visual Cultures of Africa).

## ARH 347J. 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. Three lecture hours a week for one semester.

## ARH 347K. Art and Archaeology of Ancient Peru.

Same as Latin American Studies 327 (Topic 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. Three lecture hours a week for one semester.

## ARH 347L. Mesoamerican Art and Culture.

Same as Latin American Studies 327 (Topic 3: Mesoamerican Art). 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. Three lecture hours a week for one semester.

## ARH 347M. Maya Art and Architecture.

Same as Latin American Studies 327 (Topic 5: Form and Meaning in Classic Maya Art). 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 347N. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 347N, 370 (Topic: Aztec Art and Civilization), Latin American Studies 327 (Topic: Aztec Art and Civilization).

## ARH 347P. 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. Three lecture hours a week for one semester.

## ARH 348K. Formation of Indian Art, 1000 BCE to 1000 CE.

Examines the development of various forces, including social, religious, economic, and political that led to the early artistic production in Indian culture. Three lecture hours a week for one semester.

## ARH 348L. Later Indian Art, 1100 to 1900.

Examines how the developments in art and architecture shaped and reflected changes in the political, social, and religious culture of India during the period in which Buddhism diminished, Hinduism flourished,
and Islamic traditions were introduced into the South Asian subcontinent. Three lecture hours a week for one semester.

## ARH 348M. The Taj Mahal and the Diversity of Indian Art.

Same as Religious Studies 341 (Topic 9). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 348M, 372 (Topic: The Taj Mahal and the Diversity of Indian Art), Asian Studies 372 (Topic: The Taj Mahal and the Diversity of Indian Art), Religious Studies 341 (Topic 9). Prerequisite: Upper-division standing.

## ARH 348N. Buddhist Art.

Same as Asian Studies 372 (Topic 24) and Religious Studies 341 (Topic 8). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 348N, 372 (Topic: Buddhist Art), Asian Studies 372 (Topic 24), Religious Studies 341 (Topic 8).

## ARH 348P. 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. Three semester hours a week for one semester.

## ARH 349K. Traditional Chinese Art and Culture.

Examines Chinese art and culture from prehistory to the eighteenth century. Subjects include Chinese painting, calligraphy, sculpture, and architecture in their historical setting. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 349K, 372 (Topic: Traditional Chinese Art and Culture), 374 (Topic: Traditional Chinese Art and Culture), Asian Studies 372 (Topic: Traditional Chinese Art and Culture).

## ARH 349L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 349L, 372 (Topic: Contemporary Chinese Art), Asian Studies 372 (Topic: Contemporary Chinese Art).

## ARH 359. Topics in Feminism and Gender.

An introduction to feminist and gender theories in relation to issues concerning visual representation. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 360L. Topics in the History of Photography.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 361. Topics in Latino and Chicano Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 361L. Topics in Ancient Near Eastern Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 362. Topics in Greek and Roman Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 362R. Topics in the Art of Late Antiquity.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 363. Topics in Medieval Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 364. Topics in Renaissance Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 365. Topics in Baroque Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 366J. Topics in Nineteenth-Century Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 366N. Topics in Twentieth-Century Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 366P. Topics in Modernism.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 367. Topics in the Art of North America.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 370. Topics in Pre-Columbian Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 370J. Study in Guatemala.

Art and architecture of Guatemala. The equivalent of three lecture hours a week for one semester. Taught in Guatemala. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## Topic 1: Ancient Maya Writing and History. <br> Topic 2: Sacred Landscapes of the Precolumbian World. <br> Topic 3: Baroque Art and Architecture in Spanish America.

## ARH 372. Topics in the Art of Asia.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 373C. Topics in Africana Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 373D. Topics in Diaspora Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 373E. Topics in African American Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## ARH 374. Special Topics in the History of Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

Topic 3: Colonial Encounter.

## ARH 375. Art Historical Methods.

Restricted to art history majors. Art historical investigation; practical research techniques. Three lecture hours a week for one semester. Prerequisite: Upper-division standing in art history and consent of the departmental undergraduate adviser.

## ARH 376. Reading Tutorial in Art History Problems.

Individual projects to be completed under faculty supervision. Independent study. May be repeated for credit. Prerequisite: For majors in the Department of Art and Art History, six semester hours of upper-division art history, a grade point average of at least 3.00 , and consent of instructor and the chair of the department; for others, a grade point average of at least 3.00 and consent of instructor and the chair of the department.

## ARH 379H. Thesis Course for Departmental Honors.

Individual conference course in which student researches and writes a thesis. Independent study. Prerequisite: Admission to the Honors Program in Art History and approval of the honors adviser.

## Design: DES

## Lower-Division Courses

DES 308. Introduction to Design Studies.
A survey of the discipline of design, from 1850 to the present, that examines the broader social context and traces the design process from concept through development and on to production, consumption, use, and in some cases, disposal. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree in design.

## DES 310. Introduction to Design.

Intensive study of the discipline of design and its theories, methods, history, and economic and societal factors. Eight laboratory hours a week for one semester. Offered in the fall semester only. Prerequisite: Studio Art $303 \mathrm{~K}, 303 \mathrm{~L}, 304 \mathrm{~K}$, and 304 L with a grade of at least C in each, and written consent of the design faculty.

## DES 311J. Design Technologies I.

Study of design technologies and their effect on design methods through a focus on tools and lens media. Eight laboratory hours a week for one semester. Offered in the fall semester only. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each, and written consent of the design faculty.

## DES 311K. Design Technologies II.

Introduction to the microcomputer as an integrator of visual information; its applications to organizational systems in the design process. Eight laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Design 310 and 311 J with a grade of at least C in each.

## DES 312. Visual Syntax in Communication.

Exploration of the fundamental visual elements and their organization through a study of typography and human perception. Eight laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Design 310 and 311 J with a grade of at least C in each.

## DES 313. Design History Laboratory.

Critical investigation of historical issues, with emphasis on the dynamic relationship between the modern movement and contemporary design.

Three lecture hours and five laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Design 310 and 311J with a grade of at least $C$ in each.

## Upper-Division Courses

## DES 320. Design Theory and Method.

Critical study of design methodologies and theories. Eight laboratory hours a week for one semester. Offered in the fall semester only. Prerequisite: Design 311K, 312, and 313 with a grade of at least C in each, and written consent of the design faculty.

## DES 321. Images in Communication.

Development of coherent visual statements constructed of images generated by multiple media. Eight laboratory hours a week for one semester. Offered in the fall semester only. Prerequisite: Design 311K, 312 , and 313 with a grade of at least C in each, and written consent of the design faculty.

## DES 322. Design and the Social Environment.

Communication projects selected from the public sector. Eight laboratory hours a week for one semester. Offered in the fall semester only. Prerequisite: Design $311 \mathrm{~K}, 312$, and 313 with a grade of at least C in each, and written consent of the design faculty.

## DES 340. Design Systems.

Development of flexible, integrated visual systems. Eight laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Design 320, 321, and 322 with a grade of at least $C$ in each.

## DES 341. Advanced Issues in Visual Syntax.

Exploration of linguistic relationships involved in the development of typographic messages. Eight laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Design 320, 321, and 322 with a grade of at least $C$ in each.

## DES 342. Design and Persuasion.

Investigation of historical models; the role of words, context, and audience; and the effect of media. Eight laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Design 320, 321 , and 322 with a grade of at least $C$ in each.

## DES 350. Special Design Topics.

A critical investigation of historical and contemporary issues in design, focusing on key theoretical and methodological developments, and assessing the social and environmental consequences of the design act. Eight laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For design majors, the following courses with a grade of at least $C$ in each: Design 320, 321, and 322; for studio art majors, the following courses with a grade of at least $C$ in each: Studio Art 303K, 303L, 304K, 304L; for others, upper-division standing.

## DES 351. Design Perspectives.

Students create advanced design projects and present them for critique by visiting critics. Eight laboratory hours a week for one semester. Offered in the fall semester only. Prerequisite: Design 340, 341, and 342 with a grade of at least $C$ in each, and written consent of the design faculty.

## DES 354. Design Issues.

A critical investigation of historical and contemporary issues in design, focusing on key theoretical and methodological developments, and assessing the social and environmental consequences of the design act. Three lecture hours a week for one semester. May not be counted toward a degree in the Department of Art and Art History. Prerequisite: For design majors, Design 310, 311J, 311K, 312, and 313 with a grade of at least C in each; for studio art majors, Studio Art 303K, 303L, 304K,
and 304L with a grade of at least C in each; for others, upper-division standing.

## DES 370. Senior Project in Design.

Planning, execution, and presentation of a project approved by the design faculty. Eight laboratory hours a week for one semester. Offered in the spring semester only. With consent of the design faculty, may be repeated for credit. Prerequisite: Design 350 and 351 with a grade of at least C in each, and written consent of the design faculty.

## DES 371. Design Practicum.

Practical experience through an internship; lectures on professional ethics and responsibilities. One lecture hour and ten laboratory hours a week for one semester. Offered in the spring semester only. With consent of the design faculty, may be repeated for credit. Prerequisite: Design 350 and 351 with a grade of at least $C$ in each.

## DES 376. Independent Study: Design.

Individual projects to be completed under faculty supervision. The equivalent of eight laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Fifteen semester hours of upper-division coursework in design, a grade point average in upper-division design of at least 3.00 , and consent of the chair of the department.

## Studio Art: ART

## Lower-Division Courses

## ART 303K (TCCN: ARTS 1316). Drawing Foundations.

Restricted to art history, design, studio art, and visual art studies majors. Drawing concepts and skills in various media. Eight laboratory hours a week for one semester. May be taken for credit only once.

## ART 303L. Digital Foundations.

Restricted to design, studio art, and visual art studies majors. Introduction to digital, multimedia, and other time-based art. Eight laboratory hours a week for one semester. May be taken for credit only once.

## ART 304K (TCCN: ARTS 1311). Two-Dimensional Foundations.

Restricted to design, studio art, and visual art studies majors. A basic course in the visual dynamics of two-dimensional art forms. Eight laboratory hours a week for one semester. May be taken for credit only once.

## ART 304L (TCCN: ARTS 1312). Three-Dimensional Foundations.

Restricted to design, studio art, and visual art studies majors. A basic course in three-dimensional form and space. Eight laboratory hours a week for one semester. May be taken for credit only once.

## ART 311K (TCCN: ARTS 2316). Painting I.

Restricted to design, studio art, and visual art studies majors. Introduction to painting techniques, composition, and exploration of personal expression. Eight laboratory hours a week for one semester. May be taken for credit only once. Prerequisite: Studio Art 303K, 303L, 304K, and 304 L with a grade of at least $C$ in each.

## ART 313K (TCCN: ARTS 2326). Beginning Sculpture.

Restricted to design, studio art, and visual art studies majors. Introduction to the processes involved in the production of object-oriented sculpture using direct methods of hot and cold construction. Eight laboratory hours a week for one semester. May be taken for credit only once. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each.

## ART 313M. Topics in Three-Dimensional Art.

Restricted to design, studio art, and visual art studies majors. Study of specific techniques or problems. Eight laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each.

## ART 315K (TCCN: ARTS 1317). Beginning Drawing.

Restricted to design, studio art, and visual art studies majors. Exploration of various methods, subjects, and expressive possibilities in drawing. Eight laboratory hours a week for one semester. May be taken for credit only once. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least $C$ in each.

## ART 316K (TCCN: ARTS 2323). Beginning Life Drawing.

Restricted to design, studio art, and visual art studies majors. Problems in drawing and construction of the human figure in selected media. Eight laboratory hours a week for one semester. May be taken for credit only once. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least $C$ in each.

## ART 316T. Introduction to Transmedia.

Restricted to design, studio art, and visual art studies majors. Introduction to the theory and practice of time-based art, including digital time-art, performance, and video art. Two lecture hours and six laboratory hours a week for one semester. May be taken for credit only once. Studio Art 316T and 316V may not both be counted. Studio Art 316T and 317C may not both be counted. Studio Art 316T and 318C may not both be counted. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least $C$ in each.

## ART 316V. Transmedia: Video Art I.

Restricted to design, studio art, and visual art studies majors. Introduction to the basics of video art production, narrative and non-narrative video structural forms, including history, theory, camera techniques, montage, and digital editing. Two lecture hours and six laboratory hours a week for one semester. May be taken for credit only once. Studio Art 316T and 316 V may not both be counted. Prerequisite: Studio Art 303K, 303L, 304 K , and 304 L with a grade of at least C in each.

## ART 317C. Transmedia: Performance Art I.

Restricted to design, studio art, and visual art studies majors. Introduction to the history, theory, and practice of performance art and its application in a variety of contexts, including theatrical, gallery, and the workaday world. Two lecture hours and six laboratory hours a week for one semester. May be taken for credit only once. Studio Art 316T and 317C may not both be counted. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least $C$ in each.

## ART 317K (TCCN: ARTS 2356). Beginning Photography.

Restricted to design, studio art, and visual art studies majors. An introduction to still photography, including basic technical skills and concepts. Eight laboratory hours a week for one semester. May be taken for credit only once. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least $C$ in each.

## ART 318C. Transmedia: Digital Time-Art I.

Restricted to design, studio art, and visual art studies majors. Introduction to time-based art, with emphasis on the exploration of digital technologies, including motion graphics, video, animation, and sound. Two lecture hours and six laboratory hours a week for one semester. May be taken for credit only once. Studio Art 316T and 318C may not both be counted. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least $C$ in each.

## ART 319G. Beginning Printmaking: Serigraphy.

Restricted to design, studio art, and visual art studies majors. Fundamental instruction in the theories, techniques, and practice of serigraphy. Eight laboratory hours a week for one semester. May be taken for credit only once. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least $C$ in each.

## ART 319K. Beginning Printmaking: Intaglio.

Restricted to design, studio art, and visual art studies majors. Introduction to the art of printmaking, primarily intaglio techniques such as etching, soft ground, aquatint, and assemblage. Eight laboratory hours a week for one semester. May be taken for credit only once. Prerequisite: Studio Art $303 \mathrm{~K}, 303 \mathrm{~L}, 304 \mathrm{~K}$, and 304 L with a grade of at least C in each.

## ART 319M. Beginning Printmaking: Lithography.

Restricted to design, studio art, and visual art studies majors. Fundamental instruction in the theories, techniques, and shop practices of lithography. Eight laboratory hours a week for one semester. May be taken for credit only once. Prerequisite: Studio Art 303K, 303L, 304K, and 304 L with a grade of at least $C$ in each.

ART 119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, $919 Q$. 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. May be repeated for credit when the topics vary.

## ART 319T. Topics in Studio Art: Laboratory.

Restricted to design, studio art, and visual art studies majors. Intensive study of various disciplines of studio art. Eight laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least $C$ in each.

## Upper-Division Courses

## ART 320K. Topics in Studio Art.

Open to all students. Eight laboratory hours a week for one semester. May not be counted toward a degree in art and art history. May be repeated for credit when the topics vary.

## ART 320L. Topics in Studio Art.

Open to all students. Continuation of Studio Art 320K. Eight laboratory hours a week for one semester. May not be counted toward a degree in art and art history. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and Studio Art 320K with a grade of at least C.

## ART 320N. Topics in Design.

Open to all students. Eight laboratory hours a week for one semester. May not be counted toward a degree in art and art history. May be repeated for credit when the topics vary.

## ART 320P. Topics in Drawing.

Open to all students. Eight laboratory hours a week for one semester. May not be counted toward a degree in art and art history. May be repeated for credit when the topics vary.

## ART 320R. Topics in Mixed Media.

Open to all students. Eight laboratory hours a week for one semester. May not be counted toward a degree in art and art history. May be repeated for credit when the topics vary.

## ART 320S. Topics in Painting.

Open to all students. Eight laboratory hours a week for one semester. May not be counted toward a degree in art and art history. May be repeated for credit when the topics vary.

## ART 320T. Topics in Photography.

Open to all students. Eight laboratory hours a week for one semester. May not be counted toward a degree in art and art history. May be repeated for credit when the topics vary.

## ART 320U. Topics in Printmaking.

Open to all students. Eight laboratory hours a week for one semester. May not be counted toward a degree in art and art history. May be repeated for credit when the topics vary.

## ART 320V. Topics in Sculpture.

Open to all students. Eight laboratory hours a week for one semester. May not be counted toward a degree in art and art history. May be repeated for credit when the topics vary.

## ART 320W. Topics in Transmedia.

Open to all students. Eight laboratory hours a week for one semester. May not be counted toward a degree in art and art history. May be repeated for credit when the topics vary.

## ART 321K. Painting II.

Restricted to design, studio art, and visual art studies majors. Problems in composition and exploration of personal expression. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 311K with a grade of at least $C$.

## ART 321M. Painting II: Figure Painting.

Restricted to design, studio art, and visual art studies majors. Problems in composition and exploration of personal expression with the life model. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 311K with a grade of at least C.

## ART 322K. Intermediate Drawing.

Restricted to design, studio art, and visual art studies majors.
Continuation of Studio Art 315K. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 315K with a grade of at least $C$.

## ART 323K. Intermediate Sculpture.

Restricted to design, studio art, and visual art studies majors. Exploration of the concepts and processes involved in the production of objectoriented sculpture, with emphasis on indirect methods of mold-making and casting. Encourages individual direction. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 313K with a grade of at least $C$.

## ART 323M. Advanced Topics in Three-Dimensional Art.

Restricted to design, studio art, and visual art studies majors. Study of specific techniques or problems. Eight laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Studio Art 303K, 303L, 304K, and 304L with a
grade of at least $C$ in each; and twelve additional semester hours of studio art coursework with a grade of at least $C$ in each course.

## ART 323P. Issues in Sculpture.

Restricted to design, studio art, and visual art studies majors. Topics related to the field of sculpture, from issue-based to media-based studies. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 313 K with a grade of at least C.

## ART 323S. Installation Sculpture.

Restricted to design, studio art, and visual art studies majors. 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. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 313K with a grade of at least C.

## ART 325G. Intermediate Printmaking: Serigraphy.

Restricted to design, studio art, and visual art studies majors. Practice in the theories and techniques of multicolor serigraphy and photoserigraphy. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester.
Prerequisite: Studio Art 319G with a grade of at least C.

## ART 325K. Intermediate Printmaking: Intaglio.

Restricted to design, studio art, and visual art studies majors. Instruction in the theories and techniques of intaglio printmaking, color, assemblage, stencil, viscosity, collography, photo process, and relief. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 319K with a grade of at least $C$.

## ART 325M. Intermediate Printmaking: Lithography.

Restricted to design, studio art, and visual art studies majors. Instruction in the theories and techniques of metal plate, multicolor, and stone lithography and photolithography. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 319M with a grade of at least C.

ART 129Q, 229Q, 329Q, 429Q, 529Q, 629Q, 729Q, 829Q, 929Q. 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. May be repeated for credit when the topics vary.

## ART 334K. Digital Photography.

Restricted to design, studio art, and visual art studies majors. Introduction to digital image making in the context of creating art, including digital technologies and a historical overview of traditional and digital photographic practices. Eight laboratory hours a week for one semester. Prerequisite: Studio Art 317K with a grade of at least C.

## ART 335K. Intermediate Photography.

Restricted to design, studio art, and visual art studies majors. Practice in still photography, including materials and processes. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with
the same instructor in the same semester. Prerequisite: Studio Art 317K and 334 K with a grade of at least C in each.

## ART 336K. Color Photography.

Restricted to design, studio art, and visual art studies majors. Instruction in basic principles, materials, and techniques of color photography as an art form. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 317K with a grade of at least C.

## ART 336V. Transmedia: Video Art II.

Restricted to design, studio art, and visual art studies majors. Projects in video art and video installation art. Surveys contemporary video art, stylistic modes, ideology, and the history of the artist's video and its precedents in the avant-garde and structuralist filmmaking. Two lecture hours and six laboratory hours a week for one semester. May be repeated twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 316T or 316V with a grade of at least C.

## ART 337C. Transmedia: Performance Art II.

Restricted to design, studio art, and visual art studies majors. Projects in performance art with a concentration on the realization of more fully developed solo and collaborative projects. Two lecture hours and six laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 316T or 317C with a grade of at least C.

## ART 338C. Transmedia: Digital Time-Art II.

Restricted to design, studio art, and visual art studies majors. Projects in time-based art, with emphasis on the exploration of digital technologies, including motion graphics, video, animation, and sound. Two lecture hours and six laboratory hours a week for one semester. May be repeated twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 316T or 318C with a grade of at least C.

## ART 341K. Painting III.

Restricted to design, studio art, and visual art studies majors. Continuation of Studio Art 321K. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 321 K or 321 M with a grade of at least C.

## ART 341M. Painting III: Figure Painting.

Restricted to design, studio art, and visual art studies majors. Continuation of Studio Art 321M. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 321 M with a grade of at least C.

## ART 346K. Intermediate Life Drawing.

Restricted to design, studio art, and visual art studies majors. Advanced problems in drawing and construction of the human figure. Eight laboratory hours a week for one semester. May be taken twice for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 316K with a grade of at least C.

## ART 350. Philosophy, Theory, and Criticism.

Restricted to design, studio art, and visual art studies majors. Advanced exploration of philosophy, theory, and criticism from a studio art perspective. Prerequisite: Upper-division standing; Studio Art 303K, 303L, 304 K , and 304 L with a grade of at least C in each; and nine additional
semester hours of coursework in studio art with a grade of at least $C$ in each course.

## ART 354C. Computer Art Media.

Restricted to design, studio art, and visual art studies majors. Principles, techniques, and practices of digital arts for studio artists. Two lecture hours and six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each.

## ART 355. Studio Projects.

Restricted to design, studio art, and visual art studies majors. Study of specific techniques or problems. Eight laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Studio Art 303K, 303L, 304K, and 304L with a grade of at least $C$ in each; and twelve additional semester hours of coursework in studio art with a grade of at least $C$ in each course.

Topic 1: Design Issues.
Topic 2: Installation of Film Art.
Topic 3: Monoprinting and Relief Printing.

## ART 356K. Advanced Color Photography.

Restricted to design, studio art, and visual art studies majors. Continuation of Studio Art 336K. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 336K with a grade of at least C.

## ART 356V. Transmedia: Video Art III.

Restricted to design, studio art, and visual art studies majors. Advanced study of video art and video installation art. Two lecture hours and six laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 336V with a grade of at least C.

## ART 357C. Transmedia: Performance Art III.

Restricted to design, studio art, and visual art studies majors. Advanced study of performance art with a concentration on the realization of more fully developed solo and collaborative projects. Two lecture hours and six laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 337C with a grade of at least C.

## ART 358C. Transmedia: Digital Time-Art III.

Restricted to design, studio art, and visual art studies majors. Advanced study of time-based art, with emphasis on the exploration of digital technologies, including motion graphics, video, animation, and sound. Two lecture hours and six laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 338 C with a grade of at least C .

## ART 359K. Advanced Digital Photography.

Restricted to design, studio art, and visual art studies majors. Advanced study of digital image making in the context of creating art, including digital technologies and the historical developments of wet processes in black and white, color, and digital photography. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be
taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 334 K with a grade of at least C.

## ART 361J. Painting IV: Figure Painting.

Restricted to design, studio art, and visual art studies majors. Continuation of Studio Art 341M. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 341 M with a grade of at least C .

## ART 361K. Painting IV.

Restricted to design, studio art, and visual art studies majors. Continuation of Studio Art 341K. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 341K or 341M with a grade of at least C, and consent of painting faculty via application and portfolio review.

## ART 363K. Advanced Sculpture.

Restricted to design, studio art, and visual art studies majors. Advanced research in the theory, technology, and methods involved in the production of sculpture, with emphasis on individual direction. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 323K with a grade of at least C.

## ART 363S. Advanced Installation Sculpture.

Restricted to design, studio art, and visual art studies majors. Advanced research in the theory, technology, and methods involved in the production of installation sculpture, with emphasis on individual direction. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 323S or 323 K with a grade of at least C .

## ART 365G. Advanced Printmaking: Serigraphy.

Restricted to design, studio art, and visual art studies majors. Advanced practice in the art of serigraphy, with emphasis on independent research. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 325G with a grade of at least $C$.

## ART 365K. Advanced Printmaking: Intaglio.

Restricted to design, studio art, and visual art studies majors. Advanced practice in the art of printmaking, involving independent research. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 325K with a grade of at least C.

## ART 365M. Advanced Printmaking: Lithography.

Restricted to design, studio art, and visual art studies majors. Advanced instruction in the theories and techniques of metal plate, multicolor, and stone lithography and photolithography. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken
for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 325M with a grade of at least C.

## ART 366K. Advanced Life Drawing.

Restricted to design, studio art, and visual art studies majors. Problems in drawing and construction of the human figure. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 346 K with a grade of at least C.

## ART 368N. Advanced Drawing.

Restricted to design, studio art, and visual art studies majors.
Continuation of Studio Art 322K. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 322 K with a grade of at least C.

## ART 370S. Senior Seminar in Art.

Restricted to design, studio art, and visual art studies majors. Examines how to articulate and make visible the unique qualities and ambition of studio practice through writing, discourse, and other ways of engaging an audience. Coursework is focused on speaking, writing, and conversation. Prerequisite: Upper-division standing; Studio Art 303K, 303L, 304K, and 304 L with a grade of at least C in each; and nine additional semester hours of coursework in studio art with a grade of at least $C$ in each course.

## ART 372K. Advanced Photography.

Restricted to design, studio art, and visual art studies majors. Advanced practice in still photography. Eight laboratory hours a week for one semester. May be repeated for credit, but (1) may not be taken for credit more than twice in the same semester, and (2) may not be taken for credit more than once with the same instructor in the same semester. Prerequisite: Studio Art 334 K and 335 K with a grade of at least C in each.

## ART 376. Independent Study: Studio Art.

Restricted to design, studio art, and visual art studies majors. Individual projects to be completed under faculty supervision. The equivalent of eight laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Completion of at least fifteen semester hours of upper-division coursework in studio art, a grade point average of at least 3.00 in upper-division coursework in the major, and consent of the chair of the department.

## ART 379R. Advanced Topics in Studio Art: Seminar.

Restricted to design, studio art, and visual art studies majors. Intensive advanced study of issues in the various disciplines of studio art. Three seminar hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Studio Art 303K, $303 \mathrm{~L}, 304 \mathrm{~K}$, and 304 L with a grade of at least C in each; and twelve semester hours of upper-division coursework in studio art.

## ART 179S, 379S. Advanced Topics in Studio Art: Lecture.

Restricted to design, studio art, and visual art studies majors. Intensive advanced study of various disciplines of studio art. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For 179S, upper-division standing; Studio Art 303K, 303L, 304K, and 304 L with a grade of at least C in each; concurrent enrollment in Studio Art 279T; and twelve additional semester hours of coursework in studio art with a grade of at least C in each course; for 379S, upper-division standing; Studio Art 303K, 303L, 304K, and 304L with a grade of at least

C in each; and twelve additional semester hours of coursework in studio art with a grade of at least C in each course.

Topic 1: Game Development Capstone: Two-Dimensional Games. Introduction to concepts and skills for game development in a twodimensional game format. Studio Art 179S, 379S (Topic: Game Development Capstone: Two-Dimensional Games) and 179S, 379 S (Topic 1) may not both be counted.

## ART 279T, 379T. Advanced Topics in Studio Art: Laboratory.

Restricted to design, studio art, and visual art studies majors. Intensive advanced study of various disciplines of studio art. The equivalent of five or eight laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For 279T, upper-division standing; Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each; concurrent enrollment in Studio Art 179S; and twelve additional semester hours of coursework in studio art with a grade of at least $C$ in each course; for 379T, upper-division standing; Studio Art 303K, 303L, 304 K , and 304 L with a grade of at least C in each; and twelve additional semester hours of coursework in studio art with a grade of at least C in each course

## Visual Art Studies: VAS

## Lower-Division Courses

## Upper-Division Courses

VAS 320. Exploring Objects, Spaces, and Meaning.
Open to all students. Focuses on a broad range of historical and contemporary works, artifacts, and environments, and their implications for understanding imagery and objects in visual and material culture. Three lecture hours a week for one semester. May not be repeated for credit.

## VAS 221C. Children's Artistic Development I.

Theory and content for the development of perceptual, aesthetic, critical, studio, and art-historical skills. Two lecture hours a week for one semester. Prerequisite: Concurrent enrollment in Visual Art Studies 121D.

## VAS 121D. Children’s Artistic Development I: Laboratory.

Practice in the development of perceptual, aesthetic, critical, studio, and art-historical skills. Four laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Visual Art Studies 221C.

## VAS 222C. Children's Artistic Development II.

Continuation of Visual Art Studies 221C. Advanced theory and content for the development of perceptual, aesthetic, critical, studio, and art-historical skills. Two lecture hours a week for one semester. Prerequisite: Visual Art Studies 221C and 121D with a grade of at least C in each and concurrent enrollment in Visual Art Studies 122D.

## VAS 122D. Children's Artistic Development II: Laboratory.

Continuation of Visual Art Studies 121D. Advanced practice in the development of art skills. Four laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Visual Art Studies 222C.

## VAS 330. Introduction to Visual Art Studies.

Restricted to visual art studies majors; nonmajors may contact the department for permission to register. An introduction to visual art studies: philosophy, current trends, instructional methods, evaluation, advocacy, and careers in art education, museum education, and cultural or social educational settings. Three lecture hours a week for one semester. Observation required outside of class hours. Prerequisite: Studio Art $303 \mathrm{~K}, 303 \mathrm{~L}, 304 \mathrm{~K}$, and 304 L with a grade of at least C in each.

## VAS 241C. Learners and Instructional Sites for Visual Art

 Studies.Restricted to visual art studies majors; nonmajors may contact the department for permission to register. Instructional procedures, observations, and evaluation of early childhood through grade twelve classroom and community-based art instruction. Two lecture hours a week for one semester. Observation required outside of class hours. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least $C$ in each, and concurrent enrollment in Visual Art Studies 141D.

## VAS 141D. Learners and Instructional Sites for Visual Art Studies: Laboratory.

Restricted to visual art studies majors; nonmajors may contact the department for permission to register. Four laboratory hours a week for one semester. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each, and concurrent enrollment in Visual Art Studies 241C

## VAS 251C. Art Materials, Techniques, and Processes.

Restricted to visual art studies majors; nonmajors may contact the department for permission to register. Exploration and application of basic materials, techniques, and processes in art production used in early childhood through grade twelve classroom and community-based art instruction. Two lecture hours a week for one semester. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each; Visual Art Studies 330 with a grade of at least B; and concurrent enrollment in Visual Art Studies 151D.

## VAS 151D. Art Materials, Techniques, and Processes: Laboratory.

Restricted to visual art studies majors; nonmajors may contact the department for permission to register. Four laboratory hours a week for one semester. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each; Visual Art Studies 330 with a grade of at least B; and concurrent enrollment in Visual Art Studies 251C.

## VAS 261C. Criticism and Conversation about Art.

Restricted to visual art studies majors; nonmajors may contact the department for permission to register. Individual and professional evaluations of visual imagery, artifacts, and artistic production in a variety of settings. Two lecture hours a week for one semester. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each; Visual Art Studies 330, 241C, and 141D with a grade of at least B in each; and concurrent enrollment in Visual Art Studies 161D.

## VAS 161D. Criticism and Conversation about Art: Laboratory.

Restricted to visual art studies majors; nonmajors may contact the department for permission to register. Four laboratory hours a week for one semester. Prerequisite: Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each; Visual Art Studies 330, 241C, and 141D with a grade of at least $B$ in each; and concurrent enrollment in Visual Art Studies 261C

## VAS 271C. Topics in Visual Art Studies.

Lectures on selected topics in visual art. Two lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and concurrent enrollment in Visual Art Studies 171D.

## VAS 171D. Topics in Visual Art Studies: Laboratory.

Two laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and concurrent enrollment in Visual Art Studies 271C.

## VAS 376. Independent Study: Visual Art Studies.

Individual projects to be completed under faculty supervision. Individual instruction. May be repeated for credit. Prerequisite: Completion of twelve semester hours of upper-division coursework in the Department of Art and Art History, a grade point average in upper-division coursework in the Department of Art and Art History of at least 3.00, and consent of the chair of the department.

## VAS 379S. Advanced Topics in Visual Art Studies: Lecture.

Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For majors in the Department of Art and Art History, upper-division standing; for others, upper-division standing and consent of instructor.

## Sarah and Ernest Butler School of Music

The University of Texas at Austin is an institutional member of the National Association of Schools of Music, approved for both its undergraduate and its graduate degrees in music. The requirements for entrance and for graduation given in this catalog are in accordance with the published regulations of the association.

## Areas of Study

The College of Fine Arts offers courses in several areas of music. The undergraduate courses available in music performance, music literature, music studies, and music theory are listed below; complete descriptions of all music courses are after the tables below.

## Music Performance

Before the first semester or summer session in which they will be enrolled, new and transfer students must file an Application for Instruction in Music Performance. The card indicates the faculty member to whom the student has been assigned.

All students enrolled in a music performance course must fill out a Music Performance and Jury Report at the end of each semester or summer session for each course taken

Students who receive a grade below $C$ - in any music performance course may not register for that course the next semester until the requests of other students for such work have been met.

Some of the following courses may be repeated for credit on the recommendation of the appropriate music performance jury.

MUS 101G Beginning Music Performance
MUS 201J Beginning Class Piano for Nonmusic Majors
MUS 201K Second-Semester Class Piano for Nonmusic Majors
MUS 201M Beginning Music Performance: Class Piano
MUS 201N Beginning Music Performance: Second-Semester Class Piano MUS 201S Beginning Music Performance: Class Harp
MUS 201T Beginning Music Performance: Second-Semester Class Harp
MUS 210J Beginning Instruction in Music Performance: Third-Semester
Class Piano
MUS 210K Beginning Instruction in Music Performance: Fourth-Semester Class Piano
MUS 111E English Diction and Phonetic Translation
MUS 311F French for Musicians
MUS 311G German for Musicians
MUS 311J Italian for Musicians
MUS 313 Fundamentals of Music
MUS 115T Lower-Division Reed Making
MUS 420J Junior Jazz Recital

MUS 420R Junior Recital
MUS 222J Instrumental Conducting
MUS 222K Instrumental Conducting
MUS 223J Choral Conducting
MUS 223K Choral Conducting
MUS 159J Harp Repertoire
MUS 259L Vocal Repertoire Coaching
MUS 259N Chamber Music: Strings and Piano
MUS 259P Chamber Music: Winds and Percussion
MUS 259T Topics in Instrumental Technology
MUS 160C Senior Composition Recital
MUS 460J Senior Jazz Recital
MUS 260M Pedagogy
MUS 460P Pedagogy
MUS 460R Senior Recital
MUS 262 Intermediate Instrumental Conducting MUS 366P Senior Piano Pedagogy Project
MUS 176C, MUS 276C, MUS 376C Special Topics in Music Performance MUS 178C, MUS 278C, MUS 378C Independent Study: Music Performance

## Music Literature

MUS 302L An Introduction to Western Music MUS 302P Introductory Topics in Western Music MUS 303M Introduction to Music in World Cultures MUS 303N Introduction to Popular Music in World Cultures
MUS 303P Topics in Music of World Cultures
MUS 307 Topics in Popular Music
MUS 313M History of Music I
MUS 313N History of Music II
MUS 330L History of Music III
MUS 334 The Music of the Americas
MUS 337 Music and Film Sound
MUS 338 Masterpieces of Music
MUS 342 Area Studies in Ethnomusicology
MUS 343J History of Jazz
MUS 376G Special Topics in Music Literature MUS 178G, MUS 278G, MUS 378G Independent Study: Music Literature MUS 379K Advanced Topics in Music Literature

## Music Studies

MUS 115D String Instrument Fundamentals
MUS 115E Brass Instrument Fundamentals
MUS 115F Woodwind Instrument Fundamentals
MUS 115G Guitar Fundamentals
MUS 354 Musical Development of Children
MUS 354C Children's Music Literature and Performance I
MUS 354D Children's Music Literature and Performance II
MUS 354F Music Performance, Listening, and Appreciation
MUS 155C Techniques of Percussion Performance
MUS 255D Techniques of String Performance
MUS 255E Techniques of Brass Performance
MUS 255F Techniques of Woodwind Performance
MUS 255M Marching Band Techniques
MUS 255V Techniques of Vocal Performance
MUS 356G Choral Ensemble Literature and Performance
MUS 356J Instrumental Ensemble Literature and Performance
MUS 176M Special Topics in Music Studies
MUS 178M, MUS 278M, MUS 378M Independent Study: Music Studies

## Music Theory

MUS 605 Musicianship
MUS 411 Ear Training and Sight-Singing
MUS 612 Structure of Tonal Music

MUS 214C Beginning Composition
MUS 218J Beginning Jazz Improvisation
MUS 321J Twentieth-Century Musical Analysis
MUS 224G Intermediate Composition
MUS 224J Advanced Composition
MUS 325L Counterpoint
MUS 325M Counterpoint
MUS 226G Orchestration and Arranging
MUS 226J Orchestration and Instrumentation
MUS 226K Orchestration and Instrumentation
MUS 226N Choral Arranging
MUS 228G Jazz Theory I
MUS 228J Intermediate Jazz Improvisation
MUS 228K Beginning Jazz Piano Techniques
MUS 228L Jazz Theory II
MUS 328M Studio Arranging
MUS 228P Jazz Composition
MUS 329E Introduction to Electronic Media
MUS 329F Projects in Electronic Media
MUS 329G Intermediate Electronic Composition
MUS 329J Introduction to Computer Music
MUS 329M Intermediate Computer Music
MUS 164L Advanced Ear Training
MUS 368L Review of Music Theory
MUS 376J Special Topics in Music Theory
MUS 178J, MUS 278J, MUS 378J Independent Study: Music Theory
The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A.

The abbreviations used for performance courses are included in Appendix B.

## Ensemble: ENS

## Lower-Division Courses

## ENS 103P. Butler Opera Center Ensemble.

Open to any University student who can qualify by audition. Instruction and performance in operatic acting, vocal coaching, and stage direction. Four laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit.

## ENS 105. Sight-Reading.

Designed to develop and improve sight-reading skills in piano performance. Three laboratory hours a week for one semester. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 106. Accompanying.

Designed for pianists, organists, and harpsichordists to improve ensemble playing and to give training in the technique of vocal and instrumental accompanying. One and one-half to three laboratory hours a week as required for one semester. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 107J. Jazz Orchestra.

Advanced jazz ensemble. Six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 107K. Large Instrumental Ensemble.

Offered under various topics according to instrumentation, including Symphony Band, Symphony Orchestra, and Wind Ensemble. Six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 107L. Longhorn Band.

In the spring semester, this organization divides into multiple performing ensembles. Six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 107S. Small Instrumental Ensemble.

Offered under various topics according to instrumentation. Two laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 108C. Texas Concert Band.

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 108D. Tower Concert Band.

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 108E. Longhorn Concert Band.

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 108F. Orange Concert Band.

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 108H. Longhorn Band Jazz Ensemble.

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 108K. Longhorn Band Percussion Ensemble.

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 108M. Longhorn Band Color Guard Ensemble.

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 109C. Choral Ensemble.

Offered under various topics according to ensemble composition, including University Chorus and Women's Chorus. Three laboratory hours a week for one semester, with additional laboratory hours as required.

May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 109K. Chamber Singers.

Six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 109L. Concert Chorale.

Six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## ENS 109P. Pop Choral Ensemble.

Offered under various topics, including Longhorn Singers and Varsity Singers. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

## Upper-Division Courses

Music: MUS

## Lower-Division Courses

## MUS 101G. Beginning Music Performance.

Class instruction in music performance for nonmusic majors and for music majors studying a secondary instrument. Sections are offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harpsichord, oboe, organ, percussion, recorder, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. Laboratory hours as required. May be repeated for credit when the instruments vary. Prerequisite: Ability to read music. Students studying guitar must provide their own six-string nylon (classical) guitar.

## MUS 201J. Beginning Class Piano for Nonmusic Majors.

Open to all University students, except music majors, who have no experience in piano. Three class hours a week for one semester. May be repeated for credit.

## MUS 201K. Second-Semester Class Piano for Nonmusic Majors.

Open to all University students, except music majors, who can fulfill the prerequisite. Three class hours a week for one semester. May be repeated for credit. Prerequisite: Credit with a grade of at least C or registration for Music 201J, or consent by audition; and consent of instructor.

## MUS 201M. Beginning Music Performance: Class Piano.

Open only to music majors. Three laboratory hours a week for one semester. Credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Ability to read music, and concurrent enrollment in Music 605A or consent of instructor. No experience on the instrument required; for those with experience, consent by audition required.

## MUS 201N. Beginning Music Performance: Second-Semester Class Piano.

Open only to music majors. Continuation of Music 201M. Three laboratory hours a week for one semester. Credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Music 201 M completed the previous semester with a grade of at least $C$, or consent by audition.

## MUS 201S. Beginning Music Performance: Class Harp.

Open to all University students who can fulfill the prerequisite. Three laboratory hours a week for one semester. For music majors, credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Ability to read music and consent of instructor. No previous experience on the instrument required.

## MUS 201T. Beginning Music Performance: Second-Semester Class Harp.

Open to all University students who can fulfill the prerequisite. Three laboratory hours a week for one semester. For music majors, credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Music 201S completed the previous semester with a grade of at least C , or consent by audition.

## MUS 302L (TCCN: MUSI 1306). An Introduction to Western

 Music.Open to all University students except music majors. Information and techniques for the intelligent appreciation of music: its elements, basic forms, and major style periods from the Middle Ages to the present. Three lecture hours a week for one semester, with one laboratory hour a week as required.

## MUS 302P. Introductory Topics in Western Music.

May not be counted by music majors. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## MUS 303M. Introduction to Music in World Cultures.

Open to all University students. 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. Three lecture hours a week for one semester, with one laboratory hour a week as required. Asian Studies 303M and Music 303M may not both be counted.

## MUS 303N. Introduction to Popular Music in World Cultures.

Open to all University students. 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. Three lecture hours a week for one semester, with one laboratory hour a week as required. Asian Studies 303 N and Music 303 N may not both be counted.

## MUS 303P. Topics in Music of World Cultures.

May not be counted by music majors. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

MUS 605 (TCCN: MUSI 1311, MUSI 1312). Musicianship.
Study of the fundamentals of music for music majors through tonal harmony, ear training, sight-singing, keyboard drill, analysis, and composition of music. Three lecture hours and two laboratory hours a week for two semesters. Music 605 and 313 may not both be counted. Prerequisite: For 605A, either satisfactory completion of the audition required for admission to the Butler School of Music and registration in class piano as assigned by the Butler School of Music, or consent of instructor; for 605B, Music 605A with a grade of at least C, and registration in class piano as assigned by the Butler School of Music or consent of instructor.

## MUS 306M. Elements of Music.

Open to all University students except music majors. 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. Three lecture hours a week for one semester. Music 606 and 306 M may not both be counted.

## MUS 307 (TCCN: MUSI 1310). Topics in Popular Music.

Open to all University students. Studies of the popular music of a selected culture or geographical area. Three lecture hours a week for one semester, with one laboratory hour a week as required. May be repeated for credit when the topics vary.

Topic 1: Music of African Americans. Same as African and African Diaspora Studies 317F (Topic 2). Introduction to the variety of modes of expression of African American culture in music and other related genres. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 317 (Topic 2: Music of African Americans), 317F (Topic 2), Music 307 (Topic 1).
Topic 2: History of Rock Music.
Topic 3: Jazz Appreciation.

## MUS 007P. String Education: Teaching and Learning.

Restricted to current String Project program instructors in the Butler School of Music. Discussion of curriculum planning, lesson observation, and program management topics, as well as guest pedagogues and master teacher presentations. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Acceptance of teaching application for the String Project program.

## MUS 210J. Beginning Instruction in Music Performance: Third-Semester Class Piano.

Open only to music majors. Continuation of Music 201N. Three laboratory hours a week for one semester. Credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Music 201 N completed the previous semester with a grade of at least $C$, or consent by audition.

## MUS 210K. Beginning Instruction in Music Performance: Fourth-Semester Class Piano.

Open only to music majors. Continuation of Music 210J. Three laboratory hours a week for one semester. Credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Music 210J completed the previous semester with a grade of at least C , or consent by audition.

## MUS 411 (TCCN: MUSI 2216, MUSI 2217). Ear Training and Sight-Singing.

Material drawn from all musical styles. Two lecture hours and one laboratory hour a week for two semesters. Prerequisite: For 411A, Music 605B with a grade of at least C, and concurrent enrollment in Music 612A; for 411B, Music 411A with a grade of at least $C$ and concurrent enrollment in Music 612B.

## MUS 111E (TCCN: MUSI 1161). English Diction and Phonetic Translation.

Open only to music majors. Study of English diction and phonetic translation specifically for musicians. Emphasis on the International Phonetic Alphabet. One lecture hour a week for one semester.

## MUS 311F. French for Musicians.

Open only to music majors. French language and diction specifically for musicians. Three lecture hours and one laboratory hour a week for one semester.

MUS 311G. German for Musicians.
Open only to music majors. German language and diction specifically for musicians. Three lecture hours and one laboratory hour a week for one semester.

## MUS 311J. Italian for Musicians.

Open only to music majors. Italian language and diction specifically for musicians. Three lecture hours and one laboratory hour a week for one semester.

## MUS 612 (TCCN: MUSI 2311, MUSI 2312). Structure of Tonal Music.

Elements of tonal harmony and form; tonal analysis. Three lecture hours a week for two semesters, with one laboratory hour a week as required. Prerequisite: For 612A, Music 605B with a grade of at least C, concurrent enrollment in Music 411A, and registration in class piano as assigned by the Butler School of Music or consent of instructor; for 612B, Music 612A with a grade of at least C, concurrent enrollment in Music 411B, and registration in class piano as assigned by the Butler School of Music or consent of instructor.

## MUS 313. Fundamentals of Music.

Designed to familiarize students who are not music majors with the meaning of musical notation and with the harmonic, melodic, and rhythmic structure of music. Three lecture hours and one laboratory hour a week for one semester. Music 605 and 313 may not both be counted.

## MUS 313M. History of Music I.

The history of music from the beginning of notation to the eighteenth century. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Music 605 or consent of instructor.

## MUS 313N. History of Music II.

The history of music from the eighteenth century to the early twentieth century. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Music 313M or consent of instructor.

## MUS 214C (TCCN: MUSI 1286). Beginning Composition.

Introduction to contemporary composition through the analysis and writing of short studies and through supervised original projects. Two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Concurrent enrollment in Music 411 and 612, or consent of instructor.

## MUS 115D. 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. Individual or class instruction in music performance. Laboratory hours as required. May not be repeated for credit on the same instrument. May not be taken by music majors in their principal instrument. Prerequisite: A major in music.

## MUS 115E. 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. Individual or class instruction in music performance. Laboratory hours as required. May not be repeated for credit on the same instrument. May not be taken by music majors in their principal instrument. Prerequisite: A major in music.

## MUS 115F. 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. Individual or class instruction in music performance. Laboratory hours as required. May not be repeated for
credit on the same instrument. May not be taken by music majors in their principal instrument. Prerequisite: A major in music.

## MUS 115G. Guitar Fundamentals.

Beginning instruction in guitar performance and pedagogy. Individual or class instruction in music performance. Laboratory hours as required. Prerequisite: A major in music or consent of instructor.

## MUS 115T. Lower-Division Reed Making.

Individual instruction. May be repeated for credit. Prerequisite: Consent of instructor.

## MUS 218J. Beginning Jazz Improvisation.

Study of basic jazz improvisational skills through performance of standard literature. Two class hours a week for one semester. Prerequisite: Music 605 or consent of instructor.

## MUS 319D. 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. Three hours a week for one semester. Fine Arts 310 (Topic: Foundations of Digital Sound and Music) and Music 319D may not both be counted. Prerequisite: Consent of instructor.

MUS 119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, 919Q. 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 Butler 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## MUS 420J. Junior Jazz Recital.

Preparation and performance of a half-hour public recital in the major jazz instrument. Individual instruction. Prerequisite: For jazz composition majors, course 212J in the major jazz instrument for two semesters, or the equivalent, and approval of the jazz faculty; for jazz performance majors, course 412 J in the major jazz instrument for two semesters, or the equivalent, and approval of the jazz faculty.

## MUS 220P. Practicum in a World Music Tradition.

Open to any University student who can qualify by audition. 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. Two lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing; two semesters of enrollment in a non-Western music ensemble, such as Javanese Gamelan, Middle Eastern or North Indian Music ensemble, or other approved music ensembles, and consent of instructor.

## MUS 420R. Junior Recital.

Preparation and performance of a half-hour public recital in the major instrument. Individual instruction. Prerequisite: Course 412 (or 410) in the major instrument for four semesters, or the equivalent, and approval of the faculty.

## MUS 321J. 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. Three lecture hours a week for one semester. Prerequisite: Music 411 and 612.

## MUS 222J. Instrumental Conducting.

Designed for those who have had no experience in 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. Two class hours a week for one semester. Prerequisite: Upper-division standing in music or consent of instructor.

## MUS 222K. 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. Two class hours a week for one semester. Prerequisite: Music 222J or consent of instructor.

## MUS 223J. Choral Conducting.

Designed for those who have had no experience in 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. Two class hours a week for one semester. Prerequisite: Upper-division standing in music.

## MUS 223K. 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. Two class hours a week for one semester. Prerequisite: Music 223J or consent of instructor.

## MUS 224G. Intermediate Composition.

Continuation of Music 214C. The equivalent of two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Music 214C with a grade of at least B, and approval of the music theory and composition faculty.

## MUS 224J. Advanced Composition.

Continuation of Music 224G for composition majors only. The equivalent of two lecture hours and one laboratory hour a week for one semester. With consent of the music theory and composition faculty, may be repeated for credit. Prerequisite: Music 224G with a grade of at least B, and approval of the music theory and composition faculty.

## MUS 325L. Counterpoint.

Development of contrapuntal skill in sixteenth-century style and in related late-twentieth-century styles; the teaching of counterpoint, including Fuxian species. Three lecture hours a week for one semester. Prerequisite: Music 411 and 612.

## MUS 325M. 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. Three lecture hours a week for one semester.

## MUS 226G. Orchestration and Arranging.

Techniques of instrumentation, arranging, and orchestration for band, orchestra, and chamber ensembles. Two lecture hours a week for one semester. Prerequisite: Music 411 and 612.

## MUS 226J. 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. Two lecture hours a week for one semester. Prerequisite: Music 411 and 612.

## MUS 226K. Orchestration and Instrumentation.

Continuation of Music 226J. Two lecture hours a week for one semester. Prerequisite: Music 226J.

## MUS 226N. Choral Arranging.

Techniques of voicing and arranging for choirs, vocal ensembles, and vocal chamber groups. Two lecture hours a week for one semester.
Prerequisite: Music 411 and 612.

## MUS 228G. Jazz Theory I.

Study of the elements of jazz and popular styles, with emphasis on written theory and keyboard skills. Two lecture hours a week for one semester. Prerequisite: Music 201 N and 605, or consent of instructor.

## MUS 228J. Intermediate Jazz Improvisation.

Continuation of Music 218J. Two class hours a week for one semester. Prerequisite: Music 201N, 605, 218J, and 228G; or consent of instructor.

## MUS 228K. Beginning Jazz Piano Techniques.

Designed for music majors (pianists and nonpianists) seeking basic skills in chord notation, chord interpretation and voicing, voice leading, and chord and scale relationships for improvisation. Three laboratory hours a week for one semester. Prerequisite: Music 210K and 612, or consent of instructor.

## MUS 228L. Jazz Theory II.

Continuation of the concepts taught in Music 228G, with an emphasis on ear training, harmonic motion of jazz, and harmonic embellishment. Two lecture hours a week for one semester. Prerequisite: Music 228G.

## MUS 328M. Studio Arranging.

Techniques of composing and arranging for standard jazz and popular music instrumental combinations in varied styles. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Music 612 and 228 G , or consent of instructor.

## MUS 228P. Jazz Composition.

Individual instruction in the creative process of composition, involving the melodic, harmonic, and rhythmic components of various jazz styles. Individual instruction. May be repeated for credit. Prerequisite: Music 328 M or consent of instructor.

## MUS 329E. Introduction to Electronic Media.

Introduction to the fundamentals of recording, tape editing, and electronic music synthesis. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Consent of instructor.

## MUS 329F. Projects in Electronic Media.

Continuation of Music 329E for nontheory and noncomposition majors. One and one-half lecture hours and eight laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Music 329E and consent of instructor.

MUS 329G. Intermediate Electronic Composition.
Continuation of Music 329E for music theory or composition majors. Three lecture hours and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Music 329E and consent of instructor.

## MUS 329J. Introduction to Computer Music.

An introduction to the basic concepts of digital music synthesis and signal processing. One and one-half lecture hours and eight laboratory hours a week for one semester. Prerequisite: Music 329E and consent of instructor.

## MUS 329M. Intermediate Computer Music.

Continuation of Music 329J. One and one-half lecture hours and eight laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Music 329J and consent of instructor.

MUS 129Q, 229Q, 329Q, 429Q, 529Q, 629Q, 729Q, 829Q, 929Q. 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 Butler 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. May be repeated for credit when the topics vary.

## MUS 330L. History of Music III.

The history of music from the early twentieth century to the present. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Music 313N or consent of instructor.

## MUS 331J. Advanced Studies in Music Theory.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: MUS 612 and 313 N , or upper-division standing and consent of instructor.

## MUS 334. 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. Three lecture hours a week for one semester, with one laboratory hour a week as required. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Music of Mexico and the Caribbean. Same as Latin American Studies 326 (Topic 1: Music of Mexico and the Caribbean). An 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. Only one of the following may be counted: Latin American Studies 322 (Topic: Music of Mexico and the Caribbean), 326 (Topic 1), Music 334 (Topic 1). Additional prerequisite: Upperdivision standing.
Topic 2: Music of Latin America. Same as Latin American Studies 326 (Topic 2: Music of Latin America). Only one of the following may be counted: Latin American Studies 322 (Topic: Music of Latin America), 326 (Topic 2), Music 334 (Topic 2).
Topic 3: Music of Brazil and Argentina. Same as Latin American Studies 326 (Topic 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. Only one of the following may be counted: Latin American Studies 322 (Topic: Music of Brazil and Argentina), 326 (Topic 3), Music 334 (Topic 3). Additional prerequisite: Upper-division standing. Topic 4: Music of the Andean Countries. Same as Latin American Studies 326 (Topic 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. Only one of the following may be counted: Latin American Studies 322 (Topic: Music of the Andean Countries), 326 (Topic 4), Music 334 (Topic 4).
Topic 5: The Music of the African Diaspora. Same as African and African Diaspora Studies 374F (Topic 8) and Latin American Studies 326 (Topic 5). 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. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Music of the African Diaspora), 374F (Topic 8), Latin American Studies 326 (Topic: Music of the African Diaspora), 326 (Topic 5), Music 334 (Topic: Music of the African Diaspora), 334 (Topic 5).

## MUS 337. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## MUS 338. Masterpieces of Music.

Study of the works of specific composers or of specific genres in the Western musical tradition. Three lecture hours a week for one semester. May not be counted by music majors. May be repeated for credit when the topics vary. Prerequisite: Music 302L or consent of instructor.

## MUS 342. Area Studies in Ethnomusicology.

Studies of the musical traditions of selected cultures or geographical areas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 3: Musics of India. Same as Anthropology 324L (Topic 13: Musics of India) and Asian Studies 361 (Topic 11: Musics of India). Prerequisite: Upper-division standing.
Topic 5: Black Perspectives in Jazz. Same as African and African Diaspora Studies 372E (Topic 12). Explores the social, cultural, political, and artistic relationships between jazz and the black experience, both within the African American context and throughout the diaspora. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 12), 374 (Topic 10: Black Perspectives in Jazz), Music 342 (Topic 5).
Topic 6: Musics of East and Southeast Asia. Same as Asian Studies 361 (Topic 15: Musics of East and Southeast Asia). Asian Studies

361 (Topic 15) and Music 342 (Topic 6) may not both be counted. Additional prerequisite: Upper-division standing.
Topic 7: Introduction to the Music of the Middle East. Same as Jewish Studies 363 (Topic 21). Only one of the following may be counted: Islamic Studies 373 (Topic: Introduction to Music of the Middle East), Jewish Studies 363 (Topic: Introduction to Music of the Middle East), 363 (Topic 21), Middle Eastern Languages and Cultures 321 (Topic: Introduction to Music of the Middle East), Middle Eastern Studies 328 (Topic: Introduction to Music of the Middle East), 342 (Topic: Introduction to Music of the Middle East), Music 342 (Topic: Introduction to Music of the Middle East), 342 (Topic 7).

## MUS 343J. History of Jazz.

Survey of the history of jazz from its origins to the present. Three lecture hours a week for one semester. Prerequisite: Upper-division standing in music or consent of instructor.

## MUS 350S. Creating Music and Sound for Film, Video and Games.

Priority given to music composition majors. 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. Three lecture hours a week for one semester. Prerequisite: Music 319D with a grade of at least $C$, and consent of instructor.

## MUS 354. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

## MUS 354C. Children's Music Literature and Performance I.

Literature, materials, and music performance activities appropriate for young children. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Music 605 or 313, upper-division standing in music studies, or consent of instructor.

## MUS 354D. Children's Music Literature and Performance II.

Continuation of Music 354C. Three lecture hours a week for one semester. Prerequisite: Music 354C or consent of instructor.

## MUS 354F. 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. Three lecture hours and one laboratory hour a week for one semester.

## MUS 155C. Techniques of Percussion Performance.

Percussion performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures. Two laboratory hours a week for one semester. Prerequisite: Upper-division standing in music studies.

## MUS 255D. Techniques of String Performance.

String instrument performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures. Two lecture hours a week for one semester. Prerequisite: Upper-division standing in music studies.

## MUS 255E. Techniques of Brass Performance.

Brass instrument performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures. Two
lecture hours a week for one semester. Prerequisite: Upper-division standing in music studies.

## MUS 255F. Techniques of Woodwind Performance.

Woodwind instrument performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures. Two lecture hours a week for one semester. Prerequisite: Upper-division standing in music studies.

## MUS 255M. Marching Band Techniques.

Literature, materials, and techniques of the marching band. Two lecture hours and one laboratory hour a week for one semester. Prerequisite: Upper-division standing in music studies.

## MUS 255V. Techniques of Vocal Performance.

Technique of individual and ensemble singing practiced through the study of vocal literature. Two lecture hours a week for one semester. Prerequisite: Upper-division standing in music studies.

## MUS 356G. Choral Ensemble Literature and Performance.

Choral music literature; rehearsal and performance techniques for choirs and small ensembles. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Upper-division standing in music studies or consent of instructor.

## MUS 356J. Instrumental Ensemble Literature and Performance.

Study of the literature and of performance and rehearsal techniques for heterogeneous instrumental ensembles. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Upper-division standing in music studies and Music 210K.

## MUS 159J. Harp Repertoire.

Study and performance of the harp repertoire. One laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor.

## MUS 259L. Vocal Repertoire Coaching.

Two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor.

## MUS 259N. Chamber Music: Strings and Piano.

The equivalent of two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Music 411, 612, and consent of instructor.

## MUS 259P. Chamber Music: Winds and Percussion.

The equivalent of two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Music 411, 612, and consent of instructor.

## MUS 259T. Topics in Instrumental Technology.

Two lecture hours and one laboratory hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## MUS 160C. Senior Composition Recital.

Open only to music composition majors. Preparation and performance of a thirty-minute public recital of the student's original compositions. Individual instruction.

## MUS 460J. Senior Jazz Recital.

Open only to jazz performance majors. Preparation and performance of a one-hour public recital in the major jazz instrument. Individual instruction. Prerequisite: Music 420J and approval of the jazz faculty.

## MUS 260M. Pedagogy.

An intensive study of repertoire and methods, designed for students planning to specialize in teaching. May be repeated for credit when the topics vary.

Topic 1: Woodwind Instruments. The equivalent of two laboratory hours a week for one semester. Prerequisite: Two semesters of instrument course 260 and approval of the faculty in one of the woodwind instruments.
Topic 2: Brass Instruments. The equivalent of two laboratory hours a week for one semester. Prerequisite: Two semesters of instrument course 260 and approval of the faculty in one of the brass instruments.
Topic 3: Piano. Offered in the summer session only, in conjunction with the High School Piano Performance Workshop; meets four hours a day for two weeks. May not be substituted for Music 460PA or 460PB. May be repeated for credit. Prerequisite: Piano 412 or consent of instructor.
Topic 4: Strings. The equivalent of two laboratory hours a week for one semester. Prerequisite: Two semesters of instrument course 260 and approval of the faculty in one of the string instruments.
Topic 5: Group Piano. The development of skills in teaching group piano. Examination of methods and materials used in keyboard instruction and for improvisation, sight-reading, and score reading. Two lecture hours and one laboratory hour a week for one semester. Prerequisite: Upper-division standing in music and consent of instructor.

## MUS 460P. Pedagogy.

Designed primarily for students planning teaching careers. This course is offered in harp, piano, strings, woodwinds, brass, percussion, and voice. Methods of 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. Two lecture hours a week for two semesters. Upon recommendation of the faculty, Music 460P and two semesters of instrument course 260 and approval of the faculty in the student's instrument may be substituted for instrument course 462 and Music 460R. Prerequisite: For 460PA, instrument course 462 and approval of the faculty, and consent of instructor; for 460PB, Music 460PA.

## MUS 460R. Senior Recital.

Open only to music performance majors. Preparation and performance of a one-hour public recital in the major instrument. Individual instruction. Prerequisite: For performance majors approved to pursue a pedagogy emphasis, approval of the faculty; for other performance majors, Music 420R and approval of the faculty.

## MUS 262. 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. Two class hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Music 222K or consent of instructor.

Topic 1: Band. May be repeated for credit.
Topic 2: Orchestra. May be repeated for credit.

## MUS 164L, 364L. 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. For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Upper-division standing in music and Music 411 and 612.

## MUS 366P. Senior Piano Pedagogy Project.

Open only to senior piano performance majors pursuing the pedagogy option. Students complete a research paper on a piano pedagogy topic, such as methodology, skills development, or repertoire. Individual instruction. Prerequisite: Upper-division standing and Music 460P with a grade of at least $B$.

## MUS 368L. Review of Music Theory.

An intensive review of the skills and concepts required for the study of music theory at the graduate level. Three lecture hours a week for one semester. May not be counted toward a graduate degree. Prerequisite: Upper-division or graduate standing in music.

## MUS 375J. Twentieth-Century Music Techniques.

Restricted to music majors. Review of techniques and methods for analyzing twentieth-century music. Three lecture hours a week for one semester. Music 375J and Music 376J (Topic 1) may not both be counted. Offered on the letter-grade basis only.

## MUS 176C, 276C, 376C. Special Topics in Music Performance.

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

## MUS 376G. Special Topics in Music Literature.

Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

Topic 1: Historical Survey of Russian Music. Same as Comparative Literature 323 (Topic 7), Humanities 350 (Topic 9), Russian, East European, and Eurasian Studies 325 (Topic 20), and Russian 330 (Topic 3). Focus on the role of Russian music in its social and historical context. Only one of the following may be counted: Comparative Literature 323 (Topic: Historical Survey of Russian Music), 323 (Topic 7), Humanities 350 (Topic: Historical Survey of Russian Music), 350 (Topic 9), Music 376G (Topic: Historical Survey of Russian Music), 376G (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic: Historical Survey of Russian Music), 325 (Topic 20), Russian 330 (Topic: Historical Survey of Russian Music), 330 (Topic 3). Prerequisite: For music majors, upper-division standing and consent of instructor; for others, upper-division standing.

## MUS 376J. Special Topics in Music Theory.

Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

Topic 2: Performance, Analysis, and Interpretation. Restricted to music majors. Undergraduate music theory seminar applying theoretical and historical insights to performance and interpretation. Three lecture hours a week for one semester. Music 376J (Topic 2) and Music 379K (Topic: Performance and Analysis) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upperdivision standing or consent of instructor.

## MUS 176M. Special Topics in Music Studies.

One class hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

## MUS 677P. Internship and Final Project.

Restricted to seniors. Practical experience in the music and recording industry related to the student's area of interest within the music business, recording technology, or electronic media. Comprehensive final project addresses entrepreneurship, as well as technical and business elements of the music and recording industry. Forty hours a week for one semester. Prerequisite: Completion of the program requirements for enrollment in an internship course and consent of the program director.

## MUS 178C, 278C, 378C. Independent Study: Music Performance.

Individual projects to be completed under faculty supervision. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the director of the school.

MUS 178G, 278G, 378G. Independent Study: Music Literature. Individual projects to be completed under faculty supervision. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the director of the school.

## MUS 178J, 278J, 378J. Independent Study: Music Theory.

Individual projects to be completed under faculty supervision. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the director of the school.

## MUS 178M, 278M, 378M. Independent Study: Music Studies.

 Individual projects to be completed under faculty supervision. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the director of the school.
## MUS 379K. Advanced Topics in Music Literature.

Three lecture hours a week for one semester. Two or more topics may be taken concurrently. May be repeated for credit when the topics vary. Prerequisite: Music 612 and 313N, or upper-division standing and consent of instructor.

## Topic 1: Topics in Keyboard Literature.

Topic 2: Piano Literature, Eighteenth Century to the Present.
Topic 5: Topics in Instrumental Chamber Music.
Topic 6: Topics in Symphonic Tradition.
Topic 7: Topics in Instrumental Concerto.
Topic 8: Topics in the Art Song.
Topic 9: Topics in Opera and Music Drama.
Topic 10: Topics in Mass and Motet.
Topic 11: Topics in Choral Music.
Topic 12: Topics in Cantata and Oratorio.
Topic 13: Topics in Modern Music.
Topic 14: Special Topics in the Western Musical Tradition.
Topic 17: Topics in Instrumental Wind Music.

## Music Business: MBU

## Lower-Division Courses

## Upper-Division Courses

## MBU 339M. Introduction to the Music Business and Entrepreneurship.

An overview of the dynamics and business challenges of the contemporary music performance world, with an emphasis on the study of the rapidly changing musical culture and an increasingly competitive and diversified marketplace. Guest lecturers include professional conductors, directors of large performance venues, classical and pop music performers, music critics, songwriters, music publishers, entertainment law attorneys, and record producers. Three lecture hours a week for one semester. Only one of the following may be counted: Music 339M, 376C (Topic: Business of Music), Music Business 339M. Prerequisite: Upper-division standing.

## MBU 339N. Music Entrepreneurship.

Further exploration of the dynamics and business challenges of the contemporary music performance world, with emphasis on entrepreneurial savvy, communication skills, fluency with emerging technologies, commitment to audience education, public advocacy for music, and the future health and growth of musical culture. Three lecture hours a week for one semester. Music 339N and Music Business 339N may not both be counted. Prerequisite: Upper-division standing and Music 339M or Music Business 339M.

## MBU 347M. Music Copyright and Publishing.

Recording, music publishing, and personal management agreements and how they affect the artist and writer. Includes negotiation considerations, deal points, record company economics and profitability, intellectual property rights, publishing and the control and exploitation of publishing rights in music property, publishing activities, performing rights organizations, catalog sales and acquisitions, publisher and songwriter relations, and royalty accounting. Three lecture hours a week for one semester. Music 347M and Music Business 347M may not both be counted. Prerequisite: Upper-division standing, and credit or registration for Music 339M or Music Business 339M.

## MBU 347N. Topics in the Business of Music and the Arts.

Three lecture hours a week for one semester. Music 347 N and Music Business 347 N may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and Music 339M or Music Business 339M.

## MBU 377P. Internship and Final Project.

Restricted to seniors in the music business concentration. Practical experience in the music industry related to the student's area of interest within the music business. Comprehensive final project addresses entrepreneurship, as well as business elements of the music industry. Forty hours a week for one semester. Only one of the following may be counted: Music 677P, Music Business 377P, Music Recording Technology 377P. Prerequisite: Completion of the program requirements for enrollment in an internship course and consent of the program director.

## Music Recording Technology: MRT Lower-Division Courses

## MRT 316M. Introduction to Audio Recording.

Fundamentals of modern multitrack audio recording, including analog and digital recording, microphones and microphone techniques, basic mixing and signal processing, technology, and terminology. Three lecture hours and three laboratory hours a week for one semester. Music 316M
and Music Recording Technology 316M may not both be counted. Prerequisite: Consent of instructor.

## MRT 316N. Intermediate Audio Recording.

Intermediate techniques of modern multitrack audio recording, including stereo and remote location recording, intermediate microphone techniques, signal processing and automated mixing, and modern production techniques. Three lecture hours and three laboratory hours a week for one semester, with additional laboratory hours as required. Music 316N and Music Recording Technology 316N may not both be counted. Prerequisite: Music 316M or Music Recording Technology 316M, or consent of instructor.

## Upper-Division Courses <br> MRT 335M. Fundamentals of Digital Audio Workstations.

An overview of the history and theory behind digital audio and digital audio recording, including stand-alone and computer-based digital audio workstations. Three lecture hours a week for one semester. Music 335M and Music Recording Technology 335M may not both be counted. Prerequisite: Music 316N or Music Recording Technology 316N, or consent of instructor.

## MRT 335N. Advanced Digital Audio Workstations.

Includes advanced editing, MIDI control surfaces, use of Beat Detective application, surround and synchronization, advanced mixing, plugins, third-party digital audio workstation add-ons, soft synthesizers and samplers, and digital mastering techniques and practices. Three lecture hours a week for one semester. Music 335N and Music Recording Technology 335N may not both be counted. Prerequisite: Music 335M or Music Recording Technology 335M, or consent of instructor.

## MRT 336C. Computer Audio Production.

Desktop music production, including the history of computer music, MIDI and specialized digital audio for multimedia production, loopbased music, contemporary production styles, and music production environments. Three lecture hours a week for one semester. Music 336C and Music Recording Technology 336C may not both be counted. Prerequisite: Music 335N or Music Recording Technology 335N, or consent of instructor.

## MRT 345. Advanced Audio Recording.

Contemporary audio recording and production styles. Advanced techniques for specific recordings and musical styles, including ensemble recording in a multitrack environment. Three lecture hours and three laboratory hours a week for one semester, with additional laboratory hours as required. Music 345 and Music Recording Technology 345 may not both be counted. Prerequisite: Music 336C or Music Recording Technology 336C, or consent of instructor.

## MRT 377P. Internship and Final Project.

Restricted to seniors in the music recording technology concentration. Practical experience in the music recording industry related to the student's area of interest within recording technology or electronic media. Comprehensive final project addresses entrepreneurship, as well as technical elements of the music recording industry. Forty hours a week for one semester. Only one of the following may be counted: Music 677P, Music Business 377P, Music Recording Technology 377P. Prerequisite: Completion of the program requirements for enrollment in an internship course and consent of the program director.

## Performance: PRF

## Lower-Division Courses

## PRF 201. Lower-Division Music Performance: Secondary.

Individual instruction in 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, oboe, organ, percussion, piano, recorder, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. Individual instruction. May be repeated for credit. Prerequisite: The ability to read music, and, for most instruments, an audition. For Guitar 201, at least two years of classical guitar lessons. For Piano 201, at least one year of piano lessons.

## PRF 202. Lower-Division Piano: Secondary.

Individual instruction beyond Music 210K. May be repeated for credit when the topics vary. Prerequisite: Consent by audition.

PRF 210. Lower-Division Music Performance: Principal. Individual instruction in the principal instrument for students pursuing the Bachelor of Arts in Music or the Bachelor of Music with a major in music studies, music theory, composition, music literature, or music 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. Individual instruction. May be repeated for credit. Prerequisite: For Organ 210, Piano 201 or the equivalent.

## PRF 212, 312. Lower-Division Music Performance: Major.

Individual instruction in music performance for students majoring in music performance or music performance pedagogy. 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, and violoncello. Individual instruction. May be repeated for credit.

PRF 212J, 312J, 412J. Lower-Division Music Performance: Improvisation.
Individual instruction in improvisation for students majoring in jazz composition or jazz performance. This course is offered in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone. Individual instruction. May be repeated for credit.

## Upper-Division Courses

PRF 251. Upper-Division Music Performance: Secondary. Individual instruction in 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. Individual instruction. May be repeated for credit. Prerequisite: Course 201 in the secondary instrument for four semesters, or the equivalent, and approval of the area faculty.

## PRF 260. Upper-Division Music Performance: Principal.

 Individual instruction in the principal instrument for students pursuing the Bachelor of Arts in Music or the Bachelor of Music with a major in music studies, music theory, composition, music literature, or music 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. Individual instruction. May be repeated for credit. Prerequisite: Course 210 in the principalinstrument for four semesters, or the equivalent, and approval of the music faculty.

PRF 262, 362. Upper-Division Music Performance: Major.
Individual instruction in music performance for students majoring in music 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. Individual instruction. May be repeated for credit. Prerequisite: For Voice 462, Voice 210 for four semesters, or the equivalent, and approval of the music faculty; for other instruments, course 412 in the major instrument for four semesters, or the equivalent, and approval of the music faculty.

## PRF 262J, 362J. Upper-Division Music Performance: Improvisation.

Individual instruction in improvisation for students majoring in jazz composition and jazz performance. This course is offered in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone. Individual instruction. May be repeated for credit. Prerequisite: For jazz composition majors, course 212J for two semesters, or the equivalent, and approval of the appropriate music faculty; for jazz performance majors, course 412J for two semesters, or the equivalent, and approval of the appropriate music faculty.

## Department of Theatre and Dance

Registration with a member of the department faculty is required of students planning to major in the Department of Theatre and Dance and of those enrolling in courses that require faculty permission.

All students majoring in the department are required to act in productions or to serve on technical crews as scheduled by the faculty of the department.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Theatre and Dance: T D

 Lower-Division CoursesT D 301 (TCCN: DRAM 1310). Introduction to Theatre.
Open to all University students except majors in the Department of Theatre and Dance. A study of theatrical texts and practices of the past and present. Three lecture hours a week for one semester; attendance at all major productions of the department is required.

## T D 102T, 202T, 302T. Topics in Dance Technique.

Fundamental study of principles and vocabulary of dance. One, two, or three lecture hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree with a major in dance. May be repeated for credit when the topics vary.

Topic 1: Ballet I. A study of the elements of classical ballet through exploration of movement principles as defined by traditional ballet technique. Only one of the following may be counted: Theater and Dance 302T (Topic: Ballet I), 302T (Topic: Topics in Dance: Ballet INonmajors), 302T (Topic 1).
Topic 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. Only one of the following may be counted: Theater and Dance 302T (Topic: Ballet II), 302T (Topic: Topics in Dance: Ballet II-Nonmajors), 302T (Topic 2).

Topic 3: Modern I. A study of the multiple aspects of modern dance technique including Humphrey-Limon, Release Technique, Laban Movement Analysis, and Bartenieff Fundamentals. Only one of the following may be counted: Theater and Dance 302T (Topic: Modern I), 302 T (Topic: Topics in Dance: Modern-Nonmajors), 302T (Topic 3).
Topic 4: Modern II. A continuation of the study of the multiple aspects of modern dance technique as developed in Modern I. Theatre and Dance 102T (Topic 4), 202T (Topic 4), 302T (Topic 4) and 112T (Topic: Modern Dance II), 212T (Topic: Modern Dance II), 312T (Topic: Modern Dance II), may not both be counted.
Topic 5: Jazz I. An introduction to four styles of twentieth and twentyfirst century jazz dance through exploration of the fundamental principles of movement with a parallel study of the historical development of the jazz dance aesthetic. Theatre and Dance 102T (Topic: Jazz I), 202T (Topic: Jazz I), 302T (Topic: Jazz I), and 102T (Topic 5), 202T (Topic 5), 302T (Topic 5) may not both be counted.
Topic 6: Jazz II. A continuation of the study of jazz dance as developed in Jazz I.
Topic 7: Afro-Contemporary Dance. The study of contemporary dance informed by African aesthetics and vernacular movement found throughout the African diaspora. Theatre and Dance 302T (Topic: AfroContemporary Dance Techn) and 302T (Topic 7) may not both be counted.
Topic 8: Improvisational Dance. The study and practice of improvisational dance. Theatre and Dance 302T (Topic: Improvisational Dance) and 302T (Topic 8) may not both be counted.
Topic 9: Yoga for Dance. The study of yoga as it pertains to movement in dance. Theatre and Dance 302T (Topic: Yoga for Dance) and 302 T (Topic 9) may not both be counted.
Topic 10: Yoga: Moving into Stillness. A study of yoga in order to develop the ability to coordinate movement and breathing in dance.

## T D 303. Fundamentals of Acting.

Not open to theatre and dance majors. Basic principles of acting and practical work in scenes from plays. Three lecture hours a week for one semester. Theatre and Dance 303 and 313C may not both be counted.

## T D 303C (TCCN: DRAM 2336). Training the Speaking Voice.

Restricted to non-theatre and dance majors. Exercising the fundamental principles of vocal production and speech. Three lecture hours a week for one semester.

## T D 303V. Acting for Voice Performance Majors I.

Fundamental inquiry into the acting process. Three lecture hours a week for one semester. Prerequisite: A major in voice performance in the Butler School of Music.

## T D 303W. Acting for Voice Performance Majors II.

Techniques for playing and shaping action within scene structures. Three lecture hours a week for one semester. Prerequisite: Theatre and Dance 303 V .

## T D 306. Introduction to Improvisational Drama.

General introduction to improvisational activities with application to the theatre. Three lecture hours a week for one semester.

## T D 109C. Musical Theatre Performing Ensemble.

Restricted to Department of Theatre and Dance majors. Rehearsing and performing solo and group numbers from musical theatre and other genres in cabaret-style entertainment and musical revues for on- and offcampus events. Three laboratory hours a week for one semester, with additional laboratory hours to be arranged. Theatre and Dance 109C and 113P, 213P, 313P may not both be counted. May be repeated for credit. Prerequisite: Consent of Instructor.

## T D 109D. Studio Voice I.

Restricted to Department of Theatre and Dance majors. 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. One laboratory hour a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Consent of Instructor.

## T D 109E. Studio Voice II.

Restricted to Department of Theatre and Dance majors. 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. One laboratory hour a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Two semesters of Theatre and Dance 109D and consent of instructor.

## T D 311. Languages of the Stage.

Introduction to the ways that performance communicates meaning, as a foundation for further study in theatre and dance. Three lecture hours a week for one semester. Prerequisite: A major in the Department of Theatre and Dance or consent of instructor.

## T D 111T, 211T, 311T. 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. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary.

## T D 112. Freshman Movement and Physical Conditioning.

Restricted to Department of Theatre and Dance majors. Principles and techniques of physical conditioning. One lecture hour and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Consent of the dance faculty.

## T D 312C (TCCN: DANC 1345, DANC 1346). Contemporary Dance Technique.

Intensive study of principles, technique, and vocabulary of contemporary dance. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 312D (TCCN: DANC 2345, DANC 2346). Intermediate Contemporary Dance Technique.

Intensive study of intermediate-level theory, technique, and vocabulary of contemporary dance. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

T D 312F (TCCN: DANC 1341, DANC 1342). Ballet Technique. Intensive study of principles, technique, and vocabulary of ballet. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 312G (TCCN: DANC 2341, DANC 2342). Intermediate Ballet Technique.

Study of intermediate-level theory, technique, and vocabulary of ballet as a supporting style. Six laboratory hours a week for one semester. May be
repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 312M. Movement Improvisation.

Exploration and study of elements of movement design. Three hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance.

## T D 312N. Movement Composition.

Continuation of Theatre and Dance 312M. Three hours a week for one semester, with additional laboratory hours as required. Prerequisite: Theatre and Dance 312M or consent of instructor.

## T D 112P, 212P, 312P. Fundamental Projects in Dance Performance and Repertory.

Preparation and performance laboratory related to production. At least six laboratory hours a week for one semester; additional laboratory hours may be required for rehearsals and performances. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 112T, 212T, 312T. Topics in Dance Technique.

For each semester hour of credit earned, at least one lecture hour a week for one semester, and additional laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 313C (TCCN: DRAM 1351). Acting I.

Restricted to Department of Theatre and Dance majors. Approaches to incorporating Stanislavski-based principles in acting, including dramatic action, given circumstances, subtext, sense memory, the magic if, and tempo/rhythm. Three lecture hours a week for one semester, with additional hours to be arranged.

## T D 313D (TCCN: DRAM 1352). Acting II.

Restricted to Department of Theatre and Dance majors. Continuation of Acting I. Application of Stanislavksi-based principles to scene work selected from realistic genres. Three lecture hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313C.

## T D 313E (TCCN: DRAM 2351). Acting III.

Restricted to Department of Theatre and Dance majors. Continuation of Acting II, with greater emphasis on personalization of character needs, given circumstances, actor-to-actor communication, and emotional life. Three lecture hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313D.

## T D 313F. 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. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: A major in acting or consent of instructor.

## T D 313G. Voice and Movement II.

Continuation of Voice and Movement I. Deeper understanding of the vocal-physical connection as a means of playing dramatic action. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313F.

## T D 313K. 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. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313G or consent of instructor.

## T D 313L. Voice Laboratory II.

Continuation of Voice Laboratory I. Advanced voice and speech work connected to personalization and truth in classical and heightened text. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313K.

## T D 313M. Movement Laboratory I.

Using the body as an instrument for playing action and bringing the actor to a deeper understanding of physical stage presence. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313G or consent of instructor.

## T D 313N. 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. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313M.

T D 113P, 213P, 313P. Projects in Acting and Directing.
Preparation and performance laboratory related to production. For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Consent of the acting/directing faculty.

T D 314C (TCCN: DRAM 1330). Design for Performance.
Introduction to the techniques, practices, and processes in costume, lighting, scenic, and sound design. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: A major in the Department of Theatre and Dance.

## T D 314M (TCCN: DRAM 2331). Technical Theatre.

Introduction to the techniques, practices, and processes in technical theatre. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: A major in the Department of Theatre and Dance.

## T D 314P (TCCN: DRAM 1320). Production Laboratory.

Three hours a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance; and Theatre and Dance 314M, except for dance majors in the BFA degree program.

## T D 315. Playwriting I.

The study and practice of writing plays. Three lecture hours a week for one semester.

## T D 317C (TCCN: DRAM 2361). Theatre History through the Eighteenth Century.

Three lecture hours a week for one semester. Prerequisite: For theatre and dance majors, Theatre and Dance 311; for others, none.

## T D 317D (TCCN: DRAM 2362). Theatre History since the Eighteenth Century.

Three lecture hours a week for one semester. Prerequisite: For theatre and dance majors, Theatre and Dance 311; for others, none.

## T D 317M. Dance History I.

An exploration of world dance as an expression of cultural identity and change. Three lecture hours a week for one semester. Prerequisite: Theatre and Dance 311.

## T D 317N. Dance History II.

Continuation of Theatre and Dance 317M. Three lecture hours a week for one semester. Prerequisite: Theatre and Dance 317M.

TD 119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, 919Q. Topics in Theatre and Dance.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## T D 121P, 221P, 321P. Festival Project and Production.

Students initiate, develop, and/or participate in an approved departmental major festival project or production under the supervision of a faculty member. For each semester hour of credit earned, at least one lecture hour a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Consent of instructor.

## T D 322. Dance Pedagogy.

Techniques and materials used in the teaching of dance. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Upper-division standing and consent of instructor.

## T D 322C. Contemporary Dance Technique.

Intensive study of principles, technique, and vocabulary of contemporary dance. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree with a major in dance. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 322D. Intermediate Contemporary Dance Technique.

Intensive study of intermediate-level theory, technique, and vocabulary of contemporary dance. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree with a major in dance. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 322E. Advanced Contemporary Dance Technique.

Intensive study of advanced theory, technique, and style of contemporary dance. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 322F. Ballet Technique.

Intensive study of principles, technique, and vocabulary of ballet. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree with a major in dance. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 322G. Intermediate Ballet Technique.

Study of intermediate-level theory, technique, and vocabulary of ballet as a supporting style. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree with a
major in dance. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 322J. Advanced Ballet Technique.

Study of advanced theory, technique, and vocabulary of ballet as a supporting style. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 122P, 222P, 322P. Projects in Dance Performance and Repertory.

Preparation and performance laboratory related to production. At least six laboratory hours a week for one semester; additional laboratory hours may be required for rehearsals and performances. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

## T D 323C. Directing I.

Study and practice of the fundamentals of stage directing: composition, picturization, movement, gesture, and unit structure. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Upper-division standing and a major in the Department of Theatre and Dance.

## T D 323D. Directing II.

Dramatic and environmental analysis of full-length plays. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Theatre and Dance 323C.

## T D 323E. Directing III.

Theory and techniques of play directing, with practical applications in projects and scenes. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Upper-division standing, Theatre and Dance 323D, and consent of instructor.

## T D 323F. Acting Shakespeare.

Incorporating language as action by applying basic acting principles to the demand of Shakespearean text. Three laboratory hours a week for one semester, with additional hours to be arranged. Theatre and Dance 323F and 353T (Topic: Acting Shakespeare) may not both be counted. Prerequisite: Theatre and Dance 313E or consent of instructor.

## T D 323G. Acting in Period Plays.

Exploration of classical and idiosyncratic texts to enable personal and artistic growth in actors. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Upper-division standing, and Theatre and Dance 323F or consent of instructor.

## T D 123P, 223P, 323P. Advanced Projects in Acting and Directing.

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing and consent of the acting/ directing faculty.

## T D 324. Design and Technology for Performance.

Exploration of aspects of design and technology in performance, including costume, lighting, scenery, and sound. Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit. Prerequisite: Theatre and Dance 314C, 314M, and consent of instructor.

T D 124P, 224P, 324P. Advanced Production Laboratory.
For each semester hour of credit earned, one lecture hour a week for one semester, with additional laboratory hours to be arranged. May be
repeated for credit. Prerequisite: Theatre and Dance 314P; and a major in the Department of Theatre and Dance or consent of instructor.

## T D 325. Playwriting II.

Emphasis on the form and writing of the full-length play or equivalent. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Theatre and Dance 315, and consent of instructor.

## T D 125P, 225P, 325P. Projects in Playwriting.

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## T D 326. Dramatic Activities for the Classroom.

Theory, materials, and practice, including story dramatization, storytelling, puppets, pantomime, shadow plays, role-playing, and theatre games. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Upper-division standing.

## T D 326C. 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. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Upper-division standing and consent of instructor.

## T D 326D. Theatre Studies: Theatre for Young Audiences.

Theory and practice of all phases of play production for young audiences. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Upper-division standing.

## T D 326E, 626E. 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. Three lecture hours a week for one semester, with additional laboratory hours as required; this course includes field-based instruction in area high schools. Prerequisite: Upper-division standing, Theatre and Dance 323C, and consent of instructor.

## T D 126P, 226P, 326P. Projects in Theatre Studies.

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## T D 127P, 227P, 327P. Projects in History, Criticism, and Performance Studies.

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## T D 329C. Musical Theatre Performance Workshop.

Restricted to Department of Theatre and Dance majors. Private coaching, master classes, and small and large group rehearsals, culminating in staged public performances of musical revues and/or chamber musicals. Three laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## T D 129D. Studio Voice III.

Restricted to Department of Theatre and Dance majors. Continuation of Theatre and Dance 109E. Emphasizes the synthesis of singing and acting skills. One laboratory hour a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite:

Upper-division standing, two semesters of Theatre and Dance 109E, and consent of instructor.

## T D 129E. Studio Voice IV.

Restricted to Department of Theatre and Dance majors. Continuation of Theatre and Dance 129D. Refines, expands, and strengthens the specialized performance skills required of a musical theatre performer, including studio recording techniques. One laboratory hour a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing and two semesters of Theatre and Dance 109D.

T D 129Q, 229Q, 329Q, 429Q, 529Q, 629Q, 729Q, 829Q, 929Q. Topics in Theatre and Dance.
This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser 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. May be repeated for credit when the topics vary.

## T D 332M. Choreography.

Advanced study of the principles and practices of choreography. Three hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing, Theatre and Dance 312N, and consent of instructor.

## T D 332N. Choreography: Design for Dance and Movement Theatre.

Continuation of Theatre and Dance 332M. Three hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Prerequisite: Theatre and Dance 332M.

## T D 232P, 332P. Advanced Projects in Dance Performance and Repertory I.

For 232P, at least six laboratory hours a week for one semester, with additional hours as required; for 332P, at least seven laboratory hours a week for one semester, with additional hours as required. May be repeated for credit. Prerequisite: Upper-division standing, Theatre and Dance 222P, a major in the Department of Theatre and Dance, and consent of the dance faculty.

## T D 232Q, 332Q. Advanced Projects in Dance Performance and Repertory II.

For 232Q, at least six laboratory hours a week for one semester, with additional laboratory hours as required; for 332Q, at least seven laboratory hours a week for one semester, with additional hours as required. May be repeated for credit. Prerequisite: Upper-division standing, Theatre and Dance 232P or 332P, a major in the Department of Theatre and Dance, and consent of the dance faculty.

## T D 332R. Dance Pedagogy Theory.

Principles, techniques, and materials used in the teaching of dance. Three lecture hours a week for one semester; with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing, a major in the Department of Theatre and Dance, and consent of the dance faculty instructor.

## T D 332S. Dance Pedagogy Practicum.

Practical application techniques and materials used in the teaching of dance. Four and one-half laboratory hours a week for one semester, with additional hours as required. May be repeated for credit. Prerequisite:

Upper-division standing, Theatre and Dance 332R, a major in the Department of Theatre and Dance, and consent of the dance faculty.

## T D 351S. Seminar in Theatre and Dance.

Three lecture hours a week for one semester. Prerequisite: Completion of at least ninety semester hours of coursework, a major in the Department of Theatre and Dance, and consent of instructor.

## T D 151T, 251T, 351T. Topics in Theatre and Dance.

For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

Topic 1: 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. Theatre and Dance 351T (Topic: Creative Drama II) and 351T (Topic 1) may not both be counted. Prerequisite: Theatre and Dance 326C.

## T D 352. Experiential Anatomy.

Restricted to Department of Theatre and Dance majors. Principles and techniques of physical conditioning with practical applications to injury prevention for dance and theatre practitioners. Three laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing, Theatre and Dance 232P (or 332P), and consent of the dance faculty.

## T D 152P, 252P, 352P. Projects in Dance Movement Studies.

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## T D 152T, 252T, 352T. Topics in Dance and Movement.

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

Topic 1: Musical Theatre Dance I. Explores original repertoire from a wide variety of musical theatre styles. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. Theatre and Dance 152T, 252T, 352T (Topic: Dance for Musical Theatre) and 152T, 252T, 352T (Topic 1) may not both be counted. Prerequisite: Upper-division standing.
Topic 2: Musical Theatre Dance II. Explores original musical theatre choreography from a variety of styles. Repertoire will require a higher level of skills. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. Theatre and Dance 152T, 252T, 352T (Topic: Dance for Musical Theatre II) and 152T, 252T, 352T (Topic 2) may not both be counted. Prerequisite: Upper-division standing, and Theatre and Dance 352T (Topic 1: Musical Theatre Dance I).
Topic 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. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. Theatre and Dance 152T, 252T, 352T (Topic: Broadway Jazz I) and 152T, 252T, 352T (Topic 3) may not both be counted. Prerequisite: Upper-division standing, and Theatre and Dance 152T, 252T, 352T (Topic 2: Musical Theatre Dance II).
Topic 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. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. Theatre and Dance 152T, 252T, 352T (Topic: Broadway Jazz II) and 152T, 252T, 352T (Topic 4) may not both be counted. Prerequisite: Upper-division standing, and Theatre and Dance 352T (Topic 3: Broadway Jazz I).

## T D 353C. Devised Work.

A survey of contemporary devising techniques. Work explores presentday parallels for making performance for both individual and collaborative practices. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Upper-division standing, and Theatre and Dance 323G or consent of instructor.

## T D 353D. Acting for the Camera I.

Fundamentals of acting for the camera; adjusting from the stage to the demands of the camera. Six laboratory hours a week for one semester. Theatre and Dance 351T (Topic: Acting for the Camera) and 353D may not both be counted. Prerequisite: For Bachelor of Fine Arts in Acting majors, upper-division standing and Theatre and Dance 353C; for others, upper-division standing, and Theatre and Dance 313E with a grade of at least $B$ - or consent of instructor.

## T D 353E. Acting for the Camera II.

Advanced technique for the camera. Professional audition protocols and career preparation. Six laboratory hours a week for one semester. Theatre and Dance 351T (Topic: Acting for the Camera II) and 353E may not both be counted. Prerequisite: Upper-division standing and Theatre and Dance 353D.

## T D 353K. 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 commerical copy. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Upper-division standing; and Theatre and Dance 313L and 323F, or consent of instructor.

## T D 353Q. Portfolio Preparation.

Restricted to Bachelor of Fine Arts in Acting majors. Selection and rehearsal of materials in preparation for professional acting interviews and auditions. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Upper-division standing.

## T D 353R. Business of Acting.

Restricted to majors in the Department of Theatre and Dance. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## T D 353T. Topics in Acting and Directing.

Restricted to majors in the Department of Theatre and Dance. Topics in acting including voice/speech, movement, and directing. Three lecture hours a week for one semester, with additional hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and Theatre and Dance 313E with a grade of at least B - or consent of the acting/directing faculty.

## T D 154P, 254P, 354P. Projects in Design and Technology.

Individual projects in theatre design and technology. For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Consent of instructor.

## T D 354T. Topics in Design and Technology.

Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

Topic 1: Costume and Makeup Crafts.
Topic 2: Fabric Painting and Dyeing. Fundamentals of textile surface design.
Topic 3: Mask Making. Fundamentals of mask theory, design, and construction for theatre and live performance.
Topic 4: Millinery. Fundamentals of hat design, fitting, and construction techniques.
Topic 5: Scenery Technology I.
Topic 6: Costume Rendering.
Topic 7: Drawing for Theatre Designers.
Topic 8: Painting.
Topic 9: Automated Lighting I. Fundamentals of automated and computer-aided lighting for theatre and live performance.
Topic 10: Costume Design Skills. Fundamentals of research, drawing, rendering, and script/character analysis and critique for costume design.
Topic 11: Lighting Design Skills. Fundamentals of research, paperwork communication, and technology for lighting designers. Topic 12: Scenery Design Skills. Fundamentals of drawing, drafting, and model building for theatrical designers.
Topic 13: Stage Makeup. Designed to familiarize students with the tools and products used by professional makeup artists. Includes techniques for natural, character, and special effects makeup in theatre, opera, dance, film, and television.
Topic 14: Figure and Fabric Rendering. Principles of figure and fabric painting from life.
Topic 15: Scene Painting. Scene painting techniques for theatrical designers.
Topic 16: Automated Lighting II. Advanced automated and computer-aided lighting theory and techniques.

## T D 355T. Topics in Playwriting.

Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

## T D 356T. Topics in Theatre Studies.

Topics in theatre studies, including creative drama, theatre for children and youth, and theatre with young adults. Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Puppetry.

## T D 357T. Topics in History, Criticism, and Performance Studies.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

Topic 1: Latin American Theatre and Drama. Same as Latin
American Studies 322 (Topic 13: Latin American Theatre and Drama).

## T D 372, 672, 972. Industry Internship.

Restricted to majors in the Department of Theatre and Dance.
Professional internship position in business and/or production. For every three semester hours of credit earned, at least ten internship hours a week for one semester. May be repeated for credit. Prerequisite: Upperdivision standing, a University grade point average of at least 2.50, and consent of instructor.

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

Sharon Mosher, PhD, Dean<br>Richard Ketcham, PhD, Associate Dean, Academic Affairs<br>http://www.jsg.utexas.edu/

## General Information

## Mission

As civilization enters an era of increasing challenge, it is imperative that leaders, professionals, and citizens be well educated, competently and realistically able to address issues of local to global scope. With regard to the origin, history, structure, and processes of the planet Earth, and the use and management of its resources, the John A. and Katherine G. Jackson School of Geosciences aims to provide such an education. The objective of every natural science, including geological sciences, is to understand the realm of physical nature. Geological sciences, or geosciences, is a synthetic subject that examines the Earth through such traditional subdisciplines as geophysics, hydrogeology, paleontology, petrology, stratigraphy, and structural geology. Geoscientists also draw upon discoveries from mathematics, geography, archaeology, engineering, and the other sciences to meld an approach that is interdisciplinary, yet uniquely geological.

The need for well-educated geoscientists in industry, government, and education promises a bright future for geoscience professionals in the coming decades. As the human population expands, it is essential to develop sufficient resources and to maintain a livable environment. Geoscientists understand the dynamics of the Earth and its systems-the occurrence of natural resources and the diverse time scales of natural and human-induced change.

Every university seeks to enrich the education of its student body generally. Study of geosciences enhances a liberal arts or arts and sciences education. Geosciences uses experiments and observations to explore origins and processes, whether of the Earth itself, of geologic phenomena, or of the history of life. It operates in the conventional three dimensions of space and in the fourth dimension of deep geologic time. Both in the laboratory and in the field, it examines the Earth on all scales, from atomic nuclei, to a hand sample of rock, to an entire landscape, to continents and oceans, to the planet as a whole.

## Vision

The Jackson School of Geosciences (http://www.jsg.utexas.edu) at The University of Texas at Austin is among the most established and well-regarded geosciences programs in the world. The school includes the University's Department of Geological Sciences (http:// www.jsg.utexas.edu/dgs), one of the country's oldest geological sciences departments, and two world-renowned research units, the Institute for Geophysics (http://www.ig.utexas.edu) and the Bureau of Economic Geology (http://www.beg.utexas.edu). The school is home to the world's largest academic geosciences community of alumni, research scientists, and faculty members as well as one of the largest combined graduate and undergraduate enrollments of any major geoscience program.

The Jackson School is both old and new. It traces its origins to the Department of Geology founded in 1888 but became a separate unit at the level of a college on September 1, 2005. The school's formation resulted from one of the most generous gifts in the history of higher
education when the late John A. and Katherine G. Jackson bequeathed endowments and assets toward "the subjects of geology; geophysics; energy, mineral and water resources; as well as the broad areas of the earth sciences, including the Earth's environment." The charge of their gift and the responsibilities that come with it are reflected in the school's vision:

To become the preeminent geosciences program in the country with international prominence in geology, geophysics, energy, mineral and water resources, and in the broad areas of the earth sciences, including the Earth's environment. To realize this vision, the Jackson School will pursue initiatives that:

- Place the school at the forefront of research.
- Place the school at the forefront of education, student services, and student opportunities.
- Create the fabric of a great college.
- Increase competitiveness for top talent.


## Financial Assistance Available through the School

Through the Geology Foundation, the Jackson School of Geosciences (JSG) makes available to its students a number of scholarship funds established by individuals, foundations, and industrial or research organizations. Scholarships are awarded entirely on the basis of academic standing and performance. Each long semester (fall/spring) JSG geological sciences students' academic performance is evaluated along defined criteria including, but not limited to, grade point average, progress towards degree, and hours completed. New geological sciences students are eligible for consideration starting their second long semester as a Jackson School student. Award amounts range from $\$ 750$ to $\$ 3,450$ with the total award amounts increasing as students approach graduation and a 4.00 GPA . Funds are awarded after the start of the semester and can be used to pay for books, course supplies or any other academic expenses.

The Geology Foundation also offers an Undergraduate Recruitment Scholarship for freshmen geological sciences majors and an emergency loan program for Jackson School students. All students may also seek financial assistance through the University's Office of Student Financial Services. Additional information for all of the JSG Financial Assistance (http://www.jsg.utexas.edu/education/undergraduate/financial-aid) programs is available online or by contacting the JSG Student Services Office.

## Student Services

The mission of the Jackson School of Geosciences Student Services Office is to facilitate students' development and advancement in the Jackson School community and beyond. Services provided to all Jackson School majors and nonmajors such as professional academic advising and career counseling are available to students year-round.

## Academic Advising

The JSG Academic Advising office, located in the Holland Family Student Center, JGB 2.108, serves the undergraduate students of the Jackson School by offering academic advising and guidance. Each undergraduate student is expected to meet with a JSG academic adviser at least once per semester to review his/her academic progress and prepare to register for the next semester. Information related to JSG academic programs and opportunities is frequently distributed to students via email which is considered an official form of communication by the University. Students
are responsible for reading this information and taking the necessary actions in a timely manner. JSG Student Services staff is available to meet with students throughout the year to address any issues or questions they may have.

## Counseling and Referral Services

The Jackson School of Geosciences Student Services office advises and counsels students about problems or concerns they have about their academic work or life in the school.

In addition, University counseling services are available from the Counseling and Mental Health Center (http://cmhc.utexas.edu), the Telephone Counseling Service, the Sanger Learning Center (http:// www.utexas.edu/ugs/slc), and University Health Services (http:// healthyhorns.utexas.edu). These offices are described in General Information.

## Career Services

The Jackson School of Geosciences (JSG) Career Center (http:// www.jsg.utexas.edu/careers), located in the Holland Family Student Center, JGB 2.112, serves the undergraduate and graduate students of the Jackson School by offering career development workshops, job search resources, and opportunities to network with alumni, recruiters and members of industry.

The JSG Career Center also helps Jackson School graduates and students about to graduate seek full-time or part-time jobs and internships. The staff posts job opportunities throughout the year and hosts company information sessions as well as on-campus interviews with recruiters each fall and spring. The Jackson School of Geosciences Career Fair, which brings students and employers together every fall, provides another forum for geosciences students to learn about different career opportunities.

Career services for students who plan to teach are provided by Education Career Services in the College of Education and by UTeach-Natural Sciences.

## Admission and Registration

## Admission

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. All students who wish to major in geological sciences must be admitted to the University according to the procedures given in General Information.

Students admitted to the University with deficiencies in high school units must remove the deficiencies as prescribed in General Information.

## Admission to the Geological Sciences Program

## Freshman Admission

Freshman applicants seeking admission to the Jackson School must meet the calculus readiness requirement by the official admissions application deadline. More information about the calculus readiness requirement is available through the University Admissions Office or online at Be A Longhorn (http://bealonghorn.utexas.edu).

Applicants to the Jackson School of Geosciences should use the ApplyTexas (http://www.applytexas.org) online application and select Geological Sciences, entry-level as a first-choice major. When selecting a second-choice major, freshman applicants may choose from one of the many other majors offered at the University. Those students interested
in applying to the environmental science or geosystems engineering and hydrogeology degree programs should refer to the information provided below.

## External Transfer Admission

Students who wish to transfer to the University from another college or university must apply to the Office of Admissions as described in General Information. External transfer applicants seeking admission to the Jackson School of Geosciences (JSG) must demonstrate calculus readiness by the official admissions application deadline. Applicants with additional math and science credentials may receive priority consideration. Details regarding transfer calculus readiness are available through the University admissions office or online at Be A Longhorn (http://bealonghorn.utexas.edu). External transfer applicants to the Jackson School should use the ApplyTexas (http://www.applytexas.org) online application and select Geological Sciences, entry-level as a firstchoice major.

Only courses listed in the student's geosciences degree program, or equivalent courses approved by the associate dean for academic affairs, may be counted toward a geosciences degree. A course may therefore be accepted for transfer credit but not be applicable toward a geosciences degree. Students are strongly encouraged to contact a JSG academic adviser to discuss existing coursework to be transferred and the specific requirements of JSG degree plans prior to applying for admission.

## Internal Transfer Admission

A student may transfer to the Jackson School of Geosciences from another division of the University in accordance with the regulations given in General Information. A University student, whether a geosciences major or nonmajor, who wants to transfer to a geological sciences major in the Jackson School must meet the following minimum requirements to be eligible for consideration:

1. Completion of at least twenty-four semester hours of coursework in residence at the University. Credit by exam and correspondence, extension and transfer hours may not be counted toward this requirement.
2. A cumulative in residence grade point average (GPA) of at least 3.00.
3. Completion of Mathematics 408 C and completion of, or enrollment in, 408D or the equivalent at the time of application.
4. Completion of, or enrollment in, Geological Sciences 401 or 303, and Chemistry 301 at the time of application.

Additional Information for all internal transfer applicants:

- Application Deadline: May 1st for the following fall semester.
- Only currently enrolled students may apply.
- Students may apply during the semester they are completing the minimum requirements to be eligible for consideration.
- Application forms are available on the Jackson School Undergraduate (http://www.jsg.utexas.edu/education/undergraduate/internaltransfers) Web site.
- Entry-level admission to all Jackson School majors is offered as space is available to the students who are best qualified. Decisions are based on the student's GPA in the basic sequence courses, cumulative GPA, and other factors including, but not limited to, difficulty of course load, course repetitions, proven mathematical ability, and interest in the field of geological science.

Additional information regarding admission to the Jackson School of Geosciences is available from the Student Services Office, 2305

Speedway, Stop C1160, Austin, TX 78712-1692. The JSG Student Center telephone number is (512) 232-4544.

## Admission to the Environmental Science Program

All new freshmen and external transfer students are admitted to the University as entry-level environmental science majors and later seek admission to one of the three majors offered in the degree program by the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences. All students who wish to major in environmental sciences must be admitted to the University according to the procedures given in General Information (http://catalog.utexas.edu/ general-information/admission).

## Freshman Admission

Freshmen applicants seeking admission to the environmental science (EVS) degree program through the College of Liberal Arts, the College of Natural Sciences, or the Jackson School of Geosciences must meet the calculus readiness requirement by the official admissions application deadline. More information about the calculus readiness requirement is available through the University admissions office or online at Be A Longhorn (http://bealonghorn.utexas.edu).

Freshmen applicants to the EVS program from all three colleges/schools are reviewed and those admitted are as a single cohort. Applicants should use the ApplyTexas (http://www.applytexas.org) online application and select the Environmental Science, entry-level major option listed in the College of Liberal Arts (under Geographical Sciences), College of Natural Sciences (under Biological Sciences), or Jackson School of Geosciences (under Geological Sciences) as a first choice major, depending on the anticipated area of focus.

## External Transfer Admission

Students who wish to transfer to the University from another college or university must apply to the Office of Admissions as described in General Information (http://catalog.utexas.edu/general-information/admission/ undergraduate-admission/transfer-admission). External transfer applicants seeking admission to the environmental science degree program through the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences must demonstrate calculus readiness by the official admissions application deadline. Details regarding transfer calculus readiness are available through the University Admissions Office or online at Be A Longhorn (http://bealonghorn.utexas.edu).

External transfer applicants to the EVS program from all three colleges/ schools are reviewed and those admitted are as a single cohort. Applicants should use the ApplyTexas (http://www.applytexas.org) online application and select the Environmental Science, entry-level major option listed in the College of Liberal Arts (under Geographical Sciences), the College of Natural Sciences (under Biological Sciences), or the Jackson School of Geosciences (under Geological Sciences) as a first-choice major, depending on the anticipated area of focus.

## Internal Transfer Admission

Internal transfer, entry-level applications submitted to the environmental science degree program through the College of Liberal Arts, the College of Natural Sciences, or the Jackson School of Geosciences are reviewed and those admitted are as a single cohort. All internal transfer applicants should use the online EVS Program Transfer Application (http:// www.esi.utexas.edu/EVS).

To apply for the Bachelor of Science in Environmental Science Geological Sciences major in the Jackson School of Geosciences, the student must
be an entry-level environmental science major who has met the following requirements:

1. Completion of Biology 311C, Chemistry 301, and Mathematics 408C or 408 N with a grade of at least $C$ - in each course
2. Completion of Geological Sciences 401 or 303 with a grade of at least $B$ -

To be competitive for admission, the student must have a grade point average of at least 2.75 in these four courses.

Applications are evaluated after the end of each fall. Students whose applications are denied may reapply through the supplemental admission process. Admission decisions are based on the student's grade point average in the basic sequence courses, his or her University grade point average, and other factors; these factors include, but are not limited to, the difficulty of the student's course load, course repetitions, and proven mathematical ability. Students should consult advisers in the Jackson School of Geosciences Undergraduate Student Services Office for information about the application process and application deadlines.

More information about the degree program is given in Bachelor of Science in Environmental Science (p. 270).

## Admission to the Geosystems Engineering and Hydrogeology Program

The Bachelor of Science in Geosystems Engineering and Hydrogeology (GEH) is offered jointly by the Cockrell School of Engineering and the Jackson School of Geosciences. Students are simultaneously registered in both schools once accepted.

## Freshmen Admission

Freshmen applicants seeking admission to the GEH degree program are admitted through the Jackson School of Geosciences. Applicants must meet the calculus readiness requirement by the official admissions application deadline. More information about calculus readiness is available through the University admissions office or online at Be A Longhorn (http://bealonghorn.utexas.edu).

Applicants to the GEH program should use the ApplyTexas (http:// www.applytexas.org) online application and select Geosystems Engineering and Hydrogeology as a first-choice major. When selecting a second-choice major, freshman applicants may choose from one of the many other majors offered at the University.

## External Transfer Admission

Students who wish to transfer to the University from another college or university must apply to the Office of Admissions as described in General Information. External transfer applicants are admitted through the Cockrell School of Engineering and should use the ApplyTexas (http://www.applytexas.org) online application and select Geosystems Engineering and Hydrogeology as a first-choice major. Requirements for admission as a transfer student vary, but all transfer applicants must submit transcripts of all college and high school coursework.

External transfer applicants will be required to meet the following minimum criteria to be considered for admission to the geosystems engineering and hydrogeology major:

- Completion of Mathematics 408L, 408M, or 408D
- Completion of Physics 303K and 103M
- Completion of a minimum of four technical courses. Technical courses include courses offered in mathematics, physics, chemistry, biology, geology, computer science, and engineering.

Admission applications that are not complete by the March 1st deadline may be held to a higher admissions standard than those that are complete, if enrollment limits are reached.

## Internal Transfer Admissions

Students interested in transferring to the GEH program from another division of the University must apply through the Cockrell School of Engineering. Please refer to General Information as well as the Cockrell School of Engineering portion of the Undergraduate Catalog for minimum requirements, application deadlines, and other information regarding internal transfer admissions for the geosystems engineering and hydrogeology degree program.

## Registration

General Information gives information about registration, adding and dropping courses, transferring from one division of the University to another, and auditing a course. The Course Schedule (http:// registrar.utexas.edu/schedules), published before registration each semester and summer session, contains registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and General Information are published on the registrar's Web site, http://registrar.utexas.edu/.

## Academic Policies and Procedures

## Minimum Scholastic Requirements

The student must earn a cumulative grade point average of at least 2.00 in all courses taken at the University of Texas at Austin (including credit by examination, correspondence, and extension) for which a grade or symbol other than $Q, W, X$, or CR is recorded. In addition, the student must earn a grade point average (GPA) of at least 2.00 in geological sciences courses taken at the University and counted toward the major requirement.

The student must earn a grade of at least $C$ - in each course used to fulfill any of the requirements for the degree.

For more information about grades and the grade point average, see General Information (http://catalog.utexas.edu/general-information/ academic-policies-and-procedures/computation-of-the-grade-pointaverage).

## Repetition of a Course

A student may not enroll in any course in the Jackson School more than twice, even if the course is needed to meet degree requirements, without first obtaining written consent in the Undergraduate Student Services Office. The symbol $Q$ or $W$ counts as an enrollment unless it has been approved by the Undergraduate Student Services Office for nonacademic reasons.

## Honors

## University Honors

Each fall and spring semester, undergraduate who complete a full course load and earn outstanding grades, are recognized on the fall or spring University Honors list, respectively. Students are notified on the semester grade report of their inclusion on the list. The Jackson School hosts an event each spring to recognize JSG University Honors students in conjunction with University-wide Honors Day.

Additional information on University Honors is available in General Information.

## School Honors Program

The Jackson School offers a departmental honors program to its majors. Students who wish to participate in the program should submit an application to the JSG Student Services Office when they have completed sixty semester hours of coursework, including at least twelve semester hours of upper-division coursework in geological sciences. The Jackson School of Geosciences Honors Program receives an increasing number of qualified applications each year and not all applicants are guaranteed acceptance.

Minimum requirements for the completion of this program are:

1. A cumulative University grade point average of at least 3.00 , and a grade point average in geological sciences of at least 3.50
2. Geological Sciences $171 \mathrm{H}, 172 \mathrm{H}$, and 173 H with a grade of at least $B$ - in each
3. Geological Sciences 379 H , with a grade of at least $B$ -
4. Completion at the University of at least sixty semester hours of coursework counted toward the degree

An honors student who completes all program requirements will receive the designation "Special Honors in Geological Sciences" on his or her transcript and be recognized at the Jackson School commencement ceremony.

## Graduation

## Special Requirements of the School

All students must fulfill the general requirements (p.17) for graduation. Students in the Jackson School must also fulfill the following requirements:

1. The University requires that the student complete in residence at least sixty semester hours of the coursework counted toward the degree. For the Bachelor of Arts in Geological Sciences, these sixty hours must include at least eighteen hours in geological sciences.
2. The University requires that at least six semester hours of advanced coursework in the major be completed in residence. Options I, II, and III of the Bachelor of Science in Geological Sciences require at least eighteen hours of upper-division coursework in geological sciences to be completed in residence; option V requires at least twelve hours. (Option IV: Environmental Science and Sustainability is no longer offered.)
3. An Air Force, Army, or Naval Reserve Officer Training Corps (ROTC) student who elects the basic and/or advanced program in air force science, military science, or naval science will not be approved for graduation until the student's government contract is completed or the student is released from the ROTC.

## Non-residence Coursework

A student in his or her final semester may not enroll concurrently at another institution in any course, including a distance education course, to be counted toward the degree. In the final semester, the student may also not enroll by extension or correspondence in coursework to be counted toward the degree. All transfer, extension, and correspondence coursework must be added to the student's official record before his or her last semester.

## Degree Audit

Each student should view their personal electronic degree audit available each semester through IDA, the University's Interactive Degree Audit (http://registrar.utexas.edu/students/degrees/ida) system. The degree audit tells the student the courses he or she must take and the requirements he or she must fulfill to receive the degree. Although the degree audit normally provides an accurate statement of requirements, the student is responsible for knowing and meeting the requirements of the degree as stated in the undergraduate catalog under which he or she is eligible to graduate (see rules on graduation under a particular catalog (p. 18)). If in doubt about any requirement, the student should seek an official ruling in the Jackson School of Geosciences (JSG) Student Services Office before registering.

## Ninety-hour Degree Audit

Upon earning ninety semester hours of credit toward the degree, each JSG student is expected to review their degree audit and schedule a ninety-hour degree audit meeting with a JSG academic adviser before the next semester's registration period begins. Failure to do so may delay the student's graduation.

## Final Degree Audit

Prior to registering for the last semester of their Jackson School of Geosciences (JSG) degree program each JSG student must review their final degree audit and meet with a JSG academic adviser. Students must complete all procedures associated with the final degree audit.

Any student who does not graduate when eligible must promptly contact the JSG Student Services Office. An academic adviser will advise the student what steps are needed for future registration and graduation.

## Applying for Graduation

Students must be registered at the University and must file a graduation application form in the JSG Student Services Office the first semester they are eligible to graduate. A student is considered eligible to graduate if he or she can complete all degree requirements by registering for twelve semester hours or fewer. Graduation applications should be submitted during the first week of classes. No graduation applications will be accepted after the University's published deadline and no degree will be conferred unless the graduation application form is filed on time. Failure to adhere to these procedures and deadlines will jeopardize the student's future registration in the Jackson School.

## Commencement

In addition to the University commencement ceremony held each spring, the Jackson School holds graduation ceremonies in December and May. Students graduating with School Honors and Jackson Scholars are recognized at this ceremony.

## Summer Graduates

Students completing their degree requirements in the summer session have the option of "walking" in the spring Jackson School of Geosciences Commencement ceremony preceding their official graduate date. To be eligible, students must complete a final degree audit and submit an application to walk in the ceremony by the published deadlines. Neither the application to walk nor participation in any commencement events constitute applying to graduate or official completion of a degree program.

## Degrees and Programs

## Degrees

The Jackson School offers the Bachelor of Arts in Geological Sciences, the Bachelor of Science in Environmental Science, the Bachelor of Science in Geological Sciences, and, in partnership with the Cockrell School of Engineering, the Bachelor of Science in Geosystems Engineering and Hydrogeology. Whichever degree they pursue, geological sciences students must take courses in the Jackson School of Geosciences (JSG), the College of Natural Sciences, and the College of Liberal Arts. These units work together to meet students' individual needs and to ensure that they receive a superior education. Graduation from an accredited program is an advantage when applying for a position in industry, membership in a professional society or for registration as a professional geologist.

## Programs

The University and the Jackson School offer the following programs to supplement the degree plans mentioned above.

## Undergraduate Research

The University offers an opportunity for undergraduates to participate in state-of-the-art research, for University credit, with distinguished scientists. If qualified, the student may also earn special departmental honors for exceptional research and may receive recognition through participation in the Bridging Disciplines Programs (p. 23), or the annual Undergraduate Research Forum sponsored by the College of Natural Sciences. Additional information about undergraduate research is available from the Jackson School Undergraduate Student Services Office.

## Field Experiences

Fieldwork is an integral part of the Jackson School of Geosciences undergraduate experience and culture. As freshmen, Jackson School students enjoy a unique two day orientation field trip before classes begin in the fall. Throughout their undergraduate career students have various opportunities to gain additional field experience as part of required coursework or smaller research trips. Students' classroom, laboratory, and field experiences culminate with the completion of Geological Sciences 660, Field Geology. Additional field experiences in hydrogeology, geophysics, and marine geology are some of the expanding list of options available to students in discipline-specific areas.

## Jackson Scholars Program

The Jackson Scholars program is a learning initiative designed to foster achievement, initiative and motivation in scholarship and community. A goal of the Jackson School of Geosciences (JSG) is to promote "scholars" in the broadest sense where a scholar is defined not solely by classroom performance but also by a willingness to take initiative and participate in research, governance, work experience, study abroad, and/or community service.

Interested students register for the program during their freshmen, sophomore, or junior year. To apply, students outline their intentions to complete activities in the areas of scholarships and service, and submit a final portfolio for review by the associate dean for academic affairs during their senior year. Requirements vary for the activities available and students are encouraged to consult with a member of the JSG student services team as well as participate in workshops and information sessions offered to Jackson Scholars throughout the academic year.

A Jackson Scholar who completes all program requirements will be recognized at the Jackson School commencement ceremony.

## Certificate in Computational Science and Engineering

For information about this transcript recognized certificate, see Certificate in Computational Science and Engineering (p. 14). The Jackson School sponsors this program along with the Cockrell School of Engineering, the College of Liberal Arts, and the College of Natural Sciences.

## U-Teach Natural Sciences

The Jackson School participates in UTeach-Natural Sciences, an innovative teacher preparation program offered by the College of Natural Sciences and the College of Education that allows students to pursue middle grades and secondary school teacher certification within a four year mathematics, science, or computer science degree program. While learning the subject matter of their majors, students also learn how to teach. Upon completing the program, students graduate with a bachelor's degree and are recommended for a middle grades or secondary school teaching certificate. The UTeach-Natural Sciences program invites students to explore their interest in teaching as early as their freshman year. Through courses taught by some of Texas's most respected secondary school math and science teachers, students learn quickly whether they are suited to the profession.

A description of the UTeach-Natural Sciences curriculum is given in UTeach-Natural Sciences (p. 543); more information is available at the UTeach-Natural Sciences Office. In the Jackson School, the Bachelor of Science in Geological Sciences teaching option prepares students to seek teacher certification.

## Simultaneous Majors

A student in the Jackson School of Geosciences (JSG) may pursue two majors simultaneously. The student must follow all procedures and meet all requirements outlined in General Information as well as those associated with both majors. A JSG student may not pursue two geosciences majors simultaneously.

The simultaneous major option is available only to undergraduates who have completed thirty hours of coursework in residence at the University and who have been admitted to both degree programs.

## Program Assessment Activities

Students in the Jackson School are required to participate in assessment activities related to maintaining accreditation with the Southern Association of Colleges and Schools in addition to their required coursework. Students are exempted from participation only in extenuating circumstances and with prior approval from the JSG Student Services office.

## Applicability of Certain Courses Core Curriculum

Each student must complete the University's core curriculum (http:// catalog.utexas.edu/undergraduate/undergraduate-studies/academic-policies-and-procedures/\#corecurriculum). The core curriculum includes the first-year signature course and courses in English composition, American and Texas government, American history, mathematics, science and technology, visual and performing arts, humanities, and social and behavioral sciences. The core must be an integral part of all geosciences degree programs so graduates will be aware of their social responsibilities and the effects of technology on society.

## Flags

In the process of fulfilling geosciences degree requirements, students must also complete: two courses beyond Rhetoric and Writing 306, or its equivalent, with writing flags, one quantitative reasoning flag, one global cultures flag, one cultural diversity in the United States flag, one ethics and leadership flag, and one independent inquiry flag. Courses that may be used to fulfill flag requirements are identified in the Course Schedule (http://registrar.utexas.edu/schedules) and may be used simultaneously to fulfill other requirements, unless otherwise specified. Refer to the Undergraduate Studies chapter of this catalog for additional information regarding flag requirements.

## Physical Activity Courses

Physical activity (PED) courses and Kinesiology 119 may not be counted toward a degree in the Jackson School. However, they are counted as courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

The Departments of Air Force Science, Military Science, and Naval Science maintain ROTC units on campus. Information about each program is available from the chair of the department concerned.

Nine semester hours of coursework in air force science, military science, or naval science may be counted toward any degree in the Jackson School. Such credit may be used only as electives or to fulfill the writing requirement, and only by students who are commissioned by the University ROTC program.

## Correspondence and Extension Courses

Concurrent enrollment is enrollment simultaneously at the University and at another educational institution or in any combination of correspondence, extension and online or distance education courses. During a long semester students enrolled in the Jackson School of Geosciences (JSG) are not allowed to take courses at another school or institution or by correspondence or extension at the University unless approved in advance by the associate dean for academic affairs. Students must submit a concurrent enrollment petition and meet with a JSG academic adviser for approval well in advance of the start of the requested course.

A student in his or her final semester may not enroll concurrently at another institution in any course, including a distance education course, to be counted toward the degree. In the final semester, the student may also not enroll by extension or correspondence in coursework to be counted toward the degree. All transfer, extension, and correspondence coursework must be added to the student's official record before his or her last semester.

No more than 30 percent of the semester hours required for any degree in the Jackson School may be completed online, by correspondence, or through distance learning, including University Extension courses. These courses are not included in certain metrics, such as total hours, residency status, etc., and therefore may affect students' eligibility for some JSG programs.

## Bible Courses

No more than twelve semester hours of Bible courses may be counted toward a degree.

## Bachelor of Arts in Geological Sciences

The Bachelor of Arts in Geological Sciences (BAGeoSci) is a classical arts and sciences degree that gives students a great deal of flexibility in their choice of upper-division geological sciences courses. Students must complete courses in the natural sciences, the social and behavioral sciences, and the humanities. This diversity of subjects provides an opportunity to learn about basic differences in outlook among different disciplines, the ways questions are raised and answered, and the ways the answers are validated and made relevant in practical use. The Bachelor of Arts in Geological Sciences also provides for a minor made up of four courses in another field, including two upper-division courses. These choices let students combine their interests in liberal arts and geosciences to prepare for professions such as business, journalism, resource management, public policy, law, and medicine.

Another option for outstanding students interested in geology is the Bachelor of Arts, Plan II (p. 308), offered by the College of Liberal Arts. This broad liberal arts honors program emphasizes the humanities but also permits a concentration in science that is equivalent to a major. Students who plan to become professional geoscientists should pursue one of the BSGeoSci degree options.

A total of 120 semester hours is required. Thirty-six hours must be in upper-division courses. At least sixty hours, including eighteen hours of upper-division coursework, must be completed in residence at the University; at least twenty-four of the last thirty hours must be completed in residence at the University. As long as these residence rules are met, credit may be earned by examination, by extension, by correspondence (up to 30 percent of the semester hours required for the degree), or, with the approval of the dean, by work transferred from another institution.

The coursework counted toward the degree may include no more than thirty-six hours in any one field of study in the College of Liberal Arts or the College of Natural Sciences; and no more than thirty-six hours in any other single college or school of the University, including the Jackson School.

No coursework to be counted toward the degree may be taken on the pass/fail basis.

All students must complete the University's core curriculum (p. 20). In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the following Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course
5. Ethics and leadership: one flagged course
6. Independent inquiry: one flagged course

The specific requirements for the Bachelor of Arts in Geological Sciences consist of prescribed work, major and minor requirements, and electives. In some cases, a course that is required for the degree may also be counted toward the core curriculum. A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills any other requirement may also be used to fulfill a flag requirement if the course carries that flag, unless otherwise specified. In addition, the student must fulfill the University's general requirements (p.17), and the requirements
of the Jackson School given in special requirements of the college ( p . 266).

## Prescribed Work

1. Foreign language: Four semesters, or the equivalent, in a single foreign language. The foreign language requirement is the attainment of a certain proficiency, rather than the completion of a specified number of hours. Any part of the requirement may be fulfilled by credit by examination. To achieve proficiency in a foreign language as rapidly as possible, qualified students are urged to take intensive foreign language courses. Information about these courses is available from the departments that offer them. Courses used to fulfill the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be counted.
2. Social science: Three semester hours in social science, in addition to the course counted toward the social and behavioral sciences requirement of the core curriculum. The course must be chosen from the following fields; it must be in a different field from the course used to fulfill the core curriculum social and behavioral sciences requirement.
a. Anthropology
b. Economics
c. Geography
d. Linguistics
e. Psychology
f. Sociology
3. Natural science: Six semester hours in natural sciences, in addition to the courses counted toward the science and technology requirements of the core curriculum. Courses must be chosen from the following fields; no more than three hours may be in either the history of science or the philosophy of science.
a. Astronomy
b. Biology
c. Chemistry
d. Marine science
e. Nutrition
f. Physical science
g. Physics
h. Mathematics
i. Computer science
j. Experimental psychology
k. Physical anthropology
I. Physical geography
m. Philosophy (courses in logic)
n. History of science and philosophy of science
o. Other fields approved by the dean
4. General culture: Three semester hours in addition to the course counted toward the visual and performing arts requirement of the core curriculum. Courses in the following fields may be used:
a. Architecture
b. Classical civilization, Greek, Latin
c. Art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies
d. Philosophy (excluding courses in logic)
e. Approved interdisciplinary courses including, but not limited to, those in programs of special concentration cutting across specific departments, schools, or colleges. Lists of approved courses are available in the Undergraduate Student Services Office.

## The BA Major and Minor

With the exception of courses that fulfill a flag requirement, a course taken to fulfill the requirements under "Prescribed Work" above may not also be counted toward fulfillment of the major and minor requirements.

## Residence Requirements for the Major

At least eighteen semester hours of coursework in geological sciences, including six hours of upper-division coursework, must be completed in residence at the University.

## Course Requirements for the Major

Geological Sciences 401 or 303, 404C or 405 , $416 \mathrm{~K}, 416 \mathrm{M}, 420 \mathrm{~K}$, and enough additional upper-division coursework in geological sciences to make a total of thirty-two semester hours; six semester hours in biology; Chemistry 301 and 302; and three semester hours in physics.

## Minor

Twelve semester hours, of which at least six must be in upper-division coursework, in any one of the following disciplines: anthropology, astronomy, biology, business, computer science, chemistry, education, engineering, geography, mathematics, or physics. Other disciplines may be chosen with submission and approval of a petition through the Jackson School of Geosciences Student Services Office.

## Electives

In addition to the core curriculum, the prescribed work, and the major and minor, the student must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than twelve semester hours of Bible courses and no more than nine hours of air force science, military science, or naval science courses.

## Bachelor of Science in Environmental Science

The Bachelor of Science in Environmental Science (BSEnviroSci), offered by the College of Liberal Arts, the College of Natural Sciences, and the Jackson School of Geoscience, is designed for students interested in an interdisciplinary scientific perspective on environmental and sustainability issues, analysis, and management. The degree program provides the broad foundation in physical, life, and social sciences needed for a career or graduate study in environmental science and related fields such as climate change, ecology, and conservation. Students who complete the program successfully will be able to assess environmental issues critically from multiple perspectives; perform field, laboratory, and computer analyses; and conduct original research. The program is designed to prepare graduates for careers in local, state, and federal government laboratories and nonprofit agencies, environmental consulting firms, environmental education and outreach agencies, and universities and other research settings. The degree is offered by the Jackson School 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. Students may earn only one Bachelor of Science in Environmental Science degree from the University.

Students must apply for admission to the degree program after completing prerequisite coursework. To be competitive for admission, students should have a grade point average of at least 2.75. More information
about admission requirements is given in Admission to the Environmental Science Program (p. 265).

The BSEnviroSci curriculum consists of 126 semester hours of coursework. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the following Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course
5. Ethic and leadership: one flagged course
6. Independent inquiry: one flagged course

All students must complete the University's core curriculum (p. 20). The specific degree requirements consist of prescribed work and major requirements. In some cases, a course that is required for the degree may also be counted toward the core curriculum. A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills any other requirement may also be used to fulfill a flag requirement if the course carries that flag, unless otherwise specified.

## Prescribed Work

1. Mathematics: Mathematics 408C, or 408 N and 408 S
2. Chemistry: Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
3. Physics: Physics 317K and 117M, or another four-hour calculusbased physics sequence
4. Biological sciences: Biology 311C and 311D, or 315H
5. Ecology: Biology 373 and 373L, or Marine Science 320 and either 120 L or 152T (Topic: Marine Ecology)
6. Geological sciences: Geological Sciences 401 or 303, 346C, and an approved geological sciences course in sustainability
7. Geography: Geography 335N
8. Field experience: One course in each of the following areas:
a. Introductory field seminar: Environmental Science 311
b. Senior field/research experience: Environmental Science 371 or Biology 377 (with prior approval of the faculty adviser)
9. Research methods: Environmental Science 331
10. Environmental and sustainability themes: One course in each of the following thematic areas:
a. Environmental and sustainability policy, ethics, and history: Geography 334, 336C, 340D, 342C, 356C, 356T (approved topics), Philosophy 325C
b. Geographic information systems: Geography 360G, 462K, Geological Sciences 327G
c. Climates and oceans: Biology 456L, Geography 333K, 356T (approved topics), Geological Sciences 371C (approved topics), 377P, Marine Science 320, 440, 354Q, 354T, 367K
d. Environmental economics, sustainability, and business: Economics 304K, 330T
11. Environmental Science 141 and 151

Marine Science 320 may not be used to satisfy both requirement 5 and requirement 10c.

## Major Requirements

The following thirty-six semester hours of coursework are required; these hours must include at least twelve hours of approved upper-division work in geological sciences.

1. Geological Sciences 404 C or $405,416 \mathrm{~K}, 416 \mathrm{M}$ and 420 K
2. Mathematics 408D or 408M
3. Four semester hours of physics in one of the following secondsemester sequences: Physics 316 and 116L, 317L and 117N, 303L and 103 N
4. One of the following courses on climate and water: Geological Sciences 371C (approved topics), 376E, 476K, 476M, 376S, 377P
(The same course may not be used to satisfy both requirement 4 of the major requirements and requirement 10 of the prescribed work.)
5. Nine semester hours of upper-division elective coursework in geological sciences
6. Enough additional coursework to make a total of 126 semester hours.

## Special Requirements

Students must fulfill the University-wide General Requirements (p. 17) and the Special Requirements ( p .266 ) of the Jackson School given earlier in this section. They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in General Information.

## Bachelor of Science in Geological Sciences

The Bachelor of Science in Geological Sciences (BSGeoSci) serves as a professional degree for students planning careers as geologists, geophysicists, or teachers, as well as for those planning to pursue graduate work in the geosciences or a profession such as law or business. Careers are available in the petroleum and related energy industries, resource evaluation, mineral exploration, geologic hazard monitoring, environmental control and reclamation, building foundation evaluation, groundwater contamination studies, soil testing, regional planning, watershed management, climate modeling, and college or secondary school teaching. Graduates may also work in state or federal agencies, in universities or museums, with consulting firms, or with service companies to the energy and mineral industries.

A plan of study for the Bachelor of Science in Geological Sciences includes courses required by the University and required and elective courses in geological sciences (preceded by their prerequisite courses). Taken together, these courses make up an option, a degree plan with a particular concentration or emphasis. Thus, individuals may develop intellectually challenging yet quite different plans of study according to their personal interests and goals. Students seeking the Bachelor of Science in Geological Sciences degree must choose one of four options-I: General Geology, II: Geophysics, III: Hydrogeology, V: Teaching. (Option IV: Environmental Science and Sustainability is no longer offered.)

In addition to the prescribed work outlined below, all students must complete the University's core curriculum (p.20). In some cases, a course that is required for the BSGeoSci may also be counted toward the core curriculum; these courses are identified below. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the following Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course
5. Ethic and leadership: one flagged course
6. Independent inquiry: one flagged course

A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills any other requirement may also be used to fulfill a flag requirement if the course carries that flag, unless otherwise specified.

## Prescribed Work Common to All Options

1. Foreign Language: Courses 506 and 507 (or the equivalent) in a single foreign language, or as much of this coursework as required by the student's score on the appropriate language placement test. Students in the teaching option must fulfill a different foreign language requirement, given with the other option requirements. For students who enter the University with fewer than two high school units in a single foreign language, the first two semesters in a language may not be counted toward the total number of semester hours required for the degree.
2. Upper-division Coursework: Thirty-six semester hours of upperdivision coursework must be completed in residence at the University. For students in options I, II, and III, at least eighteen of these hours must be in geological sciences; for students in option V , at least twelve hours must be in geological sciences. (Option IV: Environmental Science and Sustainability is no longer offered.) For all students, at least twelve of the thirty-six hours must be outside geological sciences.

## Option I: General Geology

1. Mathematics 408C and 408D; or 408K, 408L, and 408M. Mathematics 408 C or 408 K also meets the mathematics requirement of the core curriculum. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward the total number of semester hours required for the degree.
2. Physics 301, 101L, 316, and 116L; or Physics 303K, 103M, 303L, and 103N.
3. Chemistry 301, 302, and 204. Together, the courses that meet requirements 2 and 3 also meet parts I and II of the science and technology requirement of the core curriculum.
4. Geological Sciences 401 or $303,404 \mathrm{C}$ or $405,416 \mathrm{~K}, 416 \mathrm{M}, 420 \mathrm{~K}$, 426P, 428, 660 (completed in residence), and enough additional approved upper-division coursework in geological sciences to make a total of fifty-two semester hours.
5. Twelve semester hours chosen from a list of approved courses in aerospace engineering, architectural engineering, astronomy, biology, chemical engineering, chemistry, civil engineering, computer science, engineering mechanics, geography, marine science, mathematics, mechanical engineering, petroleum and geosystems engineering, and physics. Geological Sciences 325K may also be counted toward requirement 5 .
This requirement is intended to function as an unspecified minor. Courses used to fulfill the requirement do not have to be taken in the same field of study, but they should form a self-reinforcing sequence related to geological sciences. Courses not on the list of approved courses will be considered upon petition to the Jackson School of Geoscience Student Services Office.
6. Enough additional coursework to make a total of 126 semester hours.

## Option II: Geophysics

1. Mathematics 408 C and 408D, or $408 \mathrm{~K}, 408 \mathrm{~L}$, and 408 M ; 427 K ; and 427 L . Mathematics 408 C or 408 K also meets the mathematics requirement of the core curriculum. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward the total number of semester hours required for the degree.
2. Physics 301, 101L, 315, 115L, 316, and 116L.
3. Chemistry 301 and 302. Together, the courses that meet requirements 2 and 3 also meet parts I and II of the science and technology requirement of the core curriculum.
4. Geological Sciences 401 or 303, 416K, 416M, 420K, 325J, 325K, $428,354,365 \mathrm{P}, 465 \mathrm{~K}, 366 \mathrm{M}$, and three additional hours of approved upper-division coursework in geological sciences.
5. Six semester hours in approved field/research courses. This requirement may be met by several courses, including Geological Sciences 348K, 660, 661, 376L, 679G, and approved off-campus geophysics field courses.
6. Six semester hours of technical electives chosen from a list of approved coursework in mathematics, physics, computer science, engineering, and related fields. A list of approved courses is available in the Jackson School of Geoscience Student Services Office. Technical elective credit for courses not on the approved list may be requested by petition. These courses will be added to the list after geophysics faculty review and approval.
7. Enough additional coursework to make a total of 126 semester hours.

## Option III: Hydrogeology

1. Mathematics 408 C and 408 D , or 408 K , 408 L , and 408 M ; and 427 K . Mathematics 408 C or 408 K also meets the mathematics requirement of the core curriculum. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward the total number of semester hours required for the degree.
2. Physics 301, 101L, 316, and 116L; or 303K, 103M, 303L, and 103N.
3. Chemistry 301, 302, and 204.
4. Biology 311C. Together, the courses that meet requirements 2 and 3 also meet parts I and II of the science and technology requirement of the core curriculum; Biology 311C may also be used to meet part II of that requirement.
5. The following coursework in geological sciences:
a. Geological Sciences 401 or $303,416 \mathrm{~K}, 416 \mathrm{M}, 420 \mathrm{~K}, 428,476 \mathrm{~K}$, 476M, and 376S
b. Six semester hours of field experience which must include Geological Sciences 376L and three additional hours selected from one of the following: Geological Sciences 660A, 660B , or 679J, or other appropriate course approved in advance by the Jackson School of Geoscience (JSG) Student Services Office.
c. Three upper-division semester hours in hydrogeology or a related area, chosen from Geological Sciences 325K, 376E, 377P, 327G, or other approved course
d. Nine additional semester hours of upper-division coursework in geological sciences.
6. Six semester hours chosen from a list of approved courses in biology, chemistry, civil engineering, geography, marine science, mathematics, mechanical engineering, and petroleum and geosystems engineering. A list of approved courses is available in the JSG Student Services Office.
This requirement is intended to function as an unspecified minor. Courses used to fulfill the requirement do not have to be taken in the same field of study, but they should form a self-reinforcing sequence related to geological sciences. Courses not on the list of approved
courses will be considered upon petition to the JSG Student Services Office.
7. Enough additional coursework to make a total of 126 semester hours.

## Option V: Teaching

This option is designed to fulfill the course requirements for composite science certification as a middle grades or secondary school teacher in Texas with geological sciences as the primary teaching field; composite certification requires twenty-four semester hours of coursework in the primary field, twelve hours in a second field, and six hours each in two additional fields.

Completion of the required courses does not guarantee teacher certification. To graduate and be recommended for certification, the student must have a cumulative University grade point average of at least 2.50 and must pass the final teaching portfolio review. Information about the portfolio review and additional certification requirements is available from the UTeach-Natural Sciences academic adviser.

1. In place of the foreign language requirement, either two years of high school coursework in a single foreign language or course 506 (or the equivalent) in a foreign language.
2. Mathematics 408 C . This course also meets the mathematics requirement of the core curriculum. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward the total number of semester hours required for the degree.
3. History 329U or Philosophy 329U.
4. Geological Sciences 401 or $303,404 \mathrm{C}$ or $405,416 \mathrm{~K}, 416 \mathrm{M}, 420 \mathrm{~K}$ or 320L, 335, and enough additional upper-division coursework in geological sciences to make a total of at least twenty-eight semester hours.
5. To meet the requirements of composite certification, the student must complete the following courses. In meeting this requirement, the student also fulfills parts I and II of the science and technology requirement of the core curriculum.
a. Biology 311C and 311D
b. Chemistry 301 and 302
c. Physics 302K, 102M, 302L, and 102N; or 301, 101L, 316, and 116L; or an equivalent sequence
d. Enough additional approved coursework in biology, chemistry, or physics to provide the required twelve semester hours in a second field
6. Biology 337 (Topic 2: Research Methods: UTeach), Chemistry 368 (Topic 1: Research Methods: UTeach), or Physics 341 (Topic 7: Research Methods: UTeach).
7. Astronomy 303, 307, or 367M; and Marine Science 307.
8. Eighteen semester hours of professional development coursework, with a grade of at least $C$ - in each course: Curriculum and Instruction 650S, UTeach-Natural Sciences 101, 110, 350, 355, 360, 170.
9. For students seeking middle grades certification, the following coursework with a grade of at least $C$ - in each course: Educational Psychology 363M (Topic 3: Adolescent Development), or Psychology 301 and 304; and Curriculum and Instruction 339E.
10. Enough additional coursework to make a total of 128 semester hours.

## Bachelor of Science in <br> Geosystems Engineering and Hydrogeology

Geosystems engineers and hydrogeologists are concerned with the development and use of engineering approaches in the management of natural resources from the Earth's surface and subsurface, environmental restoration of subsurface sites, and other processes related to the earth sciences. This degree program, offered in partnership by the Cockrell School of Engineering and the Jackson School, is designed to teach students the geological and engineering principles needed to solve subsurface resource development and environmental problems. The curriculum includes a fundamental sequence of engineering and geological sciences courses in such areas as multiphase fluid flow, physical and chemical hydrology, heat and mass transfer, field methods, and engineering design. This interdisciplinary systems approach, combining engineering and geological sciences, is increasingly required to address complex real-world problems such as characterization and remediation of aquifers. The degree program is designed to prepare graduates for employment with environmental, water resource management, and energy companies in addition to many government agencies. Better-qualified graduates of the program may pursue graduate study in subsurface environmental engineering, petroleum engineering, geology, and related fields.

The objective of the degree program is to prepare graduates for successful careers in subsurface environmental engineering (including carbon dioxide sequestration), oil and gas production and services, and similar fields. Graduates are expected to understand the fundamental principles of science and engineering behind the technology of geosystems engineering and hydrogeology, so that their education will not become outdated and so that they will be capable of self-instruction after graduation. They should also be prepared to serve society by applying the ideals of ethical behavior, professionalism, and environmentally responsible stewardship of natural resources.

Containing the following elements, the technical curriculum provides both breadth and depth in a range of topics:

- A combination of college-level mathematics and basic sciences (some with experimental work) that includes mathematics through differential equations, physics, chemistry, and geology
- Basic engineering and geologic topics that develop a working knowledge of fluid mechanics, strength of materials, transport phenomena, material properties, phase behavior, and thermodynamics
- Engineering and geosciences topics that develop competence in characterization and evaluation of subsurface geological formations and their resources using geoscientific and engineering methods, including field methods; design and analysis of systems for producing, injecting, and handling fluids; application of hydrogeologic and reservoir engineering principles and practices for water and energy resource development and management; contamination evaluation and remediation methods for hydrologic resources; and use of project economics and resource valuation methods for design and decision making under conditions of risk and uncertainty
- A major capstone design experience that prepares students for engineering and hydrogeologic practice, based on the knowledge and skills acquired in earlier coursework and incorporating engineering and geological standards and realistic constraints
- A general education component that complements the technical content of the curriculum


## Curriculum

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. In addition, each student must complete the University's core curriculum (p.20). In some cases, a course required as part of the basic sequence may also be counted toward the core curriculum; these courses are identified below. To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet ABET criteria, students should follow the guidance given in ABET Criteria (p. 157).

In the process of fulfilling the following degree requirements, students must also complete a course that carries an independent inquiry flag, a course that carries a quantitative reasoning flag, and two courses that carry a writing flag. The independent inquiry flag, the quantitative reasoning flag, and one writing flag are provided by courses specifically required for the degree; these courses are identified below. Students are advised to fulfill the second writing flag requirement with a course that meets another requirement of the core curriculum, such as the first-year signature course. Courses that may be used to fulfill flag requirements are identified in the Course Schedule. More information about flags is given at Skills and Experiences Flags (p. 22).

Enrollment in major sequence courses is restricted to students who have received credit for all of the basic sequence courses and have been admitted to the major sequence. Requirements for admission to a major sequence are given in Admission to a Major Sequence (p. 151). Enrollment in other required courses is not restricted by completion of the basic sequence.

Courses used to fulfill technical and nontechnical elective requirements must be approved by the petroleum and geosystems engineering faculty and the geological sciences faculty before the student registers for them.

Students must fulfill the Foreign Language Requirement (p. 22). They must also remove any admission deficiencies in mathematics as described in General Information (http://catalog.utexas.edu/general-information/admission/undergraduate-admission/freshman-admission/ \#admissiondeficiencies). A suggested arrangement of courses by semester is given in Suggested Arrangement of Courses (p. 179).

Requirements Hours
Basic Sequence Courses
Chemistry

| CH 301 | Principles of Chemistry I (part II science and <br> technology) | 3 |
| :--- | :--- | :--- |
| CH 302 | Principles of Chemistry II | 3 |

Engineering Mechanics
E M 306 Statics 3
E M $319 \quad$ Mechanics of Solids 3

Geological Sciences
GEO 303 Introduction to Geology 3
GEO 416K Earth Materials 4
GEO 416M Sedimentary Rocks 4
Mathematics
M 408C Differential and Integral Calculus (mathematics, 4 quantitative reasoning flag)
M 408D Sequences, Series, and Multivariable Calculus 4
M 427K Advanced Calculus for Applications I (quantitative 4 reasoning flag)

Petroleum and Geosystems Engineering

| PGE 310 | Formulation and Solution of Geosystems Engineering Problems | 3 |
| :---: | :---: | :---: |
| PGE 427 | Properties of Petroleum Fluids | 4 |
| PGE 322K | Transport Phenomena in Geosystems | 3 |
| PGE 326 | Thermodynamics and Phase Behavior | 3 |
| PGE 333T | Engineering Communication (writing flag and ethics and leadership flag) | 3 |
| Physics |  |  |
| PHY 303K | Engineering Physics I (part I science and technology, writing flag) | 3 |
| PHY 303L | Engineering Physics II (part I science and technology, writing flag) | 3 |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| Rhetoric and Writing |  |  |
| RHE 306 | Rhetoric and Writing (English composition) | 3 |
| Undergraduate Studies |  |  |
| UGS 302 | First-Year Signature Course (some sections carry a writing flag) | 3 |
| or UGS 303 | First-Year Signature Course |  |
| Major Sequence Courses |  |  |
| Geological Sciences |  |  |
| GEO 420K | Introduction to Field and Stratigraphic Methods | 4 |
| GEO 428 | Structural Geology | 4 |
| GEO 476K | Groundwater Hydrology (writing flag) | 4 |
| GEO 376L | Field Methods in Groundwater Hydrology | 3 |
| GEO 376S | Physical Hydrology | 3 |
| Petroleum and Geosystems Engineering |  |  |
| PGE 323K | Reservoir Engineering I: Primary Recovery | 3 |
| PGE 323L | Reservoir Engineering II: Secondary and Tertiary Recovery | 3 |
| PGE 424 | Petrophysics | 4 |
| PGE 365 | Resource Economics and Valuation | 3 |
| PGE 368 | Fundamentals of Well Logging | 3 |
| PGE 373L | Geosystems Engineering Design and Analysis (independent inquiry flag) | 3 |
| Civil Engineering |  |  |
| C E 357 | Geotechnical Engineering | 3 |
| Approved en | ering elective | 3 |
| Approved ge | nces technical elective | 3 |
| Remaining Core Curriculum Courses |  |  |
| E 316L | British Literature (humanities) | 3 |
| or E 316M | American Literature |  |
| or E 316N | World Literature |  |
| or E 316P | Masterworks of Literature |  |
| American government |  | 6 |
| American history |  | 6 |
| Visual and performing arts |  | 3 |
| Social and behavioral sciences |  | 3 |
| Total Hours |  | 132 |

## Courses

The faculty has approval to offer the following courses in the academic years 2014-2015 and 2015-2016; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule to determine which courses and topics will be offered during a
particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/credit-value-and-course-numbers). In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits indicate the rank of the course: if they are 01 through 19, the course is of lower-division rank; if 20 through 79, of upperdivision rank; if 80 through 99 , of graduate rank.

## Environmental Science: EVS

## Lower-Division Courses

EVS 311. Field Seminar in Sustainability.
Designed for students pursuing a Bachelor of Science in Environmental Science. Introduces field observation and analysis of environmental processes and sustainability issues. Topics include ecology, hydrogeology, marine science, climate science, energy, and campus sustainability. Two lecture hours and four laboratory or field laboratory hours a week for one semester. Prerequisite: Consent of instructor.

## Upper-Division Courses

## EVS 331. Research Methods for the Environmental Sciences.

Designed for students pursuing a Bachelor of Science in Environmental Science. Topics include experimental design, statistical analysis and modeling, and ethics. Students develop and conduct an independent research project during the laboratory portion of the course. Two lecture hours and four laboratory or field laboratory hours a week for one semester. Prerequisite: Environmental Science 311 with a grade of at least C-, and consent of instructor.

## EVS 141. 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. One lecture hour a week for one semester. Prerequisite: Senior standing, Environmental Science 311 and 331, and admission to an environmental science major.

## EVS 151. 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. One lecture hour a week for one semester. Prerequisite: Environmental Science 141.

## EVS 171, 271, 371, 471. Research Experience.

Designed for students pursuing a Bachelor of Science in Environmental Science. Supervised study of selected topics in environmental science, by individual arrangement with the instructor. Conference course. May not be substituted for any required environmental sciences course. May be
repeated for credit when the topics vary. Prerequisite: Written consent of instructor.

## Geological Sciences: GEO

## Lower-Division Courses

GEO 401 (TCCN: GEOL 1403). Physical Geology.
Nature, properties, and distribution of crustal materials; surficial processes; internal processes; origin of continents, oceans, and ocean basins; mineral and fuel resources. Three lecture hours and two hours of laboratory or fieldwork a week for one semester. Only one of the following may be counted: Geological Sciences 401, 303, 312K, 420H.

## GEO 302C. Climate: Past, Present, and Future.

Designed for nonscience majors. Principal factors that determine Earth's climate, evidence of climate change, causes of climate change, natural climatic variations and human-induced changes, prediction of climate in the next one hundred years, and uncertainties in climate prediction. Three lecture hours and one and one-half laboratory hours a week for one semester.

## GEO 302D. Age of Dinosaurs.

An exploration of the general principles of natural history, focusing on the natural history of dinosaurs. An introduction to the basics of geology, anatomy, paleontology, and evolutionary theory, followed by the application of this knowledge, in tracing the evolutionary history of Dinosauria. Three lecture hours and one and one-half laboratory hours a week for one semester. Normally offered in the fall semester only. May not be counted toward a degree in environmental or geological sciences.

## GEO 302E. Earth, Wind, and Fire.

Designed for nonscience 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. Three lecture hours and one and one-half laboratory hours a week for one semester. Normally offered in the fall semester only. May not be counted toward a degree in environmental or geological sciences.

GEO 302K (TCCN: GEOL 1301, GEOL 1302). Selected Topics in Geological Sciences.
Designed for nonscience majors. The impact of geological processes on human activity; geologic topics of popular interest. Three lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in environmental or geological sciences. May be repeated for credit when the topics vary.

## GEO 302M. The Age of Mammals.

Introductory-level course on paleontology and natural history for nonscience majors. Basic geological processes, fossilization, and the fossil record. Overview of the "tree of life." Summary of the evolution and diversification of mammals, an introduction to interactions between physical and biological processes, and the impact of climate change and human activities on mammalian communities. Laboratory component focuses on the mammalian skeleton and common Texas mammals. Three lecture hours and one and one-half laboratory hours a week for one semester. Normally offered in the spring semester only. May not be counted toward a degree in environmental or geological sciences.

## GEO 302P. Sustaining a Planet.

Restricted to freshmen and sophomores. Examines sustainability and the environment from the perspective of multiple disciplines. Three lecture hours and one and one-half laboratory hours a week for one semester.

Normally offered in the spring semester only. May not be counted toward a degree in geological sciences.

## GEO 303. 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. Two lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Geological Sciences 401, 303, 312K, 420H.

## GEO 303C. 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. Three lecture hours a week for one semester. Geological Sciences 303C and 310C (Topic: Introduction to the Solar System) may not both be counted.

## GEO 404C. Plate Tectonics and Earth History.

Application of plate tectonics to the origin and history of Earth's crust and the origin, evolution, and distribution of living organisms. Three lecture hours and two laboratory hours a week for one semester. Normally offered in the spring semester only. Geological Sciences 404C and 405 may not both be counted. Prerequisite: Geological Sciences 401 or 303 with a grade of at least C-

## GEO 405 (TCCN: GEOL 1404). Life through Time.

Restricted to freshmen and sophomores. The history and development of life, and the processes of change from the early Precambrian era to the present. Three lecture hours and two laboratory hours a week for one semester. Normally offered in the fall semester only. Geological Sciences 404 C and 405 may not both be counted. Prerequisite: Geological Sciences 401 or 303 with a grade of at least C-.

## GEO 305E. 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. Three lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in environmental or geological sciences, geosystems engineering and hydrogeology, or petroleum engineering.

## GEO 306P. Geology and Sustainability.

Restricted to environmental science entry-level majors. Examines sustainability and environmental science from an interdisiplinary perspective. Three lecture hours and one and one-half laboratory hours a week for one semester. Normally offered in the fall semester. Prerequisite: Written consent of instructor.

## GEO 110C, 210C, 310C. Conference Course.

Supervised study of selected topics in geological sciences, by individual arrangement with the department and the instructor. Conference course. May not be substituted for any required geological sciences course. Some topics are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Written consent of instructor.

## GEO 211. 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. Four laboratory hours a week for one semester. Offered irregularly. May not be substituted for any required geological sciences
course. Offered on the pass/fail basis only. Prerequisite: Written consent of instructor.

GEO 012N. JSG Geosciences Mentors Program - First-year.
Restricted to first-year students in the Jackson School of Geosciences. 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. One lecture hour a week for one semester. May not be counted toward a degree in geological sciences or environmental sciences. Offered on the pass/fail basis only. Prerequisite: Consent of instructor.

## GEO 114G. Geophysics Colloquium.

Open to non-geological sciences majors, but registration priority is given to geological sciences majors. Exploration of a variety of problems in modern geophysics. Two lecture hours a week for one semester, and at least one weekend field trip. Geological Sciences 110C (Topic: Geophysics Colloquium) and 114G may not both be counted. May be repeated for credit. Offered on the pass/fail basis only.

## GEO 416K. Earth Materials.

Restricted to majors in the Jackson School of Geosciences; others may register with consent of instructor. Introduction to minerals, mineral study techniques, igneous and metamorphic rocks and ore deposits, and formation processes. Three lecture hours and four laboratory hours a week for one semester. Normally offered in the fall semester only. Prerequisite: Geological Sciences 401 or 303 with a grade of at least C-, Chemistry 301 with a grade of at least C-, and credit with a grade of at least C- or registration for Chemistry 302.

## GEO 416M. Sedimentary Rocks.

Restricted to majors in the Jackson School of Geosciences; others may register with consent of instructor. Description and interpretation of sedimentary rocks in hand specimen and thin section; characteristics of sedimentary rocks deposited in different environments. Three lecture hours and four laboratory hours a week for one semester, with two additional one-day field trips to be arranged. Prerequisite: Geological Sciences 401,303 , or 420 H with a grade of at least C-.

## GEO 316P. 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, distrubtion of permeability and porosity, flow units, reservoir, heterogeneities, and hydrocarbon recovery. Intended for petroleum and geosystems engineering majors. Three lecture hours a week for one semester. Normally offered in the spring semester. May not be counted toward any degree in geological sciences. Prerequisite: Geological Sciences 401,303 , or 420 H with a grade of at least C-.

GEO 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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 Geological 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## GEO 420F. 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. The equivalent of four lecture hours a week for one semester, including field exercises in a variety of geological settings. Prerequisite: Geological Sciences 401, 303, or other coursework in geology.

## GEO 420H. Honors Introductory Geology.

An accelerated introductory course on the composition, structure, and history of the earth. Three lecture hours and two laboratory hours a week for one semester, and several all-day field trips. Normally offered in the fall semester only. Only one of the following may be counted: Geological Sciences 401, 303, 312K, 420H. Prerequisite: Consent of instructor.

## GEO 420K. Introduction to Field and Stratigraphic Methods.

For geological sciences majors. Field observation of geological processes and study of the mineralogy, petrology, stratigraphy, paleontology, and structural geology of central Texas. Two lecture hours and three laboratory hours a week for one semester, and six weekend field trips. Geological Sciences 420 K and 320L may not both be counted. Prerequisite: Geological Sciences 416 K and 416 M with a grade of at least C- in each.

## GEO 320L. Introductory Field Geology.

Study of geologic features and processes in the field, designed for nongeologists; emphasizes regional geology of central Texas and techniques of geologic mapping. The equivalent of three lecture hours a week for one semester. Normally offered between the spring semester and the summer session only. Geological Sciences 420 K and 320L may not both be counted. May not be counted toward the Bachelor of Arts in Geological Sciences, the Bachelor of Science in Environmental Sciences, or the Bachelor of Science in Geological Sciences. Offered on the pass/ fail basis only. Prerequisite: Geological Sciences 401, or 303, or consent of instructor.

## GEO 422K. Paleobiology.

Systematics, biostratigraphy, paleoecology, and evolution of fossil organisms. Three lecture hours and four laboratory hours a week for one semester, with two additional one-day field trips. Normally offered in the fall semester only. Prerequisite: Biology 301M or 311D with a grade of at least C-, Geological Sciences 404C or 405 with a grade of at least C-, and Geological Sciences 416 M with a grade of at least C-.

## GEO 322S. Development and Evolution of the Vertebrate Skeleton.

Designed for majors in geological sciences and associated fields of natural history. Introduction to the organization and development of the vertebrate skeleton; survey of vertebrate history. Three lecture hours and two laboratory hours a week for one semester. Normally offered in the spring semester only, in alternate years. Prerequisite: Upper-division standing.

## GEO 022T. JSG Geosciences Mentors Program - Transfer.

Restricted to first semester transfer students in the Jackson School of Geosciences. 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. One lecture hour a week for one semester. May not be counted toward a degree in geological sciences or environmental sciences. Offered on the pass/fail basis only. Prerequisite: Consent of instructor.

## GEO 322V. 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 fish, amphibians, reptiles, birds, and mammals. Three lecture hours and four laboratory hours a week for one semester. Normally offered in the fall semester only, in alternate years. Geological Sciences 322V and 389R may not both be counted. Prerequisite: One of the following: Geological Sciences 404C, 405, or the equivalent, or three semester hours of coursework in biology, or consent of instructor.

## GEO 325J. Programming in FORTRAN and MATLAB.

Restricted to geosciences majors. 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. Two lecture hours and two laboratory hours a week for one semester. Normally offered in the spring semester only. Prerequisite: Mathematics 408D or the equivalent.

## GEO 325K. Computational Methods.

Sampling and aliasing. Review of sinusoids and wave terminology, complex numbers and complex sinusoids, vectors and matrices, the discrete Fourier transform, convolution, the convolution theorem, linear digital filters and transfer functions, random variable concepts and statistics, and least squares estimation. MATLAB is used for homework problems and examples. Two lecture hours and two laboratory hours a week for one semester. Normally offered in the fall semester only. Prerequisite: Geological Sciences 325J, or an equivalent college-level course in an appropriate programming language and consent of instructor.

## GEO 426P. Igneous and Metamorphic Petrology.

Mineralogy, geochemistry, and processes of magmatism and metamorphism. Three lecture hours and four laboratory hours a week for one semester. Normally offered in the spring semester only. Prerequisite: Geological Sciences 416K with a grade of at least C-, and credit with a grade of at least C- or registration for either Physics 301 and 101L or 303 K and 103M.

## GEO 327G. Geographic Information System and Global Positioning System Applications in Earth Sciences.

For geological sciences majors only. Theory and practice of geographic information system (GIS) and Global Positioning System (GPS) technologies, and their applications to problems in earth sciences. Laboratories and field trips provide hands-on experience with the collection, mapping, and analysis of geologic and other field data using GPS equipment and GIS software. Topics include map projections; datums and reference frames; cartographic principles; remotely sensed data (satellite and aerial photos, image radar); vector- and raster-based image formats; geospatial data resources; GIS software applications; surveying principles; GPS constellation and data structure; differential GPS; data logging schemes; GPS postprocessing software; integration of GPS and GIS in mapmaking; extant GIS applications in geology and hydrogeology. Three lecture hours and two laboratory hours a week for one semester, and two weekend field trips. Geological Sciences 327G and 371C (Topic: Geographic Information System and Global Positioning System Applications in Earth Sciences) may not both be counted. Prerequisite: Geological Sciences 420K with a grade of at least C-, and consent of instructor.

## GEO 428. Structural Geology.

Description, classification, and origin of Earth structures. Solution of problems by descriptive geometry, geologic maps, and contouring.
Three lecture hours and three laboratory hours a week for one semester. Normally offered in the fall semester only. Prerequisite: For students pursuing the Bachelor of Science in Geological Sciences, Geological

Sciences 420 K with a grade of at least C-, Physics 301 and 101L or 303 K and 103 M with a grade of at least C - in each, and credit with a grade of at least C- or registration for Mathematics 408C or 408K (or 308K); for those pursuing the Bachelor of Arts with a major in geological sciences, Geological Sciences 420 K with a grade of at least C-, three semester hours of coursework in mathematics (other than Mathematics 301, 316K, and 316L) with a grade of at least C-, and Physics 302K or 303K with a grade of at least C-; for others, consent of instructor.

GEO 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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 Geological 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. May be repeated for credit when the topics vary.

## GEO 329W. Hydrogeology Cooperative (Geological Sciences).

This course 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. The student must submit a final report to the supervising instructor at the conclusion of the program. Forty laboratory hours a week for one semester. The student must repeat the course each work period and must take it twice to receive credit toward the degree; at least one of these registrations must be during a long-session semester. No more than three semester hours may be counted toward the major requirement; no more than six semester hours may be counted toward the degree. The student's first registration must be on the pass/fail basis. Prerequisite: Application to become a member of the Hydrogeology Cooperative (Geological Sciences) Program and consent of the geological sciences undergraduate adviser.

## GEO 330K. 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. Two lecture hours and two laboratory hours a week for one semester. Normally offered in the spring semester. Prerequisite: Geological Sciences 416M with a grade of at least C-, and Physics 303L or 316.

## GEO 331K. Petrology and Plate Tectonics.

Sedimentation, metamorphism, igneous activity, and deformation patterns at rift zones, subduction zones, and transform margins. Three lecture hours a week for one semester. Offered irregularly, as shown in the Course Schedule. Prerequisite: Geological Sciences 428 with a grade of at least C-.

## GEO 335. 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. Three lecture hours and two laboratory hours a week for one semester; local field trips may also be required. Normally offered in the fall semester only. May not be counted toward the following options within the Bachelor of Science in Geological Sciences: general geology, geophysics, and hydrogeology. May not be counted toward a degree in environmental
science. Prerequisite: Upper-division standing, Geological Sciences 401 or 303, and Geological Sciences 404C or 405.

## GEO 338T. 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. Three lecture hours a week for one semester. Normally offered in the spring semester only. Only one of the following may be counted: Geological Sciences 338T, 371C (Topic: Tectonics I), 381T, 391 (Topic: Tectonics I). May not be substituted for any required geological sciences course. Prerequisite: Upper-division standing, and Geological Sciences 428 with a grade of at least C - or consent of instructor.

## GEO 339T. 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. Three lecture hours a week for one semester. Normally offered in the fall semester only. Only one of the following may be counted: Geological Sciences 339T, 371C (Topic: Tectonics II), 382T, 391 (Topic: Tectonics II). May not be substituted for any required geological sciences course. Prerequisite: For geological sciences majors, upper-division standing and Geological Sciences 428 with a grade of at least C-; for others, consent of instructor.

## GEO 340T. Geoclimatology.

Examination of the climate records encoded in sedimentary archives through geologic time. Three lecture hours a week for one semester. May not be substituted for any required geological sciences course. Geological Sciences 340T and 371C (Topic: Geoclimatology) may not both be counted. Prerequisite: For geological sciences majors, upperdivision standing, and Chemistry 302 and Geological Sciences 416K and 416 M with a grade of at least C - in each; for others, upper-division standing, Chemistry 302 and Geological Sciences 416 K and 416 M with a grade of at least C - in each, and consent of instructor.

## GEO 341. 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. Three lecture hours and one laboratory hour a week for one semester. Normally offered in the spring semester only. Prerequisite: Geological Sciences 416K with a grade of at least C-.

## GEO 341G. 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. Three lecture hours a week for one semester. Normally offered in the fall semester only, in alternate years. May not be substituted for any required geological sciences course. Geological Sciences 341G and 381G may not both be counted. Prerequisite: For
geological sciences majors, upper-division standing; for others, upperdivision standing and consent of instructor.

## GEO 344K. Marine Mining and Minerals.

Same as Marine Science 344K. Overview of seafloor mineral deposits, their exploration, and mining. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Geological Sciences or the Bachelor of Science in Environmental Sciences degrees. Prerequisite: Geological Sciences 401 or 303, 416K, and 416 M .

## GEO 344U. Quantitative Seismic Interpretation.

Seismic inversion, a tool for reservoir characterization, post- and prestack 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. Three lecture hours a week for one semester. Normally offered in the spring semester only, in alternate years. Prerequisite: Upper-division standing.

## GEO 145E. Professional Ethics in Geosciences.

Supervised study devoted to the subject of professional ethics and personal integrity in the sciences, with specific subject matter designed to evolve with the science and our society. One lecture hour a week for one semester. Normally offered in the fall semester only. Geological Sciences 145E and 171C (Topic: Professional Ethics in Geosciences) may not both be counted. May not be substituted for any required geological sciences or environmental sciences course. Offered on the letter-grade basis only. Prerequisite: For non-Jackson School of Geosciences majors, consent of instructor.

## GEO 346C. Introduction to Physical and Chemical Hydrogeology.

Basic concepts of fluid flow, surface and subsurface hydrology, aqueous geochemistry, and fluid-rock interaction. Additional topics include isotope hydrogeology, evolution of seawater, and mineral-solution equilibrium. Three lecture hours a week for one semester. Normally offered in the spring semester only. Prerequisite: Chemistry 302 with a grade of at least C-

## GEO 347D. Global Warming.

Discussion of the fundamental sciences of global warming, including an active investigation of contemporary climate change issues. Three lecture hours a week for one semester. Normally offered in the fall semester only. Geological Sciences 347D and 371C (Topic: Global Warming) may not both be counted. Offered on the letter-grade basis only.

## GEO 347G. Climate System Modeling.

Studies the basic theory of climate system modeling using state-of-the-art regional climate models in a variety of applications. Subjects may include paleoclimate study and future climate prediction based on greenhouse gas increases. Three lecture hours a week for one semester. Normally offered in the spring semester only. Only one of the following maybe counted: Geological Sciences 347G, 371C (Topic: Climate System Modeling), 387G, 391 (Topic: Climate System Modeling). May not be substituted for any required geological sciences course. Prerequisite: Upper-division standing, basic knowledge of Unix, and programming experience in Fortran.

## GEO 347K. Gems and Gem Minerals.

Crystallography, occurrence, and identification of gem minerals and materials; artificial gems; simple cutting and polishing; history of gems and gemology. Three lecture hours and two laboratory hours a week for one semester. May not be counted toward a degree in geological sciences or
environmental science. Prerequisite: For earth science teachers, consent of instructor; for others, Geological Sciences 401 or 303, and Chemistry 301 or one year of high school chemistry.

## GEO 347P. 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. Three lecture hours a week for one semester. Normally offered in the spring semester only. Only one of the following may be counted: Geological Sciences 347P, 371C (Topic: Climate System Physics), 387P, 391 (Topic: Climate System Physics). May not be substituted for any required geological sciences course. Prerequisite: Upper-division standing and Mathematics 408D and Physics 303K with a grade of at least C- in each.

GEO 348K. Marine Geology and Geophysics Field Course.
Same as Marine Science 348 (Topic 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. Includes classroom, laboratory, and field components in Austin and at sea. Offered between the spring semester and the summer session; limited class meetings may begin in the spring semester. Geological Sciences 348K and 397F may not both be counted. Fulfills the field experience requirement for some geological sciences degree programs. Students should contact the department for information before registering. Prerequisite: For geological sciences majors, upper-division standing, Geological Sciences 420K or 320L with a grade of at least C-, and consent of instructor; Geological Sciences 416M and 465K are recommended; for others, upper-division standing, Marine Science 307 and 354 F with a grade of at least C - in each, and consent of instructor.

## GEO 354. Physics of Earth.

How history, composition, temperature, kinematics, and dynamics of Earth are inferred from geophysical observations of all types. Three lecture hours a week for one semester. Normally offered in the spring semester only. Geological Sciences 354 and 384D may not both be counted. Prerequisite: For students in the geophysics option, Geological Sciences 465K and 365P; for others, a major in geological sciences and completion of the calculus and physics courses required for the major.

## GEO 358K. Volcanology.

Ash deposits, lava flows, eruption processes; prediction and mitigation of volcanic hazards. Three lecture hours and one laboratory hour a week for one semester. Offered irregularly. Prerequisite: Geological Sciences 426P or upper-division standing in geological sciences.

## GEO 660. Field Geology.

Methods of geologic mapping with topographic maps and aerial photographs. Field studies include measuring sections, interpretation of stratigraphy, structure, environments of deposition of various sedimentary rocks, and the origin and petrology of igneous and metamorphic rocks. Given for six weeks each summer in Colorado, New Mexico, and other western states. Normally offered in the summer session only. Prerequisite: Eighteen semester hours of coursework in geological sciences, including Geological Sciences 420 K and 428 with a grade of at least C - in each.

## GEO 661. Geophysics Field Camp.

Field studies for geophysics majors, including seismic, magnetic, electrical, gravity, and other techniques; related data processing and interpretation. Each half requires three consecutive weeks of fieldwork. Geological Sciences 661A is offered either between the spring semester and the summer session or in the summer session; Geological Sciences 661B is offered in the summer session. Students may take Geological

Sciences 661 for University credit while enrolled in the Los Alamos National Laboratory SAGE program. Prerequisite: Completion of eighteen semester hours of coursework in geological sciences, including Geological Sciences 420K, 465K, and 365P with a grade of at least C- in each.

## GEO 465K. 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. Three lecture hours and two laboratory hours a week for one semester. Normally offered in the fall semester only. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 427L and Physics 315 and 115L.

## GEO 365N. Geophysical Data Processing.

Fourier transforms of continuous functions, linear digital filter design and applications, frequency domain filtering, and spectral analysis and applications. Three lecture hours a week for one semester. Normally offered in the spring semester only. Prerequisite: Geological Sciences 325 K or the equivalent.

## GEO 365P. 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. Three lecture hours a week for one semester. Normally offered in the spring semester only. Geological Sciences 365P and 383P may not both be counted. Prerequisite: Mathematics 427K, 427L, Physics 315, and 115L with a grade of at least C- in each.

## GEO 365Q. 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. Three lecture hours a week for one semester, with several field trips to be arranged. Normally offered in the fall semester. Only one of the following may be counted: Geological Sciences 365Q, 371C (Topic: Geomorphology: Landscape Process, Form, and Evolution), 385Q, 391 (Topic: Geomorphology: Landscape Process, Form, and Evolution). May not be substituted for any required geological sciences course. Prerequisite: Upper-division standing; and Mathematics 408C or the equivalent, or consent of instructor.

## GEO 366M. 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. Three lecture hours a week for one semester. Normally offered in the fall semester. Geological Sciences 366M and 380J may not both be counted. Prerequisite: Mathematics 427L or the equivalent.

## GEO 468K. Geophysics for Geological Sciences Majors.

A survey of seismic, magnetic, gravitational, and other geophysical tools and their application to exploration and global-scale problems. Three lecture hours and two laboratory hours a week for one semester. Normally offered in the spring semester only. May not be counted toward the Bachelor of Science in Geological Sciences, Option II. Prerequisite: Mathematics 408D and either Physics 303L and 103N or 316 and 116L, with a grade of at least C - in each.

## GEO 370K. Sedimentology.

Processes of sediment formation, transportation, and deposition; textures, structures, and facies of sedimentary rocks. Three lecture hours a
week for one semester, and two one-day field trips. Offered irregularly. Prerequisite: Geological Sciences 420K with a grade of at least C-.

## GEO 171C, 271C, 371C. Conference Course.

Supervised study of selected topics in geological sciences, by individual arrangement with the department and instructor. Conference course. May not be substituted for any required geological sciences course. May be repeated for credit when the topics vary. Prerequisite: Written consent of instructor.

## GEO 171H. 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. The equivalent of one lecture hour a week for one semester. Prerequisite: Completion of sixty semester hours of college coursework, including at least eight hours of upper-division coursework in geological sciences; consent of the honors adviser; and admission to the Geological Sciences Honors Program or consent of instructor.

## GEO 171T, 271T, 371T, 471T, 571T, 671T. Undergraduate Seminar in Geological Sciences.

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; additional hours may be required for some topics. May not be substituted for any required geological sciences courses. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and a major in the Jackson School of Geosciences, or consent of instructor. Additional prerequisites may vary with the topic.

## GEO 172H. 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. The equivalent of one lecture hour a week for one semester. Prerequisite: Geological Sciences 171H, and admission to the Geological Sciences Honors Program or consent of instructor.

## GEO 173H. 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. The equivalent of one lecture hour a week for one semester. Prerequisite: Geological Sciences 171 H and 172 H , and admission to the Geological Sciences Honors Program or consent of instructor.

## GEO 376C. 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, fluidrock interactions, tectonics, crust-mantle evolution, and extraterrestrial materials. Three lecture hours a week for one semester. Only one of the following may be counted: Geological Sciences 371C (Topic: Isotope and Environmental Geology Research), 376C, 388L. Prerequisite: Chemistry

302, Mathematics 408D or 408M with a grade of at least C- in each, and written consent of instructor.

## GEO 376E. 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. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Offered irregularly. Prerequisite: Upper-division standing in geological sciences; and consent of instructor or the following courses: Chemistry 302, 204, Geological Sciences 416K, 416M, 346C, Mathematics 408D, and Physics 303L and 103 N or 316 and 116 L .

## GEO 476K. Groundwater Hydrology.

Introduction to subsurface hydrology, emphasizing geological controls on groundwater flow; quantitative methods of analyzing aquifer systems; regional hydrology; water quality and pollution. Three lecture hours and one laboratory hour a week for one semester, with several local field trips. Normally offered in the fall semester only. Prerequisite: Geological Sciences 346C or Mathematics 408D with a grade of at least C-, or consent of instructor.

## GEO 376L. Field Methods in Groundwater Hydrology.

Introduction to field methods, including geophysics, pump tests, stream gauging, well-logging, water sampling, and mapping. An intensive threeweek course meeting eight hours a day, Monday through Friday, and four hours on Saturday: lectures, laboratory exercises, and field exercises; nightly homework involving map exercises, reduction of field data, report preparation; Saturdays devoted to report presentation, review sessions, and local field trips. Offered between the spring semester and the summer session. Prerequisite: Geological Sciences 476 K with a grade of at least C-, or consent of instructor.

## GEO 476M. Chemical Hydrogeology.

An introduction to aqueous geochemistry and contaminant hydrogeochemistry; topics include basic thermodynamics, kinetics, rockwater interactions, and solute transport. Three lecture hours and two laboratory hours a week for one semester. Normally offered in the spring semester only. Prerequisite: Geological Sciences 346C, 476K, or 376S with a grade of at least C-

## GEO 376S. 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. Three lecture hours a week for one semester. Normally offered in the fall semester only. Prerequisite: Geological Sciences 346C or Mathematics 408D with a grade of at least C-.

## GEO 376T. High-Temperature Geochemistry.

Restricted to geosciences majors. 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. Three lecture hours a week for one semester. Normally offered in the fall semester only. Prerequisite: Mathematics 408D or the equivalent.

## GEO 476W. 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. The equivalent of four lecture hours a week for one semester, with field work hours to be arranged. Normally offered in the fall semester only. Only one of the following may be counted: Geological Sciences 371C (Topic: Hydrogeophysics), 476W, 382W, 391 (Topic: Hydrogeophysics). Prerequisite: Consent of instructor; previous coursework and/or experience in hydrogeology and geophysics is recommended.

## GEO 377K. 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. Three lecture hours a week for one semester, with additional fieldwork hours to be arranged. Normally offered in the spring semester only. Class counts for field work credit for those in the Bachelor of Science in Geological Sciences (Option III: Hydrogeology) degree program. Only one of the following may be counted: Geological Sciences 371C (Topic: Applied Karst Hydrogeology), 377K, 391 (Topic: Applied Karst Hydrogeology), 391K. Prerequisite: Geological Sciences 476K or consent of instructor.

## GEO 377P. Physical Climatology.

Investigates the nature of earth's climate and examines the physical processes that maintain the climate system. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Upper-division standing; and Mathematics 408D, Physics 303K, Geography 301K, and Computer Science 303E, or their equivalents.

## GEO 679G. Special Studies in Geophysics.

Special research projects, field studies, or geophysical/industrial internship. Assigned reading with written and oral report. Three lecture hours a week for two semesters. May be used instead of Geological Sciences 660 in fulfilling the requirements for the Bachelor of Science in Geological Sciences (Option II). Prerequisite: A University grade point average of at least 3.00, or a grade point average in geosciences courses of at least 3.00 and consent of instructor.

## GEO 379H. Honors Tutorial.

Supervised research project resulting in an honors thesis with an oral defense. Conference course. May be counted as three of the six geological sciences senior elective hours. Prerequisite: Upper-division standing, admission to the Geological Sciences Honors Program, and completion of Geological Sciences $171 \mathrm{H}, 172 \mathrm{H}$, and 173 H with a grade of at least $B$ - in each; or consent of the departmental honors adviser.

## GEO 679J. Internship in Hydrogeology.

Special hydrogeological studies under the joint supervision of industry professionals and faculty members. Students present a written report. Forty hours a week for one semester. May be used in place of Geological Sciences 660 in fulfilling the requirements for the Bachelor of Science in Geological Sciences (Option III). Prerequisite: Geological Sciences 476K with a grade of at least C-, a grade point average in geological sciences of at least 3.00, and consent of instructor.

## GEO 279K, 379K. Special Studies in Advanced Geological Sciences.

Special emphasis on recent developments. Conference course. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of coursework in advanced geological sciences, a grade point average in geological sciences of at least 3.00, a University grade point average of at least 3.00, and consent of instructor.

## GEO 479M. 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. Three lecture hours and three laboratory hours a week for one semester. Normally offered in the spring semester only. Prerequisite: Upper-division standing in biology, geological sciences, or anthropology.

## School of Information

Andrew P. Dillon, PhD, Dean Philip Doty, PhD, Associate Dean Mary Carla Criner, PhD, Assistant Dean<br>http://www.ischool.utexas.edu/

The School of Information offers the Master of Science in Information Studies and the Doctor of Philosophy. The Graduate Catalog provides information about these programs and the requirements for admission to graduate study.

In addition to the graduate courses described in the Graduate Catalog (http://catalog.utexas.edu/graduate/fields-of-study/information), the faculty has approval to offer the undergraduate courses listed below in the academic years 2014-2015 and 2015-2016. For undergraduates who are interested in a thorough introduction to information studies, the faculty has designed a curriculum that consists of at least four courses: two lower-division and two upper-division, including one required core course, for a total of at least twelve semester hours. Students who complete these requirements receive a certificate from the School of Information documenting their achievement. The curriculum is designed to complement many undergraduate degree programs; with the approval of his or her major college, a student may count the courses toward the requirements of the minor.

Not all courses are taught each semester and summer session. Students should consult the Course Schedule (http://registrar.utexas.edu/ schedules) to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/credit-value-and-course-numbers). In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits indicate the rank of the course; if they are 01 through 19, the course is of lower-division rank; if 20 through 79, of upperdivision rank; if 80 through 99 , of graduate rank.

## Information Studies: INF

## Lower-Division Courses

## INF 304D. Introduction to Information Studies.

Overview of the information field as it relates to the technologybased world culture. Topics may include the idea of information, information in relation to technology and culture, information technology in education, information literacy and the "digital divide," information and communication technology, information and gender, public information policy, and information organization and preservation. Three lecture hours a week for one semester. Information Studies 304D and 304W may not both be counted. Prerequisite: Lower-division standing.

## INF 304W. Introduction to Information Studies.

Overview of the information field as it relates to the technologybased world culture. Topics may include the idea of information, information in relation to technology and culture, information technology in education, information literacy and the "digital divide," information and communication technology, information and gender, public information policy, and information organization and preservation. Web-based instruction; no class meetings. Information Studies 304D and 304W may not both be counted. Prerequisite: Lower-division standing.

## INF 315E. Information and Culture.

Examines information as a cultural phenomenon. Topics may include ecommerce, privacy and secrecy, censorship, information as a commodity, Internet culture, access to cultural heritage, and control of the cultural record. Three lecture hours a week for one semester. Information Studies 315 E and 315 W may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## INF 315W. Information and Culture.

Examines information as a cultural phenomenon. Topics may include ecommerce, privacy and secrecy, censorship, information as a commodity, Internet culture, access to cultural heritage, and control of the cultural record. Web-based instruction; no class meetings. Information Studies 315 E and 315 W may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## Upper-Division Courses

## INF 322T. Children's Literature.

Evaluation, selection, and proper and creative use of books and other media with children. Three lecture hours a week for one semester. Information Studies 322T and 322W may not both be counted.
Prerequisite: Upper-division standing.

## INF 322W. Children's Literature.

Evaluation, selection, and proper and creative use of books and other media with children. Web-based instruction; no class meetings. Information Studies 322T and 322W may not both be counted. Prerequisite: Upper-division standing.

## INF 327E. Information and People.

Study of how individuals and groups create meaning. Explores research topics concerning people and communication, including information literacy, organizations and innovation, knowledge management, and identifying information needs. Three lecture hours a week for one semester. Information Studies 327E and 327W may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## INF 327W. Information and People.

Study of how individuals and groups create meaning. Explores research topics concerning people and communication, including information literacy, organizations and innovation, knowledge management, and identifying information needs. Web-based instruction; no class meetings. Information Studies 327E and 327W may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## INF 331C. Beyond Google.

A general introduction to information searching and evaluating information in digital, print, visual, and aural formats. Three lecture hours a week for one semester. Information Studies 331C and 331W may not both be counted. Prerequisite: Upper-division standing.

## INF 331W. Beyond Google.

A general introduction to information searching and evaluating information in digital, print, visual, and aural formats. Web-based instruction; no class meetings. Information Studies 331C and 331W may not both be counted. Prerequisite: Upper-division standing.

## INF 335C. Information in Cyberspace.

An overview of the history and social impact of Internet, Web, and other network technologies. Students will learn methods and tools of media creation with an emphasis on technological self-sufficiency. Three lecture hours a week for one semester, including some web-based instruction.

Only one of the following may be counted: Information Studies 312, 335C, 335W. Prerequisite: Upper-division standing.

## INF 335W. Information in Cyberspace.

An overview of the history and social impact of Internet, Web, and other network technologies. Students will learn methods and tools of media creation with an emphasis on technological self-sufficiency. Web-based instruction; no class meetings. Only one of the following may be counted: Information Studies 312, 335C, 335W. Prerequisite: Upper-division standing.

## INF 343C. Information Organization and Access.

Basic aspects of representing and organizing information resources in digital information settings. Introduces the fundamentals of identifying informational objects, including description, content indication, and metadata. Three lecture hours a week for one semester. Information Studies 343C and 343W may not both be counted. Prerequisite: Upperdivision standing.

## INF 343W. Information Organization and Access.

Basic aspects of representing and organizing information resources in digital information settings. Introduces the fundamentals of identifying informational objects, including description, content indication, and metadata. Web-based instruction; no class meetings. Information Studies 343C and 343W may not both be counted. Prerequisite: Upper-division standing.

## INF 350E. Information Technology.

Design and use of information technologies, including interface design, trends in information technology development, usability, information retrieval, immersive media, and information architecture. Three lecture hours a week for one semester. Information Studies 350E and 350W may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Technologies of the Book. Some sections offered on the letter-grade basis only. Additional prerequisite: Consent of instructor.

## INF 350G. Information in Society.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## INF 350W. Information Technology.

Design and use of information technologies, including interface design, trends in information technology development, usability, information retrieval, immersive media, and information architecture. Web-based instruction; no class meetings. Information Studies 350E and 350W may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

# College of Liberal Arts 

Randy L. Diehl, PhD, Dean<br>Richard R. Flores, PhD, Senior Associate Dean, Academic Affairs<br>Esther L. Raizen, PhD, Associate Dean, Research<br>Marc A. Musick, PhD, Associate Dean, Student Division<br>James A. Southerland Jr., MPA, Assistant Dean, Business Affairs<br>Kathleen M. Aronson, PhD, Assistant<br>Dean, Development and Alumni Relations<br>Joseph TenBarge, BA, Assistant Dean,<br>Information Technology and Facilities<br>Kimberly Krieg, BS, Assistant Dean, Student Division<br>http://www.utexas.edu/cola/

## General Information

## Arts and Sciences Education

The academic program offered cooperatively by the College of Liberal Arts and the College of Natural Sciences provides what is sometimes referred to as a "liberal arts" or an "arts and sciences" education. No matter what area of knowledge a student intends to specialize in, the program of study will require courses in both colleges. The colleges work together to ensure that the individual interests and needs of the students pursuing an arts and sciences program are met.

Guidelines for developing a coherent plan of study are provided by major requirements, by sequential prerequisites, and by optional patterns of emphasis. Departmental majors, areas of specialization, and interdepartmental programs are designed to enable every student to study at least one field in depth. These programs are sufficiently broad in scope to allow students in the same major to develop quite different plans of study in pursuit of their individual interests and goals. Each student should choose courses that are intellectually challenging and that contribute to his or her long-term objectives.

Arts and sciences students are required to take a certain number of courses in the natural sciences, the social and behavioral sciences, and the humanities. Consequently, whatever their fields of study, they have the opportunity to learn something about the basic differences in the ways questions are raised and answered in several fields of inquiry, and about the techniques for validating the answers and putting the results to use. At the same time, they may gain some of the philosophical and historical perspectives that illuminate and give form to general or specialized knowledge and help to reveal its relevance.

Both teachers and students sometimes make the assumption that independent and creative study is exclusively for the gifted. In fact, the primary requirement is that the student be highly motivated, although he or she must also demonstrate ability. The departments that make up the two arts and sciences colleges encourage all qualified students to work independently in special honors courses and seminars and in conference, studio, or laboratory work. The student is free to define a major, to determine whether a given assignment will be an adventure or a chore, free to develop its latent possibilities or merely satisfy its explicit demands. True creativity presupposes more than a gift for innovation; it requires an unceasing commitment to thinking and working at one's highest level.

As competence is gained in a chosen field, the mind should be progressively sharpened, disciplined, and enriched. The student who leaves arts and sciences studies with an enhanced understanding of self and humankind, of cultural and historical heritage, of the world and the universe, and of the moral values that make it possible to live a
meaningful life, will have made the most of education, having gained something over and above the objective of vocational preparedness.

## Financial Assistance Available through the College

Special scholarships established by individuals and foundations are open to undergraduates in the College of Liberal Arts. Financial assistance is also available in many College of Liberal Arts departments, centers, and programs for specific undergraduate majors.

Students with financial need should apply for aid through the Office of Student Financial Services. The Study Abroad Office also administers a number of awards designed to help qualified students participate in international programs.

Information on College of Liberal Arts scholarships is given at http:// www.utexas.edu/cola/student-affairs/Programs/Scholarships.php. Information on scholarships awarded through individual departments, centers, and programs is published on their Web sites.

## Student Services

## Academic Advising

The assistant dean for the Student Division, under the guidance of the associate dean, oversees advising activity for all students in the College of Liberal Arts. The Student Division provides administrative and logistical support for all operations relating to students, including adviser training, official degree checks, and graduation certification.

Liberal Arts advisers embrace the idea that advising is teaching, and foster student development through partnerships and practices dedicated to student success. Advisers work with students to identify and achieve academic and life goals and establish a timely graduation plan, encourage critical thinking strategies, and stimulate intellectual and cultural development. In these ways, advisers teach the value of a liberal arts education for engaged, self-directed learners.

Departmental advisers work directly with their students regarding course selection. They also initiate petitions affecting the major or minor; encourage co- and extracurricular activities, including study abroad; and administer honors programs.

Students who have not yet declared a major work directly with Student Division advisers, who guide students through the process of selecting courses and exploring majors. Student Division advisers also work with students on withdrawing from classes, appeals for exceptions to standard policies and procedures, graduation applications, certifying all graduates' academic programs, and nonacademic issues.

Every student in the college has access to appropriate advisers throughout his or her academic career. In addition, students can create and view their own advising audits using IDA, the Interactive Degree Audit system. The advising audit is produced for advising purposes only and is not an official degree audit.

## Career Services

Liberal Arts Career Services (LACS) provides career assistance to current and newly graduated liberal arts students. The goal of the office is to connect College of Liberal Arts students with postgraduate and experiential learning opportunities throughout the world.

Through job search advising, résumé critiques, mock interviews, creditbased classes, and a variety of workshops and programs, LACS helps students develop the skills needed to succeed in the job search and in the workplace. LACS also provides comprehensive prelaw advising services,
including application assistance and review and law school admission advising.

To connect students to the workplace, LACS manages job and internship postings, provides job and internship fairs and events, and manages an on-campus interviewing program involving a variety of employers and opportunities. Students have access to career management tools and resources with an online recruiting system, LiberalArts@Work. LACS maintains a resource room with books, DVDs, company literature, and job postings.

Hundreds of companies are assisted by LACS each year through computer-based rsum searches, information sessions, and on-campus interviewing. Résumé books for a variety of career fields are available to employers at no charge.

As a complement to the assistance available from LACS, the University's Sanger Learning Center (http://www.utexas.edu/ugs/slc) and the Center for Strategic Advising and Career Counseling (http://www.utexas.edu/ugs/ csacc) in the School of Undergraduate Studies provide career services to all students. The centers offer professional assistance to students in choosing or changing their majors or careers, and planning for graduate study.

For liberal arts students who have completed a teacher certification program, Education Career Services in the College of Education assists with the education job search. Certification candidates must register with Education Career Services, George I. Sánchez Building 294, at the beginning of their student-teaching semester. The office also assists those who wish to find teaching jobs at the college level or in private schools, community colleges, or overseas schools in which certification is not required.

The University makes no promise to secure employment for each graduate.

## Admission and Registration

## Admission

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. Information about admission to the University is given in the General Information Catalog.

## The Bachelor of Science in Environmental Science

Students must be admitted to the Bachelor of Science in Environmental Science degree program; they may apply for admission after completing the following requirements: The student must earn a grade of at least $C$ in Biology 311C, Chemistry 301, and Mathematics 408C or 408 N ; and a grade of at least $B$-in Geological Sciences 401 or 303. To be competitive for admission, the student must have a grade point average of at least 2.75 in these four courses.

Applications are evaluated after the end of each fall and spring semester. Students whose applications are denied may reapply through the supplemental admission process the following semester. Admission decisions are based on the student's grade point average in the basic sequence courses, his or her University grade point average, and other factors; these factors include, but are not limited to, the difficulty of the student's course load, course repetitions, and proven mathematical ability. Students should consult advisers in the College of Liberal Arts Student Advising Office, Dorothy Gebauer Building 2.200, for information about the application process and application deadlines. Once admitted to the
degree program, students will be advised in the Department of Geography and the Environment.

More information about the degree program is given in Bachelor of Science in Environmental Science (p. 311).

## Registration

The General Information Catalog gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule (http:// registrar.utexas.edu/schedules), published before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and the General Information Catalog are published on the registrar's Web site (http://registrar.utexas.edu).

## Academic Policies and Procedures

## Repetition of a Course

A student in the College of Liberal Arts may not repeat any course in which he or she has earned a grade of $C$ or better.

## Honors

University-wide honors are described in University Honors (p. 16) and in the General Information Catalog (http://catalog.utexas.edu/general-information/registration-tuition-and-fees). In addition, the College of Liberal Arts provides recognition through the Dean's Honor List and the Plan I Honors Programs. Students may also graduate with departmental honors and earn membership in one or more of the honorary scholastic societies open to undergraduates.

## Dean's Honor List

The Dean's Honor List, prepared at the end of each long-session semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered; a grade of $F$ in any course makes the student ineligible, regardless of other grades.

The Honor List is divided into five groups; according to the number of grade points they earn, students are listed under one of the following classifications:

- Summa cum Laude (67 or more grade points)
- Cum Laude Ampla et Magna (61-66 grade points)
- Magna cum Laude (58-60 grade points)
- Ampla cum Laude (55-57 grade points)
- Cum Laude (52-54 grade points)


## Liberal Arts Honors Programs, Plan I

Liberal Arts Honors Programs coordinates the various honors opportunities available to Plan I students in the college: the Freshman Honors Program, the departmental honors programs, and the Liberal Arts Honors Program. This array of choices is designed for students who seek flexibility and choice in their honors work and for those who want to pursue an honors degree in a particular discipline.

The Freshman Honors Program gives selected students access to honors sections of lower-division introductory courses. Each student admitted to the program is required to take an active part in two courses in the first year: Liberal Arts Honors 102H, The Idea of the Liberal Arts, and one designated honors writing course. The program serves as a preparation
for departmental honors programs and for the upper-division Liberal Arts Honors Program. Students must apply to the Freshman Honors Program when they apply to the University. Admission decisions are based on the applicant's demonstrated commitment to the liberal arts, test scores, high school records, and an application essay.

The upper-division Liberal Arts Honors Program offers challenging and intensive interdisciplinary courses taught by distinguished faculty members. Students who have completed at least sixty semester hours of coursework and have earned a University grade point average of at least 3.50 are eligible to enroll in these courses. There is no application process.

The requirements for graduation with liberal arts honors are

1. Graduation from the College of Liberal Arts with any degree other than the Bachelor of Arts, Plan II
2. A University grade point average of at least 3.50 at graduation
3. Completion of at least three upper-division liberal arts honors (LAH) courses with at least a grade of $A$ - in two of the courses and a grade of at least $B$ in the third
4. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

The statement "Liberal Arts Honors" appears on the academic record of each graduate who fulfills these requirements. The student may earn both liberal arts honors and special honors in his or her major department.

The three upper-division liberal arts honors courses required for graduation with liberal arts honors may be used, with a fourth liberal arts honors course, to fulfill the twelve-hour minor requirement for the Bachelor of Arts, Plan I, unless the work in the minor is specified by the student's major department.

## Departmental Honors Programs

Most departments in the College of Liberal Arts offer honors programs to their majors. Minimum requirements for departmental honors are

1. A University grade point average of at least 3.00
2. A three-semester-hour thesis or research project, or a reasonable equivalent, with a grade of at least $B$
3. Completion, with a grade point average of at least 3.50 , of the coursework required for a major in the field
4. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

Each department may establish additional or more rigorous requirements.
The statement "Special Honors in (name of field)" appears on the transcript of each graduate certified as having completed the honors program.

## African and African Diaspora Studies Honors Program

Majors who plan to seek special honors in African and African diaspora studies should apply to the undergraduate adviser for admission to the honors program at least two semesters before they expect to graduate. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors are

1. African and African Diaspora Studies 679H, Honors Tutorial Course, with a grade of at least $B$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## American Studies Honors Program

Majors who plan to seek special honors in American studies should apply to the honors adviser for admission to the honors program at least two semesters before they expect to graduate. A University grade point average of at least 3.00 is required for admission. In addition to the requirements of the major, requirements for graduation with special honors are

1. American Studies 679 H , Honors Tutorial Course, with a grade of at least $B$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Anthropology Honors Program

Majors who plan to seek special honors in anthropology should apply to the honors adviser for admission to the honors program no later than two semesters before they expect to graduate; the applicant must be recommended by the faculty member who will supervise the honors work. A University grade point average of at least 3.00 and a grade point average in anthropology of at least 3.50 are required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Anthropology 679 H , Honors Tutorial Course, with a grade of $A$ - in each half
2. Satisfactory performance on a comprehensive oral examination centered on the thesis completed in Anthropology 679H
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Asian American Studies Honors Program

Ethnic studies majors who plan to seek special honors in Asian American studies should apply to the honors adviser for admission to the honors program no later than two semesters before they expect to graduate. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the concentration, are

1. Asian American Studies 679H, Honors Tutorial Course, with a grade of $A$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the concentration in Asian American studies and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Asian Cultures and Languages Honors Program

Majors who plan to seek special honors in Asian cultures and languages should apply to the honors adviser by April 30 for admission to the honors program the following fall. If April 30 falls on a weekend or an official university holiday, the application is due on the next business day. Requirements for admission are completion of sixty semester hours of coursework at the University, a University grade point average of at least 3.00 , and a grade point average of at least 3.50 in Asian cultures and languages. Students must complete at least twelve semester hours of upper-division coursework in the Department of Asian Studies before
applying for admission to the honors program. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Asian Studies 678 H , Honors Tutorial Course, with a grade of $A$ in each half
2. A University grade point average of at least 3.00 , and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Asian Studies Honors Program

Majors who plan to seek special honors in Asian studies should apply to the honors adviser by April 30 for admission to the honors program the following fall. If April 30 falls on a weekend or an official university holiday, the application is due on the next business day. Requirements for admission are completion of sixty semester hours of coursework at the University, a University grade point average of at least 3.00, and a grade point average in Asian studies of at least 3.50 . Students must complete at least twelve semester hours of upper-division coursework in the Department of Asian Studies before applying for admission to the honors program. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Asian Studies 678 H , Honors Tutorial Course, with a grade of $A$ in each half
2. A University grade point average of at least 3.00 , and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Classical Studies Honors Program

Majors who plan to seek special honors in classical studies should apply to the honors adviser for admission to the honors program at least one full academic year before they expect to graduate. A University grade point average of at least 3.00 is required for admission, as is a grade point average of at least 3.50 in all coursework required for the major and specialization that the student has completed. The requirements for graduation with special honors, which are in addition to the requirements of the major, are

1. Classical Civilization 679H, Honors Tutorial Course, or Ancient History and Classical Civilization 679 H , with a grade of at least $A$-in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Classical Languages Honors Program

Majors who plan to seek special honors in Greek, special honors in Latin, or special honors in classics should apply to the honors adviser for admission to the honors program at least one full academic year before they expect to graduate. A University grade point average of at least 3.00 and a grade point average in Greek (for the Greek specialization), Latin (for the Latin specialization), or Greek, Latin, and classical civilization combined (for the classics specialization) of at least 3.50 are required for admission. The requirements for graduation with special honors, which are in addition to the requirements of the major, are

1. Greek 679H, Latin 679 H , or Classical Civilization 679 H , Honors Tutorial Course, with a grade of at least $A$ - in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Economics Honors Program

Majors who plan to seek special honors in economics must apply to the honors adviser for admission to the honors program before the first registration period for the first semester of their senior year. Students are encouraged to apply as early as the beginning of the first semester of their sophomore year. A University grade point average of at least 3.00 and a grade point average in economics of at least 3.50 are required for admission. Before a student registers for Economics 378H, the student's thesis proposal must be approved first by the supervising instructor and then by the honors adviser. The requirements for graduation with special honors are

1. At least thirty-four semester hours in economics
2. Economics 378 H , Honors Tutorial Course I, and Economics 379H, Honors Tutorial Course II, with a grade of at least $B$ in each
3. Regular participation in designated honors courses
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## English Honors Program

Majors who plan to seek special honors in English should apply for admission to the honors program prior to their junior year. Application forms and information about the program are available in the English Advising Office, Parlin Hall 114, and on the Department of English Web site (http://www.utexas.edu/cola/depts/english). The requirements for graduation with special honors are

1. Completion of the requirements for a major in English, except that English 679HB is substituted for the research seminar
2. Completion of three or more upper-division English honors courses with grades of at least $B$; these courses may be counted toward the requirements of the major; two of these courses must be completed prior to enrolling in English 679HA
3. English 679H, Honors Tutorial Course, with a grade of at least $B$ + in 679HA and a grade of at least $A$ - in 679 HB , resulting in the presentation and defense of a thesis judged to be worthy of honors
4. A University grade point average of at least 3.33 and a grade point average of at least 3.66 in the coursework required for the major and for honors
5. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## French Honors Program

Majors who plan to seek special honors may apply to the honors adviser for admission to the honors program during the semester in which they will complete sixty semester hours of coursework. To enter the program, a student must have completed at least sixty semester hours of coursework, including twelve hours of upper-division coursework in French. These twelve hours must include at least one course numbered 330 or above. A University grade point average of at least 3.00 and a grade point average in French of at least 3.50 are also required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. French 379 H , Honors Tutorial Course, with a grade of at least $B$
2. Satisfactory performance on an honors examination
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Geography Honors Program

Majors who plan to seek special honors in geography should apply to the honors adviser for admission to the honors program no later than two semesters before they expect to graduate. A University grade point average of at least 3.00 and a grade point average in geography of at least 3.50 are required for admission. The requirements for graduation with special honors are

1. Geography 679 H , Honors Tutorial Course, with a grade of at least $A$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## German Honors Program

Majors who plan to seek special honors in German should apply to the honors adviser for admission to the honors program upon completion of thirty semester hours; they must apply no later than upon completion of ninety semester hours. Admission is by means of a special examination; a University grade point average of at least 3.00 is also required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. German 679 H , Honors Tutorial Course, with a grade of at least $A$ - in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## German, Scandinavian, and Dutch Studies Honors Program

Majors who plan to seek special honors in German, Scandinavian, and Dutch studies should apply to the honors adviser for admission to the honors program upon completion of thirty semester hours; they must apply no later than upon completion of ninety semester hours. Admission is by means of a special examination; a University grade point average of at least 3.00 is also required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. German, Scandinavian, and Dutch Studies 679 H , with a grade of at least $A$ - in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Government Honors Program

Majors who plan to seek special honors in government should apply to the honors adviser for admission to the honors program in the spring semester of their junior year. A University grade point average of at least
3.00 is required for admission. The requirements for graduation with special honors are

1. Thirty-three semester hours of government, including Government 679H, Honors Tutorial Course, with a grade of at least $B$ in each half
2. Regular participation in honors seminars
3. Satisfactory performance on a comprehensive oral or written honors examination
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Health and Society Honors Program

For the Health and Society Honors Program, students complete a twosemester (six hours) honors thesis under the supervision of a faculty member. Students interested in writing an honors thesis should contact the honors adviser, preferably in the first semester of their junior year, in order to discuss plans for the thesis and begin to lay the groundwork for their project. Students applying for the honors program must have a University grade point average (GPA) of at least 3.00, must have completed Health and Society 301 with a $B$ - or better, and must have a GPA of at least 3.50 in their core health and society courses at the time of the application. Students are also expected to identify a thesis supervisor at the time of application. All honors program applications must be submitted to the program's honors adviser by February 15 in the spring prior to their senior year. If February 15 falls on a weekend or an official university holiday, the application is due on the next business day. The requirements for graduation with special honors are

1. Completion of liberal arts and health and society requirements
2. A University grade point average of at least 3.00
3. A health and society grade point average of at least 3.50
4. Health and Society 679H, Honors Thesis

## History Honors Program

History majors who plan to seek special honors in history should apply to the honors adviser for admission to the honors program in the fall semester of the junior year. Application forms and information about the program are available in the History Undergraduate Advising Office, Garrison Hall 1.140. The requirements for graduation with special honors, which are in addition to the requirements of the major, are

1. History 347L, Seminar in Historiography, normally taken in the spring semester of the junior year; this course may be counted toward the thirty hours in history required for the major
2. History 679 H , Honors Tutorial Course, with a grade of at least $B$ in each half
3. Satisfactory performance on an oral examination centered on the thesis completed in History 679HB
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

Normandy Scholar Program (NSP) students may substitute an approved upper-division NSP history course for the History 347L requirement.

## Humanities Honors Program

Majors who plan to seek special honors in humanities should apply to the humanities adviser for admission to the honors program no later than
the first semester of the junior year. The requirements for graduation with special honors are

## 1. A major in humanities

2. Humanities 679 H , Honors Tutorial Course, with a grade of at least $A$ in each half
3. A grade of "Recommended for Special Honors" on an oral examination, conducted and graded by faculty members qualified in the student's area of work, covering the thesis completed in Humanities 679 H and a reading list
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Iberian and Latin American Languages and Cultures Honors Program

Honors will be awarded to students who successfully complete a significant scholarly essay (normally thirty to fifty pages in length). This project should be done in close collaboration with a department faculty member. Majors wishing to graduate with honors should speak with the department professor with whom they want to work. The requirements for graduation with special honors are:

1. Spanish 377H, Honors Tutorial Course or Portuguese 379H Honors Tutorial Course, with a grade of at least A. Spanish 377H or Portuguese 379 H , is offered by individual instruction. It cannot be undertaken before the senior capstone requirement, but may be taken simultaneously. Students who are admitted to the honors program conduct individual research on a literary, linguistic, or cultural topic. A faculty member in the Department of Spanish and Portuguese will supervise the student's research and writing. A second reader is required and may be either in the Department of Spanish and Portuguese or outside of the department. Spanish 377H or Portuguese 379 H is taken in addition to the major requirements.
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors.
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

## International Relations and Global Studies Honors Program

Majors who plan to seek special honors in international relations and global studies should apply to the honors adviser for admission to the honors program at least one full academic year before they expect to graduate. A University grade point average of at least 3.00 is required for admission, as is a grade point average of at least 3.50 in all coursework required for the major that the student has completed. The requirements for graduation with special honors are

1. International Relations and Global Studies 678 H , Honors Tutorial Course, with a grade of at least an $A$ - in each half
2. Satisfactory defense of the honors thesis completed in International Relations and Global Studies 678HB
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

The requirements for special honors are in addition to the requirements of the major, except that International Relations and Global Studies 678H
may be counted toward the major in place of International Relations and Global Studies 378, the capstone research course.

## Islamic Studies Honors Program

Majors who plan to seek special honors in Islamic studies should apply to the honors adviser for admission to the honors program at the beginning of their third year; they must apply no later than the beginning of their last year before graduation. A University grade point average of at least 3.00 is required for admission to the honors program. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Islamic Studies 679HA, and 679HB, Honors Tutorial Course
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Italian Honors Program

Majors who plan to seek special honors in Italian may apply to the honors adviser for admission to the honors program during the semester in which they will complete sixty semester hours of coursework. To enter the program, a student must have completed at least sixty semester hours of coursework, including twelve hours of upper-division coursework in Italian. These twelve hours must include Italian 365, Italian 375, or Italian Civilization 360. A University grade point average of at least 3.00 and a grade point average in Italian of at least 3.50 are also required for admission. The requirements for graduation with special honors, which are in addition to the requirements of the major, are

1. Italian 379 H, Honors Tutorial Course, with a grade of at least $B$
2. Satisfactory performance on an honors examination
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Jewish Studies Honors Program

Majors who plan to seek special honors in Jewish studies should apply to the honors adviser for admission to the honors program at the beginning of their third year; they must apply no later than the beginning of their last year before graduation. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Jewish Studies 679H, Honors Tutorial Course, with a grade of $A$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Latin American Studies Honors Program

Majors who plan to seek special honors in Latin American studies should apply to the honors adviser for admission to the honors program no later than two semesters before they expect to graduate. A University grade point average of at least 3.00 and a grade point average in Latin American content coursework of at least 3.50 are required for admission. The requirements for graduation with special honors are

1. Latin American Studies 679H, Honors Tutorial Course, with a grade of at least $B$ in each half and approval of the thesis by both the student's supervisor and the honors adviser
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Linguistics Honors Program

Upper-division linguistics majors who plan to seek special honors in linguistics should apply to the undergraduate honors adviser for admission to the honors program no later than the beginning of their last year. A University grade point average of at least 3.50 or, in exceptional cases, approval of the undergraduate adviser is required for admission. The requirements for graduation with special honors, which are in addition to the requirements of the major, are

1. Linguistics 679 H , Honors Tutorial Course, with a grade of at least $B$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours counted toward the degree

## Mexican American Studies Honors Program

Ethnic studies majors who plan to seek special honors in Mexican American studies should apply to the undergraduate adviser for admission to the honors program no later than two semesters before they expect to graduate. The requirements for admission are a University grade point average of at least 3.00 and a grade point average at least 3.50 in the coursework required for the concentration in Mexican American studies. The requirements for graduation with special honors are

1. Thirty-nine semester hours of coursework in Mexican American studies, including Mexican American Studies 679H, Honors Tutorial Course
2. A grade of at least $A$ in Mexican American Studies 361 or Mexican American Studies 362
3. Mexican American Studies 679 H , with a grade of at least $B$ in each half
4. Satisfactory performance on an oral presentation centered on the honors thesis completed in Mexican American Studies 679H
5. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the concentration and for honors
6. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Middle Eastern Languages and Cultures Honors Program

Majors who plan to seek special honors in Middle Eastern languages and literatures should apply to the honors adviser for admission to the honors program at the beginning of their third year; they must apply no later than the beginning of their last year before graduation. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Middle Eastern Languages and Cultures 679 HA , and 679 HB , Honors Tutorial Course
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Middle Eastern Studies Honors Program

Middle Eastern studies majors who plan to seek special honors in Middle Eastern studies should apply to the honors adviser for admission to the honors program no later than two semesters before they expect to graduate. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Middle Eastern Studies 679HA, and 679HB, Honors Tutorial Course
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Philosophy Honors Program

Majors who plan to seek special honors in philosophy should apply to the undergraduate adviser for admission to the honors program at least two semesters before they expect to graduate. Completion of at least nine semester hours of upper-division coursework in philosophy is required for admission, in addition to a University grade point average of at least 3.00 and a grade point average in philosophy of at least 3.50 . The requirements for graduation with special honors are

1. Philosophy 371 H or 375 M , with a grade of at least $B$
2. Philosophy 679H, Honors Tutorial Course, with a grade of at least $B$ in both 679HA and 679HB
3. Satisfactory performance on an oral examination centered on the thesis completed in Philosophy 679H
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

Philosophy 371 H or 375 M may be counted toward the requirements of the major; Philosophy 679 H is taken in addition to the requirements of the major.

## Plan II Honors Program: Special Honors

Plan II students who plan to seek special honors in Plan II should apply to the director of the Plan II Honors Program for enrollment in Tutorial Course 660H, Thesis Course: Honors, at least two semesters before they expect to graduate. A University grade point average of at least 3.50 is required. The requirements for graduation with special honors are

1. Tutorial Course 660 H with a grade of at least $A$ in each half, or a departmental equivalent with a grade of at least $A$
2. Satisfactory performance on an oral honors examination centered on the thesis completed in Tutorial Course 660 H
3. A University grade point average of at least 3.50
4. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Psychology Honors Program

Prospective candidates for special honors in psychology should apply to the honors adviser for admission to the honors program during the junior year. The application deadline is one week before the first registration period for the semester in which the student wants to enter the program. Requirements for admission are

1. A major in psychology
2. A University grade point average of at least 3.25 and a grade point average in psychology of at least 3.50
3. Completion of the following before entering the honors program: Psychology 301 or the equivalent with a grade of at least $C$, Psychology 418 with a grade of at least $C$, and two additional psychology courses
4. Consent of the honors adviser

The requirements for graduation with special honors are

1. Thirty-three semester hours of psychology, including Psychology 458, $158 \mathrm{H}, 359 \mathrm{H}$, and 379 H ; the student must earn grades of at least $B$ in Psychology 359H, Honors Research I, and Psychology 379H, Honors Research II
2. A University grade point average of at least 3.25 and a grade point average in all psychology courses of at least 3.50
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Religious Studies Honors Program

Majors who plan to seek special honors in religious studies should apply to the honors adviser for admission to the honors program by the end of their junior year. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors are

1. Thirty-three semester hours of religious studies coursework, including completion of all major requirements
2. Religious Studies 679HA, Honors Tutorial Course, with a grade of at least $B$
3. Religious Studies 679 HB , Honors Tutorial Course, with a grade of at least $A$ and approval of the thesis by the chair of the Department of Religious Studies
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Rhetoric and Writing Honors Program

Majors who plan to seek special honors in rhetoric and writing should apply to the honors adviser for admission to the program at the beginning of their third year; they must apply no later than a year before they expect to graduate. Application forms and information about the program are available from the rhetoric and writing adviser. A University grade point average of at least 3.00 is required for admission, as is a grade point average of at least 3.50 in all coursework required of the major that the student has completed.

The requirements for graduation with special honors are

1. Rhetoric and Writing 679 H , Honors Tutorial Course, with a grade of at least $A$ - in each half
2. A grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

## Russian, East European, and Eurasian Studies Honors Program

Majors who plan to seek special honors in Russian, East European, and Eurasian studies should apply to the honors adviser for admission to the honors program during the junior year or the first semester of the senior
year. The application deadline is one week before the first registration period for the semester in which the student wants to enter the program. Requirements for graduation with special honors are

1. Russian, East European, and Eurasian Studies 679H, Honors Tutorial Course, with a grade of at least $B$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

Russian, East European, and Eurasian Studies 679H, Honors Tutorial Course is taken in addition to the requirements of the major.

## Sociology Honors Program

Majors who plan to seek special honors in sociology should apply to the honors adviser by October 1 for admission to the honors program the following spring; they should apply by April 1 for admission the following summer or fall. If October 1 or April 1 fall on a weekend or an official university holiday, the application is due on the next business day. Requirements for admission are completion of sixty semester hours of coursework, a University grade point average of at least 3.00 , and a grade point average in sociology of at least 3.50 . Students must complete Sociology 302 and either 317L or an approved equivalent before applying for admission to the honors program; they should be enrolled in Sociology 317 M and 379 M no later than the semester in which they begin the honors thesis coursework. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Sociology 679 H , Honors Tutorial Course, with a grade of at least $A$ - in each half
2. Satisfactory performance on an oral defense of the senior thesis completed in the second half of Sociology 679H
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Urban Studies Honors Program

Majors who plan to seek special honors in urban studies should apply to the honors adviser for admission to the honors program at the beginning of their third year; they must apply no later than a year before they expect to graduate. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors are in addition to the requirements for the major; however, honors students may substitute Urban Studies 679H for Urban Studies 370. The requirements are

1. Urban Studies 679 H , Honors Tutorial Course, with a grade of at least $A$ - in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Women's and Gender Studies Honors Program

Majors who plan to seek special honors in women's and gender studies should apply to the honors adviser or undergraduate adviser for admission to the honors program no later than two semesters before they expect to graduate; the applicant must be recommended by the faculty member who will supervise the honors work. A University grade point average of at least 3.00 and a grade point average in women's
and gender studies of at least 3.50 are required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Women's and Gender Studies 679H, Honors Tutorial Course, with a grade of at least $A$ in each half
2. Satisfactory performance on a comprehensive oral examination centered on the thesis completed in Women's and Gender Studies 679H, Honors Tutorial Course
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least sixty semester hours of coursework counted toward the degree

## Scholastic Honorary Societies

In addition to Alpha Lambda Delta and Phi Eta Sigma, honor societies for qualified freshman students in all academic fields, the University sponsors chapters of the following national organizations for which College of Liberal Arts students are eligible.

- Alpha Epsilon Delta. National honorary premedical fraternity for students who have completed at least three semesters of premedical work.
- Alpha Kappa Delta. National honorary sociology fraternity.
- Delta Phi Alpha. National honorary German fraternity.
- Dobro Slovo. National honorary Slavic fraternity.
- Eta Sigma Phi. National honorary classical languages fraternity.
- Gamma Theta Upsilon. National honorary geography fraternity.
- Iota lota Iota. National honorary Women's Studies society.
- Kappa Kappa Psi. National honorary band fraternity.
- Mortar Board. National honorary society for seniors.
- Omicron Delta Epsilon. National honorary economics fraternity.
- Omicron Delta Kappa. National honorary leadership fraternity.
- Phi Alpha Theta. National honorary history fraternity.
- Phi Beta Kappa. National honorary society recognizing academic achievement in the arts and sciences.
- Phi Kappa Phi. National honor society open to students in all academic fields.
- Pi Delta Phi. National honorary French fraternity.
- Pi Sigma Alpha. National honorary political science fraternity.
- Psi Chi. National honorary psychology fraternity.
- Sigma Delta Pi. National honorary Spanish fraternity.
- Sigma Tau Delta. National honorary English society.
- Tau Beta Sigma. National honorary band society.


## Graduation

## Special Requirements of the College

All students must fulfill the General Requirements (p. 17) for graduation. Students in the College of Liberal Arts must also fulfill the following requirements.

1. The University requires that the student complete in residence at least sixty semester hours of the coursework counted toward the degree. For the Bachelor of Arts, Plan I, the Bachelor of Science in Environmental Science, and the Bachelor of Science in Psychology, these sixty hours must include at least eighteen hours in the major. For the Bachelor of Arts, Plan II, thirty of these sixty hours must be taken in the College of Liberal Arts or the College of Natural Sciences.
2. The University requires that at least six semester hours of advanced coursework in the major be completed in residence. Additional requirements of the College of Liberal Arts are given later in this chapter with the requirements of the college's four degrees.
3. Students may not complete degree requirements at another institution of higher education during the semester in which the degree is to be conferred.

## Degree Audit and Applying for Graduation

A student in the College of Liberal Arts is expected to declare a major by the time he or she has completed sixty semester hours of coursework. The student must initiate major declaration in the department housing the major.

An official degree audit compares a student's coursework with degree requirements for a particular degree, major, and catalog. The degree audit normally provides an accurate statement of requirements, but the student is responsible for knowing the requirements for the degree as stated in a catalog under which he or she is entitled to graduate and for registering so as to fulfill these requirements. The student should seek an official ruling in the major department or in the Student Division before registering, if in doubt about any requirement.

Students are strongly encouraged to schedule an official degree check with a Student Division adviser once they are one semester away from graduating.

In the semester or summer session in which the degree is to be conferred, the candidate must be registered at the University and must file a graduation application form either online or in the Student Division. This must be done by the deadline to apply for an undergraduate degree, which is given in the official academic calendar. No degree will be conferred unless the graduation application form has been filed on time.

## Degrees and Programs

The College of Liberal Arts offers four degree programs: the Bachelor of Arts, Plan I; the Bachelor of Arts, Plan II; the Bachelor of Science in Environmental Science with a major in geographical sciences; and the Bachelor of Science in Psychology. The requirements of the Bachelor of Arts, Plan I are described in Bachelor of Arts, Plan I (p. 296). The Bachelor of Arts, Plan II, a broad liberal arts honors program for outstanding students, is described in Bachelor of Arts, Plan II (p. 308).

The Bachelor of Science in Environmental Science, offered by the College of Liberal Arts, the College of Natural Sciences, and the Jackson School of Geological Sciences, is designed for students interested in an interdisciplinary scientific perspective on environmental issues, analysis, and management. Students pursuing the degree through the College of Liberal Arts major in geographical sciences. The requirements for the degree are given in Bachelor of Science in Environmental Science (p. 311).

The Bachelor of Science in Psychology is designed to offer students a more extensive scientific program than the Bachelor of Arts with a major in psychology. The requirements for the BSPsy are given in Bachelor of Science in Psychology (p. 312).

A student may not earn more than one Bachelor of Arts degree from the University. A student may not earn more than one Bachelor of Science in Environmental Science degree from the University. A student may not earn both the Bachelor of Arts with a major in psychology and the Bachelor of Science in Psychology. A student may not earn both the Bachelor of Arts with an intercollege major in kinesiology and health and the Bachelor of Science in Kinesiology and Health.

The title of a graduate's degree appears on his or her diploma, but the major does not. Both the degree and the major appear on the graduate's University transcript.

## Applicability of Certain Courses

## Physical Activity Courses

Physical activity (PED) courses and Kinesiology 119 may not be counted toward a degree in the College of Liberal Arts. However, they are counted as courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

ROTC units are maintained on campus by the Departments of Air Force Science, Military Science, and Naval Science. Information about each program is available from the chair of the department.

Nine semester hours of designated University of Texas at Austin coursework in air force science, military science, or naval science may be counted toward any degree in the College of Liberal Arts. In general, this credit may be used only as electives or to fulfill the writing requirement. However, cross-listed courses may be used as appropriate to fulfill other degree requirements. A list of approved ROTC courses is available in the College of Liberal Arts, Student Division, Dorothy Gebauer Building 2.200.

## Conference Courses and Internship Courses

No more than six semester hours of credit earned in conference courses may be counted toward a single major in the College of Liberal Arts; no more than nine semester hours may be counted toward the degree.

No more than six semester hours of credit earned in internship courses may be counted toward a single major in the College of Liberal Arts; no more than nine semester hours may be counted toward the degree.

In addition, no more than nine semester hours of conference courses and internship courses combined may be counted toward a single major in the College of Liberal Arts; no more than twelve hours of conference courses and internship courses combined may be counted toward the degree.

## Bible Courses

Bible courses may be counted as lower-division electives in College of Liberal Arts degree programs that have room for such electives. No more than twelve semester hours of Bible courses may be counted toward any degree offered by the University.

## Admission Deficiencies

Students admitted to the University with deficiencies in high school units must remove them by the means prescribed in the General Information Catalog. Contact the dean's office for further information.

## Correspondence and Extension Courses

Credit that a University student in residence earns simultaneously by correspondence or extension from the University or elsewhere or in residence at another school will not be counted toward a degree in the College of Liberal Arts unless specifically approved in advance by the dean. In very special circumstances, the dean may allow a student in residence to take one or more courses by extension or correspondence. No more than 30 percent of the semester hours required for any degree offered in the College of Liberal Arts may be taken by correspondence. For additional information about correspondence work by resident students, see the General Information Catalog (http://catalog.utexas.edu/ general-information).

## Courses Taken on the Pass/Fail Basis

No more than nineteen semester hours of coursework completed on the pass/fail basis may be counted toward the Bachelor of Arts, Plan II; no more than sixteen semester hours of such coursework may be counted toward the other degrees in the college. In general, only electives may be taken on the pass/fail basis. Complete rules on registration on the pass/fail basis are given in the General Information Catalog (http:// catalog.utexas.edu/general-information).

## Courses in a Single Field

No more than thirty-six semester hours (thirty-nine for the Bachelor of Arts, Plan I) may be counted in any one field of study, including the major, unless major requirements state otherwise. No more than thirtysix semester hours (thirty-nine for the Bachelor of Arts, Plan I) may be counted in any one college or school other than the College of Liberal Arts or the College of Natural Sciences.

## UTeach-Liberal Arts

UTeach-Liberal Arts is a professional teacher preparation program for liberal arts students pursuing degrees in Arabic, Chinese, economics, English, French, history, geography, German, government, Japanese, Latin, Russian, and Spanish. Students may seek certification to teach middle or high school grades for the following certification areas:

1. History, grades eight through twelve
2. Language arts and reading, grades four through eight or eight through twelve
3. Languages other than English, grades six through twelve
4. Social studies, grades four through eight or eight through twelve

UTeach-Liberal Arts offers a four-semester program for undergraduate students and a three-semester program for postbaccalaureate students. Admission into the program is required. Undergraduate students may enter the program as early as the second semester of their freshman year.

UTeach-Liberal Arts students benefit from an innovative program that emphasizes a practical, hands-on field experience in local public school classrooms combined with intensive coursework. The program provides students with an excellent firsthand glimpse into the world of teaching. Other key features of the program are mentorship and seminar instruction, cohort support, discipline-specific pedagogical preparation, literacy training, and innovative use of technology. More information about UTeach-Liberal Arts and the admission process is available online at http://www.utexas.edu/cola/progs/uteach/.

## Program in Comparative Literature

The program in comparative literature approaches the study of literature from a variety of viewpoints rather than from the viewpoint of a single language or nation. Courses in literary history, practical criticism, and critical theory stress the relationship between literature and other disciplines in the humanities, the arts, and the social sciences. The program offers both the doctoral and the master's degree and sponsors courses on both the graduate and the undergraduate level. All comparative literature courses are conducted in English.

To introduce undergraduates to the field of study, the comparative literature faculty has designed a cluster of courses in critical thinking and world literature. These courses concentrate on writing and thinking critically, with a focus on literary texts drawn from around the world, in the context of an interdisciplinary and international program. The twelvehour cluster complements many majors in liberal arts; with the approval of the student's major department, it may be used to fulfill the minor
requirement. More information is available from the comparative literature program.

## Transcript-Recognized Certificate Programs

The College of Liberal Arts offers three certificate programs, which are open to all degree-seeking University undergraduates. Undergraduates who complete certificate requirements in conjunction with their degree requirements or within one year after earning the degree receive recognition on the University transcript; students in integrated undergraduate/graduate programs must complete certificate requirements within one year after they complete their undergraduate degree requirements. A maximum of nine semester hours of certificate coursework may be taken after the student has earned the undergraduate degree. At least half of the required certificate coursework must be completed in residence at the University; some programs may require more work in residence.

A student may not earn a certificate in the same field as his or her major, and at least one certificate course must be outside the requirements of the major. However, certificate courses outside the major may be counted toward other degree requirements.

Students should apply for the certificate when they apply for graduation or when they complete the certificate program, whichever is later. Transcript recognition is awarded at the end of that semester or summer session.

Students outside the College of Liberal Arts should contact their dean's office for permission to complete a certificate program and for the applicability of certificate requirements toward their individual degrees. Students in the College of Liberal Arts may complete certificate programs offered through other colleges. These are described in TranscriptRecognized Certificate Programs (p.13) and by each college that offers a transcript-recognized certificate program. Certificate programs that do not lead to transcript recognition are also described in the respective college's catalog section.

## Certificate in Computational Science and Engineering

See the Certificate in Computational Science and Engineering (p. 14).

## African Studies Certificate

The African Studies Certificate allows students to engage with scholarship on African peoples, cultures, and history through the theoretical lens of black studies. Through the certificate, undergraduates develop interdisciplinary expertise in African studies related to the student's personal field of interest. The African and African Diaspora Studies undergraduate adviser (AADS) is available to steer certificate candidates towards areas of interest, which can include: expressive cultures, gender and sexuality studies, literature, language, history, politics, and society as these topics relate to theories of blackness on the African continent.

The certificate program requires eighteen semester hours of coursework, including at least nine semester hours completed in residence.

Students must fulfill the following requirements:

1. African and African Diaspora Studies 303, Introduction to Black Studies, or an alternative course taken with approval from AADS
2. African and African Diaspora Studies 310K, Introduction to Modern Africa, or an alternative course taken with approval from AADS
3. Twelve additional semester hours (upper- or lower-division) chosen from courses on an approved list or with prior approval from AADS
4. One of the courses listed in requirement 3 must carry a writing flag from the School of Undergraduate Studies and/or place an emphasis on research and writing, such as African and African Diaspora Studies 372G or an alternative course taken with approval from AADS
5. Earn a grade of at least $C$ in each of the courses taken to fulfill the African Studies Certificate requirements

Each semester the list of approved courses that meet the requirements above is available in the Department of African and African Diaspora Studies undergraduate advising office.

Courses the student has completed at the time of application to the program may be counted toward the certificate. Students may not earn a certificate in the same field of study as their major and at least one course counting toward this certificate must be taken outside of the requirements of the student's undergraduate degree. Students apply for transcriptrecognized undergraduate academic certificates at the time they complete their undergraduate degree or the certificate program, whichever comes later. Transcript recognition is awarded at that time.

## Core Texts and Ideas Certificate

The certificate program in core texts and ideas is designed to provide a coherent path through the University's core curriculum with an integrated, interdisciplinary sequence of courses on great works of philosophy, literature, science, and the arts that emphasizes debates about fundamental questions of enduring human concern. The program provides a grounding in the major ideas that have shaped the Western world and gives students the opportunity to study Eastern works as well. Students complete courses in four required areas and two elective areas. The four required areas are the philosophy and literature of the ancient world, especially Greece; basic texts of major world religions; the history of political philosophy; and the principles that formed the basis for the founding of the United States. Elective areas include philosophy, the arts, history, literature, and the history and philosophy of science and mathematics.

The certificate program requires eighteen semester hours of coursework, including at least twelve hours completed in residence. Students must fulfill the following requirements:

1. The requirements of an undergraduate major
2. The following twelve semester hours of coursework:
a. Philosophy and literature of the ancient world: Core Texts and Ideas 301, Ancient Philosophy and Literature
b. History of political philosophy: Core Texts and Ideas 302, Classics of Social and Political Thought or Core Texts and Ideas 303, Competing Visions of the Good Life
c. Basic texts of major world religions: Core Texts and Ideas 304, World Religions: Traditions and Texts
d. Principles of the founding of the United States: Government 312P, Constitutional Principles: Core Texts
3. Six additional semester hours of coursework chosen from a list of approved electives available from the academic adviser in the Thomas Jefferson Center for Core Texts and Ideas

All courses must be taken on the letter-grade basis. Each semester a list of approved alternatives to the courses in the four required areas is available from the academic adviser in the Thomas Jefferson Center for the Study of Core Texts and Ideas.

## Creative Writing Certificate

The Creative Writing Certificate is intended for any University student interested in advanced study of creative writing, both as reader and as writer. Those who plan to pursue the certificate should apply to the
program adviser for admission no later than the end of their sophomore year. More information about the Creative Writing Certificate is given at the Department of English Web Site (http://www.utexas.edu/cola/depts/ english/undergraduate-program/creative-writing.php).

The certificate program requires eighteen semester hours of coursework, including at least nine hours completed in residence. Students must fulfill the following requirements:

1. The requirements of an undergraduate major
2. Six semester hours of coursework from English, theatre and dance, or radio-television-film.
3. Creative Writing 325F, 325M, or 325P
4. Creative Writing 330
5. Creative Writing 340F, 340P, or Creative Writing 660 (part A).
6. Creative Writing 355F, 355P, Creative Writing 660 (part B), or three hours of coursework chosen from a list of approved courses available from the program adviser.
7. Earn a grade of at least $C$ - in each course taken to fulfill the Creative Writing Certificate requirements.

## Honors Option

To earn an Honors Creative Writing Certificate, students must fulfill the following additional requirements:

1. Creative Writing 370 H , Honors Creative Writing Project
2. A University Grade Point Average (GPA) of at least 3.66 in the coursework required for the Creative Writing Certificate and a cumulative University GPA of at least 3.33 .

## History and Philosophy of Science Certificate

The History and Philosophy of Science Certificate provides students an opportunity to gain a coherent, cross-disciplinary command of the methods and findings that the liberal arts have contributed to our understanding of the sciences. Students analyze the dynamic development, concepts, and roles in society of various sciences, as well as the personal, dramatic struggles of famous scientists. Students must complete four courses in two required areas: history of science, and philosophy of science, as well two electives to be selected from a list of pre-approved courses in history, philosophy, astronomy, physics, or core texts and ideas.

The certificate program requires eighteen semester hours of coursework, of which at least twelve semester hours of coursework must be upperdivision, and including at least nine semester hours completed in residence.

Students must fulfill the following requirements:

1. History 322D, The Scientific Revolution of the Seventeenth Century, and History 322M, History of Modern Science
2. Philosophy 313, Introductory Symbolic Logic, or Philosophy 363, Scientific Method
3. Philosophy 316K, Science and Philosophy, or Philosophy 322, Science and the Modern World
4. Six additional semester credit hours, chosen from an approved list

Each semester, the list of approved courses that meet the requirements above is available in the Department of History undergraduate advising office.

Courses the student has completed at the time of application to the program may be counted toward the certificate. Students apply for transcript-recognized undergraduate academic certificates at the time
they complete their undergraduate degree or the certificate program, whichever comes later. Transcript recognition is awarded at that time.

## Indigenous Studies Certificate

The main goal of the indigenous studies certificate program is to encourage active intellectual and community engagement with indigenous peoples and cultures. The program allows undergraduate students to develop interdisciplinary expertise in indigenous studies and comparative approaches to their primary field of interest. Each student develops a specialization within the program that is tailored to his or her academic and professional development. Students concentrate their studies in two of the following eight strands: Mayan culture, Mesoamerica, indigenous arts, indigenous peoples of Latin America, indigenous peoples in the United States and Canada, indigenous peoples of the Americas, indigenous politics and human rights, and indigenous writing and language.

Courses the student has completed at the time of application to the program may be counted toward the certificate. Upon completion of the course requirements, the student writes a three- to four-page essay that describes his or her intellectual work in the program and how the experience contributed to his or her academic career at the University.

The certificate program requires eighteen semester hours of coursework, including at least nine semester hours completed in residence. Students must fulfill the following requirements:

1. The requirements of an undergraduate major
2. Three semester hours in a lower-division introductory or foundational course with indigenous studies content, such as English 314V (Topic 5: Native American Literature and Culture), History 317L (Topic 3: Introduction to Native American History), or other courses from an approved list
3. Six semester hours of approved coursework in each of two of the following eight strands: Mayan culture, Mesoamerica, indigenous arts, indigenous peoples of Latin America, indigenous peoples in the United States and Canada, indigenous peoples of the Americas, indigenous politics and human rights, indigenous writing and language
4. An approved upper-division capstone course in indigenous studies chosen from courses on an approved list
5. At least three courses must be taken in a field of study outside of the student's major department

Each semester a list of approved courses that meet the requirements above is available in the Department of Anthropology undergraduate advising office.

## Lesbian, Gay, Bisexual, Transgender, and Queer/Sexualities Studies Certificate

The certificate program requires eighteen semester hours of coursework, including at least nine semester hours completed in residence.

Students must fulfill the following requirements:

1. Women's and Gender Studies 303, Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies, or Women's and Gender Studies 305, Introduction to Women's and Gender Studies
2. Women's and Gender Studies 301 (Topic 12: Gay and Lesbian Literature and Culture) or an alternative course taken with prior approval from the LGBTQ/Sexualities Research Cluster faculty committee
3. Twelve additional upper-division semester hours of coursework chosen from courses on an approved list. At least three of these hours must be taken from outside the student's major field of study.
4. Earn a grade of at least a $C$ in each of the courses taken to fulfill the LGBTQ/Sexualities Studies certificate requirements

Each semester, the list of approved courses that meet the requirements above is available in the Center for Women's and Gender Studies undergraduate advising office. The list of courses known as the "Pink Book" is published on the Women's and Gender Studies Web site (http:// www.utexas.edu/cola/centers/cwgs/faculty/research-clusters/LGBTQsexualities.php).

Courses the student has completed at the time of application to the program may be counted toward the certificate. Students apply for transcript-recognized undergraduate academic certificates at the time they complete their undergraduate degree or the certificate program, whichever comes later. Transcript recognition is awarded at that time.

## Concentrations

A concentration allows students to pursue a program of interdisciplinary specialization in addition to the major. Within the general requirements for the degree of Bachelor of Arts and the requirements of the major, a student may also complete a concentration in one of the following programs offered by the College of Liberal Arts.

Courses required for a concentration may also be counted toward the requirements of the Bachelor of Arts, Plan I, when applicable. Students in other degree programs and colleges should check with their dean's offices about course applicability and restrictions. The following concentrations are not recognized on the student's transcript.

## Cultural Studies

Students who wish to enter the cultural studies concentration should consult the undergraduate adviser in the Américo Paredes Center for Cultural Studies.

The concentration is designed to complement the student's major, with courses drawn from the humanities, the social sciences, and the arts. With the approval of his or her dean and the cultural studies adviser, a student outside the College of Liberal Arts may complete a concentration in cultural studies.

The student must fulfill the following requirements:

1. Completion of the requirements of a major
2. Two of the following courses: Anthropology 305, 325L, Communication 309, Mexican American Studies 307, Music 342, Radio-Television-Film 314, Theatre and Dance 357T
3. Cultural Studies 340
4. Three additional courses from a group of cultural studies-related courses prescribed by the Cultural Studies Curriculum Committee
5. Two additional courses from a group of supporting courses prescribed by the Cultural Studies Curriculum Committee

## Science, Technology, and Society

The goal of this concentration is to prepare students to use emerging technologies humanely and critically; to participate thoughtfully in public discourse about scientific and technological innovation; and to understand the consequences of public and private decisions about scientific advancements and technologies. The concentration is designed to allow students to gain experience in analyzing historical, philosophical, rhetorical, economic, political, aesthetic, and scientific practices and methods of inquiry. Students have the opportunity to explore the social impacts of rapid scientific and technological change. The program integrates approaches from the liberal arts, social sciences, and humanities with new developments in science and technology. The science, technology, and society concentration focuses on several
key areas, including nanotechnology, gaming, surveillance, mobile technologies, e-society, education, health care, and computer-mediated communication.

The program of study is designed to complement the major by helping the student to gain a richer and more profound understanding of the dynamic relationships among science, technology, culture, and the individual. The concentration is open to liberal arts majors and, with the approval of their deans, to students in other colleges and schools.

The student must fulfill the following requirements:

1. A departmental major or the equivalent
2. Eighteen semester hours of coursework, consisting of Science, Technology, and Society 319 or 321; Science, Technology, and Society 331; nine semester hours of related coursework; and a capstone seminar, Science, Technology, and Society 360

A list of related courses that will fulfill requirement 2 is available from the science, technology, and society adviser; courses that are not on the list may be used with written consent of the adviser.

## Western Civilization and American Institutions

The concentration in western civilization and American institutions is designed to complement departmental specialization with an integrated sequence of courses that emphasizes a multidisciplinary approach to the major ideas of western civilization and their impact on the development of the institutions of the United States. Students who wish to enter the concentration should consult the faculty adviser. With the approval of his or her dean and the western civilization and American institutions adviser, a student outside the College of Liberal Arts may complete the concentration.

The student must fulfill the following requirements:

1. Completion of the requirements of a major
2. Three semester hours of Government 335M, Topics in Political Thought, chosen from a list of topics approved by the western civilization and American institutions faculty adviser
3. Fifteen additional semester hours of coursework in western civilization and American institutions, chosen in consultation with the faculty adviser for the concentration, from a list prescribed by the western civilization and American institutions faculty committee

## Bachelor of Arts, Plan I

The requirements for the Bachelor of Arts under Plan I are designed to give each student flexibility in the selection of courses to meet individual needs.

A total of 120 semester hours is required. Thirty-six hours must be in upper-division courses. At least sixty hours, including twenty-one hours of upper-division coursework, must be completed in residence at the University; at least twenty-four of the last thirty hours must be completed in residence at the University. Provided residence rules are met, credit may be earned by examination, by extension, by correspondence (up to 30 percent of the hours required for the degree), or, with the approval of the dean, by work transferred from another institution. Up to sixteen semester hours of classroom and/or correspondence coursework may be taken on the pass/fail basis; this coursework may be counted only as electives.

All students must complete the University's Core Curriculum (p. 20). In the process of fulfilling the core curriculum and other degree requirements, all
students are expected to complete courses with content in the following four areas:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course

Courses with sufficient content in these areas will be identified in the Course Schedule (http://registrar.utexas.edu/schedules) by the appropriate flags. A course may carry more than one flag. The School of Undergraduate Studies monitors flagged courses to ensure that they meet the guidelines set by the General Faculty.

The specific requirements for the Bachelor of Arts, Plan I, consist of prescribed work, major and minor requirements, and electives. In some cases, a course that fulfills one of these requirements may also be counted toward the core curriculum; these courses are identified below.

Courses in the major and minor may also be used to fulfill prescribed work requirements unless expressly prohibited. A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills one requirement may also be used to fulfill a flag requirement.

The student must fulfill the University's General Requirements (p.17) for graduation and the requirements of the College of Liberal Arts. University graduation requirements include a grade point average of at least 2.00 in all courses taken at the University (including credit by examination, correspondence, and extension) for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded; for the BA, Plan I, the student must also earn a grade point average of at least 2.00 in courses taken at the University and counted toward the major requirements. The student should also refer to the description of his or her major in the section Majors and Minors below, since some majors include higher minimum scholastic requirements.

More information about grades and the grade point average is given in the General Information Catalog (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/computation-of-the-grade-point-average).

## Prescribed Work

1. Writing and Literature: English 316L, 316M, or 316 N and two courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag. One of these courses must be upper-division. Courses that carry a writing flag are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
2. Foreign language: Proficiency in a language other than English is required. The study of a second language contributes in an important way to a broad education for today's students, who live in a world where the overwhelming majority of people do not speak or read English and where much of the knowledge that is disseminated may never appear in English. Knowledge of a second language is important for an appreciation of the culture of the people using that language, and it also helps students to understand the structure and complexities of their own native language. Students with sufficient preparation may be able to use the second language for study in their chosen discipline. An intermediate level of competency as determined by the completion of any one of the following options:
a. Certified proficiency on a placement or credit-by-exam test.
b. Students with previous experience in the language they plan to use to meet the language requirement must take a language placement test. A student may not select for credit a language course below this placement level without departmental permission.
c. A passing grade in a language course listed below:

| Requirements |  | Hour |
| :---: | :---: | :---: |
| ASL 611C | Accelerated Second-Year American Sign Language | 6 |
| ASL 311D | American Sign Language III: Intermediate | 3 |
| ASL 312L | Second-Year American Sign Language II | 3 |
| ARA 611C | Intensive Arabic II | 6 |
| BEN 312L | Second-Year Bengali II | 3 |
| CHI 612 | Accelerated Second-Year Chinese | 6 |
| CHI 412L | Second-Year Chinese II | 4 |
| CZ 611C | Intensive Czech II | 6 |
| CZ 412L | Second-Year Czech II | 4 |
| DAN 612 | Accelerated Second-Year Danish | 6 |
| DCH 612 | Accelerated Second-Year Dutch | 6 |
| FR 611C | Intermediate French | 6 |
| GER 612 | Accelerated Second-Year German: Readings in Modern German | 6 |
| GK 312K | Intermediate Greek II | 3 |
| GK 312L | Intermediate Greek II: Biblical Greek | 3 |
| GK 610C | Intermediate Modern Greek | 6 |
| GK 310K | Second-Year Modern Greek II | 3 |
| HEB 612C | Intensive Biblical Hebrew II | 6 |
| HEB 611C | Intensive Hebrew II | 6 |
| HIN 312L | Second-Year Hindi II | 3 |
| ITL 611C | Intermediate Italian | 6 |
| JPN 611D | Intermediate Japanese | 6 |
| KOR 412L | Second-Year Korean II | 4 |
| LAT 311 | Intermediate Latin I | 3 |
| MAL 312L | Second-Year Malayalam II | 3 |
| NOR 612 | Accelerated Second-Year Norwegian | 6 |
| PSH 312L | Second-Year Pashto II | 3 |
| PRS 611C | Intensive Persian II | 6 |
| PRS 612C | Intensive Persian for Heritage Speakers | 6 |
| POL 611C | Intensive Polish II | 6 |
| POL 312L | Second-Year Polish II | 3 |
| POR 611D | Intermediate Portuguese II | 6 |
| RUS 611C | Intensive Russian II | 6 |
| RUS 412L | Second-Year Russian II | 4 |
| SAN 312L | Second-Year Sanskrit II | 3 |
| S C 312L | Second-Year Serbian/Croatian II | 3 |
| SEL 611C | Intensive Slavic and Eurasian Languages II | 6 |
| SEL 312L | Second-Year Slavic and Eurasian Languages II | 3 |
| SPN 611D | Intermediate Spanish II | 6 |
| SPN 612 | Accelerated Intermediate Spanish for Heritage Learners | 6 |
| SWA 611C | Intensive Swahili II | 6 |
| SWE 612 | Accelerated Second-Year Swedish | 6 |
| TAM 312L | Second-Year Tamil II | 3 |
| TEL 312L | Second-Year Telugu II | 3 |
| TUR 611C | Intensive Turkish II | 6 |
| URD 312L | Second-Year Urdu II | 3 |


| YID 612 | Accelerated Second-Year Yiddish | 6 |
| :--- | :--- | :--- |
| YOR 312L | Second-Year Yoruba II | 3 |
| YOR 611C | Intermediate Yoruba | 6 |

d. Students who wish to meet the requirement with proficiency in a language not listed in the table above should contact the Texas Language Center (http://www.utexas.edu/cola/centers/tlc).
3. Social science: Three semester hours chosen from a list of approved courses, in addition to the course used to fulfill the social and behavioral sciences requirement of the core curriculum. Courses on the approved list are primarily in anthropology, economics, geography, linguistics, psychology, and sociology, but not every course in these fields is approved. Courses that are approved to count toward any core curriculum area other than social and behavioral sciences may not be counted toward this requirement.
The list is available each semester in the Student Division on the College of Liberal Arts Web site (http://www.utexas.edu/cola/student-affairs/Majors-and-Degrees/Course-Lists.php).
4. Mathematics: Three semester hours in mathematics, excluding Mathematics $301,316 \mathrm{~K}$, and 316 L . Some courses that fulfill this requirement may also be counted toward the mathematics requirement of the core curriculum.
5. Natural science: Six semester hours in natural sciences, in addition to the courses counted toward the science and technology requirements of the core curriculum. Courses used to fulfill this requirement must be chosen from the fields of study listed below; no more than three hours may be in either the history of science or the philosophy of science. To satisfy the mathematics and science and technology requirements of the core curriculum and the mathematics and natural science requirements of the BA, Plan I, a student may count (1) no more than twelve hours in mathematics, computer science, and statistics and scientific computation combined; and (2) no more than nine hours in any single field of study.
a. Astronomy
b. Biology
c. Chemistry
d. Geological sciences
e. Marine science
f. Nutrition
g. Physical science
h. Physics
i. Mathematics (excluding Mathematics 301), computer science, statistics and data sciences
j. Other alternative science courses approved by the dean
k. Approved alternative courses in history of science and philosophy of science
Lists of approved courses in science and the history and philosophy of science are available each semester in the Student Division and on the College of Liberal Arts Web site (http://www.utexas.edu/ cola/student-affairs/Student-Services/Majors-and-Degrees/CourseLists.php).
6. Cultural expression, human experience, and thought. Three semester hours chosen from a list of approved courses. The course(s) must be in a field of study taught in the College of Liberal Arts. A course counted toward any requirement of the core curriculum may not also be counted toward this requirement.
A list of approved courses is available each semester in the
Student Division and on the College of Liberal Arts Web site (http://
www.utexas.edu/cola/student-affairs/Student-Services/Majors-and-Degrees/Course-Lists.php).

## Electives

In addition to the core curriculum, prescribed work, and major and minor, the student must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than twelve hours of conference courses and internship courses combined as described in Conference Courses and Internship Courses (p. 293); twelve hours of Bible courses; nine hours of designated coursework in air force science, military science, or naval science; sixteen hours completed on the pass/fail basis; thirty-nine hours in any one field of study in the College of Liberal Arts or the College of Natural Sciences, unless major requirements state otherwise; and thirty-nine hours in any other single college or school of the University. Mathematics courses at the level of college algebra may not count toward elective hours.

## Majors and Minors Major Requirements

The Bachelor of Arts, Plan I, requires the completion of all requirements for one major. The number of semester hours required in the major varies with the field selected. Unless the requirements of the major state otherwise, a major consists of at least twenty-four but no more than fortytwo semester hours, with at least fifteen hours in upper-division courses. Of these fifteen hours, six must be taken in residence. At least eighteen hours of coursework in the major, including six hours of upper-division coursework, must be completed in residence at the University.

## Minors

Students in most majors must also fulfill the requirements of a minor. The minor consists of a specific number of semester hours of coursework completed outside the student's major field. The requirements of the minor are established by the major department and are given with the major requirements below. Additional restrictions may be imposed by the academic department(s) in which the student takes the courses used to fulfill the requirements of the minor; before planning to use a course to fulfill the minor requirement, the student should consult the department that offers the course.

The same courses may not be used to fulfill the requirements for both a major and a minor. Courses used to fulfill the requirements for a minor must be taken on the letter-grade basis, and six of the required semester hours must be taken in residence.

## African and African Diaspora Studies

## Major

Twenty-four semester hours of coursework in African and African diaspora studies, including at least fifteen hours of upper-division coursework. The following courses are required:

1. African and African Diaspora Studies 303, Introduction to Black Studies
2. African and African Diaspora Studies 375, Community Internship
3. African and African Diaspora Studies 376, Senior Seminar
4. Three upper-division courses (at least nine semester hours) chosen from one of the following tracks:
a. Critical race, gender, and sexuality theories
b. Performance, music, art, and literature
c. Language, history, and behavioral and social sciences
d. Law, education, health, and policy
5. Six additional semester hours of African and African diaspora studies coursework

A list of courses for each track is available from the undergraduate adviser. Coursework used in requirements 4 and 5 must cover at least two geographical regions of the African diaspora, identified as Africa, the Caribbean, Latin America, and the United States. A list of courses with their geographical affiliation is available in the departmental advising office.

## Minor for African and African Diaspora Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve hours must be taken in residence.

## American Studies

## Major

Twenty-four semester hours of coursework in American studies, including at least fifteen hours of upper-division coursework. The following courses are required:

1. American Studies 310, Introduction to American Studies
2. American Studies 311S, Introductory Seminar in American Studies
3. American Studies 355, Main Currents of American Culture to 1865 and American Studies 356, Main Currents of American Culture since 1865
4. Nine semester hours chosen from topics of American Studies 370, Seminar in American Culture
5. Three additional semester hours of American studies coursework

## Minor for American Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence.

## Anthropology

## Major

Thirty-three semester hours of anthropology, including at least eighteen hours of upper-division coursework, consisting of

1. Anthropology 301, 302, 304, and 307
2. At least three semester hours of upper-division coursework in each of the following areas
a. Theory: Anthropology 330C or an approved alternate course
b. Methods: Anthropology 453, 662, 462M, or an approved alternate course
c. Culture/geographic area
3. Twelve additional hours, including at least nine hours of upper-division coursework

A list of the courses in each area of requirement 2 is available from the anthropology adviser.

## Minor for Anthropology Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence.

## Asian American Studies

## Major

1. Asian American Studies 301.
2. Twenty-one semester hours, including at least eighteen hours of upper-division coursework in Asian American Studies, and with at least one three-hour course in each of the following groups:
a. Asian American Studies 320, Topics in Asian American Culture, Literature, and Media Studies
b. Asian American Studies 325, Topics in Asian American Economics, History, and Government or Asian American Studies 330, Topics in Asian American Anthropology, Geography, and Sociology

## Minor for Asian American Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one field of study in the University. Six of the required semester hours must be taken in residence.

## Asian Cultures and Languages

The Bachelor of Arts with a major in Asian cultures and languages is offered with specialization in Chinese, Japanese, Korean, Hindi/Urdu, Malayalam, Sanskrit, or Tamil.

## Major

Twenty-four semester hours, including twenty-one hours of upper-division coursework, in the language and culture of one of the following areas of specialization. A list of approved Asian studies courses related to the areas of specialization is available in the Department of Asian Studies.

1. Chinese
a. Chinese 322 or 341
b. Three semester hours chosen from Chinese 320L, 330, and 340
c. Six additional semester hours of upper-division coursework in Chinese
d. Twelve additional semester hours in Asian studies courses related to China, at least six hours of which must be upper-division
2. Japanese
a. Japanese 322 or 330
b. Twelve additional semester hours of upper-division coursework in Japanese
c. Nine additional semester hours in Asian studies courses related to Japan, at least three hours of which must be upper-division
3. Korean
a. Asian Studies 302D
b. Twelve semester hours of upper-division coursework in Korean
c. NIne additional upper-division semester hours in Asian studies courses related to Korea
4. Hindi/Urdu
a. Twelve semester hours of upper-division coursework in Hindi and/ or Urdu
b. Twelve additional semester hours in Asian studies courses related to South Asia, at least six hours of which must be upper-division.

Three semester hours of upper-division coursework in Hindi, Urdu, or Sanskrit may be counted toward this requirement.
5. Malayalam
a. Twelve semester hours of upper-division coursework in Malayalam
b. Twelve additional semester hours in Asian studies courses related to South Asia, at least six hours of which must be upper-division. Three semester hours of upper-division coursework in Malayalam, Sanskrit, or Tamil may be counted toward this requirement.
6. Sanskrit
a. Twelve semester hours of upper-division coursework in Sanskrit
b. Twelve additional semester hours in Asian studies courses related to South Asia, six hours of which must be upper-division. Three semester hours of upper-division coursework in Sanskrit, Hindi, or Urdu may be counted toward this requirement.
7. Tamil
a. Twelve semester hours of upper-division coursework in Tamil
b. Twelve additional semester hours in Asian studies courses related to South Asia, six hours of which must be upper-division. Three semester hours of upper-division coursework in Tamil, Sanskrit, or Malayalam may be counted toward this requirement.

## Minor for Asian Cultures and Languages Majors

Either (1) twelve semester hours, including at least six hours of upperdivision coursework, in any one other field of study in the University; or (2) nine semester hours of coursework beyond 507 or the equivalent in a second foreign language, including at least three hours of upperdivision coursework. Six of the required semester hours must be taken in residence.

## Asian Studies

## Major

Twenty-four semester hours of Asian studies coursework, at least eighteen of which must be upper-division, in one of the two areas of specialization listed below. Students specializing in East Asia must choose either the general track or the Taiwan track. Courses counted toward the foreign language requirement may not also be counted toward the major unless otherwise noted. A list of courses that fulfill the requirements of the areas of specialization is available in the Department of Asian Studies.

## 1. East Asia

a. General track
i At least three semester hours of coursework in East Asian history
ii A three-hour Asian studies course related to South Asia
iii Asian Studies 379
iv Fifteen additional semester hours in Asian studies courses related to East Asia, preferrably in more than one East Asian cultural area. Six semester hours of upper-division coursework in Chinese, Japanese, or Korean language may be counted toward this requirement.
v Two years of Chinese, Japanese, or Korean to fulfill the foreign language requirement
b. Taiwan track
i At least three semester hours of coursework in Taiwanese history
ii A three-hour Asian studies course related to South Asia

## iii Asian Studies 379

iv Fifteen additional semester hours in Asian studies courses related to East Asia, including at least six hours related to Taiwan, three hours related to China, three hours related to Japan, and three hours in upper-division Asian studies courses related to East Asia or in upper-division Chinese language courses
$\checkmark$ Two years of Chinese language to fulfill the foreign language requirement, focusing in these courses on the traditional characters used in Taiwan
2. South Asia
a. At least three semester hours of coursework in South Asian history
b. A three-hour Asian studies course related to East Asia
c. Asian Studies 379
d. Fifteen additional semester hours in Asian studies courses related to South Asia. Six semester hours of upper-division coursework in Bengali, Hindi, Malayalam, Pashto, Sanskrit, Tamil, Telugu, or Urdu language may be counted toward this requirement.
e. Two years of Bengali, Hindi, Malayalam, Pashto, Sanskrit, Tamil, Telugu, or Urdu to fulfill the foreign language requirement

## Minor for Asian Studies Majors

Either (1) twelve semester hours, including at least six hours of upperdivision coursework, in any one other field of study in the University; or (2) nine semester hours of coursework beyond 507 or the equivalent in a second foreign language, including at least three hours of upperdivision coursework. Six of the required semester hours must be taken in residence.

## Classical Languages <br> Major

Twenty-four semester hours in the languages and cultures of one of the following areas of specialization: Classics, Greek, or Latin.

1. Classics
a. Six hours of upper-division Greek
b. Six hours of upper-division Latin
c. Classical Civilization 375, Greek 365 , or Latin 365
d. Nine additional hours of Greek, Latin, or classical civilization, including at least three upper-division hours
2. Greek
a. Twelve hours of upper-division Greek, including Greek 365
b. Twelve hours of Latin and/or classical civilization, including at least nine in upper-division coursework
3. Latin
a. Fifteen hours of upper-division Latin, including Latin 324 and Latin 365
b. Nine hours of Greek and/or classical civilization, including at least six in upper-division coursework

## Minor for Classical Languages Majors

Either (1) twelve semester hours, including at least six hours of upperdivision coursework, in an approved area, or (2) nine semester hours, including at least three hours of upper-division coursework beyond 507, 601 C , and 610D in another foreign language.

## Classical Studies

## Major

Thirty-six semester hours of coursework, at least twenty-one of which must be upper-division, in one of the two areas of specialization, ancient history or classical archaeology, listed below. Coursework counted toward the foreign language requirement may not also be counted toward the major.

## 1. Ancient History

a. Six hours of premodern history, chosen from topics of Ancient History and Classical Civilization 310 and 330.
b. Nine hours of upper-division Greek and/or Roman history, chosen from topics of Ancient History and Classical Civilization 325.
c. Twelve hours of classical civilization, Greek, Latin, or topics of Ancient History and Classical Civilization 319, 325, and 378.
d. Six hours of upper-division coursework in Greek and/or Latin.
e. Ancient History and Classical Civilization 378.
2. Classical Archaeology
a. Nine hours of coursework in classical archaeology chosen from Classical Civilization 307C, 307D, or 307K; 317 and 340.
b. Three hours of approved coursework in archaeological techniques and analysis. A list of approved courses is available in the Department of Classics.
c. Three hours of upper-division coursework in Greek or Roman history, chosen from topics of Ancient History and Classical Civilization 325 and 378.
d. Three hours of upper-division coursework in ancient art history, chosen from Art History 325, 326N, 327N, 327P, 327R, and 362.
e. Six hours of upper-division coursework in either Greek or Latin.
f. Twelve additional hours of coursework chosen from Anthropology 304, approved topics of Middle Eastern Studies 342, Religious Studies 354D, and the areas listed in requirements (2a) through (2e).
g. Fieldwork experience approved by the classical studies faculty adviser.

## Economics

All economics majors must earn grades of at least $C$ - in either Mathematics 408C and 408D or Mathematics 408K and 408L. Mathematics 403K and 403L (and transfer equivalents) may not be substituted for the required math courses.

## Major

Twenty-eight semester hours of economics, consisting of Economics $304 \mathrm{~K}, 304 \mathrm{~L}, 420 \mathrm{~K}, 320 \mathrm{~L}, 329,341 \mathrm{~K}$, and nine additional hours of upperdivision coursework. At least six of the additional semester hours of upper-division coursework must be in courses for which a grade of at least $C$ - in Economics 420K is a prerequisite. Economics 420K, 320L, 329, and 341 K must be completed in residence. Economics majors must take Economics 420K at least two semesters prior to completion of the degree. All economics majors must earn a grade of at least $C$ - in each course counted toward fulfillment of the major requirements. A minimum grade point average of at least 2.00 in all courses taken at the University and counted toward the major is also required.

No student may register for more than ten semester hours of economics in any one semester without approval of an undergraduate adviser in the Department of Economics.

## Minor for Economics Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence.

## English

## Major

Thirty-three semester hours of English, including at least twenty-four semester hours of upper-division coursework consisting of the following:

1. English 314J, 314L, or 314V
2. English $316 \mathrm{~L}, 316 \mathrm{M}, 316 \mathrm{~N}$, or 316 P
3. An upper-division course in literature or language prior to 1630
4. An upper-division course in literature or language from 1630 to 1830
5. An upper-division course in literature or language from 1830 to 1940
6. An upper-division diverse perspectives course
7. An upper-division single- or dual-author course
8. An upper-division research seminar
9. Nine additional semester hours of coursework in English, including at least six semester hours of upper-division coursework

A list of courses that may be used to fulfill requirements 3-9 is available in the English Advising Office, Parlin Hall 114, and on the Department of English Web site (http://www.utexas.edu/cola/depts/english).

The student must make a grade of at least $C$ - in each course counted toward fulfillment of the major requirements. A minimum grade point average of 2.00 in courses taken at the University and counted toward the major is also required.

Students are discouraged from taking more than six semester hours of coursework in English in a semester. No student may take more than nine hours of coursework in English in a semester.

## Minor for English Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence. If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the twelve semester hours may be lower-division but must include at least six hours beyond course 507 or the equivalent.

## Ethnic Studies

The ethnic studies program is administered by the Center for Asian American Studies and the Center for Mexican American Studies. The directors and executive committees of these centers advise students, prescribe groups of courses that fulfill content requirements, and authorize course substitutions when appropriate. Students majoring in ethnic studies must choose one of two areas of concentration and meet the requirements of that concentration as outlined in Asian American Studies (p. 299) and Mexican American Studies (p. 306).

## European Studies

Students select one of two tracks: (I) European studies with a focus on pre-1700 Europe, or (II) European studies with a focus on post-1700 Europe. The tracks are interdisciplinary in nature and draw on courses in many departments and allow students considerable opportunity to shape their coursework around their interests. Students majoring in European studies must complete six semester hours of upper-division coursework in
one of the following languages: Czech, Danish, Dutch, French, German, modern Greek, Italian, Norwegian, Polish, Portuguese, Serbian/Croatian, Spanish, or Swedish. With permission from the director of the Center for European Studies, however, students may study other languages for their major-such as Arabic, Persian, Hindi, Hebrew, Turkish, Russian, Latin, or ancient Greek-when an application of those language skills will significantly enhance their work as distinctly European studies scholars in their track. Courses taught in English may not be used. Courses used to fulfill the European studies language requirement will be counted toward the major.

## Major

Thirty semester hours of coursework in European studies, at least twentyfour of which must be upper-division, consisting of the following. No more than nine hours of coursework counted toward the major may focus on a single country or culture.

1. European Studies 305, Introduction to European Studies
2. European Studies 350, Governments and Politics of Western Europe
3. Completion of one of the following tracks:
A. Track I: European studies with a focus on pre-1700 Europe i Three hours in each of the following two areas:
a. European Studies 306, Introductory Topics in European Anthropology, Geography, History, and Sociology; or European Studies 346, Topics in European Anthropology, Geography, History, and Sociology, chosen from an approved list
b. European Studies 307, Introductory Topics in European Culture, Literature, Art, Music, and Media; or European Studies 347, Topics in European Culture, Literature, Art, Music, and Media, chosen from an approved list
ii Nine additional hours of European studies coursework chosen from an approved list, only three hours of which may be lowerdivision
B. Track II: European studies with a focus on post-1700 Europe i Three hours in each of the following three areas:
a. European Studies 306, Introductory Topics in European Anthropology, Geography, History, and Sociology; or European Studies 346, Topics in European Anthropology, Geography, History, and Sociology, chosen from an approved list
b. European Studies 307, Introductory Topics in European Culture, Literature, Art, Music, and Media; or European Studies 347, Topics in European Culture, Literature, Art, Music, and Media, chosen from an approved list
c. European Studies 308, Introductory Topics in European Economics, Government, Business, and Policy; or European Studies 348, Topics in European Economics, Government, Business, and Policy
ii Six additional hours of European studies coursework chosen from an approved list, only three hours of which may be lowerdivision
4. European Studies 375, Capstone Research in European Studies, in which the student prepares a thesis
5. Participation in an approved study abroad program or in an approved internship in Europe selected from a list available from the European studies faculty adviser

## Minor for European Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve hours must be taken in residence.

## French

## Major

1. Twenty-four semester hours of upper-division French, including French 320E, 322E, 326K, and 326L
2. French $340 \mathrm{C}, 340 \mathrm{P}$, or 340 T
3. Six hours of French courses numbered 350 or above

## Minor for French Majors

Either (1) twelve semester hours, including at least six hours of upperdivision coursework, in any one other field of study in the University; or (2) nine semester hours of coursework beyond 507 or the equivalent in a second foreign language, including at least three hours of upperdivision coursework. Six of the required semester hours must be taken in residence.

## Geography

## Major

Thirty semester hours of geography, at least eighteen of which must be upper-division, including

1. An eighteen-hour core requirement consisting of
a. Geography 301 C and one other course in physical geography
b. Geography 305 and one other course in human geography
c. Two geography courses in methods/techniques
2. At least nine semester hours in one of the following tracks:
a. Geographic information science
b. Cultural geography
c. Sustainability
d. General geography (designed for students who do not wish to specialize at the undergraduate level)
e. Urban geography
f. Earth science
g. Landscape ecology and biogeography

Courses used to fulfill the core geography requirement may not be counted toward the completion of a track. Lists of courses that fulfill the core geography requirement and of courses in each track are available in the Department of Geography and the Environment.

## Minor for Geography Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence.

## German

Major
Twenty-four semester hours of upper-division coursework in German, consisting of

1. German 328
2. Three additional semester hours in language, chosen from German $330 \mathrm{C}, 331 \mathrm{~L}$, or 336W
3. Nine semester hours in literature, culture, and linguistics, chosen from German 340C, 343C, 346L, and 347L
4. Six semester hours of topic seminars, chosen from German 363K, 369 , and 373
5. Three additional semester hours in German, chosen from German 340C, 343C, 346L, 347L, 348D, 356W, 363K, 366K, 369, or 373

Eighteen of the twenty-four semester hours must be taken in residence. German 149T, 249T, and 349T may not be counted toward a major in German.

## Minor for German Majors

Either (1) twelve semester hours, including at least six hours of upperdivision coursework, in any one other field of study in the University; or
(2) nine semester hours of coursework beyond 507 or the equivalent in a second foreign language, including at least three hours of upperdivision coursework. Six of the required semester hours must be taken in residence.

## German, Scandinavian, and Dutch Studies

## Major

Twenty-seven semester hours of coursework in German Scandinavian, and Dutch studies, including:

1. German, Scandinavian, and Dutch Studies 301
2. One tools course: language for research
a. One upper-division course in the same Germanic language used to fulfill the foreign-language requirement (usually German 328 or Norwegian 328); or
b. One language course in a second modern Germanic language (usually 604 or the equivalent); or
c. One course in an older Germanic language (Old Norse, MiddleHigh German, Gothic, etc.)
3. One foundations course out of three areas: film studies, narrative/ textual studies, or linguistics that stresses methodology/theory as well as content areas, chosen from an approved list
4. Five additional German, Scandinavian, and Dutch studies courses
a. Only one course may be lower-division
b. Additional foundations courses may be used to fill this requirement
c. Upper-division German courses may be substituted for up to three of the five German, Scandinavian, and Dutch studies courses; German 328 may not be used to fulfill this requirement
d. Other substitutions may be approved by the German, Scandinavian, and Dutch studies adviser.
5. German, Scandinavian, and Dutch Studies 377, Capstone Research in German, Scandinavian, and Dutch Studies

## Minor for German, Scandinavian, and Dutch Studies Majors

Either (1) twelve semester hours, including at least six hours of upperdivision coursework, in any one other field of study in the University; or
(2) nine semester hours of coursework beyond 507 or the equivalent in a second foreign language, including at least three hours of upper-
division coursework. Six of the required semester hours must be taken in residence.

## Government

## Major

Thirty semester hours of government, at least eighteen of which must be upper-division, including at least one upper-division course from each of three of the six fields into which the department's work is divided: (1) political theory, (2) American government and politics, (3) public and comparative law, (4) public policy, (5) comparative politics, and (6) international relations.

Government majors must also complete at least three semester hours in a tools course, chosen from Government 339L, Research Methods in Government; Government 341M, Decision Theory; Government 342N, Public Choice ; and Government 350K, Statistical Analysis in Political Science.

Students may choose to satisfy the tools course requirement by completing one of the following nongovernment course options; these courses may not be counted toward the semester hours and grade point average required for the major.
a. Three semester hours of statistics chosen from Economics 329; Educational Psychology 371; Mathematics 316; Psychology 418; Social Work 318; Sociology 317L; Statistics 309; Statistics and Data Sciences 302, 304, 305, 306
b. Three semester hours of logic, chosen from Philosophy 312, 313, 313K, 313Q; Tutorial Course 310 (for Plan II students)
c. Six semester hours of upper-division coursework in one foreign language, excluding courses conducted in English

All government majors must earn a grade of at least $C$ - in each course counted toward fulfillment of the major requirements. A minimum grade point average of 2.00 in courses taken at the University and counted toward the major is also required.

No more than six hours of internship coursework may be counted toward the major, including transfer credit earned in internship courses at other institutions of higher education.

No student may register for more than nine semester hours of government in one semester without the consent of an undergraduate adviser in the Department of Government.

## Minor for Government Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve hours must be taken in residence.

## Health and Society

## Major*

Thirty semester credit hours, including at least fifteen hour of upperdivision coursework, consisting of

1. Health and Society 301, Introduction to Health and Society
2. Three semester hours in each of the following:
a. Biology: three semester hours, chosen from Biology 301D, Biology for Business, Law, and Liberal Arts, Biology 311C, Introductory Biology I, Biology 309D, The Human Body
b. Social/behavioral epidemiology: three semester hours, chosen from Health Education 343, Foundations of Epidemiology,

Sociology 368D/Public Health 368D, Social Context of Public Health
c. Methods and statistics: three semester hours, chosen from an approved list
d. Social justice and health: three semester hours, chosen from an approved list
3. Nine semester hours, chosen from an approved list, in one of the following tracks:
a. Health and behavior
b. Cultural aspects of health
c. Health care and the economy
d. Population health
4. Three additional semester hours, chosen from any course offered from any of the tracks listed above. Alternatively, students wishing to pursue graduate studies or develop advanced research skills are encouraged to satisfy their "Additional Major Course" requirement by completing the optional three-hour H S Advanced Research Emphasis (ARE).
5. Health and Society 378, Seminar in Health and Society

## Minor for Health and Society Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence. If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the twelve semester hours may be lower-division but must include at least six hours beyond course 507 or the equivalent.

## *Pending approval by the Texas Higher Education Coordinating Board

History

## Major

Thirty semester hours of history, at least fifteen hours of which must be upper-division, including

1. At least six semester hours in United States history
2. At least six semester hours in European history
3. At least six semester hours in Latin American, African, Asian, or Middle Eastern history

At least three hours of non-United States history must be in upper-division coursework. All history majors must take History 350L or 350R as part of their thirty semester hours.

## Minor for History Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence. If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the twelve semester hours may be lower-division but must include at least six hours beyond course 507 or the equivalent.

## Humanities

## Major

Forty-two semester hours, including at least thirty hours of upper-division coursework, arranged by contract in consultation with the humanities
adviser. None of these forty-two hours may be counted toward the core curriculum or the prescribed work for the Bachelor of Arts degree.

Students normally enter the program in the sophomore or junior year. In developing the contract, the student and the adviser define objectives, central subject areas, and a general plan of study, structured in accordance with the student's interests. With the approval of the humanities adviser, the student chooses one of the following tracks:

1. Track One
a. Nine semester hours in a single field of study in the College of Liberal Arts
b. Nine hours in one or more other fields of study in the College of Liberal Arts
c. Nine hours in any field or fields outside the College of Liberal Arts
d. Nine additional hours in any field or fields at the University
e. Six hours of upper-division coursework in humanities, including Humanities 370
2. Track Two
a. Twelve semester hours in a single field of study in the College of Liberal Arts
b. Nine hours in a second field of study in the College of Liberal Arts
c. Fifteen additional hours in any field or fields at the University
d. Six hours of upper-division coursework in humanities, including Humanities 370

Students in the Humanities Honors Program must use Humanities 679HA and 679 HB to fulfill requirements 1 e or 2 d .

## Iberian and Latin American Languages and Cultures

## Major

1. Three semester hours of grammar and writing: Spanish 327C, Advanced Grammar and Writing in Context, or Portuguese 327C, Advanced Grammar and Writing in Context
2. One introductory course in language and linguistics in society: Spanish 330L, Introduction to Language and Linguistics in Society, or Portuguese 330L, Introduction to Language and Linguistics in Society
3. One introductory course in literatures and cultures: Spanish 328C, Introduction to Literatures and Cultures, or Portuguese 328C, Introduction to Literatures and Cultures
4. Fifteen additional semester hours of coursework in Spanish, Portuguese, or Spanish and Portuguese
a. Students completing the majority of their coursework in Spanish must take at least one course in Portuguese or Portuguese civilization (PRC). Students completing the majority of their coursework in Portuguese must take at least one course in Spanish or Spanish civilization (SPC).
5. One capstone seminar, chosen from the following:
a. Spanish 379L, Capstone Seminar in Linguistics
b. Portuguese 379L, Capstone Seminar in Linguistics
c. Spanish 379C, Capstone Seminar in Literatures and Cultures
d. Portuguese 379C, Capstone Seminar in Literatures and Cultures

## Minor for Iberian and Latin American Languages and Cultures Majors

Either (1) twelve semester hours, including at least six hours of upperdivision coursework, in any one other field of study in the University; or (2) nine semester hours of coursework beyond 507 or the equivalent
in a second foreign language, including at least three hours of upperdivision coursework. Six of the required semester hours must be taken in residence.

## International Relations and Global Studies

## Major

Thirty-nine semester hours of coursework, at least twenty-four of which must be upper-division, consisting of the following:

1. Fifteen hours in the following five core courses in the major:
a. International Relations and Global Studies 301
b. A three-semester-hour course chosen from the following: Economics 301, Introduction to Economics; Economics 304K, Introduction to Microeconomics; or Economics 304L, Introduction to Macroeconomics
c. Geography 305, This Human World: An Introduction to Geography
d. World history: A three-semester-hour course in world (non-United States) history, chosen from a list of approved courses available in the advising office
e. A three-semester-hour course chosen from the following: Anthropology 302, Cultural Anthropology Economics 304K, Introduction to Microeconomics Economics 304L, Introduction to Macroeconomics Radio-Television-Film 312C, Introduction to Global Media Sociology 302, Introduction to the Study of Society
2. International Relations and Global Studies 320F, Foundations of International Relations and Global Studies
3. Twelve hours of upper-division coursework in one of the following tracks, chosen from a list of approved courses available in the advising office:
a. Culture, media, and the arts
b. International security
c. Science, technology, and environment
d. International political economy
4. Six hours of upper-division coursework in a single foreign language
5. International Relations and Global Studies 378, Capstone Research in International Relations and Global Studies; or, for students seeking special honors, International Relations and Global Studies 678H, Honors Tutorial Course

International relations and global studies majors must participate in an approved study abroad program. A list of approved programs is available from the faculty adviser. A student who graduated from an international high school may petition to be excused from this requirement. Documentation is required, and the petition must be approved by the faculty adviser and the associate dean for academic affairs.

## Minor for International Relations and Global Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in one of the following fields: African and African Diaspora studies; Asian studies; European studies; Latin American studies; Middle Eastern studies; Russian, East European, and Eurasian studies; or a cultural area approved by the faculty adviser. Majors minoring in African and African Diaspora studies must choose courses from an approved list. Six of the required twelve semester hours must be completed in residence.

## Islamic Studies

## Major

Twenty-four semester hours of coursework in Islamic studies, including eighteen hours of upper-division coursework. The coursework consists of

1. Islamic Studies 310, Introduction to Islam
2. Three semester hours chosen from Islamic Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction); Religious Studies 305, Introduction to the Philosophy of Religion; Religious Studies 310, Introduction to the Study of Religion
3. Nine semester hours in Islamic Studies 340, Topics in Islam
4. Six semester hours in Islamic Studies 372, Topics in Islamic Cultures
5. Three additional semester hours of upper-division coursework in Islamic studies

Students must complete the equivalent of at least two years in Arabic, Persian, Turkish, Urdu, or Yoruba. Credit used to fulfill this requirement may also be used to fulfill the foreign language requirement.

## Minor for Islamic Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the twelve hours may be lower-division but must include at least six hours beyond course 507 or the equivalent. Six of the required twelve semester hours must be taken in residence.

## Italian

## Major

Twenty-four semester hours of upper-division coursework in Italian, including Italian 321, 328, and 329. Three semester hours chosen from Italian Civilization 349 or 360 may be counted toward this requirement.

## Minor for Italian Majors

Either (1) twelve semester hours, including at least six hours of upperdivision coursework, in any one other field of study in the University; or (2) nine semester hours of coursework beyond 507 or the equivalent in a second foreign language, including at least three hours of upperdivision coursework. Six of the required semester hours must be taken in residence.

## Jewish Studies

## Major

Twenty-seven semester hours of coursework in Jewish studies, including Jewish Studies 304M or 304N, at least three additional hours of lowerdivision coursework, and eighteen hours of upper-division coursework. Students must complete six hours in each of the following areas:

1. Humanities and arts: Jewish Studies 363 and comparable courses identified by the faculty adviser
2. History and social science: Jewish Studies 364, 365, and comparable courses identified by the faculty adviser

Students are encouraged but not required to use Hebrew or Yiddish to fulfill the foreign language requirement.

## Minor for Jewish Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the twelve hours may be lower-division but must include at least six hours beyond course 507 or the equivalent. Six of the required twelve semester hours must be taken in residence.

## Latin American Studies

## Major

Twenty-seven semester hours, at least eighteen hours of which must be upper-division, including

1. Latin American Studies 301
2. Latin American Studies 337M
3. One of the following social sciences: Latin American Studies 315, 319, 324L, 325, 330, 355
4. Latin American Studies 366
5. Three hours, chosen from the following: Latin American Studies 326, 327, 328, 370P , or 370S
6. Nine additional hours of Latin American studies, of which six must be upper-division
7. Latin American Studies 378

Students must complete the equivalent of at least two years in Spanish or Portuguese. Credit used to fulfill this requirement may also be used to fulfill the foreign language requirement.

## Minor for Latin American Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence. If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the twelve semester hours may be lower-division but must include at least six hours beyond course 507 or the equivalent.

## Linguistics

## Major

Twenty-four semester hours of coursework in linguistics, consisting of Linguistics 306, 344K, 345, 372K, 372L, and nine additional hours of upper-division coursework in linguistics. Students should consult the undergraduate adviser for information about counting other courses toward the major requirements.

## Minor for Linguistics Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence. If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the twelve hours may be lower-division but must include at least six hours beyond course 507 or the equivalent.

## Mexican American Studies

[^3]2. Twenty-one semester hours of upper-division coursework in Mexican American studies, including Mexican American Studies 350 and either 361 or 362 ; any upper-division Spanish course may be substituted for 350
3. Twelve additional semester hours of coursework in Mexican American studies

Students must use Spanish to fulfill the foreign language requirement.

## Middle Eastern Languages and Cultures

The major in Middle Eastern languages and cultures is offered with specialization in one of two tracks: literature and culture, or language.

## Major

Twenty-four semester hours, at least twenty-one of which must be upperdivision, consisting of the following:

1. Middle Eastern Languages and Cultures 301
2. Middle Eastern Languages and Cultures 323
3. Six semester hours of upper-division coursework in a single Middle Eastern language, chosen from Arabic, Hebrew, Persian, or Turkish, but excluding coursework conducted in English
4. An additional twelve semester hours of upper-division coursework in one of the following tracks:
a. Literature and culture: Middle Eastern languages and cultures coursework in Arabic-, Hebrew-, Persian-, and Turkish-speaking cultures and literatures
b. Language: upper-division language coursework in Arabic, Hebrew, Persian, or Turkish; may be in a second Middle Eastern language, but excluding coursework conducted in English

## Minor for Middle Eastern Languages and Cultures Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. If the minor is in a foreign language other than that used to fulfill the foreign language requirement or the major, the twelve semester hours may be lowerdivision but must include at least six hours beyond course 507 or the equivalent. Six of the required twelve semester hours must be taken in residence.

## Middle Eastern Studies

## Major

Twenty-four semester hours of coursework in Middle Eastern studies, eighteen hours of which must be upper-division coursework, consisting of the following:

1. Middle Eastern Studies 301K and 301L
2. Six semester hours of upper-division coursework in a Middle Eastern language (Arabic, Hebrew, Persian, or Turkish)
3. Three semester hours of upper-division coursework in each of the following areas:
a. Social science: Middle Eastern Studies 341, Topics in the Middle East: Social Science.
b. Arts and humanities: Middle Eastern Studies 342, Topics in the Middle East: Arts and Humanities.
c. History: Middle Eastern Studies 343, Topics in the Middle East: History.
4. Three additional semester hours of upper-division coursework in Middle Eastern studies.

Students must complete the equivalent of at least two years of a Middle Eastern language (normally Arabic, Hebrew, Persian, or Turkish). Credit used to fulfill this requiement may also be used to fulfill the foreign language requirement.

## Minor for Middle Eastern Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the twelve hours may be lower-division but must include at least six hours beyond course 507 or the equivalent. Six of the required semester hours must be taken in residence.

## Philosophy

## Major

Twenty-seven semester hours of philosophy, at least eighteen of which must be upper-division, including

1. Three hours of symbolic logic: Philosophy 313, 313K, or 313Q
2. Philosophy 329 K or 329 L , which may also be counted toward requirement 3 or 4 below
3. Three hours of ancient philosophy: Philosophy 301K or 329K
4. Three hours of early modern philosophy: Philosophy 301L or 329L
5. Six hours chosen from Philosophy $321 \mathrm{~K}, 323 \mathrm{~K}, 323 \mathrm{M}, 325 \mathrm{~K}$, and 332

## Minor for Philosophy Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required semester hours must be taken in residence.

## Psychology

## Major

Twenty-eight semester hours of psychology, at least eighteen of which must be upper-division, including Psychology 301 and 418 with a grade of at least $C$ in each. Students may take courses from a variety of areas within the field of psychology, including clinical psychology, cognition, developmental psychology, evolutionary psychology, language, neuroscience, perception, and social psychology.

Psychology majors must earn a grade of at least $C$ in Psychology 418 to register for upper-division psychology courses. Students may not enroll in Psychology 418 more than twice.

Psychology 357 and 359 are offered on the pass/fail basis only; they may not be counted toward the twenty-eight hours in psychology required for the major.

## Minor for Psychology Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the twelve semester hours must be taken in residence.

## Religious Studies

## Major

Thirty semester hours of religious studies coursework, of which at least eighteen hours must be upper-division. A single course may not be counted toward more than one of the following requirements. The thirty hours of coursework must include

1. In each of the following areas, at least three semester hours chosen from a list of courses available from the religious studies adviser:
a. Area I: Religions of Asia
b. Area II: Religions of Europe, the Middle East, and Africa
c. Area III: Religions of the Americas
d. Area IV: Approaches to the study of religion and comparative studies of religion
2. Primary area: Six additional hours of upper-division coursework in one of these four areas chosen in consultation with the religious studies adviser
3. Religious Studies 375S, Advanced Seminars in Religious Studies

## Minor for Religious Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence. If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the twelve hours may be lower-division but must include at least six hours beyond course 507 or the equivalent.

## Rhetoric and Writing

## Major

Twenty-seven semester hours of coursework in rhetoric and writing, at least eighteen of which must be upper-division, consisting of

1. Rhetoric and Writing 306, Rhetoric and Writing
2. Rhetoric and Writing 321, Principles of Rhetoric
3. Each of the following courses (any topic):
a. Rhetoric and Writing 330C, Advanced Studies in Digital Rhetoric
b. Rhetoric and Writing 330D, History of Rhetoric
c. Rhetoric and Writing 330E, Rhetorical Theory and Analysis
4. Three hours chosen from Rhetoric and Writing 310, 325M, 328 (any topic), 368C, or 368E
5. Nine additional semester hours in rhetoric and writing, including six hours of upper-division coursework

## Minor for Rhetoric and Writing Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence.

## Russian, East European, and Eurasian Studies <br> Major

Students select one of two tracks:

1. Russian, East European, and Eurasian area studies, consisting of twenty-four semester hours of coursework:
a. Russian, East European, and Eurasian Studies 301
b. Six hours of upper-division coursework in a Slavic, Central Asian, or East European language
c. Eighteen semester hours of upper-division coursework, chosen from a list of courses approved by the Advisory Committee of the Program for Russian, East European, and Eurasian Studies

Students pursuing track (I), area studies, must complete a total of three years of language study in a Slavic, Central Asian, or East European language
2. Russian, East European, and Eurasian area studies with a language concentration, consisting of twenty-four semester hours of coursework:
a. Russian, East European, and Eurasian Studies 301
b. Twelve hours of upper-division coursework in a Slavic, Central Asian, or East European language; credit used to fulfill this requirement may also be used to fulfill the foreign language requirement.
c. Eighteen semester hours of upper-division coursework, chosen from a list of courses approved by the Advisory Committee of the Program for Russian, East European, and Eurasian Studies

Students pursuing track (II), area studies with a language concentration, are encouraged to study their chosen language over the summer or to take a fourth year.

Both tracks are designed to allow students considerable opportunity to shape their coursework around their interests.

## Minor for Russian, East European, and Eurasian Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required semester hours must be taken in residence. If the minor is in a foreign language other than that used to fulfill the foreign language requirement, the twelve hours may be lower-division but must include at least six hours beyond course 507 or the equivalent.

## Sociology

## Major

At least twenty-seven semester hours of coursework in sociology, including Sociology 302, 317L, 317M, and 379M. At least fifteen semester hours must be in upper-division courses. Sociology majors must earn grades of at least $C$ in Sociology 302, 317L, and 317M. To enroll in Sociology 317M for a second time, a student must have the consent of a sociology undergraduate adviser. Students may not enroll in Sociology 317 M more than twice.

In place of Sociology 317L, students may complete one of the following alternative courses with a grade of at least $C$ : Mathematics 316, Statistics and Data Sciences 303, 304, 305, 306. If the student completes one of these courses instead of Sociology 317L, that course is counted toward the twenty-seven hours required for the major and is included in the major grade point average.

## Minor for Sociology Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required semester hours must be taken in residence.

## Urban Studies

The Urban Studies degree program is administered by the Department of Geography and the Environment. Students must be admitted to the degree program. They may apply for admission after completing the following requirements: Mathematics 408C or 408K with a grade of at least $B$-; Mathematics 316 or Statistics and Data Sciences 305 with a grade of at least $B$-. Other comparable courses may be used if approved.

## Major

Twenty-four semester hours of coursework, consisting of

1. Urban Studies 301, 315, and 360
2. Urban Studies 370 or an approved equivalent course
3. Twelve additional hours of upper-division coursework in urban studies

## Minor for Urban Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence.

## Women's and Gender Studies

## Major

Thirty semester hours of coursework in women's and gender studies, eighteen hours of which must be upper-division. It is recommended that six semester hours be taken in women's and gender studies courses originating from outside the College of Liberal Arts. The thirty required semester hours must include the following:

1. Women's and Gender Studies 301, Introductory Topics in Women's and Gender Studies or Women's and Gender Studies 305, Introduction to Women's and Gender Studies
2. Six hours in Women's and Gender Studies 340, Cross-Cultural Topics in Women's and Gender Studies
3. Women's and Gender Studies 350, Feminist Theory, or another feminist theory course chosen from a list of courses approved by the Center for Women's and Gender Studies
4. Women's and Gender Studies 356, Introduction to Feminist Research Methods, or another research methods course chosen from a list of courses approved by the Center for Women's and Gender Studies
5. Women's and Gender Studies 379L, Internship in Women's and Gender Studies, or Women's and Gender Studies 360, Research and Thesis in Women's and Gender Studies
6. Women's and Gender Studies 379S, Senior Seminar

## Minor for Women's and Gender Studies Majors

Twelve semester hours, including at least six hours of upper-division coursework, in any one other field of study in the University. Six of the required twelve semester hours must be taken in residence.

## Bachelor of Arts, Plan II

The Plan II Honors Program is designed to provide a broad, liberal, and challenging education for a limited number of students whose high school class standing and admission test scores indicate strong academic potential and motivation. The enrollment in Plan II is limited; admission to the program is separate from and in addition to admission to the

University. Application materials and information about deadlines are available online at http://www.bealonghorn.utexas.edu/.

The Plan II Honors Program is not available to transfer applicants. Disappointed transfer applicants interested in the liberal arts are encouraged to seek departmental honors tracks in the College of Liberal Arts. More information about departmental honors programs is available in the Academic Policies and Procedures ( p .285 ) section.

The Plan II Honors Program includes the basic coursework required of Plan I students, but much of this work is done in small sections that are restricted to Plan II students and taught by professors selected for their excellent teaching records. Additional required courses explore the humanities, the natural sciences, and the social sciences and provide considerable opportunity for individual research, writing, and speaking. The remainder of the student's program is made up of approved electives.

The academic programs of most Plan II students include thirty-six semester hours or more of elective coursework. The student may use electives to pursue a second major in the College of Liberal Arts or the College of Natural Sciences. Dual degree programs are available in conjunction with most other undergraduate colleges.

Qualified students who are accepted into both the Plan II Honors Program and the Cockrell School of Engineering may pursue a curriculum leading to both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering. Students interested in this dual degree program must apply both to Plan II and to the Cockrell School. Further information is available from the director of Plan II and from the Office of Student Affairs in the Cockrell School.

Qualified students who are accepted into both the Plan II Honors Program and the McCombs School of Business may pursue a curriculum leading to both the Bachelor of Arts, Plan II, and the Bachelor of Business Administration. Students interested in this dual degree program must apply both to Plan II and to the McCombs School of Business. Further information is available from the director of Plan II and from the McCombs School.

A dual degree program is also available that leads to the degrees of Bachelor of Arts, Plan II, and Bachelor of Architecture. Students must apply both to Plan II and to the School of Architecture. Additional information is available from the director of Plan II and from the School of Architecture.

In addition to the following requirements, the student must fulfill the University's General Requirements (p. 17) and the requirements of the College of Liberal Arts given in Special Requirements of the College (p. 292).

## Special Requirements

Students who fail to maintain a University grade point average of at least 3.25 will be considered for academic dismissal from Plan II. All students whose grade point average falls below 3.25 but not below 2.50 will be put on academic review. Students whose grade point average falls below 2.50 at any point after their first semester in Plan II will be dismissed from the program. In addition, any student who fails one of the following required courses will be dismissed from the program: English 603A, 603B, Philosophy 610QA, 610QB, Social Science 301, Tutorial Course 302, 603A, 603B, 357, 359T, 660HA, 660HB. Students may only register for Tutorial Course 660H or 359T if their University grade point average is 3.25 or higher. All of these stipulations may be appealed and exceptions may be made on a case-by-case basis by the director of Plan II in consultation with the associate director, assistant director, and academic advisers. A student who is academically dismissed from the Plan II program is eligible to continue to enroll in the College of Liberal

Arts in another academic program if the student fulfills the academic requirements for the Bachelor of Arts, Plan I, and the scholastic standards for continuance in the University given in the General Information Catalog (http://catalog.utexas.edu/general-information). Students in scholastic difficulty should discuss their problems with a Plan II academic adviser and the director.

## Choice of Work

A degree program must include at least 120 semester hours, including at least thirty-six hours of upper-division coursework. Without special permission from the director and the dean, no more than thirty-six hours in one field of study in the College of Liberal Arts or the College of Natural Sciences and no more than thirty-six hours in courses offered in any other college or school may be counted toward the degree.

Plan II students may use credit by examination to fulfill certain program requirements. More information on testing policies and credit by examination is available from a Plan II academic adviser.

Tutorial Course 302 and two semesters of Tutorial Course 357 are required. Tutorial Course 660 H is required of students seeking special honors in Plan II, students pursuing the Plan II degree alone, and students writing creative theses. In exceptional situations, students completing dual degree programs may be approved by the Plan II associate director to enroll in Tutorial Course 359T, Essay Course, in lieu of Tutorial Course 660 H . Other requirements for the Bachelor of Arts, Plan II, are outlined below. All courses offered in the Plan II Honors Program are subject to approval by the Plan II Faculty Advisory Committee; in some areas the committee will prescribe certain courses for all students in the program. Current information on these matters is available in the Plan II office.

All students must complete the University's Core Curriculum (p. 20). In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete courses with content in the following four areas:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course

Courses with sufficient content in these areas will be identified in the Course Schedule by the appropriate flags. A course may carry more than one flag. The School of Undergraduate Studies monitors flagged courses to ensure that they meet the guidelines set by the General Faculty.

The following are the specific requirements of the Plan II program. In some cases, a course that is required for the BA, Plan II, may also be counted toward the core curriculum; these courses are identified below.

1. English 603 or Tutorial Course 603. Either course also meets the English composition and humanities requirements of the core curriculum.
2. Two courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag. One of these courses must be upper-division. Courses that carry a writing flag are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. Proficiency in a language other than English is required. The study of a second language contributes in an important way to a broad education for today's students, who live in a world where the overwhelming majority of people do not speak or read English and where much of the knowledge that is disseminated may never
appear in English. Knowledge of a second language is important for an appreciation of the culture of the people using that language, and it also helps students to understand the structure and complexities of their own native language. Students with sufficient preparation may be able to use the second language for study in their chosen discipline. An intermediate level of competency as determined by the completion of any one of the following options:
a. Certified proficiency on a placement or credit-by-exam test.
b. Students with previous experience in the language they plan to use to meet the language requirement must take a language placement test. A student may not select for credit a language course below this placement level without departmental permission.
c. A passing grade in a language course listed below:

## Requirements

| ASL 611C | Accelerated Second-Year American Sign Language | 6 |
| :---: | :---: | :---: |
| ASL 311D | American Sign Language III: Intermediate | 3 |
| ASL 312L | Second-Year American Sign Language II | 3 |
| ARA 611C | Intensive Arabic II | 6 |
| BEN 312L | Second-Year Bengali II | 3 |
| CHI 612 | Accelerated Second-Year Chinese | 6 |
| CHI 412L | Second-Year Chinese II | 4 |
| CZ 611C | Intensive Czech II | 6 |
| CZ 412L | Second-Year Czech II | 4 |
| DAN 612 | Accelerated Second-Year Danish | 6 |
| DCH 612 | Accelerated Second-Year Dutch | 6 |
| FR 611C | Intermediate French | 6 |
| GER 612 | Accelerated Second-Year German: Readings in Modern German | 6 |
| GK 312K | Intermediate Greek II | 3 |
| GK 412 | Intensive Greek | 4 |
| GK 312L | Intermediate Greek II: Biblical Greek | 3 |
| GK 610C | Intermediate Modern Greek | 6 |
| GK 310K | Second-Year Modern Greek II | 3 |
| HEB 612C | Intensive Biblical Hebrew II | 6 |
| HEB 611C | Intensive Hebrew II | 6 |
| HIN 312L | Second-Year Hindi II | 3 |
| ITL 611C | Intermediate Italian | 6 |
| JPN 611D | Intermediate Japanese | 6 |
| KOR 412L | Second-Year Korean II | 4 |
| LAT 312K | Intermediate Latin II | 3 |
| MAL 312L | Second-Year Malayalam II | 3 |
| NOR 612 | Accelerated Second-Year Norwegian | 6 |
| PSH 312L | Second-Year Pashto II | 3 |
| PRS 611C | Intensive Persian II | 6 |
| PRS 612C | Intensive Persian for Heritage Speakers | 6 |
| POL 312L | Second-Year Polish II | 3 |
| POR 611D | Intermediate Portuguese II | 6 |
| RUS 611C | Intensive Russian II | 6 |
| RUS 412L | Second-Year Russian II | 4 |
| SAN 312L | Second-Year Sanskrit II | 3 |
| S C 312L | Second-Year Serbian/Croatian II | 3 |
| SEL 611C | Intensive Slavic and Eurasian Languages II | 6 |
| SEL 312L | Second-Year Slavic and Eurasian Languages II | 3 |
| SPN 611D | Intermediate Spanish II | 6 |

3
3636

RUS 412L Second-Year Russian II 4

S C 312L Second-Year Serbian/Croatian II 3

SEL 312L Second-Year Slavic and Eurasian Languages II 3
SPN 611D Intermediate Spanish II 66

| SPN 612 | Accelerated Intermediate Spanish for Heritage <br> Learners | 6 |
| :--- | :--- | :--- |
| SWA 611C | Intensive Swahili II | 6 |
| SWE 612 | Accelerated Second-Year Swedish | 6 |
| TAM 312L | Second-Year Tamil II | 3 |
| TEL 312L | Second-Year Telugu II | 3 |
| TUR 611C | Intensive Turkish II | 6 |
| URD 312L | Second-Year Urdu II | 3 |
| YID 612 | Accelerated Second-Year Yiddish | 6 |
| YOR 312L | Second-Year Yoruba II | 3 |

d. Students who wish to meet the requirement with proficiency in a language not listed in the table above should contact the Texas Language Center (http://www.utexas.edu/cola/centers/tlc).
4. Social Science 301. This course also meets the social and behavioral sciences requirement of the core curriculum.
5. Six semester hours of non-United States history in the same geographic area.
6. Eighteen semester hours of coursework as outlined below. To satisfy the core curriculum and the mathematics and natural science requirement of the BA, Plan II, a student may count (1) no more than twelve hours in mathematics, computer science, and statistics and scientific computation combined; and (2) no more than nine hours in any single field of study. Substitutions do exist for some of the requirements outlined below; each Plan II student should meet with a Plan II academic adviser to discuss her/his individual academic plan.
a. Mathematics 310P. This course also meets the mathematics requirement of the core curriculum. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward this requirement. Students who enter the University with fewer than three units of high school mathematics at the level of Algebra I or higher must take Mathematics 301 or 303D without degree credit to remove their deficiency.
b. A three-hour course in logic or modes of reasoning designated for Plan II students, currently Tutorial Course 310 or a section of Philosophy 313Q.
c. Six hours of coursework in astronomy, biology, chemistry, geological sciences, physical science, or physics. This coursework may be used to fulfill the science and technology, part I , requirement of the core curriculum.
d. Biology 301E and Physics 321. Either of these courses may also be used to fulfill the science and technology, part II, requirement of the core curriculum. A three-hour course in astronomy, chemistry, or geological sciences designated for Plan II students may be taken in place of Physics 321.
e. Any remaining courses needed to provide eighteen hours of work must be chosen from the following fields. No more than three hours may be in the history of science or the philosophy of science. A list of approved alternative courses (items 10 and 11) is available in the Student Division and on the College of Liberal Arts Web site (http://www.utexas.edu/cola/student-affairs/Majors-and-Degrees/Course-Lists.php)
i Astronomy
ii Biology
iii Chemistry
iv Geological sciences
v Marine science
vi Nutrition
vii Physical science
viii Physics
ix Mathematics, computer science, and statistics and data sciences
x Other alternative science courses approved by the dean
xi Approved alternative courses in history of science and philosophy of science
7. Philosophy 610Q.
8. An approved three-hour course in art history, music history, or history of theatre and dance; or a three-hour upper-division course in classical civilization, humanities, literature, or philosophy.

## Electives

In addition to the core curriculum and the preceding specific requirements, the student must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than twelve hours of conference courses and internship courses combined as described in Conference Courses and Internship Courses (p. 293); twelve hours of Bible; nine hours of designated coursework in air force science, military science, or naval science; nineteen hours completed on the pass/fail basis; thirty-six hours in any one field of study in the College of Liberal Arts or the College of Natural Sciences; and thirty-six hours in any other single college or school of the University. Mathematics courses at the level of college algebra may not count toward elective hours.

## Order of Work

The usual order of work for students in Plan II is outlined below, although it is possible to make exceptions when there is good reason for doing so. There is some variation in the order of work for students in premedical, predental, and dual degree programs, for teacher certification candidates, and for students concentrating in science. Students in these areas should consult the director or an academic adviser.

## Suggested Four-Year Plan

## First Year:

- Tutorial Course 603 or English 603
- Biology 301E, Mathematics 310P, and Philosophy 313Q or Tutorial Course 310
- Six semester hours of non-United States history
- Foreign language courses
- Tutorial Course 302
- A three-semester-hour elective


## Second Year:

## - Philosophy 610Q

- Three semester hours in mathematics or natural science
- Government 310L and 312L
- Foreign language courses
- Social Science 301
- A three-semester-hour elective


## Third and Fourth Years:

- Three semester hours in the visual and performing arts
- Three semester hours of humanities or courses in the history of fine arts
- Six semester hours of American history
- Six semester hours of Tutorial Course 357
- Tutorial Course 359T or 660H
- Physics 321 and three additional hours of science
- Elective courses sufficient to make a total of at least 120 semester hours, with only upper-division courses usually being approved for third- and fourth-year students


## Bachelor of Science in Environmental Science

The Bachelor of Science in Environmental Science degree program is designed for students interested in an interdisciplinary scientific perspective on environmental and sustainability issues, analysis, and management. The degree program provides the broad foundation in physical, life, and social sciences needed for a career or graduate study in environmental science and related fields such as climate change, ecology, and conservation. Students who complete the program successfully will be able to assess environmental issues critically from multiple perspectives; to perform field, laboratory, and computer analyses; and to conduct original research. The program is designed to prepare graduates for careers in local, state, and federal government laboratories and nonprofit agencies, environmental consulting firms, environmental education and outreach agencies, and universities and other research settings. 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. Students may earn only one Bachelor of Science in Environmental Science degree from the University.

Students must apply for admission to the degree program after completing prerequisite coursework. To be competitive for admission, students should have a grade point average of at least 2.75. More information about admission requirements is given in The Bachelor of Science in Environmental Science (p. 285).

The BSEnviroSci curriculum consists of 126 semester hours of coursework. All students must complete the University's Core Curriculum. The specific requirements consist of prescribed work, major requirements, and electives. In some cases, a course that is required for the degree may also be counted toward the core curriculum. In addition, for the major in geographical sciences, courses used to fulfill the University core curriculum requirements or the prescribed work below may also be counted toward the major requirements where applicable.

A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills one requirement may also be used to fulfill a flag requirement.

In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete courses with content in the following four areas:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course

Courses with sufficient content in these areas will be identified in the Course Schedule by the appropriate flags. A course may carry more than one flag. The School of Undergraduate Studies monitors flagged courses to ensure that they meet the guidelines set by the General Faculty.

The student must fulfill the University's General Requirements (p. 17) for graduation and the requirements of the College of Liberal Arts given earlier in this section. Graduation requirements include a grade point
average of at least 2.00 in all courses taken at the University (including credit by examination, correspondence, and extension) for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded. In addition, a grade of at least $C$ - is required in each mathematics and science course specifically required by the degree.

More information about grades and the grade point average is given in the General Information Catalog (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/computation-of-the-grade-point-average).

## Prescribed Work

1. Mathematics: Mathematics 408C, or 408 N and 408 S
2. Chemistry: Chemistry 301 or $301 \mathrm{H} ; 302$ or 302 H ; and 204
3. Physics: 317 K and 117 M , or another four-hour calculus-based physics sequence
4. Biological sciences: Biology 311C and 311D, or 315H
5. Ecology: Biology 373 and 373L, or Marine Science 320 and 120L or 152T (Topic: Marine Ecology) (Marine Science 320 may not be used to satisfy both requirement 5 and requirement 10.)
6. Geological sciences: Geological Sciences 401 or $303,346 \mathrm{C}$, and an approved geological sciences course in sustainability
7. Geography: Geography 335N
8. Field experience: One course in each of the following areas
a. Introductory field seminar: Environmental Science 311
b. Senior field/research experience: Environmental Science 371, Geography 373F, 373K
9. Research methods: Environmental Science 331
10. Environmental and sustainability themes: One course in each of the following thematic areas:
a. Environmental and sustainability policy, ethics, and history: Geography 334, 336C, 340D, 342C, 356C, 356T (approved topics), Philosophy 325C
b. Geographic information systems: Geography 360G, 462K, Geological Sciences 327G
c. Climates and oceans: Biology 456L, Geography 333K, 356T (approved topics), Geological Sciences 371C (approved topics), 377P, Marine Science 320, 440, 354Q, 354T, 367K
(Marine Science 320 may not be used to satisfy both requirement 5 and requirement 10.)
d. Environmental economics, sustainability, and business: Economics 304 K , 330T
11. Environmental Science 141 and 151

## Additional Prescribed Work

1. Writing and Literature: English 316L, 316M, 316N, or 316P, and two courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag. One of these courses must be upper-division. Courses that carry a writing flag are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
2. Foreign language/culture: One of the following foreign language/ culture choices:
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area chosen from a list of approved courses available in the Student Division or from the undergraduate adviser.

Courses taken to attain a certain level of proficiency in a foreign language are not electives and cannot be taken on the pass/fail basis.
3. Social science: Three semester hours chosen from a list of approved courses, in addition to the course used to fulfill the social and behavioral sciences requirement of the core curriculum. Courses on the approved list are primarily in anthropology, economics, geography, linguistics, psychology, and sociology, but not every course in these fields is approved.

The list is available each semester in the Student Division and on the College of Liberal Arts Web site (http://www.utexas.edu/cola/student-affairs/Majors-and-Degrees/Course-Lists.php).
4. Cultural expression, human experience, and thought: Three semester hours of approved coursework. The course must be in a field of study taught in the College of Liberal Arts. A course counted toward any requirement of the core curriculum may not also be counted toward this requirement.
A list of approved courses is available each semester in the Student Division and on the College of Liberal Arts Web site (http:// www.utexas.edu/cola/student-affairs/Student-Services/Majors-and-Degrees/Course-Lists.php).

## Major Requirements

The following thirty semester hours of coursework are required; these hours must include at least eighteen hours of upper-division coursework.

1. Geography 301C and 304E
2. Twenty-four additional hours of coursework in geography, selected from Geography 301K, 333C, 333K, 334C, 334K, 335C, 335K, 335N, 338C, 339, 346, 356T (approved topics), 357, 360G, 462K, 464K, 366C, 366K, 367K, 470C, and 476T (approved topics)
3. A grade point average of at least 2.00 in the thirty hours of geography coursework required for the major

## Electives

In addition to the core curriculum, prescribed work, additional prescribed work, and major requirements, the student must complete enough elective coursework to provide the 126 semester hours required for the degree. These 126 hours may include no more than twelve hours of conference courses and internship courses combined as described in Conference Courses and Internship Courses (p. 293); twelve hours of Bible courses; nine hours of designated coursework in air force science, military science, or naval science; sixteen hours completed on the pass/fail basis; thirty-six hours in any one field of study offered in the College of Liberal Arts or the College of Natural Sciences, unless major requirements state otherwise; and thirty-six hours in courses offered in any other single college or school of the University. Mathematics courses at the level of college algebra may not count toward elective hours.

## Bachelor of Science in Psychology

As an alternative to the Bachelor of Arts degree, the Bachelor of Science in Psychology is designed to offer students a more extensive scientific program that may better prepare them for graduate study or employment in research fields. Students interested in mathematicsbased or physiology-based areas of psychology have the opportunity to develop more breadth and depth in the fields that complement their area of interest within psychology. To accomplish this goal, the curriculum for the Bachelor of Science in Psychology puts more emphasis on natural sciences and less on language arts.

A student may not earn both the Bachelor of Arts with a major in psychology and the Bachelor of Science in Psychology.

A total of 120 semester hours is required. Thirty-six hours must be in upper-division courses. At least sixty hours, including eighteen hours of upper-division coursework, must be completed in residence at the University; at least twenty-four of the last thirty hours must be completed in residence at the University. Provided these residence rules are met, credit may be earned by examination, by extension, by correspondence (up to 30 percent of the hours required for the degree), or, with the approval of the dean, by work transferred from another institution. Up to sixteen semester hours of classroom and/or correspondence coursework may be taken on the pass/fail basis; this coursework may be counted only as electives.

Students in this degree program may pursue any of the honors programs available to Bachelor of Arts, Plan I, students. These programs are described in the section Liberal Arts Honors Programs, Plan I (p. 285).

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete courses with content in the following four areas:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course

Courses with sufficient content in these areas will be identified in the Course Schedule by the appropriate flags. A course may carry more than one flag. The School of Undergraduate Studies monitors flagged courses to ensure that they meet the guidelines set by the General Faculty.

The specific requirements for the Bachelor of Science in Psychology consist of prescribed work, the major, the minor, and electives. Only in the following cases may a single course be counted toward more than one requirement:

1. A course that fulfills a core curriculum requirement may also be counted toward any specific requirement of the BSPsy unless otherwise stated below.
2. Courses counted toward the prescribed work may also be counted toward the major.
3. Up to three hours of coursework counted toward the prescribed work or toward the core curriculum may also be counted toward the minor.
4. A course that fulfills another requirement may also be used to fulfill a flag requirement.

The student must fulfill the University's General Requirements (p.
17) for graduation and the requirements given in the sections Special Requirements of the College of Liberal Arts (p. 292) and Applicability of Certain Courses (p. 292). University graduation requirements include a grade point average of at least 2.00 in all courses taken at the University (including credit by examination, correspondence, and extension) for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded; for this degree, the student must also earn a grade point average of at least 2.00 in courses taken at the University and counted toward the major requirement.

More information about grades and the grade point average is given in the General Information Catalog (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/computation-of-the-grade-point-average).

## Prescribed Work

1. Writing and Literature: English 316L, 316M, 316N, or 316P, and two courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag. One of these courses must be upper-division. Courses that carry a writing flag are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
2. Foreign language/culture: Students must complete one of the following options:
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-hour foreign culture courses chosen from a list available in the college's Student Division and the Department of Psychology.
Courses taken to attain the required level of proficiency in a foreign language are not electives and may not be taken on the pass/fail basis.
3. Social science: Three semester hours chosen from a list of approved courses, in addition to the course used to fulfill the social and behavioral sciences requirement of the core curriculum. Courses on the approved list are primarily in anthropology, economics, geography, linguistics, psychology, and sociology, but not every course in these fields is approved. Courses that are approved to count toward any core curriculum area other than social and behavioral sciences may not be counted toward this requirement.
The list is available each semester in the Student Division and on the College of Liberal Arts Web site. (http://www.utexas.edu/cola/student-affairs/Majors-and-Degrees/Course-Lists.php)
4. Mathematics and natural science: At least twenty-five semester hours of coursework as outlined below. Some of the courses that fulfill this requirement may also be counted toward the requirements of the core curriculum. No course may be counted toward both requirement 4 c and 4 d .
a. Mathematics 408C or 408K or a more advanced calculus course
b. Mathematics 316 or a more advanced mathematics course in probability
c. Sixteen to eighteen hours, consisting of two of the following sequences:
i Biology 311C, 311D, and 325
ii Chemistry 301, 302, and 204
iii Computer Science 303E, 313E, and one of the following: Computer Science 323E, 324E, 326E, 327E, 329E
iv Physics 317K, 117M, 317L, and 117N; or 301, 101L, 316, and 116 L ; or $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or $302 \mathrm{~K}, 102 \mathrm{M}, 302 \mathrm{~L}$, and 102N
d. One of the following:
i Three additional hours in mathematics. Mathematics 301, 302, 303D, 303F, 316K, and 316L may not be used to fulfill this requirement.
ii Three hours in biology, chemistry, computer science, or physics. Only the courses listed in requirement 4c above and more advanced courses may be used to fulfill this requirement.
5. Cultural expression, human experience, and thought: Three semester hours of approved coursework. The course must be in a field of study taught in the College of Liberal Arts. A course counted toward any
requirement of the core curriculum may not also be counted toward this requirement.
A list of approved courses is available each semester in the Student Division and on the College of Liberal Arts Web site. (http:// www.utexas.edu/cola/student-affairs/Student-Services/Majors-and-Degrees/Course-Lists.php)

## The Major

Twenty-eight semester hours of psychology, including Psychology 301 and 418 , each with a grade of at least $C$, and at least eighteen semester hours of upper-division coursework. Of these twenty-eight hours, eighteen hours, including Psychology 418 and at least six hours of upper-division coursework, must be completed in residence at the University. Also included in these twenty-eight hours must be at least six hours in each of the following two categories. A list of the courses in each area is available at http://www.psy.utexas.edu/ and in the Department of Psychology Undergraduate Office.

1. Clinical/social/developmental/evolutionary psychology
2. Cognition/language/neuroscience/perception

Psychology majors must earn a grade of at least $C$ in Psychology 418 to register for upper-division psychology courses. Students may not enroll in Psychology 418 more than twice.

Psychology 357 and 359 may not be counted toward the twenty-eight hours in psychology required for the major.

## The Minor

Twelve semester hours, including at least six hours of upper-division coursework, in any one field of study other than psychology. Six of the twelve hours must be taken in residence.

Additional restrictions may be imposed by the academic department in which the student completes the minor; before planning to use courses to fulfill the minor requirement, the student should also consult the department or program that offers them.

## Electives

In addition to the core curriculum, prescribed work, major, and minor, the student must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than twelve hours of conference courses and internship courses combined as described in Conference Courses and Internship Courses (p. 292); twelve hours of Bible courses; nine hours of designated coursework in air force science, military science, or naval science; sixteen hours completed on the pass/fail basis; thirty-six hours in any one field of study in the College of Liberal Arts or the College of Natural Sciences (including psychology); and thirty-six hours in any other single college or school of the University. Mathematics courses at the level of college algebra may not count toward elective hours.

## Courses

The faculty has approval to offer the following courses in the academic years 2014-2015 and 2015-2016; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule (http://registrar.utexas.edu/schedules) to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-
procedures/credit-value-and-course-numbers). In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits indicate the rank of the course: if they are 01 through 19, the course is of lower-division rank; if 20 through 79, of upperdivision rank; if 80 through 99, of graduate rank.

## Liberal Arts

## Liberal Arts: L A

## Lower-Division Courses

## L A 101L. Introduction to the Liberal Arts.

Topics related to exploring the various disciplines in the College of Liberal Arts. One lecture hour a week for one semester, or as required by the topic. Some sections are offered on the pass/fail basis only and some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary.

## L A 302. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Liberal Arts 302 and Natural Sciences 302 may not both be counted. May not be repeated for credit.

## L A 104R. Community Service.

Restricted to recipients of the Rapoport Service Scholarship. Tutorial course, in which students submit reports based on service learning and appropriate supplementary reading. The equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

Topic 1: Leadership, Ethics, and Society.
Topic 2: Civic Engagement and Civic Responsibility.

## L A 110. Internship.

Restricted to students in the College of Liberal Arts. Students work in a professional environment and apply analysis, communication, and other academic skills to practical work. The equivalent of one lecture hour and ten hours of fieldwork a week for one semester. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Completion of at least thirty semester hours of coursework, a University grade point average of at least 2.25 , and consent of instructor.

## L A 112C, 212C. Topics in Community Engagement.

One or two lecture hours and five to seven community engagement hours a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

## L A 113P, 213P. Topics in Peer Mentoring.

One or two lecture hours and five to seven mentoring hours a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

## L A 119, 219, 319. International Learning Seminars.

Restricted to students participating in a study abroad program. Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Liberal Arts 119, 219, 319 and Undergraduate Studies 119 may not both be counted unless the topics vary. Liberal Arts 119, 219, 319 and 129, 229, 329 may not both be counted. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Upper-Division Courses

## L A 320. 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. The equivalent of three lecture hours and ten hours of fieldwork a week for one semester. May be repeated for credit. Prerequisite: Completion of at least thirty semester hours of coursework, a University grade point average of at least 2.25, and consent of instructor.

## L A 220L, 320L, 420L, 520L, 620L. Military Leadership Internship.

Restricted to students participating in an approved ROTC program. Field leadership training program. For each semester hour of credit earned, one week of full-time fieldwork. Some programs may also require classroom hours. Offered during the summer session only. No more than six semester hours of this course may be counted toward any degree.
Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

## L A 621. International Internship.

Restricted to students participating in a study abroad program. One lecture hour and seven and one-half laboratory hours a week for one semester; with additional fieldwork hours to be arranged. Prerequisite: Upper-division standing.

## L A 125, 225, 325. Topics in the Liberal Arts.

Analysis of topics in the philosophy and real-life application of the liberal arts. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Additional meeting times may be required. Some sections are offered on the letter-grade basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing. Additional prerequisites vary with the topic and are given in the Course Schedule.

## L A 129, 229, 329. International Learning Seminars.

Restricted to students participating in a study abroad program. Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Liberal Arts 129, 229, 329 and Undergraduate Studies 119 may not both be counted unless the topics vary. Liberal Arts 119, 219, 319 and 129, 229, 329 may not both be counted. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

L A 131R, 231R, 331R. Research Internship.
Restricted to students in the College of Liberal Arts. For every semester hour of credit earned, three hours of fieldwork a week for one semester. May be repeated for credit, but no more than six hours may be counted toward degree requirements. Prerequisite: Upper-division standing, a grade point average of at least 2.50 , and written consent of instructor.

## Liberal Arts Honors

## Liberal Arts Honors: LAH

## Lower-Division Courses

## LAH 102H, 202H, 302H. The Idea of the Liberal Arts.

Restricted to students in the Freshman Honors Program in the College of Liberal Arts. An overview of the liberal arts disciplines. One, two, or three class hours a week for one semester. Additional hours may be required. Offered on the pass/fail basis only.

## LAH 103H. The Ideas of Civic Engagement.

Restricted to students in the Liberal Arts Honors Program in the College of Liberal Arts. 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. One lecture hour a week for a semester; additional hours may be required. Humanities 116 and Liberal Arts Honors 103H may not both be counted. Offered on the pass/fail basis only. Prerequisite: Liberal Arts Honors 102H.

## LAH 305. Liberal Arts Freshman Honors Seminar.

Restricted to students in the Freshman Honors Program in the College of Liberal Arts. Intensive small class lecture or seminar course addressing basic issues in various liberal arts disciplines. Lectures, readings, discussions, examinations. Three lecture hours a week for one semester. Humanities 305 and Liberal Arts Honors 305 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

Topic 1: Reacting to the Past. Liberal Arts Honors 305 (Topic 1) and 305 (Topic: Reacting to the Past) may not both be counted. Offered on the letter-grade basis only.

## LAH 112H. The Nature of Inquiry.

Designed for students who plan to enter a liberal arts departmental honors program. Introduction to the nature of research in liberal arts disciplines. One and one-half class hours a week for one semester. Prerequisite: Forty-five semester hours of coursework and consent of the liberal arts honors director.

## LAH 316. Studies in the Liberal Arts.

Restricted to Plan I majors in the College of Liberal Arts. Intensive lecture or seminar course addressing topics in various liberal arts disciplines. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## LAH 318Q. Supervised Research.

Individual instruction. Prerequisite: Consent of the liberal arts honors program adviser.

## Upper-Division Courses

## LAH 350. Topics in the Liberal Arts.

Restricted to Plan I majors in the College of Liberal Arts. Intensive lecture course treating topics from a variety of disciplinary perspectives, taught by instructors from various departments. Lectures, readings, discussions, examinations. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

Topic 1: Defense Policy. Articulation of national security strategy through decisions about Department of Defense organization and resources. Overview of military terms and organizing principles with an emphasis on policy, personnel, acquisition, budget, intelligence, and leadership. Only one of the following may be counted: Government 360N (Topic: Defense Policy), Liberal Arts Honors 350 (Topic: Defense Policy), 350 (Topic 1), Public Affairs 325 (Topic: Defense Policy). Offered on the letter-grade basis only.
Topic 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. Only one of the following may be counted: Core Texts and Ideas

345 (Topic: Our Lives in Fiction), Liberal Arts Honors 350 (Topic: Our Lives in Fiction), 350 (Topic 2). Offered on the letter-grade basis only. Topic 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. Liberal Arts Honors 350 (Topic: Technical Change and Financial Crisis) and 350 (Topic 3) may not both be counted. Offered on the letter-grade basis only.
Topic 4: Literature of World War I. Same as Humanities 350 (Topic 10). 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. Only one of the following may be counted: Humanities 350 (Topic: Literature of the Great War), 350 (Topic 10), Liberal Arts Honors 350 (Topic: Literature of the Great War), 350 (Topic 4). Offered on the letter-grade basis only.
Topic 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. Only one of the following may be counted: Humanities 350 (Topic: Novels of Distinction), Liberal Arts Honors 350 (Topic: Novels of Distinction), 350 (Topic 5). Offered on the letter-grade basis only.
Topic 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. Only one of the following may be counted: Educational Psychology 369K (Topic: Life History and Documentary Approaches to Inquiry), Liberal Arts Honors 350 (Topic: Life History and Documentary Approaches to Inquiry), 350 (Topic 6). Offered on the letter-grade basis only.

## LAH 358Q. Supervised Research.

Individual instruction. May be repeated for credit, but no more than six semester hours may be counted toward College Honors. Prerequisite: A University grade point average of at least 3.50 and consent of the liberal arts honors program adviser.

## LAH 364H. The Enlightenment.

Restricted to Plan I majors in the College of Liberal Arts. 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. Three lecture hours a week for one semester. Offered on the lettergrade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50 .

## LAH 365H. Great Books in Political Philosophy.

Restricted to Plan I majors in the College of Liberal Arts. An investigation of what it means to think "philosophically" about politics and morals, by reading and interpreting primary sources of political philosophy from more than twenty centuries. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50 .

## LAH 368H. Literature of the Hispanic World.

Restricted to Plan I majors in the College of Liberal Arts. An examination of the literature and culture of Spain and Spanish America, from the Middle Ages to the present. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

## LAH 369H. Comparative Legal Systems.

Restricted to Plan I majors in the College of Liberal Arts. A comparison of legal traditions from Europe, English common law, and Asia. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

## LAH 370H. The Birth of the Modern World, 1400-1700.

Restricted to Plan I majors in the College of Liberal Arts. An interdisciplinary course on European culture during the age of the Renaissance and Reformation. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upperdivision standing and a grade point average of at least 3.50.

## LAH 371H. Classics of Greek Philosophy.

Restricted to Plan I majors in the College of Liberal Arts. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

## LAH 373H. Literature of the Western World: Continuities.

Restricted to Plan I majors in the College of Liberal Arts. Tradition and innovation of form and thought in literature from Homer to the twentieth century. Three lecture hours and one discussion hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upperdivision standing and a grade point average of at least 3.50.

## LAH 376H. The Rise of Modern America.

Restricted to Plan I majors in the College of Liberal Arts. The end of Reconstruction (1877) to the end of the war in Vietnam (1975)-industrialization, urbanization, immigration, nuclear energy, and global reach. Three lecture hours a week for one semester. Offered on the lettergrade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50 .

## LAH 377H. Ideas of the Twentieth Century.

Restricted to Plan I majors in the College of Liberal Arts. Central philosophical controversies of the twentieth century: ethics, politics, comparative religions, science and human nature. Three lecture hours and one discussion hour a week for one semester. Offered on the lettergrade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50 .

## LAH 378H. The Natural Sciences in the Liberal Arts Context.

Restricted to Plan I majors in the College of Liberal Arts. An attempt to understand contemporary developments in science by focusing on the history and philosophy of science. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upperdivision standing and a grade point average of at least 3.50.

## LAH 379H. Classical Asian Civilizations.

Restricted to Plan I majors in the College of Liberal Arts. An examination of the contributions of India and China to intellectual history. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

Prerequisite: Upper-division standing and a grade point average of at least 3.50.

## LAH 679T. Honors Thesis.

Restricted to Plan I majors in the College of Liberal Arts. Supervised research, reading, and writing of a substantial paper on an interdepartmental subject. Conference course for two semesters. Offered on the letter-grade basis only. Prerequisite: For Liberal Arts Honors 679TA, upper-division standing, a grade point average of at least 3.50, and written consent of the director of the Liberal Arts Honors Program; for 679TB, Liberal Arts Honors 679TA.

## Department of African and African Diaspora Studies

## African and African Diaspora Studies: AFR

Lower-Division Courses
AFR 301. 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. Three lecture hours a week for one semester.

## AFR 303. Introduction to Black Studies.

Same as Anthropology 310D. Introduction to canonical black studies literature, themes, and theories. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 303, Anthropology 310D, 310L (Topic: Intro to African and African Diaspora Studies).

## AFR 310K. Introduction to Modern Africa.

Same as History 310. Introduction to modern Africa, with focus on colonial and postcolonial development in political organization, economics, sociolinguistics, and literature. Three lecture hours a week for one semester.

## AFR 310L. Introduction to Traditional Africa.

Same as History 311 K . Introductory, interdisciplinary course on the peoples and cultures of Africa. Three lecture hours a week for one semester.

## AFR 311C. Performance, Feminism, and Social Change.

Same as Women's and Gender Studies 301 (Topic 14). 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. Only one of the following may be counted: African and African Diaspora Studies 311C, 317F (Topic: Performance, Feminism, and Social Change), Women's and Gender Studies 301 (Topic: Performance, Feminism, and Social Change), 301 (Topic 14).

## AFR 317C. Special Topics in African Studies.

Three lecture hours a week for one semester, with one laboratory hour a week if required by the topic. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: The United States and Africa. Same as History 317L (Topic
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. Only one of the following may be counted: African and African Diaspora Studies 317 (Topic: United States and Africa), 317C (Topic 1), History 317L (Topic 7). Partially fulfills legislative requirement for American history.
Topic 2: Yoruba Women. Same as Women's and Gender Studies 301 (Topic 15). Examination of gender construction in Yorubaland, including an exploration of the difference between Western gender construction and African notions of gender through analyses of the religious, linguistic, cultural, and sociopolitical aspects of Yoruba life. Only one of the following may be counted: African and African Diaspora Studies 317C (Topic: Yoruba Women), 317C (Topic 2), Women's and Gender Studies 301 (Topic: Yoruba Women), 301 (Topic 15).

Topic 3: Peoples and Cultures of Africa. Exploration of indigenous and contemporary societies of Africa, south of the Sahara, designed to provide students with an understanding of the diversity of the societies and cultures of Africa. Focuses on the precolonial, colonial, and postcolonial historical, political, economic, and sociocultural issues that have determined and shaped the lives of the people. African and African Diaspora Studies 317C (Topic: Peoples and Cultures of Africa) and African and African Diaspora Studies 317C (Topic 3) may not both be counted.
Topic 4: The Civilizations of Africa to 1800. Same as History 317N (Topic 3). Introductory course exposes students to ancient Africa, its peoples, cultures, and landscapes. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 317C (Topic: Civilizations of Africa to 1800), 317C (Topic 4), History 317N (Topic: Civilizations of Africa to 1800), 317 N (Topic 3).

## AFR 317D. Special Topics in Black United States Studies.

Three lecture hours or two lecture hours and one discussion hour a week for one semester, with one additional laboratory hour a week if required by the topic. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Introduction to African American History. Same as History 317 L (Topic 3: Introduction to African American History). Only one of the following may be counted: African and African Diaspora Studies 317 (Topic: Introduction to African American History), 317D (Topic 1), History 317L (Topic 3). Partially fulfills legislative requirement for American history.
Topic 2: Anthropology of Race and Ethnicity: An Introduction. Same as American Studies 315D and Anthropology 310L (Topic 2: Anthropology of Race and Ethnicity: An Introduction). Examines the social importance of race and ethnicity both in America and around the world. Only one of the following may be counted: African and African Diaspora Studies 317D (Topic 2) and American Studies 315 (Topic: Anthropology of Race and Ethnicity), 315D, Anthropology 310L (Topic 2).

Topic 3: The Black Power Movement. Same as History 317L (Topic 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. Only one of the following may be counted: African and African Diaspora Studies 317D (Topic: Black Power Movement), 317D (Topic 3), History 317L (Topic: Black Power Movement), 317L (Topic 9). Partially fulfills legislative requirement for American history.
Topic 4: The Politics of Black Identity. Analysis of the idea that the activities and practices of certain black celebrities, leaders, and intellectuals whose attitudes, behavior, and politics differ from the black majority undermine black progress. Examines the history of labels that make reference to black identity, including "Uncle Tom," "Negro,"
"sellout," and various other denigrating names. African and African Diaspora Studies 317D (Topic 4) and 317F (Topic: The Politics of Black Identity) may not both be counted.
Topic 5: Introduction to Black Women's Studies. Same as Women's and Gender Studies 301 (Topic 16). 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. Only one of the following can be counted: African and African Diaspora Studies 317D (Topic: Introduction to Black Women's Studies), 317D (Topic 5), Women's and Gender Studies 301 (Topic: Introduction to Black Women's Studies), 301 (Topic 16).

## AFR 317E. Special Topics in the African Diaspora.

Three lecture hours a week for one semester, with one laboratory hour a week if required by the topic. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Black Queer Diaspora Aesthetics. Same as Anthropology 310 L (Topic 6) and Women's and Gender Studies 301 (Topic 17). 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. Only one of the following may be counted: African and African Diaspora Studies 317E (Topic: Black Queer Diaspora Aesthetics), 317E (Topic 1), Anthropology 310L (Topic: Black Queer Diaspora Aesthetics), 310L (Topic 6), Women's and Gender Studies 301 (Topic: Black Queer Diaspora Aesthetics), 301 (Topic 17).
Topic 2: Diaspora: Race, Nation, and Resistance. Same as Anthropology 310L (Topic 7). 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. Only one of the following may be counted: African and African Diaspora Studies 317E (Topic: Diaspora: Race/Nation/Resistance), 317E (Topic 2), Anthropology 310L (Topic: Diaspora: Race/Nation/Resistance), 310L (Topic 7), Asian American Studies 310 (Topic: Diaspora: Race/Nation/Resistance).
Topic 3: Liberation in the African Diaspora. Same as Latin American Studies 310 (Topic 7). 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. Only one of the following may be counted: African and African Diaspora Studies 317E (Topic: Liberation in the African Diaspora), 317E (Topic 3), Latin American Studies 310 (Topic: Liberation in the African Diaspora), 310 (Topic 7).

## AFR 317F. Special Topics in Black Expressive Culture.

Three lecture hours a week for one semester, with one laboratory hour a week if required by the topic. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: African American Literature and Culture. Same as English 314 V (Topic 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. African and African Diaspora 317F (Topic 1) and English 314V (Topic 1) may not both be counted.
Topic 2: Music of African Americans. Same as Music 307 (Topic 1). Introduction to the variety of modes of expression of African American culture in music and other related genres. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 317 (Topic 2: Music of African Americans), 317F (Topic 2), Music 307 (Topic 1).

## AFR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S . 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## AFR 321. The African Diaspora in the Americas.

Same as Anthropology 324L (Topic 9: The African Diaspora in the Americas). Black cultures and societies in the New World, and their African heritage. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## AFR 321K. African American Family.

Same as Social Work 360K (Topic 2) and Women's and Gender Studies 340 (Topic 3). Overview of historical and contemporary issues facing African American families and children. Social service delivery to African American families and communities is emphasized. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 321K, 374 (Topic 1: African American Family), Social Work 360K (Topic 2), Women's and Gender Studies 340 (Topic 3).

## AFR 321L. Sociology of Education.

Same as Sociology 321L and Women's and Gender Studies 345 (Topic 23: 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## AFR 321N. Life Span Development of Black Women.

Same as Educational Psychology 363M (Topic 5) and Women's and Gender Studies 340 (Topic 41). The psychological and social issues that affect the life span development of Black women. Discusses issues such as socioeconomic status, political climate, social norms, gender and ethnic identity, mental health, family dynamics, academic achievement, and social adjustment. Only one of the following may be counted: African and African Diaspora Studies 321N, 372D (Topic: Life Span Development of Black Women), 374D (Topic: Life Span Development of Black Women), Educational Psychology 363M (Topic 5), Women's and Gender Studies 340 (Topic: Life Span Development of Black Women), 340 (Topic 41). Prerequisite: Psychology 301 or another introductory behavioral science course.

## AFR 322. Introduction to African Prehistory.

Same as Anthropology 324L (Topic 7: Introduction to African Prehistory). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## AFR 322D. Race and the Digital.

Same as Sociology 322D and Women's and Gender Studies 322 (Topic 7). 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. Only one of the following may be counted: African and African Diaspora Studies 322D, 374E (Topic: Race, Culture, and Migration), Sociology 321K (Topic: Race, Culture, and Migration), 322D, Women's and Gender Studies 322 (Topic: Race, Culture, and Migration), 322 (Topic 7). Prerequisite: Upper-division standing.

## AFR 323. The Male in African American Culture and Society.

Same as Anthropology 324L (Topic 18: The Male in African American Culture and Society). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## AFR 324E. Racism and Antiracism.

Same as Asian American Studies 330 (Topic 2). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 324E, 374D (Topic: Racism and Antiracism), 374D (Topic 10), Anthropology 324L (Topic: Racism and Antiracism), Asian American Studies 330 (Topic: Racism and Antiracism), 330 (Topic 2). Prerequisite: Upper-division standing.

## AFR 326. Afro-Caribbean Politics and Culture in Central America.

Same as Anthropology 324L (Topic 47), Latin American Studies 337N, and Women's and Gender Studies 340 (Topic 38). Exploration of black identity, political systems, and community activism in Central America and the Caribbean. Only one of the following may be counted: African and African Diaspora Studies 326, 374E (Topic: Afro-Caribbean Politics and Culture in Central America), Anthropology 324L (Topic: Afro-Caribbean Politics and Culture in Central America), 324L (Topic: 47), Government 365N (Topic: Afro-Caribbean Politics and Culture in Central America), Latin American Studies 337M (Topic: Afro-Caribbean Politics and Culture in Central America), 337N, Women's and Gender Studies 340 (Topic: Afro-Caribbean Politics and Culture in Central America), 340 (Topic 38). Prerequisite: Upper-division standing.

AFR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## AFR 345. History of East Africa.

Same as History 359P. A survey of the history of Kenya, Tanzania, and Uganda from prehistoric times to the postindependence era. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## AFR 345C. History of West Africa.

Same as History 359R. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## AFR 348C. Minority Student Leadership Issues.

Same as Educational Psychology 369K (Topic 6). Exploration of racial identity development and the psychological impact of racism on all students, regardless of ethnicity. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 348C, 374D (Topic: Minority Student Leadership Issues), Educational Psychology 369K (Topic: Minority Student Leadership Issues), 369K (Topic 6). Prerequisite: Six semester hours of upper-division coursework in education or other behavioral sciences, and consent of instructor.

## AFR 356C. African American Theatre History: Precolonial West African Performance to 1950.

Chronological examination of the theatrical work of Africans and African Americans from precolonial West Africa to the United States in 1950. Subjects include 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 356C, 374F (Topic: African-American Theatre History, Precolonial-1950), Theatre and Dance 357T (Topic: African-American Theatre History, Precolonial-1950). Prerequisite: Upper-division standing.

## AFR 356D. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 356D, 374F (Topic: African American Theatre History, 1950-Present), Theatre and Dance 357T (Topic: African American Theatre History, 1950-Present). Prerequisite: Upper-division standing.

## AFR 356E. Black Women and Dance.

Same as Women's and Gender Studies 340 (Topic 43). Exploration of how black women express creativity in response to the violence of racism and sexism, and to envision new ways of being and moving in the world. Women's participation in ritual, concert, and social dance in North America, Haiti, Cuba, and Brazil will be studied through readings, viewings, and stagings. Only one of the following may be counted: African and African Diaspora Studies 356E, 372E (Topic: Black Women and Dance), Theatre and Dance 357T (Topic: Black Women and Dance), Women's and Gender Studies 340 (Topic: Black Women and Dance), 340 (Topic 43). Prerequisite: Upper-division standing.

## AFR 357C. African American History to 1860.

Same as American Studies 321E and History 357C. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357C, American Studies 321 (Topic: African American History to 1860), 321E, History 357C. Partially fulfills legislative requirement for American History. Prerequisite: Upper-division standing.

## AFR 357D. African American History since 1860.

Same as American Studies 321F, History 357D, and Urban Studies 353 (Topic 1: 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357D, American Studies 321 (Topic: African American History since 1860), 321F, History 357D, Urban Studies 353 (Topic 1). Partially fulfills legislative requirement for American History. Prerequisite: Upper-division standing.

## AFR 359N. History of Africa since 1800.

Same as History 359N. Development of sub-Saharan Africa from the end of the slave trade to independence. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## AFR 361K. Performing Race: African American Literary Performance.

Study of the criticism and performance of modern African American drama. Three lecture hours a week for one semester. African and African Diaspora Studies 361K and 374 (Topic: Performance of Dramatic Literature: African American Writers) may not both be counted. Prerequisite: Upper-division standing.

## AFR 365. Politics in Contemporary Africa.

Same as Government 365N (Topic 1: Politics in Contemporary Africa). Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## AFR 372C. Topics in Critical Black Studies.

Explores the history, foundational ideas, and subsequent theoretical developments that guide contemporary black studies. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: African and African Diaspora Studies 372C, 374, 374C, 374D, 374E, 374F. Some topics partially fulfill the legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

Topic 2: Race and Beauty in American Culture. Same as History 350R (Topic 11: Race and Beauty in American Culture). Only one of the following may be counted: African and African Diaspora Studies 372C (Topic 2), 374D (Topic 1: Race and Beauty in American Culture), History 350L (Topic 52: Race and Beauty in American Culture), 350R (Topic 11). Partially fulfills legislative requirement for American history. Additional prerequisite: Six semester hours of coursework in history.
Topic 3: Property in American Culture. Same as American Studies 370 (Topic 38: Property in American Culture). Explores American conceptions of property over a wide range of economic transformations from the mercantile to the digital age, with special attention to the ambiguous and tension-filled meanings of property for women, African Americans, and Native Americans. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic 3), 374D (Topic: Property in American Culture), American Studies 370 (Topic: Property in American Culture), 370 (Topic 38).
Topic 4: Gender and Slavery in the United States. Same as History 350R (Topic 14: Gender and Slavery in the United States) and Women's and Gender Studies 345 (Topic 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. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic 4),

374D (Topic: Gender and Slavery in the United States), History 350L (Topic: Gender and Slavery in the United States), 350R (Topic 14), Women's and Gender Studies 340 (Topic: Gender and Slavery in the United States), 345 (Topic 31). Partially fulfills legislative requirement for American history. Additional prerequisite: Six semester hours of coursework in history.
Topic 12: Race, Gender, and Surveillance. Same as Sociology 322 V and Women's and Gender Studies 322 (Topic 8). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic 12), 374E (Topic: Surveillance and Social Control), Sociology 321K (Topic: Surveillance and Social Control), 322V, Women's and Gender Studies 322 (Topic: Surveillance and Social Control), 322 (Topic 8). Additional prerequisite: Upper-division standing.
Topic 14: Black Political Thought. Same as American Studies 370 (Topic 42). 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. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic: Black Political Thought), 372C (Topic 14), American Studies 370 (Topic: Black Political Thought), 370 (Topic 42).
Topic 15: Postcolonial Women Writers. Same as Comparative Literature 323 (Topic 38). Literary exploration of how postcolonial women across the world view their positions as citizens, migrants, workers, parents, activists, and artists in the new millennium. Subjects include the effects of imperialism in women's lives, western feminisms developed to address global women's needs, and what new possibilities for decolonization, feminism, and creativity remain to be explored. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic: Postcolonial Women Writers), 372C (Topic 15), Comparative Literature 323 (Topic: Postcolonial Women Writers), 323 (Topic 38), English 370W (Topic: Postcolonial Women Writers).

## AFR 372D. Topics in Black Education, Psychology, and Health.

Explores the history, theoretical developments, and institutional forms that impact the education and the physical, mental, and emotional health and well-being of people of African descent. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: African and African Diaspora Studies 372D, 374, 374C, 374D, 374E, 374F. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

Topic 1: Psychology of Race and Racism. Same as Educational Psychology 362 (Topic 6: Psychology of Race and Racism). Only one of the following may be counted: African and African Diaspora 374D (Topic 8: Psychology of Race and Racism), 372D (Topic 1), Curriculum and Instruction 362 (Topic 6).
Topic 2: Sociocultural Influences on Learning. 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. Three lecture hours a week for one semester, with field hours to be arranged. Only one of the following may be counted: African and African Diaspora Studies 372D (Topic 2), 374D (Topic: Sociocultural Influences on Learning), Applied Learning and

Development 327. Additional prerequisite: Three semester hours of coursework in psychology.

## AFR 372E. Topics in Black Popular Culture.

Studies in music, art, literature, and sports that explore the artistic, aesthetic, bodily, and other cultural expressions and traditions of black people. Three lecture hours a week for one semester; additional hours required for some topics. Only one of the following may be counted unless the topics vary: African and African Diaspora Studies 372E, 374, 374C, 374D, 374E, 374F. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

Topic 1: Toni Morrison. Same as English 349 (Topic 5: Toni Morrison) and Women's and Gender Studies 345 (Topic 46: 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. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 1), 374F (Topic: Toni Morrison), English 349S (Topic 5), Women's and Gender Studies 340 (Topic: Toni Morrison), 345 (Topic 46). Prerequisite: Six semester hours of upper-division coursework in English.
Topic 2: Slavery across Genres. Same as American Studies 370 (Topic 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. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 2), 374D (Topic 7), American Studies 370 (Topic: Slavery across Genres), 370 (Topic 32).
Topic 4: African American Literature through the Harlem
Renaissance. Same as English 376R. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 4), 374F (Topic 1), English 376R. Some sections are offered on the letter-grade basis only. Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## Topic 5: African American Literature since the Harlem

Renaissance. Same as English 376S. 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. Three lecture hours a week for one semester. African and African Diaspora Studies 372E (Topic 5) and English 376S may not both be counted. Some sections are offered on the letter-grade basis only. Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 8: Self-Revelation in Women's Writing. Same as Comparative Literature 323 (Topic 4), Middle Eastern Studies 342 (Topic 19), and Women's and Gender Studies 340 (Topic 14). Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 8), 374 (Topic 26), Comparative Literature 323 (Topic 4), English 322 (Topic: Self-Revelation in Women's Writing), Middle Eastern Studies 322K (Topic 26), 342 (Topic 19), Persian 361 (Topic: Self-Revelation in Women's Writing), Women's and Gender Studies 340 (Topic 14).
Topic 12: Black Perspectives in Jazz. Same as Music 342 (Topic 5). Explores the social, cultural, political, and artistic relationships between
jazz and the black experience, both within the African American context and throughout the diaspora. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 12), 374 (Topic 10: Black Perspectives in Jazz), Music 342 (Topic 5).
Topic 13: Black Queer Literature and Film. Same as English 376M (Topic 8) and Women's and Gender Studies 340 (Topic 47). 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. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic: Black Queer Literature and Film), 372E (Topic 13), 374F (Topic: Black Queer Literature and Film), English 376M (Topic: Black Queer Literature and Film), 376M (Topic 8), Women's and Gender Studies 340 (Topic: Black Queer Literature and Film), 340 (Topic 47).
Topic 15: Contemporary African American Women's Fiction. Same as English 376M (Topic 7) and Women's and Gender Studies 340 (Topic 29). Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Contemporary African American Women's Fiction), 372E (Topic 15), English 376M (Topic: Contemporary African American Women's Fiction), 376M (Topic 7), Women's and Gender Studies 340 (Topic: Contemporary African American Women's Fiction), 340 (Topic 29). Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 17: Hip Hop Rhetorics. Examination of the hip hop rhetorics of writers, performers, and activists of the hip hop generation. Subjects include the use of cultural tools, including rap, fashion, dance, graffiti, and deejaying, to construct their identities and make and disseminate meaning within and about their social worlds, particularly around issues of racism, sexism and misogyny, poverty, and heterosexism. African and African Diaspora Studies 372E (Topic: Hip Hop Rhetorics) and 372E (Topic 17) may not both be counted.
Topic 18: Kinetic Storytelling. Exploration of the use of dance as a practice of social justice. Kinetic storytelling is a dance-based theatre that is highly structured yet improvisational and is explicitly informed by Africanist aesthetics and concerns of marginalization and inequity. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic: Kinetic Storytelling), 372E (Topic 18), Theatre and Dance 352T (Topic: Kinetic Storytelling). Additional prerequisite: Consent of instructor.
Topic 19: Race and Sport in African American Life. Same as Anthropology 324L (Topic 26) and Kinesiology 352K (Topic 6). Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 19), 374 (Topic 27), Anthropology 324L (Topic 26), Kinesiology 352K (Topic 6) Additional prerequisite: Upper-division standing.

## AFR 372F. Topics in Blacks in Government, Law, and Policy.

Explores the philosophical, legal, and institutional traditions affecting black people as individual members of a group and participants in broader societies. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: African and African Diaspora Studies 320, 372F, 374, 374C, 374D, 374E. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

Topic 3: States and Peasants. Same as Government 365N (Topic 5: States and Peasants). Prerequisite: Six semester hours of lowerdivision_coursework_in government.
Topic 10: Race and the Criminal Justice System. Same as Anthropology 324L (Topic 38). Examines historical and contemporary studies that provide arguments about the connections between race, poverty, and the criminal justice system. Subjects include how and
why acts of police violence, questionable court proceedings, and unjust sentences routinely take place, and how and why they are often sanctioned by institutional practices and society at large. Only one of the following may be counted: African and African Diaspora Studies 320 (Topic 3), 372F (Topic 10), Anthropology 324L (Topic 38).
Topic 13: Urban Unrest. Same as Asian American Studies 330 (Topic 6), American Studies 321 (Topic 8), Anthropology 324L (Topic 46), and Urban Studies 354 (Topic 14). 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. Only one of the following may be counted: African and African Diaspora Studies 372F (Topic: Urban Unrest), 372F (Topic 13), 374D (Topic: Urban Unrest), American Studies 321 (Topic: Urban Unrest), 321 (Topic 8), Anthropology 324L (Topic: Urban Unrest), 324L (Topic 46), Asian American Studies 330 (Topic: Urban Unrest), 330 (Topic 6), Urban Studies 354 (Topic: Urban Unrest), 354 (Topic 14).
Topic 15: The Tragicomedy of American Democracy. Same as American Studies 370 (Topic 44) and Core Texts and Ideas 326 (Topic 2). Examines the foundational ideas and practices essential to the unfolding of American democracy by focusing on founding documents, public speeches, major political conflicts, and canonical texts of political philosophy. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Tragicomedy of American Democracy), 372F (Topic 15), American Studies 370 (Topic: Tragicomedy of American Democracy), 370 (Topic 44), Core Texts and Ideas 326 (Topic: Tragicomedy of American Democracy), 326 (Topic 2), Western Civilization 320 (Topic: Tragicomedy of American Democracy).

## AFR 372G. Topics in African and African Diasporic Cultures and Languages.

Explores the cultural, historical, linguistic, artistic, philosophical, and other intellectual traditions emerging from within Africa and as developed, reinterpreted, or reimagined in diasporic contexts. Three lecture hours a week for one semester; additional hours required for some topics. Only one of the following may be counted unless the topics vary: African and African Diaspora Studies 372G, 374, 374C, 374D, 374E, 374F. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

Topic 1: Literature of AIDS in Africa. Same as English 360S (Topic 2: Literature of AIDS in Africa). Examines the emerging cultural representations of AIDS in sub-Saharan Africa through journalistic, social science, and historical accounts. Examines the difficulty of representing the various aspects of a public-health crisis. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic 1), 374C (Topic: Literature of African AIDS), English 360S (Topic 2), 376L (Topic: Literature of African AIDS). Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 2: Nigeria: A History of Nation-Building. Same as History 350L (Topic 35: Nigeria: A History of Nation-Building). Only one of the following may be counted: African and African Diaspora Studies 372G (Topic 2), 374C (Topic 1: Nigeria: A History of Nation-Building), History 350 L (Topic 35).
Topic 3: Archaeology of African Thought. Same as Anthropology 324L (Topic 24: Archaeology of African Thought). Archaeological, historical, and ethnographic data as they relate to the foundations of contemporary African and African American societies. Only one of the following may be counted: African and African Diaspora 372G (Topic 3), 374C (Topic 2), Anthropology 324L (Topic 24).

Topic 4: African Cinemas. Explores the cultural and social values in historical, literary, and fictional contexts of African films.
Topic 5: Gender in North and West Africa. Same as Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 342 (Topic 28), and Women's and Gender Studies 340 (Topic 34). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic 5), 374C (Topic: Gender in North and West Africa), Islamic Studies 372 (Topic: Gender in North and West Africa), 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 322K (Topic: Gender in North and West Africa), 342 (Topic 28), Women's and Gender Studies 340 (Topic: Gender in North and West Africa), 340 (Topic 34). Additional prerequisite: Upper-division standing.
Topic 6: African Women's History. Same as History 364G (Topic 5) and Women's and Gender Studies 340 (Topic 32). Major themes include politics, economics, religion, the family, culture, technology, feminism, colonialism, nationalism, and development in relation to the lives of African women. Only one of the followed may be counted: African and African Diaspora Studies 372G (Topic 6), 374C (Topic: African Women's History), History 364G (Topic: African Women's History), 364G (Topic 5), Women's and Gender Studies 340 (Topic: African Women's History), 340 (Topic 32).
Topic 10: Afro-Latin America. Same as History 350L (Topic 68) and Latin American Studies 366 (Topic 31). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: AfroLatin America), 372G (Topic 10), 374E (Topic: Afro-Latin America), History 350L (Topic: Afro-Latin America), 350L (Topic 68), Latin American Studies 366 (Topic: Afro-Latin America), 366 (Topic 31). Additional prerequisite: Upper-division standing.
Topic 20: The Histories of African Liberation. Same as History 364G (Topic 9). Examination of important figures, movements, strategies, and factors that contributed to decolonization on the African continent. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Histories of African Liberation), 372G (Topic 20), History 364G (Topic: Histories of African Liberation), 364G (Topic: 9).
Topic 32: African History in Films and Photographs. Same as History 364G (Topic 4). Designed to increase understanding of the social, economic, and political challenges of the past fifty years of Africa's history through an examination of several popular films. Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: African History in Films and Photographs), 372G (Topic: African History in Films and Photographs), 372G (Topic 32), History 364G (Topic: African History in Films and Photographs), 364G (Topic 4).
Topic 33: Sex and Power in the African Diaspora. Same as Anthropology 324L (Topic 48) and Women's and Gender Studies 340 (Topic 52). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Sex and Power in the African Diaspora), 372G (Topic 33), Anthropology 324L (Topic: Sex and Power in the African Diaspora), 324L (Topic 48), Women's and Gender Studies 340 (Topic: Sex and Power in the African Diaspora), 340 (Topic 52).

Topic 34: Jesus, Africa, and History. Same as Religious Studies 360 (Topic 1). Exploration of the history of Christianity in Africa, from antiquity to the present, including the ways in which African interpretations and religious expressions of Christianity are presented in this history. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Jesus, Africa, and History), 372G (Topic 34), Religious Studies 360 (Topic: Jesus, Africa, and History), 360 (Topic 1).

## AFR 373. Independent Research.

Supervised individual research on a problem in African and African diaspora studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing, African and African Diaspora Studies 301 or 303, and written consent of the supervising faculty member on forms available in the department office for that purpose.

## AFR 374C. Advanced Topics in African Studies.

Three lecture hours a week for one semester, with one laboratory hour a week if required by the topic. Only one of the following may be counted unless the topics vary: African and African Diaspora Studies 372C, 372D, 372E, 372F, 372G, 374C. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 3: Globalization, Transnationalism, and Internationalism. Same as History 350R (Topic 29). Addresses the complex role of the United States in the greater scope of international relations in politics, with an emphasis on how political events in the United States reach the African continent in a variety of ways. Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: Globalization, Internationalism, and Transnationalism), 374C (Topic 3), History 350R (Topic: Globalization, Internationalism, and Transnationalism), 350R (Topic 29). Additional prerequisite: Upperdivision standing.
Topic 4: History of Southern Africa. Same as History 350L (Topic 72) and Women's and Gender Studies 340 (Topic 39). Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: History of Southern Africa), 374C (Topic 4), History 350L (Topic: History of Southern Africa), 350L (Topic 72), Women's and Gender Studies 340 (Topic: History of Southern Africa), 340 (Topic 39).
Topic 6: Apartheid: South African History. Same as History 364G (Topic 6) and Women's and Gender Studies 340 (Topic 42). 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. Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: Apartheid and Resistance in South Africa), 374C (Topic: Apartheid: South African History), 374C (Topic 6), History 364G (Topic: Apartheid: South African History), 364G (Topic: Apartheid and Resistance in South Africa), 364G (Topic 6), Women's and Gender Studies 340 (Topic: Apartheid: South African History), 340 (Topic 42).

## AFR 374D. Advanced Topics in Black United States Studies.

Three lecture hours a week for one semester, with one laboratory hour a week if required by the topic. Only one of the following may be counted unless the topics vary: African and African Diaspora Studies 372C, 372D, 372E, 372F, 372G, 372G, 374D. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: History of Black Entrepreneurship in the United States. Same as History 350R (Topic 12: History of Black Entrepreneurship in the United States). African and African Diaspora Studies 374D (Topic 2) and History 350L (Topic 53: History of Black Entrepreneurship in the United States) may not both be counted. Partially fulfills legislative
requirement for American history. Prerequisite: Upper-division standing and six semester hours of coursework in history.
Topic 3: Slavery in the United States. Same as History 350R (Topic 10: Slavery in the United States). Only one of the following may be counted: African and African Diaspora Studies 374D (Topic 3), History 350L (Topic 39), 350R (Topic 10). Partially fulfills legislative requirement for American history.
Topic 4: African Americans and the Media. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic 4), Journalism 340C (Topic 2). Additional prerequisite: Upper-division standing.
Topic 5: Race, Sport, and Identity. Same as Sociology 322R. Explores the sociological significance of sport in relation to the construction of racialized identities. Focuses primarily but not exclusively on the black experience in sport, and examines the changing meanings given to sport throughout the twentieth century. Only one of the following may be counted: African and African Diaspora Studies 374 (Topic: Race, Sport, and Identity), 374D (Topic 5), Sociology 321K (Topic 8: Race, Sport, and Identity), 322R. Prerequisite: Upper-division standing and Sociology 302.
Topic 6: Black Americans and the South. Same as American Studies 370 (Topic 31: Black Americans and the South). Traces the post-Reconstruction conversation among black Americans over how to live in the South and make sense of its history of widespread racial violence, lynching, de jure segregation, civil rights struggles, and their legacies. Sources include authors such as Jean Toomer, Tayari Jones, and Natasha Trethewey, and fiction, speeches, newspaper accounts, photographs, paintings, poetry, and popular music, including jazz, blues, rock, rhythm and blues, and hip hop and rap. Only one of the following may be counted: African and African Diaspora Studies 374 (Topic: Black Americans and the South), 374D (Topic 6), American Studies 370 (Topic 31). Prerequisite: Upper-division standing.
Topic 9: Black Women in America. Same as History 350R (Topic 17: Black Women in America) and Women's and Gender Studies 340 (Topic 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. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic 9) History 350L (Topic: Black Women in America), 350R (Topic 17), Women's and Gender Studies 340 (Topic 9). Partially fulfills legislative requirement for American History. Prerequisite: Upper-division standing and six semester hours of coursework in history.
Topic 11: Psychology of the African American Experience. Same as Educational Psychology 362 (Topic 9). Examination of the psychology of people of African descent using an Africancentered liberatory model. Only one of the following may be counted: Educational Psychology 362 (Topic: Psychology of the AfricanAmerican Experience), 362 (Topic 9), African and African Diaspora Studies 374D (Topic: Psychology of the African-American Experience), 374D (Topic 11).
Topic 12: African Americans in Sports. Same as Curriculum and Instruction 373. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: African Americans in Sports), 374D (Topic 12), Curriculum and Instruction 373. Topic 13: African American Politics. Same as Government 370K (Topic 3). The evolution and role of African American politics within the American political system. Only one of the following may be counted:

African and African Diaspora Studies 374D (Topic: African American Politics), 374D (Topic 13), Government 370K (Topic 3).
Topic 14: The Black Church in African American Politics. Same as Government 370K (Topic 4) and Religious Studies 346 (Topic 7). Examination of the political role of the black church and its leaders in the development of African American political behavior. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Black Church in African American Politics), 374D (Topic 14), Government 370K (Topic 4), Religious Studies 346 (Topic: Black Church in African American Politics), 346 (Topic 7).
Topic 15: Texas Black History. Same as History 365G (Topic 7). Surveys the history of blacks in Texas from before American settlement to the present. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Texas Black History), 374D (Topic 15), History 365G (Topic: Texas Black History), 365G (Topic 7). Topic 16: Antebellum Slavery. Same as History 365G (Topic 6) and Women's and Gender Studies 340 (Topic 33). Examination of slavery at its maturity during the nineteenth century. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Antebellum Slavery), 374D (Topic 16), History 365G (Topic: Antebellum Slavery), 365G (Topic 6), Women's and Gender Studies 340 (Topic: Antebellum Slavery), 340 (Topic 33).
Topic 17: The United States in the Civil Rights Era. Same as American Studies 321 (Topic 9), History 356P, and Mexican American Studies 374 (Topic 36). Examines United States history in the postWorld War II era, including how civil rights and other racial issues helped shape the politics, popular culture, and social life of this period. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: The United States in the Civil Rights Era), 374D (Topic 17), American Studies 321 (Topic: The United States in the Civil Rights Era), 321 (Topic 9), History 356P, Mexican American Studies 374 (Topic: The United States in the Civil Rights Era), 374 (Topic 36). Partially fulfills legislative requirement for American history. Topic 20: Domestic Slave Trade. Same as History 350R (Topic 24). 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. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Domestic Slave Trade), 374D (Topic 20), History 350R (Topic: Domestic Slave Trade), 350R (Topic 24).
Topic 21: African American Social and Political Thought. Same as American Studies 321J, Core Texts and Ideas 326 (Topic 3), and Government 335M (Topic 10). Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: African American Social and Political Thought), 374D (Topic 21), American Studies 321 (Topic: African American Social and Political Thought), 321J, Core Texts and Ideas 326 (Topic 3), 335 (Topic: African American Social and Political Thought), Government 335M (Topic: African American Social and Political Thought), 335M (Topic 10). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

## AFR 374E. Advanced Topics in the African Diaspora.

Three lecture hours a week for one semester, with one laboratory hour a week if required by the topic. Some topics partially fulfill legislative requirement for American history. Only one of the following may be counted unless the topics vary: African and African Diaspora Studies $372 \mathrm{C}, 372 \mathrm{D}, 372 \mathrm{E}, 372 \mathrm{~F}, 372 \mathrm{G}, 374 \mathrm{E}$. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: The Politics of Race and Violence in Brazil. Same as Anthropology 324L (Topic 37: The Politics of Race and Violence in

Brazil) and Latin American Studies 324L (Topic 14: The Politics of Race and Violence in Brazil). Prerequisite: Upper-division standing. Topic 3: Atlantic Slavery: History and Memory. Same as American Studies 370 (Topic 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. Only one of the following may be counted: African and African Diaspora Studies 374E (Topic 3), American Studies 370 (Topic: Atlantic Slavery: History and Memory), 370 (Topic 33). Prerequisite: Upper-division standing.
Topic 4: Reimagining Cuba, 1868-Present. Same as History 347 C and Latin American Studies 366 (Topic 22). Explores CubanUnited 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. Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Reimagining Cuba, 1868-Present), 374E (Topic 4), History 347C, 363K (Topic: Reimagining Cuba, 1868-Present), Latin American Studies 366 (Topic 22). Additional prerequisite: Upper-division standing.

Topic 5: Modern Latin America. Same as History 346L and Latin American Studies 366 (Topic 3). Continuation of History 346K and Latin American Studies 366 (Topic 2). Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Modern Latin America), 374E (Topic 5), History 310L, 346L, Latin American Studies 310 (Topic 2: Latin American Civilization: The National Experience), 366 (Topic 3). Additional prerequisite: Upper-division standing.
Topic 6: Afro-Caribbean Diasporas. Same as Latin American Studies 322 (Topic 19). 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. Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: AfroCaribbean Diasporas), 374E (Topic 6), Latin American Studies 322 (Topic 19), 370S (Topic: Afro-Caribbean Diasporas).

## AFR 374F. Advanced Topics in Black Expressive Culture.

Three lecture hours a week for one semester, with one laboratory hour a week if required by the topic. Only one of the following may be counted unless the topics vary: African and African Diaspora Studies 372C, 372D, 372E, 372G, 374F. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 4: Contemporary Women Authors. Same as English 370W (Topic 2: Contemporary Women Authors) and Women's and Gender Studies 345 (Topic 15: Contemporary Women Authors). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 6: Writing Slavery. Same as English 376M (Topic 3) and Women's and Gender Studies 340 (Topic 31). 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. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Writing Slavery), 374F (Topic 6), English 376M (Topic: Writing Slavery), 376M (Topic 3), Women's and Gender 340 (Topic: Writing Slavery), 340 (Topic 31). Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

Topic 7: Caribbean Literature. Same as Comparative Literature 323 (Topic 6: Caribbean Literature) and English 360L (Topic 2: Caribbean Literature). Only one of the following may be counted: African and African Diaspora Studies 374F (Topic 4), Comparative Literature 323 (Topic 6), English 379N (Topic: Caribbean Literature), 360L (Topic 2). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 8: The Music of the African Diaspora. Same as Latin American Studies 326 (Topic 5) and Music 334 (Topic 5). 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. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Music of the African Diaspora), 374F (Topic 8), Latin American Studies 326 (Topic: Music of the African Diaspora), 326 (Topic 5), Music 334 (Topic: Music of the African Diaspora), 334 (Topic 5).

Topic 9: Africana Women's Art. Same as Art History 346L and Women's and Gender Studies 340 (Topic 46). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Africana Women's Art), 374F (Topic 9), Art History 346L, 373C (Topic: Africana Women's Art), Women's and Gender Studies 340 (Topic: Africana Women's Art), 340 (Topic 46). Additional prerequisite: Upper-division standing.
Topic 10: Visual Cultures of Africa. Same as Art History 346M. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Visual Cultures of Africa), 374F (Topic 10), Art History 346M, 373C (Topic: Visual Cultures of Africa).
Topic 11: Introduction to African Art. Same as Art History 346K. Investigates the lives and works of several artists who have made substantial contributions to the definition, history, and interpretation of the visual arts. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Introduction to African Art), 374F (Topic 11), Art History 346K, 373C (Topic: Introduction to African Art), 374 (Topic: Introduction to African Art), Women's and Gender Studies 340 (Topic: Introduction to African Art).
Topic 12: Visual Arts of the Caribbean. Same as Art History 345M. A look at a wide range of artists from the countries of the Caribbean, including examples of cinema and reggae music packaging. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Visual Arts of the Caribbean), 374F (Topic: Visual Arts of the Caribbean), 374F (Topic 12), Art History 345M, 373D (Topic: Visual Arts of the Caribbean), 374 (Topic: Visual Arts of the Caribbean).
Topic 13: Diaspora Visions. Same as Art History 345L and Women's and Gender Studies 340 (Topic 48). 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. Three lecture hours a week for one semester. Only one of the following may be counted:

African and African Diaspora Studies 374F (Topic: Diaspora Vision), 374F (Topic 13), Art History 345L, 373D (Topic: Diaspora Visions), 374 (Topic: Diaspora Vision), Women's and Gender Studies 340 (Topic: Diaspora Vision), 340 (Topic 48).

## Topic 14: Contemporary British Artists of the African Diaspora.

Same as Art History 345K. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Contemporary British Artists of the African Diaspora), 374F (Topic 14), Art History 345K, 374 (Topic: Contemporary British Artists of the African Diaspora).
Topic 15: Contemporary Artists of the African Diaspora. Same as Art History 345J. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Contemporary Artists of the African Diaspora), 374F (Topic 15), Art History 345J, 373D (Topic: Contemporary Artists of the African Diaspora), 374 (Topic: Contemporary Artists of the African Diaspora).
Topic 18: Historical Imagining of Africa in Films. Same as History 350 L (Topic 70) and Women's and Gender Studies 340 (Topic 40). Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Historical Imagining of Africa in Film), 374F (Topic 18), History 350L (Topic: Historical Imagining of Africa in Film), 350L (Topic 70), Women's and Gender Studies 340 (Topic: Historical Imagining of Africa in Film), 340 (Topic 40).
Topic 19: Twentieth-Century African American Art. Same as Art History 344J. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic: Twentieth-Century African American Art), 374F (Topic: 20th-Century African American Art), 374F (Topic 19), Art History 344J, 366N (Topic: 20th-Century African American Art).
Topic 21: Literature of Black Politics. Same as American Studies 370 (Topic 43). Examines the novels, plays, and critical essays of Ralph Ellison, James Baldwin, and Toni Morrison as works of democratic political theorizing and political engagement. Only one of the following may be counted: African and African Diaspora Studies $374 F$ (Topic: Literature of Black Politics), 374F (Topic 21), American Studies 370 (Topic: Literature of Black Politics), 370 (Topic 43), Core Texts and Ideas 345 (Topic: Literature of Black Politics), Western Civilization 320 (Topic: Literature of Black Politics).

## AFR 375. 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. Approximately eight hours of fieldwork a week for one semester. Additional lecture hours may be required. Prerequisite: Upper-division standing, African and African Diaspora Studies 301, and consent of instructor.

## AFR 376. Senior Seminar.

Restricted to majors in African and African diaspora studies. A capstone course focusing on black intellectual traditions. Three lecture hours a
week for one semester. Prerequisite: Completion of seventy-five semester hours of college coursework, African and African Diaspora Studies 301, and consent of instructor.

## AFR 679H. Honors Tutorial Course.

For honors candidates in African and African diaspora studies. Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. Conference course for two semesters. Prerequisite: For 679HA, admission to the African and African Diaspora Studies Honors Program no later than two semesters before expected graduation; for 679 HB , African and African Diaspora Studies 679HA. A University grade point average of at least 3.00 and a grade point average in African and African diaspora studies of at least 3.50 are required for admission to the African and African Diaspora Studies Honors Program.

## Swahili: SWA

## Lower-Division Courses

## SWA 601C. Intensive Swahili I.

Six lecture hours a week for one semester. Swahili 601C and 506 may not both be counted. Swahili 601C and 507 may not both be counted.

## SWA 506. First-Year Swahili I.

Five lecture hours a week for one semester. Swahili 601C and 506 may not both be counted.

## SWA 507. First-Year Swahili II.

Five lecture hours a week for one semester. Swahili 601C and 507 may not both be counted. Prerequisite: Swahili 506.

## SWA 611C. Intensive Swahili II.

Six lecture hours a week for one semester. Swahili 611C and 312K may not both be counted. Swahili 611C and 312L may not both be counted. Prerequisite: Swahili 601C.

## SWA 612. Accelerated Second-Year Swahili.

Not open to native speakers of Swahili. Eight lecture hours a week for one semester.

## SWA 312K. Second-Year Swahili I.

Three lecture hours a week for one semester. Swahili 611C and 312K may not both be counted. Prerequisite: Swahili 507.

## SWA 312L. Second-Year Swahili II.

Three lecture hours a week for one semester. Swahili 611C and 312L may not both be counted. Prerequisite: Swahili 312K.

## Upper-Division Courses

SWA 360. Conference Course in Swahili Language and Literature.
Supervised individual study of selected problems in Swahili language or literature. Conference course. May be repeated for credit. Prerequisite:
Consent of instructor.

## Yoruba: YOR <br> Lower-Division Courses <br> YOR 601C. Beginning Yoruba.

An intensive beginning course with an emphasis on basic skills: listening, speaking, reading, and writing. Six lecture hours a week for one semester. Yoruba 601C and 506 may not both be counted. Yoruba 601C and 507 may not both be counted.

## YOR 506. First-Year Yoruba I.

Restricted to non-native speakers of Yoruba. Standard Yoruba of southwest Nigeria. Five lecture hours a week for one semester. Yoruba 601 C and 506 may not both be counted.

## YOR 507. First-Year Yoruba II.

Restricted to non-native speakers of Yoruba. Continuation of the study of standard Yoruba of southwest Nigeria. Five lecture hours a week for one semester. Yoruba 601C and 507 may not both be counted. Prerequisite: Yoruba 506 with a grade of at least $C$.

## YOR 611C. Intermediate Yoruba.

An intensive intermediate course with emphasis on basic skills: listening, speaking, reading, and writing. Six lecture hours a week for one semester. Yoruba 611C and 312K may not both be counted. Yoruba 611C and 312L may not both be counted. Prerequisite: Yoruba 601 C or 507 with a grade of at least $C$.

## YOR 312K. Second-Year Yoruba I.

Oral expression, reading, and comprehension. Three lecture hours a week for one semester. Yoruba 611C and 312K may not both be counted. Prerequisite: Yoruba 601 C or 507 with a grade of at least C .

## YOR 312L. Second-Year Yoruba II.

Continuation of the study of oral expression, reading, and comprehension. Three lecture hours a week for one semester. Yoruba 611C and 312L may not both be counted. Prerequisite: Yoruba 312 K with a grade of at least C .

## Upper-Division Courses <br> Department of American Studies

## American Studies: AMS

## Lower-Division Courses

## AMS 310. Introduction to American Studies.

Same as History 315G. An interdisciplinary introduction to the historical exploration of American culture. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 310, History 306N (Topic 2: Introduction to American Studies), 315G. Partially fulfills legislative requirement for American history.
AMS 311S. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Consumer Culture in America. Examines consumer culture in the United States through historical and theoretical texts, including film, books, and scholarly works.
Topic 2: American Sports and Culture. Examines how the games Americans play reflect beliefs about success, class hierarchies, gender roles, race relations, and global ambitions.
Topic 3: United States Culture and Globalization. Introduction to the concepts and processes of globalization and how globalization has shaped and been shaped by culture in the United States at different periods in history.
Topic 4: American Places of Leisure. Explores the history of American amusement spaces, using them as a lens through which to explore larger currents of cultural change. Subjects include issues of race, gender, class, corporate history, globalization, and the rise of convergence culture, all as played out within recreational spaces.

American Studies 311S (Topic: American Places of Leisure) and 311S (Topic 4) may not both be counted.

## AMS 315. Topics in American Life.

Interdisciplinary exploration of American cultural and intellectual life. Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule

Topic 1: Introduction to Asian American Studies. Same as Asian American Studies 301. 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. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Introduction to Asian American Studies), American Studies 315 (Topic 1), Asian American Studies 301, Sociology 308 (Topic: Introduction to Asian American Studies).
Topic 2: Mixed Race Identities. Same as Asian American Studies 310 (Topic 3). 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. Only one of the following may be counted: American Studies 315 (Topic: Mixed Race and the Media), 315 (Topic 2), Asian American Studies 310 (Topic: Mixed Race and the Media), 310 (Topic 3).
Topic 3: Race, Immigration, and Family. Same as Asian American Studies 310 (Topic 5) and Women's and Gender Studies 301 (Topic 24). Introduction to family systems in the United States in a postWWII 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. Only one of the following may be counted: American Studies 315 (Topic: Alternative Family Systems), 315 (Topic 3), Asian American Studies 310 (Topic: Alternative Family Systems), 310 (Topic 5), Women's and Gender Studies 301 (Topic: Alternative Family Systems), 301 (Topic 24).
Topic 4: Jews in America: The Yiddish Experience. Same as Jewish Studies 311 (Topic 6) and Religious Studies 313 (Topic 1). 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. Only one of the following may be counted: American Studies 315 (Topic: Jews in America: The Yiddish Experience), 315 (Topic 4), Jewish Studies 311 (Topic: Jews in America: The Yiddish Experience), 311 (Topic 6), Religious Studies 313 (Topic: Jews in America: The Yiddish Experience), 313 (Topic 1).

## AMS 315C. Movies Go To War.

Same as Comparative Literature 305 (Topic 3), European Studies 307 (Topic 4), and German, Scandinavian, and Dutch Studies 311C. 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. Only one of the following may be counted: American Studies 315 (Topic: Movies Go to War, World War I to Vietnam), 315C, Comparative Literature 305 (Topic: Movies Go to War, World War I to Vietnam), 305 (Topic 3), European Studies 307 (Topic: Movies Go to War, World War I to Vietnam), 307 (Topic 4), German, Scandinavian, and Dutch Studies 311C, Germanic Civilization 311 (Topic 2: Movies Go to War, World War I to Vietnam).

## AMS 315D. Anthropology of Race and Ethnicity: An Introduction.

Same as Anthropology 310L (Topic 2: Anthropology of Race and Ethnicity: An Introduction) and African and African Diaspora Studies 317D (Topic 2: Anthropology of Race and Ethnicity: An Introduction). Examines the social importance of race and ethnicity both in America and around the world. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 317D (Topic 2) and American Studies 315 (Topic: Anthropology of Race and Ethnicity), 315D, Anthropology 310L (Topic 2).

## AMS 315E. Introduction to Historical Archaeology.

Same as Anthropology 310L (Topic 4: Introduction to Historical Archaeology). A comprehensive survey of the methods, theories, and discoveries of historical archaeology, an interdisciplinary field that draws its theoretical and methodological foundations from anthropology, archaeology, and history. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Introduction to Historical Archaeology), 315E, Anthropology 310L (Topic 4).

## AMS 315F. Native American Literature and Culture.

Same as English 314V (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Native American Literature and Culture), 315F, English 314V (Topic 5). Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

AMS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## AMS 321. Studies in American Societies.

A study of America through its geography, language, government, or cultures. Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

Topic 1: Native American Cultures of the Greater Southwest.
Same as Anthropology 322M (Topic 3: Native American Cultures of the Greater Southwest).
Topic 2: Language and Speech in American Society. Same as Anthropology 325N, Linguistics 373 (Topic 2: Language and Speech in American Society), and Sociology 352M (Topic 3: Language and Speech in American Society). Prerequisite: Upper-division standing, and Anthropology 302, 305, 307, or Linguistics 306.
Topic 3: Native American Cultures North of Mexico. Same as Anthropology 336L.
Topic 4: America and the Holocaust. Same as History 356R and Jewish Studies 365 (Topic 1: America and the Holocaust). Only one of the following may be counted: American Studies 321 (Topic 4), 370 (Topic: America and the Holocaust), History 350L (Topic: America and the Holocaust), 356R, 365G (Topic: America and the Holocaust), Jewish Studies 361 (Topic: America and the Holocaust), 365 (Topic 1),

Liberal Arts Honors 350 (Topic: America and the Holocaust). Partially fulfills legislative requirement for American history.
Topic 5: Asian American Jurisprudence. Same as Asian American Studies 325 (Topic 5: Asian American Jurisprudence) and Government 357M (Topic 9: Asian American Jurisprudence). Introduction to the study of Asian Americans and the law. Examines 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. Three lecture hours a week for one semester. Additional prerequisite: Upper-division standing.
Topic 7: Social Movements. Same as Sociology 352. Characteristics of crowds, publics, and social movements; their role in social organization and social change. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Social Movements), American Studies 321 (Topic 7), Sociology 352. Additional prerequisite: Upper-division standing. Topic 8: Urban Unrest. Same as Asian American Studies 330 (Topic 6), African and African Diaspora Studies 372F (Topic 13), Anthropology 324L (Topic 46), and Urban Studies 354 (Topic 14). 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. Only one of the following may be counted: African and African Diaspora Studies 372F (Topic: Urban Unrest), 372F (Topic 13), 374D (Topic: Urban Unrest), American Studies 321 (Topic: Urban Unrest), 321 (Topic 8), Anthropology 324L (Topic: Urban Unrest), 324L (Topic 46), Asian American Studies 330 (Topic: Urban Unrest), 330 (Topic 6), Urban Studies 354 (Topic: Urban Unrest), 354 (Topic 14).
Topic 9: The United States in the Civil Rights Era. Same as African and African Diaspora Studies 374D (Topic 17), History 356P, and Mexican American Studies 374 (Topic 36). 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. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: The United States in the Civil Rights Era), 374D (Topic 17), American Studies 321 (Topic: The United States in the Civil Rights Era), 321 (Topic 9), History 356P, Mexican American Studies 374 (Topic: The United States in the Civil Rights Era), 374 (Topic 36). Partially fulfills legislative requirement for American history.
Topic 10: Women and Social Movements in the Twentieth-Century United States. Same as History 365G (Topic 8) and Women's and Gender Studies 340 (Topic 53). Examines women's participation in well-known and lesser-known social movements during the twentieth century. Only one of the following may be counted: American Studies 321 (Topic: Women and Social Movements in the Twentieth-Century United States), 321 (Topic 10), History 365G (Topic: Women and Social Movements in the Twentieth-Century United States), 365G (Topic 8), Women's and Gender Studies 340 (Topic: Women and Social Movements in the Twentieth-Century United States), 340 (Topic 53).

Topic 11: The Vietnam Wars. Same as History 365G (Topic 4). Introduction to the complex and controversial history of the wars fought in Vietnam from 1941 to the 1980s. Only one of the following may be counted: American Studies 321 (Topic: Vietnam Wars), 321 (Topic 11), Asian Studies 372 (Topic: Vietnam Wars), History 365G (Topic: Vietnam Wars), 365G (Topic 4).

## AMS 321E. African American History to 1860.

Same as African and African Diaspora Studies 357C and History 357C. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357C, American Studies 321 (Topic: African American History to 1860), 321E, History 357C. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## AMS 321F. African American History since 1860.

Same as African and African Diaspora Studies 357D, History 357D, and Urban Studies 353 (Topic 1: 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357D, American Studies 321 (Topic: African American History since 1860), 321F, History 357D, Urban Studies 353 (Topic 1). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## AMS 321G. Native Americans in Texas.

Same as Anthropology 326C. Studies the history of Native Americans in Texas using concepts and evidence from anthropology, history, archaeology, historical geography, and Native American studies. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Native Americans in Texas), 321G, Anthropology 324L (Topic: Native American in Texas). Prerequisite: Upper-division standing.

## AMS 321J. African American Social and Political Thought.

Same as African and African Diaspora Studies 374D (Topic 21), Core Texts and Ideas 326 (Topic 3), and Government 335M (Topic 10). Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: African American Social and Political Thought), 374D (Topic 21), American Studies 321 (Topic: African American Social and Political Thought), 321J, Core Texts and Ideas 326 (Topic 3), 335 (Topic: African American Social and Political Thought), Government 335M (Topic: African American Social and Political Thought), 335M (Topic 10). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

## AMS 322. Studies in American Writing.

A study of America through its literature, popular fiction, journalism, and folklore. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

Topic 3: Sport, Fitness, and Mass Media. Same as Kinesiology 352K (Topic 5: Sport, Fitness, and Mass Media).

## AMS 325. Studies in American Art and Media Culture.

Study of American culture and society through media and the arts. Three lecture hours or two lecture hours and one discussion hour a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: Painting in America to 1860. Same as Art History 339N. Painting in British colonial North America and the United States prior to the Civil War. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 325 (Topic 2), Art History 339N, 374 (Topic 1).

Topic 3: Painting in the United States, 1860-1913. Same as Art History 339P. Painting in the United States from the Civil War to the Armory Show. Three lecture hours a week for one semester Only one of the following may be counted: American Studies 325 (Topic 3), Art History 374 (Topic 2), 339P.

## AMS 325C. Popular Music in the United States.

Same as History 365G (Topic 2). 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. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Popular Music in the US), 325C, History 365G (Topic: Popular Music in the US), 365G (Topic 2). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## AMS 327. Studies in Religion and Philosophy.

Interdisciplinary exploration of religion and philosophy in American culture. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic.

Topic 4: United States Catholic History. Same as History 365G (Topic 1), Mexican American Studies 374 (Topic 37), and Religious Studies 346 (Topic 5). Examines how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latinos/as. Only one of the following may be counted: American Studies 321 (Topic: United States Catholic History), 327 (Topic 4), History 365G (Topic: United States Catholic History), 365G (Topic 1), Mexican American Studies 374 (Topic: United States Catholic History), 374 (Topic 37), Religious Studies 346 (Topic: United States Catholic History), 346 (Topic 5). Partially fulfills legislative requirement for American history.

## AMS 329. Environmental History of North America.

Same as History 350R (Topic 7: Environmental History of North America) and Urban Studies 353 (Topic 5: 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. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 329, History 350L (Topic 4: Environmental History of North America), 350R (Topic 7), Urban Studies 353 (Topic 5). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing and six semester hours of coursework in history.

AMS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## AMS 330. Modernism in American Design and Architecture.

Same as Art History 339Q and Urban Studies 352 (Topic 5). A historical survey of artifacts, buildings, and urban environments, focusing on responses to machine-age civilization. Prerequisite: Upper-division standing.

## AMS 355. Main Currents of American Culture to 1865.

Same as History 355N. 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. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## AMS 356. Main Currents of American Culture since 1865.

Same as History 356K. 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. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upperdivision standing.

## AMS 358. The United States, 1920-1941.

Same as History 355M. A history of political, economic, diplomatic, military, social, and cultural developments in the United States between the two world wars. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upperdivision standing.

## AMS 370. Seminar in American Culture.

Interdisciplinary seminar on themes in American life. Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic.

Topic 1: American Cultural History of Alcohol and Drugs. Same as History 350R (Topic 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. Only one of the following may be counted: American Studies 370 (Topic 1), History 350L (Topic 2: American Cultural History of Alcohol and Drugs), 350R (Topic 5). Partially fulfills legislative requirement for American history. Additional prerequisite: Six semester hours of coursework in history.
Topic 6: Gender-Based Discrimination. Same as Government 357M (Topic 1: Gender-Based Discrimination) and Women's and Gender Studies 345 (Topic 8: Gender-Based Discrimination). Studies the substance of laws that relate to gender-based roles, and the participation of women in the legal process. Additional prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, a University grade point average of at least 3.50 , and consent of department received prior to registering.

Topic 10: Leadership in America. Same as Government 370L (Topic 2: Leadership in America) and Women's and Gender Studies 345 (Topic 34: Leadership in America). Introduction to the concepts of leadership and the application of those concepts in public and political leadership. Additional prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, a University grade point average of at least 3.50, and consent of department received prior to registering.
Topic 13: The Culture of Cities. Same as Geography 356T (Topic 1: The Culture of Cities) and Urban Studies 354 (Topic 4: 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.
Topic 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.
Topic 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.
Topic 19: The Cold War and American Childhood. Uses childhood as a focus for studying the cultural and political climate of the postWorld War II era.
Topic 20: Children's Literature and American Culture. Examines changes in American childhood using children's literature that covers several different time periods.
Topic 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.
Topic 22: Deviance in America: An Alternative History. Same as History 350R (Topic 6: Deviance in America: An Alternative History). Examines movements and individuals outside the conventional mainstream and how they reflect American ideals and dilemmas. Only one of the following may be counted: American Studies 370 (Topic 22), History 350L (Topic 61: Deviance in America: An Alternative History), 350R (Topic 6). Partially fulfills legislative requirement for American history. Additional prerequisite: Six semester hours of coursework in history.
Topic 23: Memory and Place. Same as Geography 356T (Topic 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.
Topic 24: Comparative Cultures of Beauty. Same as Asian American Studies 320 (Topic 2: Comparative Cultures of Beauty) and Women's and Gender Studies 345 (Topic 45: Comparative Cultures of Beauty). Examines fashion and beauty as discourses and cultural practices affecting identity, body politics, race, gender, sexuality, and class. Additional prerequisite: Upper-division standing.
Topic 25: Immigrants, Amusements, and Consumer Culture. Same as Asian American Studies 320 (Topic 1: Immigrants, Amusements, and Consumer Culture). Studies the growth of consumer capitalism as it coincides with the migration and integration of immigrants into American society. Examines the emergence of consumer culture as a force that defines modern American society and traces its developments and current manifestations throughout the world.
Topic 26: American Food. Same as Women's and Gender Studies 345 (Topic 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.
Topic 27: Nature and Gender in America. Same as Women's and Gender Studies 345 (Topic 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.

Topic 28: Animals and American Culture. Same as History 350R (Topic 9: Animals and American Culture) and Women's and Gender Studies 345 (Topic 43: Animals and American Culture). Explores the role of animals in American history, culture, and society. Only one of the following may be counted: American Studies 370 (Topic 28), History 350L (Topic 60: Animals and American Culture), 350R (Topic 9), Women's and Gender Studies 345 (Topic 43). Partially fulfills legislative requirement for American history. Prerequisite: Upperdivision standing and six semester hours of coursework in history.
Topic 29: Women Radicals and Reformers. Same as Women's and Gender Studies 345 (Topic 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.
Topic 30: Women in Postwar America. Same as History 350R (Topic 8: Women in Postwar America) and Women's and Gender Studies 345 (Topic 37: Women in Postwar America). Only one of the following may be counted: American Studies 370 (Topic 30), History 350L
(Topic 58: Women in Postwar America), 350R (Topic 8), Women's and Gender Studies 345 (Topic 37). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing and six semester hours of coursework in history.
Topic 31: Black Americans and the South. Same as African and African Diaspora Studies 374D (Topic 6: Black Americans and the South). Traces the post-Reconstruction conversation among black Americans over how to live in the South and make sense of its history of widespread racial violence, lynching, de jure segregation, civil rights struggles, and their legacies. Sources include authors such as Jean Toomer, Tayari Jones, and Natasha Trethewey, and fiction, speeches, newspaper accounts, photographs, paintings, poetry, and popular music, including jazz, blues, rock, rhythm and blues, and hip hop and rap. Only one of the following may be counted: African and African Diaspora Studies 374 (Topic: Black Americans and the South), 374D (Topic 6), American Studies 370 (Topic 31).
Topic 32: Slavery across Genres. Same as African and African Diaspora Studies 372E (Topic 2: 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. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 2), 374D (Topic 7), American Studies 370 (Topic: Slavery across Genres), 370 (Topic 32).
Topic 33: Atlantic Slavery: History and Memory. Same as African and African Diaspora Studies 374E (Topic 3: 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. Only one of the following may be counted: African and African Diaspora Studies 374E (Topic 3), American Studies 370 (Topic: Atlantic Slavery: History and Memory), 370 (Topic 33).
Topic 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.
Topic 35: American Popular Culture, 1682-Present. Same as History 350R (Topic 19: American Popular Culture, 1682-Present) and Women's and Gender Studies 340 (Topic 26: 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. Partially fulfills legislative requirement
for American history. Prerequisite: Upper-division standing and six semester hours of coursework in history.
Topic 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.
Topic 37: The Politics of Creativity. Interdisciplinary investigation of artists in American society and of the intersection of art and politics.
Topic 38: Property in American Culture. African and African Diaspora Studies 372C (Topic 3: Property in American Culture). Explores American conceptions of property over a wide range of economic transformations from the mercantile to the digital age, with special attention to the ambiguous and tension-filled meanings of property for women, African Americans, and Native Americans. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic 3), 374D (Topic: Property in American Culture), American Studies 370 (Topic: Property in American Culture), 370 (Topic 38).
Topic 39: Radical Latinos. Mexican American Studies 374 (Topic 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. Only one of the following may be counted: American Studies 370 (Topic Radical Latinos), 370 (Topic 39), Mexican American Studies 374 (Topic: Radical Latinos), 374 (Topic 32).
Topic 40: Southern Cultures. Women's and Gender Studies 345 (Topic 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.
Topic 41: Vienna: Memory and the City. European Studies 346 (Topic 5: Vienna: Memory and the City), History 362G (Topic 2: Vienna: Memory and the City), and Urban Studies 354 (Topic 7: Vienna: Memory and the City). Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria. Only one of the following may be counted: American Studies 315 (Topic: Vienna: Memory and the City), 370 (Topic 41), 306 (Topic: Vienna: Memory and the City), 346 (Topic 5), Geography 309 (Topic: Vienna: Memory and the City), Germanic Civilization 311(Topic: Vienna: Memory and the City), History 306N (Topic: Vienna: Memory and the City), 362G (Topic 2), Urban Studies 305 (Topic: Vienna: Memory and the City), 354 (Topic 7). Additional prerequisite: Upperdivision standing.
Topic 42: Black Political Thought. Same as African and African Diaspora Studies 372C (Topic 14). 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. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic: Black Political Thought), 372C (Topic 14), American Studies 370 (Topic: Black Political Thought), 370 (Topic 42).

Topic 43: Literature of Black Politics. Same as African and African Diaspora Studies 374F (Topic 21). Examines the novels, plays, and critical essays of Ralph Ellison, James Baldwin, and Toni Morrison as works of democratic political theorizing and political engagement. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Literature of Black Politics), 374F (Topic 21), American Studies 370 (Topic: Literature of Black Politics), 370 (Topic 43), Core Texts and Ideas 345 (Topic: Literature of Black Politics), Western Civilization 320 (Topic: Literature of Black Politics).

Topic 44: The Tragicomedy of American Democracy. Same as African and African Diaspora Studies 372F (Topic 15) and Core Texts and Ideas 326 (Topic 2). Examines the foundational ideas and practices essential to the unfolding of American democracy by focusing on founding documents, public speeches, major political conflicts, and canonical texts of political philosophy. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Tragicomedy of American Democracy), 372F (Topic 15), American Studies 370 (Topic: Tragicomedy of American Democracy), 370 (Topic 44), Core Texts and Ideas 326 (Topic: Tragicomedy of American Democracy), 326 (Topic 2), Western Civilization 320 (Topic: Tragicomedy of American Democracy).
Topic 45: Feminist Interventions in Borderlands History. Same as Mexican American Studies 374 (Topic 38) and Women's and Gender Studies 340 (Topic 45). 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. Only one of the following may be counted: American Studies 370 (Topic: Feminist Interventions in Borderlands History), 370 (Topic 45), Mexican American Studies 374 (Topic: Feminist Interventions in Borderlands History), 374 (Topic 38), Women's and Gender Studies 340 (Topic: Feminist Interventions in Borderlands History), 340 (Topic 45).

Topic 46: Latina/o Pop. Same as Mexican American Studies 374 (Topic 39). Examines how Latinas/os have been a major force in the production of popular culture. Only one of the following may be counted: American Studies 370 (Topic: Latina/o Pop), 370 (Topic 46), Mexican American Studies 374 (Topic: Latina/o Pop), 374 (Topic 39).
Topic 47: Language, Culture, and the Texas German Experience. Same as Anthropology 324L (Topic 55), German, Scandinavian, and Dutch Studies 351C, and Linguistics 373 (Topic 10). 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. Three lectures a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Language, Culture, and the Texas German Experience), 370 (Topic 47), Anthropology 324L (Topic: Language, Culture, and the Texas German Experience), 324L (Topic 55), Germanic Civilization 327E (Topic 11) German, Scandinavian, and Dutch Studies 351C, Linguistics 350 (Topic: Language, Culture, and the Texas German Experience), 373 (Topic 10). Additional prerequisite: Upper-division standing.
Topic 48: Race and Citizenship in United States History. Same as History 350R (Topic 25) and Mexican American Studies 374 (Topic 35). Uses primary and secondary sources to analyze how race and citizenship have functioned for populations of color in the United States. Only one of the following may be counted: American Studies 370 (Topic: Race and Citizenship in United States History), 370 (Topic 48), History 350R (Topic: Race and Citizenship in United States History), 350R (Topic 25), Mexican American Studies 374 (Topic: Race and Citizenship in United States History), 374 (Topic 35). Partially fulfills legislative requirement for American history.

## AMS 372. Conference Course.

Supervised individual study of selected subjects in American studies. Conference course. May be repeated for credit. Prerequisite: Upperdivision standing and consent of instructor.

## AMS 679H. Honors Tutorial Course.

Individual readings and conferences in connection with an original research paper. Conference course for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the American Studies Honors Program; for 679HB, American Studies 679HA.

## Department of Anthropology

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Anthropology: ANT

## Lower-Division Courses

ANT 301 (TCCN: ANTH 2301). Physical Anthropology.
Human evolution, race, heredity, the organic basis of culture; culture history through the Paleolithic stage. The equivalent of three lecture hours a week for one semester.

## ANT 302 (TCCN: ANTH 2351). Cultural Anthropology.

The concept of culture; social and political organization; language; the supernatural; elementary cultural theory. Three lecture hours a week or two lecture hours and one discussion hour a week for one semester.

## ANT 304 (TCCN: ANTH 2302). Introduction to Archaeological Studies: Prehistoric Archaeology.

Anthropological study of prehistory, from human beginnings to the appearance of written records. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Anthropology 304 and Archaeology 301 may not both be counted.

ANT 304T. Introduction to Texas Archaeology.
Introduces students to Texas archaeology through lectures, interactive virtual labs, and hands-on laboratory sections that emphasize experimentation. The equivalent of three lecture hours or two lecture hours and two laboratory hours a week for one semester.

## ANT 305. Expressive Culture.

How cultural assumptions affect how we tell and respond to different kinds of stories, including fairy tales, movies, and televised news. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

## ANT 307. Culture and Communication.

Same as Linguistics 312C. An introduction to the study of culture through communication and the theory of signs. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Anthropology 307, Linguistics 312 (Topic: Culture and Communication), 312C.

## ANT 310D. Introduction to Black Studies.

Same as African and African Diaspora Studies 303. Introduction to canonical black studies literature, themes, and theories. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 303, Anthropology 310D, 310 L (Topic: Intro to African and African Diaspora Studies).

## ANT 310L. Introductory Topics in Anthropology.

Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary.

## Topic 2: Anthropology of Race and Ethnicity: An Introduction.

 Same as American Studies 315D and African and African Diaspora Studies 317D (Topic 2: Anthropology of Race and Ethnicity: An Introduction). Examines the social importance of race and ethnicity both in America and around the world. Only one of the following may be counted: African and African Diaspora Studies 317D (Topic 2) andAmerican Studies 315 (Topic: Anthropology of Race and Ethnicity), 315D, Anthropology 310L (Topic 2).
Topic 3: Anthropology of Latin America. Same as Latin American Studies 315 (Topic 1). Provides a framework for understanding contemporary concerns in Latin America. Only one of the following may be counted: Anthropology 310L (Topic 3), Latin American Studies 310 (Topic 4), 315 (Topic 1).
Topic 4: Introduction to Historical Archaeology. Same as American Studies 315E. A comprehensive survey of the methods, theories, and discoveries of historical archaeology, an interdisciplinary field that draws its theoretical and methodological foundations from anthropology, archaeology, and history. Only one of the following may be counted: American Studies 315 (Topic: Introduction to Historical Archaeology), 315E, Anthropology 310L (Topic 4).
Topic 5: Introduction to South Asia. Same as Asian Studies 302K. Introduction to Indian and south Asian civilization, past and present, including religion, literature, arts, philosophy, and history. Only one of the following may be counted: Anthropology 310L (Topic 5), Asian Studies 302K, History 306N (Topic: Introduction to India).
Topic 6: Black Queer Diaspora Aesthetics. Same as African and African Diaspora Studies 317E (Topic 1) and Women's and Gender Studies 301 (Topic 17). 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. Only one of the following may be counted: African and African Diaspora Studies 317E (Topic: Black Queer Diaspora Aesthetics), 317E (Topic 1), Anthropology 310L (Topic: Black Queer Diaspora Aesthetics), 310L (Topic 6), Women's and Gender Studies 301 (Topic: Black Queer Diaspora Aesthetics), 301 (Topic 17).
Topic 7: Diaspora: Race, Nation, and Resistance. Same as African and African Diaspora Studies 317E (Topic 2). 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. Only one of the following may be counted: African and African Diaspora Studies 317E (Topic: Diaspora: Race/Nation/Resistance), 317E (Topic 2), Anthropology 310L (Topic: Diaspora: Race/Nation/Resistance), 310L (Topic 7), Asian American Studies 310 (Topic: Diaspora: Race/Nation/ Resistance).

## ANT 314C. Introduction to Mesoamerican Archaeology.

Same as Latin American Studies 315 (Topic 2). 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. Only one of the following may be counted: Anthropology 310L (Topic 1: Introduction to Mesoamerican Archaeology), 314C, Latin American Studies 310 (Topic 3: Introduction to Mesoamerican Archaeology), 315 (Topic 2).

## ANT 318L. Mexican American Culture.

Same as Mexican American Studies 318. Mexican American cultural distinctiveness in the areas of social organization, child rearing, food culture, folklore, language, and religion. Three lecture hours a week for one semester.

ANT 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

ANT 320L. Topics in Language, Culture, and Communication.
Relationship of language to culture and society, and of folk classifications to principles of social organization and cognition. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Ethnography of Communication. History and overview of the ethnography of communication with a focus on theoretical and methodological issues. Prerequisite: Anthropology 302.
Topic 4: American Indian Languages and Cultures. Prerequisite: Anthropology 302.
Topic 5: Speech Play and Verbal Art. Prerequisite: Anthropology 302.

Topic 9: The German Language: Historical Perspectives. Same as German 369 (Topic 4) and Linguistics 373 (Topic 9). Only one of the following may be counted: Anthropology 320L (Topic 8: German and English: Historical Perspectives), 320L (Topic 9), Classical Civilization 348 (Topic 8: German and English: Historical Perspectives), 348 (Topic 9: The German Language: Historical Perspectives), German 369 (Topic 4), Germanic Civilization 327E (Topic 9: German and English: Historical Perspectives), Linguistics 373 (Topic 8: German and English: Historical Perspectives), 373 (Topic 9). Additional prerequisite: Three semester hours of upper-division coursework in German or Linguistics.
Topic 10: Language, Culture, and Society in Latin America. Prerequisite: Anthropology 302, 305, 307, or Linguistics 306; or consent of instructor.

## ANT 322K. Southwestern Archaeology.

Prehistory of New Mexico, Arizona, Utah, and neighboring areas, from the earliest human occupation to the Spanish conquest. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANT 322M. Topics in Cultures of the World.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Native American Cultures of the Greater Southwest. Same as American Studies 321 (Topic 1: Native American Cultures of the Greater Southwest). Prerequisite: Upper-division standing.
Topic 5: Indians of Mexico and Guatemala. Same as Latin American Studies 324L (Topic 2: Indians of Mexico and Guatemala). Prerequisite: Upper-division standing.
Topic 10: Mexican American Indigenous Heritage. Same as Mexican American Studies 374 (Topic 23: Mexican American Indigenous Heritage). The prehistory, history, and contemporary racial understanding of Mexican Americans. Prerequisite: Upper-division standing.
Topic 12: Mexican Immigration Cultural History. Same as Latin American Studies 324L (Topic 16). 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. Only one of the following may be counted: Anthropology 310L (Topic: Mexican Immigration Cultural History), 322M (Topic 12), Latin American Studies 310 (Topic: Mexican Immigration Cultural History), 324L (Topic 16), Mexican American Studies 319 (Topic: Mexican Immigration Cultural History).

## ANT 324L. Topics in Anthropology.

Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Primitive Technology. Prerequisite: Upper-division standing. Topic 7: Introduction to African Prehistory. Same as African and African Diaspora Studies 322. Prerequisite: Upper-division standing.
Topic 8: Cultures of Southeast Asia. Same as Asian Studies 361
(Topic 5: Cultures of Southeast Asia). Comparative study of the peoples of Indonesia, Burma, Thailand, Malaysia, and other countries. Prerequisite: Upper-division standing.
Topic 9: The African Diaspora in the Americas. Same as African and African Diaspora Studies 321. Black cultures and societies in the New World, and their African heritage. Prerequisite: Upper-division standing.
Topic 10: Colonialism and Nationalism. Same as Asian Studies 361 (Topic 10: Colonialism and Nationalism). Prerequisite: Upper-division standing.
Topic 13: Musics of India. Same as Asian Studies 361 (Topic 11: Musics of India) and Music 342 (Topic 3: Musics of India). Prerequisite: Upper-division standing.
Topic 16: Contemporary India. Same as Asian Studies 361 (Topic 3: Contemporary India).
Topic 17: Nature, Society, and Adaptation. Same as Geography 331 K . 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. Three lecture hours a week for one semester. Additional prerequisite: Upperdivision standing.
Topic 18: The Male in African American Culture and Society. Same as African and African Diaspora Studies 323. Prerequisite: Upperdivision standing.
Topic 23: History of Hindu Religious Traditions. Same as Asian Studies 340 (Topic 4: History of Hindu Religious Traditions), History 364G (Topic 1: History of Hindu Religious Traditions), and Religious Studies 321. 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. Prerequisite: Upper-division standing.
Topic 24: Archaeology of African Thought. Same as African and African Diaspora Studies 372G (Topic 3: Archaeology of African Thought). Archaeological, historical, and ethnographic data as they relate to the foundations of contemporary African and African American societies. Only one of the following may be counted: African and African Diaspora 372G (Topic 3), 374C (Topic 2), Anthropology 324L (Topic 24).
Topic 26: Race and Sport in African American Life. Same as African and African Diaspora Studies 372E (Topic 19) and Kinesiology 352 K (Topic 6). Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 19), 374 (Topic 27), Anthropology 324L (Topic 26), Kinesiology 352K (Topic 6) Additional prerequisite: Upper-division standing.
Topic 29: Sacred and Ceremonial Textiles. Same as Islamic Studies 372 (Topic 11), Religious Studies 358 (Topic 11), and Women's and Gender Studies 340 (Topic 57). Textiles and material objects indigenous to the Islamic world, and what they reveal about the culture of various Islamic societies. Only one of the following may be counted: Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Studies 322K (Topic 24), 328 (Topic: Sacred and Ceremonial Textiles), Religious Studies 358 (Topic: Sacred and Ceremonial Textiles), 358 (Topic 11), Women's and Gender

Studies 340 (Topic: Sacred and Ceremonial Textiles), 340 (Topic 57). Additional prerequisite: Upper-division standing.
Topic 33: Geographical Information Systems and Remote Sensing for Archaeology and Paleontology. Same as Geography 356T
(Topic 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. Prerequisite: Upper-division standing.
Topic 34: Iberian Prehistory and History. The prehistory of Iberia and the historic development of the nation-states of Portugal and Spain. Anthropology 324L (Topic 34) and Latin American Studies 324L (Topic: Iberian Prehistory and History) may not both be counted. Prerequisite: Consent of instructor.
Topic 35: Indigenous Rights and Autonomy in Mexico. Explores the relationship between the Mexican government and the indigenous population. Anthropology 324L (Topic 35) and Latin American Studies 324L (Topic: Indigenous Rights and Autonomy in Mexico) may not both be counted.
Topic 36: Nationalism and Gender in South Asia. Same as Asian Studies 361 (Topic 26: Nationalism and Gender in South Asia) and Women's and Gender Studies 340 (Topic 24: Nationalism and Gender in South Asia). Explores why nationalist movements often make the reform of women's roles central to their political projects.
Topic 37: The Politics of Race and Violence in Brazil. Same as African and African Diaspora Studies 374E (Topic 2: The Politics of Race and Violence in Brazil) and Latin American Studies 324L (Topic 14: The Politics of Race and Violence in Brazil). Prerequisite: Upperdivision standing.
Topic 38: Race and the Criminal Justice System. Same as African and African Diaspora Studies 372F (Topic 10). Examines historical and contemporary studies that provide arguments about the connections between race, poverty, and the criminal justice system. Subjects include how and why acts of police violence, questionable court proceedings, and unjust sentences routinely take place, and how and why they are often sanctioned by institutional practices and society at large. Only one of the following may be counted: African and African Diaspora Studies 320 (Topic 3), 372F (Topic 10), Anthropology 324L (Topic 38).
Topic 39: Theories of Archaeology. The history of archaeological thought, including the major theoretical trends that have shaped the discipline over time.
Topic 40: Gender, Sexuality, and the Family in Indian Religions and Cultures. Same as Asian Studies 372 (Topic 25: Gender, Sexuality, and the Family in Indian Religions and Cultures), Religious Studies 341 (Topic 3: Gender, Sexuality, and the Family in Indian Religions and Cultures), and Women's and Gender Studies 340 (Topic 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.
Topic 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. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Science, Technology, and Race), Anthropology 324L (Topic: Science, Technology, and Race), 324L (Topic 41).
Topic 42: United States Latino and Latina Ethnographies. Same as Mexican American Studies 374 (Topic 33). Explores past and present anthropological representations of Latinos and Latinas in the United States. Only one of the following may be counted: Anthropology 324L (Topic: U.S. Latino/a Ethnographies), 324L (Topic 42), Mexican

American Studies 374 (Topic: U.S. Latino/a Ethnographies), 374 (Topic 33).

Topic 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. Anthropology 324L (Topic: Creative Nonfiction and Ethnography) and 324L (Topic 43) may not both be counted.
Topic 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. Anthropology 324L (Topic: Ethnographic Theory and Practice) and 324L (Topic 44) may not both be counted.
Topic 45: Queer Ethnographies. Same as Women's and Gender Studies 340 (Topic 58). 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. Only one of the following may be counted: Anthropology 324L (Topic: Queer Ethnographies), 324L (Topic 45), Women's and Gender Studies 340 (Topic: Queer Ethnographies), 340 (Topic 58).
Topic 46: Urban Unrest. Same as Asian American Studies 330 (Topic 6), African and African Diaspora Studies 372F (Topic 13), American Studies 321 (Topic 8), and Urban Studies 354 (Topic 14). 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. Only one of the following may be counted: African and African Diaspora Studies 372F (Topic: Urban Unrest), 372F (Topic 13), 374D (Topic: Urban Unrest), American Studies 321 (Topic: Urban Unrest), 321 (Topic 8), Anthropology 324L (Topic: Urban Unrest), 324L (Topic 46), Asian American Studies 330 (Topic: Urban Unrest), 330 (Topic 6), Urban Studies 354 (Topic: Urban Unrest), 354 (Topic 14).
Topic 47: Afro-Caribbean Politics and Culture in Central America. Same as African and African Diaspora Studies 326, Latin American Studies 337N, and Women's and Gender Studies 340 (Topic 38). Exploration of black identity, political systems, and community activism in Central America and the Caribbean. Only one of the following may be counted: African and African Diaspora Studies 326, 374E (Topic: Afro-Caribbean Politics and Culture in Central America), Anthropology 324L (Topic: Afro-Caribbean Politics and Culture in Central America), 324L (Topic: 47), Government 365N (Topic: Afro-Caribbean Politics and Culture in Central America), Latin American Studies 337M (Topic: Afro-Caribbean Politics and Culture in Central America), 337 N , Women's and Gender Studies 340 (Topic: Afro-Caribbean Politics and Culture in Central America), 340 (Topic 38). Additional prerequisite: Upper-division standing.
Topic 48: Sex and Power in the African Diaspora. Same as African and African Diaspora Studies 372G (Topic 33) and Women's and Gender Studies 340 (Topic 52). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Sex and Power in the African Diaspora), 372G (Topic 33), Anthropology 324L (Topic: Sex and Power in the African Diaspora), 324 L (Topic 48), Women's and Gender Studies 340 (Topic: Sex and Power in the African Diaspora), 340 (Topic 52).

Topic 49: Global Markets and Local Cultures. Same as Asian Studies 361 (Topic 31). Examines contemporary theories of globalization, including materials exploring global governance, international monetary policy, migration regulation, offshoring, and cultural hybridity. Focuses on case studies in Asia and elsewhere that reveal how these practices impact particular communities. Only one of the following may be counted: Anthropology 324L (Topic: Global Markets and Local Cultures), 324L (Topic 49), Asian Studies 361 (Topic 31), 372 (Topic: Global Markets and Local Cultures), 372 (Topic 26). Additional prerequisite: Upper-division standing.

Topic 50: Indigenous Naturecultures. Examines contemporary indigenous knowledges and practices about nature and culture. Anthropology 324L (Topic: Indigenous Naturecultures) and 324L (Topic 50) may not both be counted.

Topic 51: The Cities of the Middle East. Same as Islamic Studies 373 (Topic 9), Middle Eastern Studies 341 (Topic 3), and Urban Studies 354 (Topic 15). Anthropological and sociological analysis of space, with a special emphasis on urban theory and culture in the Middle East. Only one of the following may be counted: Anthropology 324L (Topic: Cities of the Middle East), 324L (Topic 51), Islamic Studies 373 (Topic: Cities of the Middle East), 373 (Topic 9), Middle Eastern Studies 322K (Topic: Cities of the Middle East), 341 (Topic 3), Urban Studies 354 (Topic: Cities of the Middle East), 354 (Topic 15). Topic 53: Global Indigenous Issues. Same as Latin American Studies 324L (Topic 15). 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. Only one of the following may be counted: Anthropology 324L (Topic: Global Indigenous Issues), 324L (Topic 53), Latin American Studies 324L (Topic: Global Indigenous Issues) 324L (Topic 15).
Topic 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. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Black Native Relations in the U.S.), American Studies 321 (Topic: Black Native Relations in the U.S.), Anthropology 324L (Topic: Black Native Relations in the U.S.), Anthropology 324L (Topic 54).
Topic 55: Language, Culture, and the Texas German Experience. Same as American Studies 370 (Topic 47), German, Scandinavian, and Dutch Studies 351C, and Linguistics 373 (Topic 10). 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. Three lectures a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Language, Culture, and the Texas German Experience), 370 (Topic 47), Anthropology 324L (Topic: Language, Culture, and the Texas German Experience), 324L (Topic 55), Germanic Civilization 327E (Topic 11) German, Scandinavian, and Dutch Studies 351C, Linguistics 350 (Topic: Language, Culture, and the Texas German Experience), 373 (Topic 10). Additional prerequisite: Upper-division standing.

## ANT 325J. 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. Two lecture hours and two lab hours a week for one semester. Anthropology 325L (Topic: The Photographic Image) and 325 J may not both be counted. Prerequisite: Upper-division standing.

## ANT 325L. Cultural Studies, Public Culture, and Folklore: Selected Topics.

Consideration of folklore in different culture areas of the Western Hemisphere. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 11: Cultural Heritage on Display. Explores the public construction and display of traditional American folk culture by studying popular folklife-oriented tourist sites. American Studies 321 (Topic: Cultural Heritage on Display) and Anthropology 325L (Topic 11) may not both be counted.
Topic 12: Russian Myths and Folktales. Same as Comparative Literature 323 (Topic 34), Russian, East European, and Eurasian Studies 325 (Topic 22), and Russian 330 (Topic 9). 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. Only one of the following may be counted: Anthropology 325L (Topic: Russian Myths and Folk Tales), 325L (Topic 12), Comparative Literature 323 (Topic: Russian Myths and Folk Tales), 323 (Topic 34), Russian 330 (Topic: Russian Myths and Folk Tales), 330 (Topic 9), Russian, East European and Eurasian Studies 325 (Topic: Russian Myths and Folk Tales), 325 (Topic 22). Additional prerequisite: Upper-division standing.
Topic 13: Representation of Jews in the American Public Sphere. Same as Jewish Studies 365 (Topic 11) and Religious Studies 346 (Topic 8). 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. Only one of the following may be counted: Anthropology 325L (Topic: Representation of Jews in the American Public Sphere), 325L (Topic 13), Jewish Studies 365 (Topic: Representation of Jews in the American Public Sphere), 365 (Topic 11), Religious Studies 346 (Topic: Representation of Jews in the American Public Sphere), 346 (Topic 8).
Topic 14: Traveling Culture. Examines mobility as a point of inquiry into questions of identity, community, belonging, place and landscape, art, representation, cultural difference, experience, and history. Only one of the following may be counted: Anthropology 325L (Topic:
Traveling Culture), 325L (Topic 14), Russian, East European, and Eurasian Studies 325 (Topic: Traveling Culture).
Topic 15: Practices of Looking. Develops methodological and analytic tools for the examination of visual culture. Anthropology 325L (Topic: Practices of Looking) and 325L (Topic 15) may not both be counted.
Topic 17: American Jewish Material Culture. Same as Jewish Studies 365 (Topic 12) and Religious Studies 346 (Topic 9). Examines the interplay between material culture and Jewish identity and thought in contemporary America. Only one of the following may be counted: Anthropology 325L (Topic: American Jewish Material Culture), 325L (Topic 17), Jewish Studies 365 (Topic: American Jewish Material Culture), 365 (Topic 12), Religious Studies 346 (Topic: American Jewish Material Culture), 346 (Topic 9).

## ANT 325M. Language in Culture and Society.

Same as Linguistics 373 (Topic 3: Language in Culture and Society) and Sociology 352M (Topic 4: Language in Culture and Society). Language as a cultural resource; functions of language in society; survey of language communities. Three lecture hours a week for one semester. Prerequisite: Anthropology 302, 305, 307, or Linguistics 306; or consent of instructor.

## ANT 325N. Language and Speech in American Society.

Same as American Studies 321 (Topic 2: Language and Speech in American Society), Linguistics 373 (Topic 2: Language and Speech in American Society), and Sociology 352M (Topic 3: Language and Speech in American Society). Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and Anthropology 302, 305, 307, or Linguistics 306.

## ANT 326C. Native Americans in Texas.

Same as American Studies 321G. Studies the history of Native Americans in Texas using concepts and evidence from anthropology, history, archaeology, historical geography, and Native American studies. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Native Americans in Texas), Anthropology 324L (Topic: Native Americans in Texas), 326C. Prerequisite: Upper-division standing.

## ANT 326D. 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. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Native Americans in the Plains), Anthropology 324L (Topic: Native Americans in the Plains), 326D, History 365G (Topic: Native Americans in the Plains. Prerequisite: Upper-division standing.

## ANT 326E. 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). Three lecture hours a week for one semester. Anthropology 324L (Topic: Plains Archaeology: Prehistory and History) and 326E may not both be counted. Prerequisite: Upper-division standing.

## ANT 326F. Great Discoveries in Archaeology.

Same as European Studies 346 (Topic 2: Great Discoveries in Archaeology). The stories, myths, and people behind some of the great archaeological discoveries. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Great Discoveries in Archaeology), Anthropology 326F, European Studies 346 (Topic 2). Prerequisite: Upper-division standing.

## ANT 326L. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANT 327C. Topics in American Cultures.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## Topic 1: Race and Ethnicity in the United States.

## ANT 327D. Colonial Latin American Archaeology.

Same as Latin American Studies 324L (Topic 13: Colonial Latin American Archaeology). Focuses on the Spanish colonies in Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Colonial Latin American Archaeology), 327D, Latin American Studies 324L (Topic 13).

ANT 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## ANT 330C. Theories of Culture and Society.

Examination of the theoretical approaches that have established the intellectual foundations of contemporary sociocultural anthropology. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANT 432L. Primate Anatomy.

Comparative and functional anatomy of primates, including humans; emphasis on adaptations and evolution of the various taxa. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Anthropology 301.

## ANT 334L. North American Archaeology.

Regional cultural development of Native American societies from the earliest human occupations to the historic period. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

## ANT 336L. Native American Cultures North of Mexico.

Same as American Studies 321 (Topic 3: Native American Cultures North of Mexico). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANT 340C. Ethnographic Research Methods.

Introduction to methods used in conducting ethnographic research; emphasis on research design, analysis, writing, and ethical considerations. Three lecture hours a week for one semester. Prerequisite: Anthropology 302, 305, or 307.

## ANT 344K. 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? Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANT 345C. 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. Three lecture hours a week or two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## ANT 346L. 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. Three lecture hours a week for one semester. Anthropology 346 L and 348K (Topic 6: Primate Social Behavior) may not both be counted. Prerequisite: Anthropology 301.

## ANT 346M. 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. Three lecture hours a week for one semester. Anthropology 346M and 348K (Topic 7: Comparative Primate Ecology) may not both be counted. Prerequisite: Anthropology 301.

## ANT 347C. 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. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Anthropology 346L , 346M , or Biology 359K with a grade of at least C .

## ANT 348. Human Origins and Evolution.

Detailed examination and analysis of morphological trends evident in the hominid fossil record. Two lecture hours and two laboratory hours a week for one semester. Prerequisite: Anthropology 301.

## ANT 348K. Current Topics in Physical Anthropology.

An in-depth study of current topics, controversies, and literature on the evolution, morphology, genetics, and behavioral ecology of primates, including humans. Three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Anthropology 301.

## Topic 1: Human Evolution.

Topic 8: Evolutionary Anatomy of the Head and Neck. The comparative and functional anatomy of the head and neck in primates and other mammals.
Topic 9: Introduction to Primate Anatomy. Explores the relationship between primate anatomical form and function.
Topic 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.
Topic 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. Anthropology 348K (Topic: Early Hominid Evolution) and 348 K (Topic 11) may not both be counted.
Topic 12: 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. Anthropology 348K (Topic: Sex and Human Nature) and 348K (Topic 12) may not both be counted.

## ANT 349C. Human Variation.

The patterns of biological variation within and between human populations. Examines physical, genetic, and behavioral traits, and considers both the microevolutionary and cultural processes that influence those traits. Three lecture hours a week for one semester. Anthropology 348K (Topic: Human Variation) and 349C may not both be counted. Prerequisite: Anthropology 301.

## ANT 349D. Anthropological Genetics.

Basic principles of molecular genetics and population genetics as they relate to the study of humans and other primates. Three lecture hours a week for one semester. Anthropology 348K (Topic: Anthropological Genetics) and 349D may not both be counted. Prerequisite: Anthropology 301.

## ANT 350C. Primate Sensory Ecology.

An integrated perspective on the comparative anatomy, physiology, and ecological significance of sensory adaptations in primates. Three lecture hours a week for one semester. Anthropology 348K (Topic 5: Primate Sensory Ecology) and 350C may not both be counted. Prerequisite: Anthropology 301.

## ANT 350M. Evolution of Primate Behavior.

Mechanisms underlying the evolution of human and nonhuman primate behavior. The reasons and ways primates live in social groups; comparisons between human and nonhuman primates using living
primates, fossil remains, and archaeological evidence. Three lecture hours a week for one semester. Prerequisite: Anthropology 301.

## ANT 351E. Primate Evolution.

Examination of the fossil record for nonhuman primate evolution, including basic concepts of the anatomy, ecology, and systematics of living primates. Three lecture hours a week for one semester. Anthropology 348 K (Topic 4: Primate Evolution) and 351E may not both be counted. Prerequisite: Anthropology 301.

## ANT 453. Archaeological Analysis.

Derivation of chronology and cultural information from archaeological data; the role of archaeology in modern life. Four lecture hours a week for one semester. Prerequisite: Anthropology 304 or Archaeology 301.

## ANT 353E. Archaeological Laboratory Analysis.

The analysis of artifacts, features, architecture, and other remains recovered in the field. Four and one-half laboratory hours a week for one semester. Anthropology 324L (Topic: Archaeological Laboratory Analysis) and 353 E may not both be counted. Prerequisite: Anthropology 662.

## ANT 358Q. Supervised Research.

Individual instruction. Prerequisite: Upper-division standing.

## ANT 360K. The Civilization of the Maya.

Same as Latin American Studies 324L (Topic 10: The Civilization of the Maya). Maya prehistory and history: the archaeological record, codices and inscriptions, and Spanish conquest writings. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANT 361K. The Civilizations of Ancient Mexico.

Same as Latin American Studies 324L (Topic 11: The Civilizations of Ancient Mexico). Mexican cultures from earliest prehistory to the European conquest. Three lecture hours a week for one semester. Prerequisite: Anthropology 302 and six semester hours of upper-division coursework in social science.

## ANT 662. Field Archaeology.

Two hundred and forty hours of fieldwork. May be repeated for credit, but may be taken only once on the letter-grade basis. May be repeated for credit.

## ANT 362K. Archaeology of Texas and Vicinity.

Cultural history of Texas and neighboring areas, from early prehistoric times to Anglo-American settlements. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANT 462M. Archaeological Techniques.

Problems in planning, organizing, and carrying out archaeological surveys and excavations. Four lecture hours a week for one semester. Prerequisite: Anthropology 453.

## ANT 366. Anatomy and Biology of the Human Skeleton.

Comprehensive study of the human skeleton, with special attention to methods of identification. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Upper-division standing and Anthropology 301.

## ANT 374M. Sociolinguistics.

Same as Linguistics 374M. An in-depth treatment of current interests in sociolinguistic research literature. Subjects include 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. Three lecture hours a week for one semester. Prerequisite: Anthropology 302 or Linguistics 306.

## ANT 376P, 676P. Research Internship.

Restricted to anthropology majors. 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. Approximately 150 or 300 hours of fieldwork. May be repeated for credit, but no more than six semester hours may be counted toward the major requirement. Prerequisite: Upper-division standing and consent of instructor.

## ANT 379. Problems in Anthropology.

Supervised individual research on selected problems in anthropology. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in anthropology and consent of instructor.

## ANT 679H. Honors Tutorial Course.

For honors candidates in anthropology. Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. Conference course for two semesters. Prerequisite: For 679HA, admission to the Anthropology Honors Program; for 679HB, Anthropology 679HA.

## Science, Technology, and Society: STS Lower-Division Courses

STS 101. Key Ideas and Issues in Science, Technology, and Society.
Designed to introduce students to the main areas of interest in science, technology, and society. Lectures, readings, and discussions include speakers from various academic disciplines. One lecture hour a week for one semester. Offered on the pass/fail basis only.

## STS 311. Topics in Science, Technology, and Society.

Some topics may include an academic service-learning component; these are identified in the Course Schedule. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## STS 318. How We Shape Discoveries and How They Shape

 Us.Technical, historical, and cultural approaches to the multiple dimensions and complexities of scientific and technological innovation, and how they shape and are shaped by society. Cases for discussion are drawn from energy discoveries, nanoscience, biomedicine, and materials science advances. Three lecture hours a week for one semester.

## STS 319. Information Technology and Social Life.

The impact of technologies on social life, and the necessity for applying skills developed in the liberal arts to managing new ways of life mediated through technologies, including work and home environments. Includes an academic service-learning component. Three lecture hours a week for one semester.

## Upper-Division Courses

STS 321. Introduction to Science, Technology, and Society.
Introduction to the history of communication technology, including how past innovations shaped societies and how current changes are transforming human cultures, universities, and the liberal arts. Three lecture hours a week for one semester. Prerequisite: Completion of at least thirty semester hours of coursework.

STS 331. Topics in Science, Technology, and Society.
Some topics may include an academic service-learning component; these are identified in the Course Schedule. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## STS 332. The Nanotechnology and Science Revolution.

The societal impacts of nanotechnology and how this emerging technology might transform the future of technologies, manufacturing, and innovation. Three lecture hours a week for one semester. Science, Technology, and Society 331 (Topic: Impacts of Science: Nanotechnology, Technology, and Life) and 332 may not both be counted.

## STS 360. Senior Seminar in Science, Technology, and Society.

Senior capstone seminar. Allows the student to integrate the knowledge he or she has gained in the major field of study with that provided by the concentration in science, technology, and society. Three lecture hours a week for one semester. Prerequisite: Completion of at least ninety semester hours of coursework, including Science, Technology, and Society 321.

## STS 367. Conference Course in Science, Technology, and Society.

Supervised work on specific projects in science, technology, and society. Three conference hours a week for one semester. May be repeated for credit. Prerequisite: Completion of at least thirty-six semester hours of coursework and approval of written application by the supervising instructor.

## STS 370. Research Internship.

Supervised fieldwork in a business or community setting related to the student's career and research interests. Approximately six to ten hours of work a week for one semester, to be arranged with faculty member and internship sponsor. May be repeated for credit, but no more than six semester hours of Science, Technology, and Society 370 may be counted toward the concentration requirement. Prerequisite: Science, Technology, and Society 321, upper-division standing, and consent of instructor.

## Department of Asian Studies

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p.675).

## Asian Studies: ANS

Lower-Division Courses
ANS 301M. Introductory Topics in Asian Studies.
Discussion of various problems involving language, history, and culture in Asia. Three lecture hours a week for one semester; additional hours may be required for some topics. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary.

Topic 3: History of East Asia to 1800. Same as History 305K. A survey of the traditional history and culture of China, Japan, Korea, and Vietnam.
Topic 4: History of East Asia since 1800. Same as History 305L. A survey of the modern history of China, Japan, Korea, and Vietnam.

Topic 6: Asia's Futures. Same as Government 314 (Topic 5: Asia's Futures). Current issues, visible trends, and projections for Asia's future.
Topic 11: Introduction to Buddhism. Same as Religious Studies 312C. A structural and historical overview of Buddhism through the examination of various schools, doctrines, biographical narratives, and contemporary ethical issues. Only one of the following may be counted: Asian Studies 301M (Topic 11), Religious Studies 312 (Topic: Introduction to Buddhism), 312C.
Topic 13: Forbidden Romance in Modern Chinese Literature. Same as Comparative Literature 305 (Topic 1). Introduction to modern Chinese literature from the late Qing Dynasty (latter half of the nineteenth century) to the present. Only one of the following may be counted: Asian Studies 301M (Topic: Forbidden Romance in Modern Chinese Literature), 301M (Topic 13), Comparative Literature 305 (Topic: Forbidden Romance in Modern Chinese Literature), 305 (Topic 1).

Topic 14: East Asian Martial Arts Films. Explores the concept of "East Asian" from the cinematic perspective, focusing on the martial arts film genre. Additional hours required for film screenings. Asian Studies 301M (Topic: Everybody is Kung Fu Fighting) and 301M (Topic 14) may not both be counted.

Topic 15: Introduction to Islam. Same as History 306N (Topic 7), Islamic Studies 310, and Religious Studies 319. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 15), History 306N (Topic 7), Islamic Studies 310, Middle Eastern Studies 310 (Topic 1: Introduction to Islam), Religious Studies 319.

Topic 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. Additional hours may be required for film/media screenings. Asian Studies 301M (Topic: Introduction to Japanese Film) and 301M (Topic 16) may not both be counted.

## ANS 301R. History of the Religions of Asia.

Same as Religious Studies 302. Eastern religions: an introduction to the basic forms and the historical development of the religious traditions of India, China, and Japan. Three lecture hours a week for one semester.

## ANS 302C. Introduction to China.

Same as History 302C. Introduction to Chinese civilization, past and present, including religion, literature, arts, philosophy, and history. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 302C, History 302C, 306N (Topic: Introduction to China).

## ANS 302D. Introduction to Korean Culture and History.

Introduction to Korea's history, culture, and civilization from antiquity to the present. Three lecture hours a week for one semester. Asian Studies 301M (Topic 10) and 302D may not both be counted.

## ANS 302J. Introduction to Japan.

Introduction to Japanese civilization, past and present, including religion, literature, arts, philosophy, and history. Three lecture hours a week for one semester.

## ANS 302K. Introduction to South Asia.

Same as Anthropology 310L (Topic 5: Introduction to India). Introduction to Indian and south Asian civilization, past and present, including religion, literature, arts, philosophy, and history. Only one of the following may be
counted: Anthropology 310L (Topic 5), Asian Studies 302K, History 306N (Topic: Introduction to India).

## ANS 307C. Introduction to the History of India.

Same as History 307C. Survey of the history of the Indian subcontinent from prehistoric times to the present. Three lecture hours a week for one semester.

## ANS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## ANS 320. Topics in Great Literatures of Asia.

Conducted in English. Introduction to various Asian literatures, emphasizing philosophical, religious, and social concepts. Three lecture hours a week for one semester; additional hours may be required for some topics. Asian Studies 320 and 361 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: Genji to Godzilla: Adaptations of the Japanese Classics. Examines 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. Additional hours may be required for film/media screenings. Asian Studies 320 (Topic: Genji to Godzilla) and 320 (Topic 2) may not both be counted. Additional prerequisite: Upperdivision standing.

## ANS 321M. Politics in Japan.

Same as Government 321M. Survey of postwar Japanese politics; the occupation, governmental institutions, interest groups, protest movements, industrial policy, the government-business relationship, and political and economic reform. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 321M, 361 (Topic: Politics in Japan), Government 321M. Prerequisite: Six semester hours of lower-division coursework in government.

## ANS 322M. Politics in China.

Same as Government 322M. Survey of twentieth-century China: historical trends; 1911 revolution; Warlord-Nationalist period; Communist revolution; post-1949 issues; new social and political institutions. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 322M, 361 (Topic: Politics in China), Government 322M. Prerequisite: Six semester hours of lower-division coursework in government.

ANS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## ANS 338L. East Asian International Relations.

Same as Government 338L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 338L, 361 (Topic: East Asian International Relations), Government 338L. Prerequisite: Upper-division standing and six semester hours of lowerdivision coursework in government.

## ANS 340. Topics in Asian Religions.

Topics in the religions and mythologies of the peoples of Asia. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 4: History of Hindu Religious Traditions. Same as Anthropology 324L (Topic 23: History of Hindu Religious Traditions), History 364G (Topic 1: History of Hindu Religious Traditions), and Religious Studies 321. 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. Prerequisite: Upper-division standing.
Topic 5: History of Indian Buddhism. Same as Religious Studies 322. The institutional, social, economic, and doctrinal history of Buddhism in India. Prerequisite: Upper-division standing or consent of instructor.
Topic 6: Religion and Rebellion in Modern East Asia. Same as Religious Studies 352 (Topic 3). Examines how nineteenth- and twentieth-century new religious movements in Japan, China, Korea, and Tibet have expressed dissatisfaction with society and/or the state through rebellious and sometimes violent activity. Only one of the following may be counted: Asian Studies 340 (Topic 6), History 364G (Topic: Religion/Rebellion in Modern East Asia), Religious Studies 352 (Topic 3).
Topic 7: Goddesses in World Religions and Cultures. Same as Religious Studies 373 (Topic 3) and Women's and Gender Studies 340 (Topic 30). 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. Only one of the following may be counted: Anthropology 324L (Topic: Goddesses in World Religions and Cultures), Asian Studies 340 (Topic 7), Religious Studies 373 (Topic: Goddesses in World Religions and Cultures), 373 (Topic 3), Women's and Gender Studies 340 (Topic: Goddesses in World Religions and Cultures), 340 (Topic 30). Additional prerequisite: Upper-division standing.
Topic 8: Sufism and Islamic Mysticism. Same as Islamic Studies 340 (Topic 4), Middle Eastern Studies 342 (Topic 24), and Religious Studies 358 (Topic 4). Muslim debates of Sufism; the historical development of Sufi beliefs regarding theology, religious laws, expression, and popular social practices. Only one of the following may be counted: Asian Studies 340 (Topic: Sufism and Islamic Mysticism), Asian Studies 340 (Topic 8), History 364G (Topic: Sufism and Islamic Mysticism), Islamic Studies 340 (Topic 4), 372 (Topic 10: Sufism: Islamic Mysticism and Spirituality), Middle Eastern Studies 320 (Topic 16: Sufism: Islamic Mysticism and Spirituality), 321K (Topic: Sufism and Islamic Mysticism), 342 (Topic 24), Religious Studies 341 (Topic: Sufism and Islamic Mysticism), 358 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 9: Religion in Japanese History. Same as Religious Studies 352 (Topic 7: Religion in Japanese History). Examines religious concepts and practices in wider contexts of modern Japanese culture and society. Focuses on the critical understanding of the individual and collective aspects of Japanese spiritual life.

Topic 10: Ritual and Religion in Korea. Same as Religious Studies 352 (Topic 4: Ritual and Religion in Korea). Examination of 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. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Ritual and Religion in Korea), Asian Studies 340 (Topic 10), Religious Studies 352 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 11: Introduction to Comparative Religion. Introduction and discussion of major comparative approaches in the study of religion. Only one of the following may be counted: Asian Studies 340 (Topic: Introduction to Comparative Religion), 340 (Topic 11), Religious Studies 373 (Topic: Introduction to Comparative Religion), 375 S (Topic 2).

## ANS 340L. Post-Mao China: Change and Transformation.

Same as History 340L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340L, 361 (Topic: Post-Mao China: Change and Transformation), History 340L, 364G (Topic: Post-Mao China: Change and Transformation). Prerequisite: Upper-division standing.

## ANS 340M. Modern China.

Same as History 340M. History of China from the intrusion of the West circa 1500 to the Communist revolution. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 340P. European Expansion in Asia.

Same as History 340P. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 340R. European Empires in Asia.

Same as History 340R. The British in India and Malaya, the Dutch in Indonesia, and the French in Indochina since 1800. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 340S. The Chinese in the United States.

Same as Asian American Studies 325 (Topic 3: The Chinese in the United States) and History 340S. A lecture and discussion course on the 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Chinese in the United States), 325 (Topic 3), Asian Studies 340, History 340S. Partially fulfills the legislative requirement for American history. Prerequisite: Upper-division standing.

## ANS 340T. Taiwan: Colonization, Migration, and Identity.

 Same as Asian American Studies 325 (Topic 4: Taiwan: Colonization, Migration, Identity) and History 340T. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic 4), Asian Studies 340T, 361(Topic: Taiwan: Colonization, Migration, and Identity), History 340T, 364G
(Topic: Taiwan: Colonization, Migration, and Identity). Prerequisite: Upperdivision standing.

## ANS 341K. Origins of Modern Japan.

Same as History 341K. Japan to the beginnings of the Industrial Revolution, with a focus on the culminating age of samurai rule, the Tokugawa period (1600-1867). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 341M. Imperial Japan.

Same as History 341M. Japan from the Meiji transformation through war, defeat, and occupation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 341N. Postwar Japan.

Same as History 342C. Japan since the war and occupation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 342D. Political Economy of Japan.

Same as History 342D. Historical development of the Japanese economy since early modern times. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 346C. Ancient India.

Same as History 346C. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 346D. Medieval India.

Same as History 346D. History and culture of South Asia from approximately 500 to 1500 , with emphasis on religious and political institutions and the emergence of regional cultures. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 346M. Early Modern India.

Same as History 346M. The history and culture of South Asia from approximately 1500 to 1750 . Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 346M, History 346M, Religious Studies 341 (Topic 6). Prerequisite: Upperdivision standing.

## ANS 346N. The Indian Subcontinent, 1750-1950.

Same as History 346N. Examines the cultural and political movements and events that led to formation of the two nation-states India and Pakistan. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 347K. Governments and Politics of South Asia.

Same as Government 347K. A survey of political developments, governmental organization, and economic and social problems in South Asia. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## ANS 348C. Geography of South Asia.

Same as Geography 348C. Natural regions and cultural landscapes of South Asia. Agriculture, urban structure, issues of environment and development. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ANS 361. Topics in Asian Studies.

Selected topics in south and east Asian anthropology, economics, history, geography, government, and sociology. Three lecture hours a week for one semester; additional hours may be required for some topics. Asian

Studies 320 and 361 may not both be counted unless the topics vary. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 3: Contemporary India. Asian Studies 361 (Topic 3) is same as Anthropology 324L (Topic 16: Contemporary India).
Topic 5: Cultures of Southeast Asia. Asian Studies 361 (Topic 5) is same as Anthropology 324L (Topic 8: Cultures of Southeast Asia). Comparative study of the peoples of Indonesia, Burma, Thailand, Malaysia, and other countries. Prerequisite: Upper-division standing.
Topic 6: Gandhi and Gandhism. Asian Studies 361 (Topic 6) is same as History 350L (Topic 5: Gandhi and Gandhism) and Religious Studies 341 (Topic 5: Gandhi and Gandhism). Prerequisite: Upperdivision standing.
Topic 10: Colonialism and Nationalism. Asian Studies 361 (Topic 10) is same as Anthropology 324L (Topic 10: Colonialism and Nationalism). Prerequisite: Upper-division standing.
Topic 11: Musics of India. Asian Studies 361 (Topic 11) is same as Anthropology 324L (Topic 13: Musics of India) and Music 342 (Topic 3: Musics of India). Prerequisite: Upper-division standing.
Topic 22: Japanese Foreign Policy. Asian Studies 361 (Topic 22) is same as Government 365L (Topic 2: Japanese Foreign Policy). An introduction to the foreign and domestic determinants of Japanese foreign policy. Prerequisite: Six semester hours of lower-division coursework in government.

## Topic 23: International Relations of East and Southeast Asia.

Asian Studies 361 (Topic 23) is same as Government 365L (Topic 3: International Relations of East and Southeast Asia). An introduction to 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. Prerequisite: Six semester hours of lower-division coursework in government.
Topic 24: The Two Koreas and the United States. Same as Asian American Studies 325 (Topic 7). The political, social, and cultural relationship between North and South Korea, and between the Koreas and the United States, since 1945. Only one of the following may be counted: Anthropology 324L (Topic: The Two Koreas and the US), Asian American Studies 325 (Topic: The Two Koreas and the US), 325 (Topic 7), Asian Studies 361, (Topic 24), Government 360N (Topic: The Two Koreas and the US), History 364G (Topic: The Two Koreas and the US).
Topic 25: Capitalism, Consumption, and Civil Society in Korea.
Contemporary social and political life in urban South Korea, including such topics as corporations, factory work, consumption, activism, popular culture, and changing gender systems and roles. Anthropology 324L (Topic: Capitalism, Consumption, and Civil Society in Korea) and Asian Studies 361 (Topic 25) may not both be counted.
Topic 26: Nationalism and Gender in South Asia. Asian Studies 361 (Topic 26) is same as Anthropology 324L (Topic 36: Nationalism and Gender in South Asia) and Women's and Gender Studies 340 (Topic 24: Nationalism and Gender in South Asia). Explores why nationalist movements often make the reform of women's roles central to their political projects.
Topic 27: Anthropology of the Himalayas. Anthropology 324L (Topic: Anthropology of the Himalayas) and Asian Studies 361 (Topic 27) may not both be counted.

Topic 28: The Chinese in Diaspora. Same as Asian American Studies 325 (Topic 2) and History 350L (Topic 65). 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. For 361, three lecture hours a week for one semester; for 461, four lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Chinese in Diaspora), 325 (Topic 2: The Chinese in Diaspora), Asian Studies 361 (Topic: Chinese in Diaspora), 361, 461 (Topic 28), History 350L (Topic: The Chinese in Diaspora), 350L (Topic 65: The Chinese Diaspora). Additional prerequisite: Upper-division standing. Topic 29: Biomedicine, Ethics, and Culture. Asian Studies 361 (Topic 29) is same as Religious Studies 373M. Only one of the following may be counted: Anthropology 324L (Topic: Biomedicine, Ethics, and Culture), Asian Studies 361 (Topic: Biomedicine, Ethics, and Culture), 361 (Topic 29), Religious Studies 373 (Topic: Biomedicine, Ethics, and Culture), 373M. Prerequisite: Upper-division standing.
Topic 30: 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Why Chinese Has No Alphabet), 361 (Topic 30), Linguistics 350 (Topic: Why Chinese Has No Alphabet).
Topic 31: Global Markets and Local Cultures. Same as Anthropology 324L (Topic 49). Examines contemporary theories of globalization, including materials exploring global governance, international monetary policy, migration regulation, offshoring, and cultural hybridity. Focuses on case studies in Asia and elsewhere that reveal how these practices impact particular communities. Only one of the following may be counted: Anthropology 324L (Topic: Global Markets and Local Cultures), 324L (Topic 49), Asian Studies 361 (Topic 31), 372 (Topic: Global Markets and Local Cultures), 372 (Topic 26). Additional prerequisite: Upper-division standing.

Topic 32: The History of Chinese Language and Translation. Indepth study of 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. Asian Studies 361 (Topic: Lost in Translation: Chinese Language and Literature) and 361 (Topic 32) may not both be counted. Additional prerequisite: Upper-division standing.
Topic 33: Mughal India in History and Memory. Same as History 350 L (Topic 67) and Islamic Studies 372 (Topic 20). 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. Only one of the following may be counted: Asian Studies 361 (Topic: Mughal India in History and Memory), 361 (Topic 33), History 350L (Topic: Mughal India in History and Memory), 350L (Topic 67), Islamic Studies 372 (Topic: Mughal India in History and Memory), 372 (Topic 20).
Topic 34: Modernization in East Asia. Same as History 364G (Topic 8). Examines the different historical experiences of mainland China and Taiwan in the context of the East Asian model of development. Only one of the following may be counted: Asian Studies 361, 461 (Topic: Modernization in East Asia), 361 (Topic 34), History 364G (Topic: Modernization in East Asia), 364G (Topic 8).

## ANS 362. 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. Conference course. May be repeated for credit. Prerequisite: Six semester hours of coursework in Asian studies and written consent of instructor on form obtained from the undergraduate adviser.

## ANS 372. Topics in Asian Cultures.

Selected topics in south and east Asian art, literature, music, and philosophy. Three lecture hours or two lecture hours and one discussion
hour a week for one semester; additional hours may be required for some topics. Some topics partially fulfill legislative requirement for American history. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: Indian Philosophies. Same as Philosophy 348 (Topic 2: Indian Philosophies) and Religious Studies 341 (Topic 1: Indian Philosophies). Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.
Topic 6: Chinese Film and Literature. Only one of the following may be counted: Asian Studies 372 (Topic: Chinese Film and Literature), 372 (Topic 6), Comparative Literature 323 (Topic: Chinese Film and Literature). Additional prerequisite: Upper-division standing.
Topic 7: Chinese Thought and Culture. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.
Topic 14: Veiling in the Muslim World. Same as Islamic Studies 372 (Topic 2: Veiling in the Muslim World), Religious Studies 358 (Topic 5: Veiling in the Muslim World), and Women's and Gender Studies 340 (Topic 11: Veiling in the Muslim World). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 14), Islamic Studies 372 (Topic 2), Middle Eastern Studies 322K (Topic 17: Veiling in the Muslim World), Religious Studies 358 (Topic 5), Women's and Gender Studies 340 (Topic 11). Prerequisite: Upper-division standing.
Topic 17: Women in Modern Japanese Fiction. Same as Women's and Gender Studies 340 (Topic 12: Women in Modern Japanese Fiction). Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.
Topic 19: Diversity of Indian Traditions. Same as Religious Studies 341 (Topic 2: Diversity of Indian Traditions). Art and architecture of South Asia from 1200 to 1900 CE, within the context of Indian culture. Three lecture hours a week for one semester. Prerequisite: For art history and visual art studies majors, Art History 302 and 303 ; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.
Topic 21: Women and Gender in China. Same as History 350L (Topic 46: Women and Gender in China) and Women's and Gender Studies 340 (Topic 18: Women and Gender in China). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.
Topic 24: Buddhist Art. Same as Art History 348 N and Religious Studies 341 (Topic 8). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 348N, 372 (Topic: Buddhist Art), Asian Studies 372 (Topic 24), Religious Studies 341 (Topic 8).
Topic 25: Gender, Sexuality, and the Family in Indian Religions and Cultures. Same as Anthropology 324L (Topic 40: Gender, Sexuality, and the Family in Indian Religions and Cultures), Religious Studies 341 (Topic 3: Gender, Sexuality, and the Family in Indian Religions and Cultures), and Women's and Gender Studies 340 (Topic 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.
Topic 27: History and Archaeology of Early China. Examination of the ancient roots of Chinese civilization from the Neolithic period (beginning 8000 BCE ) through the establishment of the Han Dynasty ( 206 BCE to 220 CE ). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic: Early China: History and Archaeology), 372 (Topic 27), History 364G (Topic: Early China: History and Archaeology).
Topic 28: Popular Literature and Culture in Modern China. An examination of modern Chinese literature and culture in the People's

Republic of China, Taiwan, and Hong Kong from the popular culture perspective. Additional hours may be required for film screenings. Asian Studies 372 (Topic: Popular Literature and Culture in Modern China) and 372 (Topic 28) may not both be counted.
Topic 29: South Indian Cultural History. Introductory course examining the major components of Indian culture with an emphasis on South India. Three lecture hours a week for one semester. Asian Studies 372 (Topic: South Indian Cultural History) and 372 (Topic 29) may not both be counted.
Topic 30: Gender and Sexuality in Japan. Same as History 364G (Topic 10) and Women's and Gender Studies 340 (Topic 28). Examines gender and sexuality in Japan during the classical (Heian), early modern (Tokugawa or Edo), and modern periods. Considers the construction and representation of feminine and masculine gender and sexuality, both normative and otherwise. Only one of the following may be counted: Asian Studies 372 (Topic: Gender and Sexuality in Japan), 372 (Topic 30), History 364G (Topic: Gender and Sexuality in Japan), 364G (Topic 10), Women's and Gender Studies 340 (Topic: Gender and Sexuality in Japan), 340 (Topic 28).
Topic 31: Devotion in South India. Same as Religious Studies 341 (Topic 13). Examines aspects of devotion in everyday life and how religions, such as Islam, Buddhism, and Christianity, are translated into a predominantly Hindu South India. Only one of the following may be counted: Asian Studies 372 (Topic: Devotion in South India), 372 (Topic 31), Comparative Literature 323 (Topic: Devotion in South India), Religious Studies 341 (Topic: Devotion in South India), 341 (Topic 13). Additional prerequisite: Upper-division standing. Topic 32: Confucianism. Same as Religious Studies 352 (Topic 10). Philosophical and historical context of Confuciansim from its origins in ancient China through the early empire and beyond. Only one of the following may be counted: Asian Studies 372 (Topic: World of Confucians), 372 (Topic 32), Core Text and Ideas 375 (Topic: World of Confucians), Religious Studies 352 (Topic: World of Confucians), 352 (Topic 10).
Topic 33: Self-Cultivation in Traditional China. Same as Religious Studies 352 (Topic 11). Ideas and practices of self-cultivation as represented in diverse philosophical, religious, and occult traditions in premodern China. Only one of the following may be counted: Asian Studies 372 (Topic: Self-Cultivation in Traditional China), 372 (Topic 33), Core Texts and Ideas 375 (Topic: Self-Cultivation in Traditional China), Religious Studies 352 (Topic: Self-Cultivation in Traditional China), 352 (Topic 11).
Topic 34: Modern Japanese Literature in Translation. Conducted in English. Analyzes 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 sociohistorical context of its production and reception. Asian Studies 361 (Topic 9) and 372 (Topic 34) may not both be counted.
Topic 35: Suicide in Japanese Fiction. Conducted in English. Examination of 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. Only one of the following may be counted: Asian Studies 361 (Topic: Suicide in Japanese Fiction), 372 (Topic 35), Comparative Literature 323 (Topic: Suicide in Japanese Fiction).
Topic 36: The Supernatural in Traditional Chinese Fiction. Same as Comparative Literature 323 (Topic 23). Conducted in English. Introduction to Chinese notions of the supernatural and otherworldly phenomena in traditional Chinese literature and pseudohistory, focusing on the literary, cultural, historical, social, political, philosophical, and religious background against which representative works arose. Only one of the following may be counted: Asian Studies 372 (Topic: Supernatural in Traditional Chinese Fiction), 372 (Topic 36), Comparative Literature 323 (Topic: Supernatural in Traditional Chinese Fiction), 323 (Topic 23).

Topic 37: Taiwan: From Coloniality to Postcoloniality. Examines 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. Asian Studies 372 (Topic: Taiwan and Cultural Imaginary) and 372 (Topic 37) may not both be counted.
Topic 38: Living Epics of India. Same as Comparative Literature 323 (Topic 26) and Religious Studies 341 (Topic 14). Exploration of Indian epics in the Sanskritic textual heritage, performative arts, and regional language versions, and their impact in the formation of the values of the people of India. Only one of the following may be counted: Asian Studies 372 (Topic: Living Epics of India), 372 (Topic 38), Comparative Literature 323 (Topic: Living Epics of India), 323 (Topic 26), Theatre and Dance 357T (Topic: Living Epics of India), Religious Studies 341 (Topic: Living Epics of India), 341 (Topic 14).
Topic 39: Modern Indian Literature. Same as Comparative Literature 323 (Topic 24). Examines modern India through religious literary masterpieces, poems, short stories, essays, and memoirs, and how literature reveals an interconnected history and redefinition of cultural dynamics in everyday Indian life long after colonial rule. Only one of the following may be counted: Anthropology 324L (Topic: Modern India and Literature), Asian Studies 372 (Topic: Modern India and Literature), 372 (Topic 39), Comparative Literature 323 (Topic: Modern India and Literature), 323 (Topic 24).
Topic 40: Epics and Heroes of India. Same as Ancient History and Classical Civilization 330 (Topic 2), Core Texts and Ideas 345 (Topic 11), and History 350L (Topic 54). Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Epics and Heroes of India), 330 (Topic 2), Asian Studies 372 (Topic: Epics and Heroes of India), 372 (Topic 40), Core Texts and Ideas 345 (Topic: Epics and Heroes of India), 345 (Topic 11), History 350L (Topic 54).
Topic 41: Japanese Concepts of Body and Self. Same as Religious Studies 352 (Topic 8). 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. Only one of the following may be counted: Anthropology 324L (Topic: Japanese Concepts of Body and Self), Asian Studies 372 (Topic: Japanese Concepts of Body and Self), 372 (Topic 41), Religious Studies 352 (Topic: Japanese Concepts of Body and Self), 352 (Topic 8).

## ANS 678H. Honors Tutorial Course.

Three lecture hours a week for two semesters. Prerequisite: For 678HA, credit or registration for Asian Studies 378 and admission to the Asian Studies Honors Program; for 678HB, Asian Studies 678HA.

## ANS 379. Capstone Seminars in Asian Studies.

Three lecture hours a week for one semester; additional hours may be required for some topics. Asian Studies 378 and 379 may not both be counted. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing; additional prerequisites vary with the topic.

Topic 1: Writing and Authority in Early China. Only one of the following may be counted: Asian Studies 372 (Topic: Writing and Authority: Early China), 379 (Topic 1), History 364G (Topic: Writing and Authority: Early China).
Topic 2: South Asian Saints and Yogis. Same as Religious Studies 341 (Topic 12). Life stories, teachings, and cultic practices of various holy figures and sainthood practices in South Asia, with an emphasis on the intersection between classical and modern history, religion, literature, and philosophy in relation to these practices and the making of modern South Asia. Only one of the following may be counted:

Anthropology 324L (Topic: South Asian Saints and Yogis), Asian Studies 340 (Topic: South Asian Saints and Yogis), 379 (Topic 2), Religious Studies 341 (Topic: South Asian Saints and Yogis), 341 (Topic 12).
Topic 3: The Art of the Body in India. Only one of the following may be counted: Anthropology 322M (Topic: Art of the Body in India), Asian Studies 372 (Topic: Art of the Body in India), 379 (Topic 3), and Women's and Gender Studies 340 (Topic: Art of the Body in India).
Topic 4: Indian Poetry and Religions. Same as Religious Studies 341 (Topic 11). 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. Only one of the following may be counted: Asian Studies 340 (Topic: Indian Poetry and Religions), 379 (Topic 4), Religious Studies 341 (Topic: Indian Poetry and Religions), 341 (Topic 11).
Topic 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. Asian Studies 361 (Topic: Science, Technology and Society in Contemporary Asia) and 379 (Topic 5) may not both be counted.
Topic 6: Transnational Korea. Same as Asian American Studies 330 (Topic 5). 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. Only one of the following may be counted: Anthropology 324L (Topic: Transnational Korea); Asian American Studies 330 (Topic: Transnational Korea), 330 (Topic 5); Asian Studies 379 (Topic: Transnational Korea), 379 (Topic 6).
Topic 7: Cuisine and Culture in Asia. Same as Asian American Studies 325 (Topic 6). Explores various themes related to food preparation, distribution, and consumption in the shaping of modern Asian societies, including gender; family; politics and nationalism; political economy of food; immigration; diaspora and cuisine; globalization of food brands and fast food outlets; aesthetics; tourism and travel; and how Asian food is represented in media. Only one of the following may be counted: Asian American Studies 325 (Topic 6); Asian Studies 379 (Topic: Cuisine and Culture in Asia), 379 (Topic 7). Topic 8: Radical Religion: Ascetics and Holy Persons. Same as Religious Studies 375S (Topic 4). 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. Only one of the following may be counted: Asian Studies 379 (Topic: Radical Religion: Ascetics), 379 (Topic 8), Religious Studies 375S (Topic: Radical Religion: Ascetics), 375S (Topic 4).

## ANS 379H. Honors Tutorial Course.

Supervised research, readings, and writing of a substantial paper on a particular Asian topic. Conference course. Prerequisite: Upper-division standing, Asian Studies 378 with a grade of at least B, admission to the Asian Studies Honors Program no later than two semesters before expected graduation, a University grade point average of at least 3.00 , and a grade point average in Asian studies of at least 3.50.

## Bengali: BEN

## Lower-Division Courses

## BEN 506. First-Year Bengali I.

Not open to native speakers of Bengali. Five class hours a week for one semester.

## BEN 507. First-Year Bengali II.

Not open to native speakers of Bengali. Continuation of Bengali 506. Five class hours a week for one semester. Prerequisite: Bengali 506 with a grade of at least $C$.

## BEN 312K. Second-Year Bengali I.

Not open to native speakers of Bengali. Three class hours a week for one semester. Prerequisite: Bengali 507 with a grade of at least $C$.

## BEN 312L. Second-Year Bengali II.

Not open to native speakers of Bengali. Continuation of Bengali 312K. Three class hours a week for one semester. Prerequisite: Bengali 312 K with a grade of at least C .

BEN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses <br> BEN 320K. Advanced Bengali I.

Not open to native speakers of Bengali. Three class hours a week for one semester. Prerequisite: Bengali 312L with a grade of at least C.

## BEN 320L. Advanced Bengali II.

Not open to native speakers of Bengali. Continuation of Bengali 320K. Three class hours a week for one semester. Prerequisite: Bengali 320K with a grade of at least C .

BEN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## BEN 360. Conference Course in Bengali Language and Literature.

Supervised individual study of selected problems in Bengali language and literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

## Chinese: CHI

## Lower-Division Courses

## CHI 604. Accelerated First-Year Chinese.

Designed for students who understand or speak but do not read or write Mandarin Chinese. Six class hours a week for one semester. Chinese 604 and 506 may not both be counted; Chinese 604 and 507 may not both be counted. Prerequisite: Results on the placement examination in Chinese that indicate that the student is ineligible to receive credit for Chinese 507. If the student is eligible to receive credit by examination for Chinese 506, this credit must not appear on the student's record.

## CHI 506 (TCCN: CHIN 1511). First-Year Chinese I.

Not open to students who understand or speak Mandarin Chinese. Modern Standard Chinese (Mandarin). Six class hours a week for one semester. Chinese 604 and 506 may not both be counted.

## CHI 507 (TCCN: CHIN 1512). First-Year Chinese II.

Not open to native speakers of Chinese. Continuation of Chinese 506. Six class hours a week for one semester. Chinese 604 and 507 may not both be counted. Prerequisite: Chinese 506 with a grade of at least $C$.

## CHI 612. Accelerated Second-Year Chinese.

Continuation of Chinese 604. Six class hours a week for one semester. Chinese 612 and 412 K may not both be counted; Chinese 612 and 412L may not both be counted. Prerequisite: Chinese 604 with a grade of at least C .

## CHI 412K. Second-Year Chinese I.

Not open to native speakers of Chinese. Modern Standard Chinese (Mandarin). Four class hours a week for one semester. Chinese 612 and 412 K may not both be counted. Prerequisite: Chinese 507 with a grade of at least $C$.

## CHI 412L. Second-Year Chinese II.

Not open to native speakers of Chinese. Continuation of Chinese 412K. Four class hours a week for one semester. Chinese 612 and 412L may not both be counted. Prerequisite: Chinese 412 K with a grade of at least C.

CHI 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## CHI 320K. Readings in Modern Chinese I.

Readings in expository prose: selections from journals, newspapers, and other sources. Three lecture hours a week for one semester. Prerequisite: Chinese 612 or 412 L with a grade of at least $C$.

## CHI 320L. Readings in Modern Chinese II.

Readings in modern fiction, poetry, and drama. Three lecture hours a week for one semester. Prerequisite: Chinese 320K with a grade of at least $C$.

## CHI 322. Introduction to Classical Chinese.

Beginning study of wen yen, the particles, and syntax of the Chinese classics. Three lecture hours a week for one semester. Prerequisite: Chinese 612 or 412 L with a grade of at least C .

## CHI 325K. Advanced Conversation I.

Not open to native speakers of Chinese. Drill in conversation on general topics. Three lecture hours a week for one semester. Prerequisite: Chinese 412 L with a grade of at least C .

## CHI 325L. Advanced Conversation II.

Not open to native speakers of Chinese. Practice in speaking Modern Standard Chinese. Three lecture hours a week for one semester. Prerequisite: Chinese 325 K with a grade of at least C.

## CHI 326. Business Chinese.

Advanced Chinese conversation, with emphasis on business vocabulary. Three lecture hours a week for one semester. Chinese 326 and 330 (Topic: Business Chinese) may not both be counted. Prerequisite: Chinese $612,320 \mathrm{~K}$, or 325 K with a grade of at least C .

CHI 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## CHI 330. Topics in Advanced Chinese.

Fourth-year Chinese readings on special topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Chinese 320 K and 320 L with a grade of at least $C$ in each.

## CHI 130D. 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. Individual instruction. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, concurrent enrollment in an appropriate Asian studies course, and written consent of instructor on form obtained from the undergraduate adviser.

## CHI 340. Topics in Chinese Literature.

Study of Chinese literary texts in the original. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Chinese 320L with a grade of at least C.

Topic 1: Contemporary Chinese Literature. Selected literary works from contemporary China in their original language. Focuses on translation and linguistic analysis, as well as discussion of the texts as works of literature. Chinese 340 (Topic: Contemporary Chinese Literature) and 340 (Topic 1) may not both be counted.
Topic 2: Prose Writings by Lu Xun. Chinese 340 (Topic: Prose Writings by Lu Xun) and 340 (Topic 2) may not both be counted.

## CHI 341. Classical Chinese Poetry.

Study of Chinese poetry in the original. Three lecture hours a week for one semester. Chinese 340 (Topic: Classical Chinese Poetry) and 341 may not both be counted. Prerequisite: Chinese 320L with a grade of at least $C$.

## CHI 360. Conference Course in Chinese Language and Literature.

Supervised individual study of selected problems in Chinese language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

## Hindi: HIN

## Lower-Division Courses

## HIN 604. Accelerated First-Year Hindi.

For speakers of Hindi who have not studied it formally. Six lecture hours a week for one semester. Hindi 604 and 506 may not both be counted; Hindi 604 and 507 may not both be counted; Hindi 604 and Urdu 604 may
not both be counted; Hindi 604 and Urdu 506 may not both be counted; Hindi 604 and Urdu 507 may not both be counted.

## HIN 506. First-Year Hindi I.

Not open to native speakers of Hindi. Modern Hindi of India. Five class hours a week for one semester. Hindi 604 and 506 may not both be counted; Hindi 506 and Urdu 604 may not both be counted.

## HIN 507. First-Year Hindi II.

Not open to native speakers of Hindi. Continuation of Hindi 506. Five class hours a week for one semester. Hindi 604 and 507 may not both be counted; Hindi 507 and Urdu 604 may not both be counted. Prerequisite: Hindi 506 with a grade of at least C.

## HIN 612. Accelerated Second-Year Hindi.

Continuation of Hindi 604. Six lecture hours a week for one semester. Hindi 612 and 312 K may not both be counted; Hindi 612 and 312L may not both be counted. Prerequisite: Hindi 604 with a grade of at least C .

## HIN 312K. Second-Year Hindi I.

Not open to native speakers of Hindi. Modern Hindi of India. Three lecture hours a week for one semester. Hindi 612 and 312K may not both be counted. Prerequisite: Hindi 507 with a grade of at least C.

## HIN 312L. Second-Year Hindi II.

Not open to native speakers of Hindi. Continuation of Hindi 312K. Three lecture hours a week for one semester. Hindi 612 and 312L may not both be counted. Prerequisite: Hindi 312 K with a grade of at least C.

## HIN 118. Practice in Spoken Hindi.

Not open to native speakers of Hindi. Instruction and practice in conversation for intermediate-level students. Two lecture hours a week for one semester. Prerequisite: Hindi 507 with a grade of at least C.

HIN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## HIN 125. Advanced Practice in Spoken Hindi.

Instruction and practice in conversation for advanced students. Two lecture hours a week for one semester. Prerequisite: Hindi 118 with a grade of at least C .

HIN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## HIN 330. 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. Three lecture hours a week
for one semester. May be repeated for credit when the topics vary.
Prerequisite: Hindi 312L with a grade of at least C.
Topic 1: Contemporary Hindi Narratives. Designed to enhance all four language skills: reading, writing, speaking, and listening. Hindi 330 (Topic 1) and 384 (Topic 4: Contemporary Hindi Narratives) may not both be counted.
Topic 2: Hindi Drama and Film. Contemporary Hindi plays and film scripts in Devanagari script. Hindi 330 (Topic 2) and 384 (Topic 5: Hindi Drama and Film) may not both be counted.
Topic 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. Hindi 330 (Topic 3) and 384 (Topic 6: Hindi Literature in the Nationalist Era) may not both be counted.
Topic 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. Hindi 330 (Topic 4) and 384 (Topic 7: Language and Identity at the Margins of Hindi Fiction) may not both be counted.

## HIN 130D. 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. One lecture hour a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit. Prerequisite: Registration for an appropriate Asian studies course, and written consent of instructor on a form obtained from the undergraduate adviser.

## HIN 431K, 531K, 631K. Flagship Hindi I.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## HIN 431L, 531L, 631L. Flagship Hindi II.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## HIN 332. 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. Three lecture hours a week for one semester. Hindi 330 (Topic: Style and Register in Hindi) and 332 may not both be counted. Prerequisite: Hindi 312L with a grade of at least C.

## HIN 432K, 532K, 632K. Flagship Hindi III.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## HIN 432L, 532L, 632L. Flagship Hindi IV.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## HIN 433K, 533K, 633K. Flagship Hindi V.

Students attend a variety of language and area studies courses at one or more universities in India. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## HIN 433L, 533L, 633L. Flagship Hindi VI.

Students attend a variety of language and area studies courses at one or more universities in India. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## HIN 434K, 534K, 634K. Flagship Hindi VII.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## HIN 434L, 534L, 634L. Flagship Hindi VIII.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## HIN 360. Conference Course in Hindi Language and Literature.

Supervised individual study of selected problems in Hindi language and literature. Conference course. May be repeated for credit. Prerequisite:
Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

## Japanese: JPN

## Lower-Division Courses

## JPN 601D. Japanese I.

Not open to native speakers of Japanese. 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. Six lecture hours a week for one semester. Japanese 601D and 506 may not both be counted.

## JPN 506 (TCCN: JAPN 1511). First-Year Japanese I.

Not open to native speakers of Japanese. Six class hours a week for one semester. Japanese 601D and 506 may not both be counted.

## JPN 507 (TCCN: JAPN 1512). First-Year Japanese II.

Not open to native speakers of Japanese. Six class hours a week for one semester. Japanese 507 and 610D may not both be counted. Prerequisite: Japanese 506 with a grade of at least $C$.

## JPN 610D. Japanese II.

Not open to native speakers of Japanese. Expands on skills acquired in Japanese 601D or its equivalent. Includes computer-assisted instruction. Six lecture hours a week for one semester. Japanese 507 and 610D may not both be counted. Prerequisite: Japanese 601D or 506 with a grade of at least $C$.

## JPN 611D. Intermediate Japanese.

Not open to native speakers of Japanese. Intermediate level of competency in Japanese to enable students to function in a variety of real-life contexts. Six lecture hours a week for one semester. Japanese 611D and 412K may not both be counted. Japanese 611D and 412L may not both be counted. Prerequisite: Japanese 507 or 610D with a grade of at least $C$.

## JPN 412K. Second-Year Japanese I.

Not open to native speakers of Japanese. Five class hours a week for one semester. Japanese 611D and 412K may not both be counted. Prerequisite: Japanese 507 or the equivalent with a grade of at least $C$.

## JPN 412L. Second-Year Japanese II.

Not open to native speakers of Japanese. Five class hours a week for one semester. Japanese 611D and 412L may not both be counted. Japanese

412 L and 317C may not both be counted. Prerequisite: Japanese 412 K or the equivalent with a grade of at least $C$.

## JPN 317C. Japanese Grammar, Composition, and Conversation.

Not open to native speakers of Japanese. Designed to prepare students for specialized advanced Japanese language courses. Three lecture hours a week for one semester. Japanese 412L and 317C may not both be counted. Prerequisite: Japanese 611D with a grade of at least C.

JPN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## JPN 320K. Readings in Modern Japanese I.

Not open to native speakers of Japanese. 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. Three lecture hours a week for one semester. Prerequisite: Japanese 412L or 317C with a grade of at least $C$.

## JPN 320L. Readings in Modern Japanese II.

Not open to native speakers of Japanese. Continued development of Japanese reading and comprehension skills using authentic print and web-based resources. Three lecture hours a week for one semester. Prerequisite: Japanese 320 K with a grade of at least C.

## JPN 322. 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. Three lecture hours a week for one semester. Prerequisite: Japanese 320L with a grade of at least C.

## JPN 325K. Advanced Conversation I.

Not open to native speakers of Japanese. Conversations on more complex situations and topics, including formal and informal contexts; designed to continue students' development of conversation skills taught in Japanese 412L and 317C. Three lecture hours a week for one semester. Prerequisite: Japanese 412 L or 317 C with a grade of at least C.

## JPN 325L. Advanced Conversation II.

Not open to native speakers of Japanese. Continued development of conversation skills taught in Japanese 325K. Three lecture hours a week for one semester. Prerequisite: Japanese 325 K with a grade of at least $C$.

## JPN 326. Business Japanese.

Not open to native speakers of Japanese. Development of basic business manners and business-related vocabulary and conversation skills appropriate in an office environment. Three lecture hours a week for one semester. Prerequisite: Japanese 412L or 317C with a grade of at least C.

## JPN 327. Advanced Reading and Writing of Kanji Characters.

Not open to native speakers of Japanese. Building more advanced vocabulary and kanji knowledge through systematic study (recognition,
reading, and writing) of kanji. Three lecture hours a week for one semester. Prerequisite: Japanese 412 L or 317 C with a grade of at least C .

JPN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. Topics in Japanese.
Not open to native speakers of 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. May be repeated for credit when the topics vary.

## JPN 330. Topics in Advanced Japanese.

Not open to native speakers of Japanese. Fourth-year Japanese readings on special topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Japanese 320L with a grade of at least $C$.

Topic 1: Intensive Advanced Japanese Language: Japan. Taught in Japan in Japanese. Emphasizes reading skills and conversation. Topic 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.
Topic 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 130D. 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. Individual instruction. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, concurrent enrollment in an appropriate Asian studies course, and written consent of instructor on form obtained from the undergraduate adviser.

## JPN 360. Conference Course in Japanese Language and Literature.

Not open to native speakers of Japanese. Supervised individual study of selected problems in Japanese language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing, six semester hours of upper-division coursework in Japanese, and written consent of instructor on form obtained from the undergraduate adviser.

## Korean: KOR

## Lower-Division Courses

## KOR 604. Accelerated First-Year Korean.

Designed for students who understand or speak but do not read or write Korean. Not open to native speakers of Korean. Six class hours a week for one semester. Korean 604 and 506 may not both be counted; Korean 604 and 507 may not both be counted. Prerequisite: Results on the placement examination in Korean that indicate that the student is ineligible to receive credit for Korean 507. If the student is eligible to
receive credit by examination for Korean 506, this credit must not appear on the student's record.

## KOR 506 (TCCN: KORE 1511). First-Year Korean I.

Not open to native speakers of Korean. Five class hours a week for one semester. Korean 604 and 506 may not both be counted.

## KOR 507 (TCCN: KORE 1512). First-Year Korean II.

Not open to native speakers of Korean. Continuation of Korean 506. Five class hours a week for one semester. Korean 604 and 507 may not both be counted. Prerequisite: Korean 506 with a grade of at least $C$.

## KOR 612. Accelerated Second-Year Korean.

Not open to native speakers of Korean. Continuation of Korean 604. Six class hours a week for one semester. Korean 612 and 412 K may not both be counted; Korean 612 and 412L may not both be counted. Prerequisite: Korean 604 with a grade of at least C .

## KOR 412K. Second-Year Korean I.

Not open to native speakers of Korean. Four lecture hours a week for one semester. Korean 612 and 412K may not both be counted. Prerequisite: Korean 507 with a grade of at least C.

## KOR 412L. Second-Year Korean II.

Not open to native speakers of Korean. Four lecture hours a week for one semester. Korean 612 and 412L may not both be counted. Prerequisite: Korean 412 K with a grade of at least C .

KOR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses <br> \section*{KOR 320K. Third-Year Korean I.}

Three lecture hours a week for one semester. Prerequisite: Korean 612 or 412 L with a grade of at least C.

## KOR 320L. Third-Year Korean II.

Three lecture hours a week for one semester. Prerequisite: Korean 320K with a grade of at least C.

KOR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## KOR 330. Topics in Advanced Korean.

Fourth-year Korean readings on special topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Korean 320L with a grade of at least C.

Topic 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. Korean 330
(Topic: Advanced Conversation) and 330 (Topic 1) may not both be counted.
Topic 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. Korean 330 (Topic: Readings in Advanced Korean I) and 330 (Topic 2) may not both be counted.

## KOR 360. Conference Course in Korean Language and Literature.

Supervised individual study of selected problems in Korean language or literature. Conference course. May be repeated for credit. Prerequisite: Korean 412 K and written consent of instructor on form obtained from the undergraduate adviser.

## Malayalam: MAL <br> Lower-Division Courses

## MAL 506. First-Year Malayalam I.

Standard Malayalam of Kerala. Five class hours a week for one semester.

## MAL 507. First-Year Malayalam II.

Five class hours a week for one semester. Prerequisite: Malayalam 506 with a grade of at least $C$.

## MAL 312K. Second-Year Malayalam I.

Three lecture hours a week for one semester. Prerequisite: Malayalam 507 with a grade of at least C.

## MAL 312L. Second-Year Malayalam II.

Three lecture hours a week for one semester. Prerequisite: Malayalam 312 K with a grade of at least C.

MAL 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

MAL 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## MAL 330. Topics in Malayalam Language and Literature.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Malayalam 312L with a grade of at least C .

## MAL 360. Conference Course in Malayalam Language and Literature. <br> Supervised individual study of selected problems in Malayalam language or literature. Conference course. May be repeated for credit. Prerequisite:

Malayalam 312L and written consent of instructor on form obtained from the undergraduate adviser.

## Pashto: PSH

## Lower-Division Courses

## PSH 506. First-Year Pashto I.

Not open to native speakers of Pashto. Emphasis on basic skills: listening, speaking, reading, and writing. Five lecture hours a week for one semester.

## PSH 507. First-Year Pashto II.

Not open to native speakers of Pashto. Continuation of Pashto 506, with emphasis on basic skills: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Prerequisite: Pashto 506 with a grade of at least C.

## PSH 312K. Second-Year Pashto I.

Not open to native speakers of Pashto. Listening, speaking, reading, and writing skills in Pashto at the second-year level. Three lecture hours a week for one semester. Prerequisite: Pashto 507 with a grade of at least C.

## PSH 312L. Second-Year Pashto II.

Not open to native speakers of Pashto. Listening, speaking, reading, and writing Pashto at the advanced second-year level. Three lecture hours a week for one semester. Prerequisite: Pashto 312K with a grade of at least C.

PSH 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. Topics in Pashto.

This course is used to record credit the student earns while enrolled at another institution in 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. May be repeated for credit when the topics vary.

## Upper-Division Courses <br> PSH 320K. Readings in Modern Pashto I.

Readings in expository prose: selections from journals, newspapers, and other sources. Three lecture hours a week for one semester. Prerequisite: Pashto 312 L with a grade of at least C .

## PSH 320L. Readings in Modern Pashto II.

Readings in modern fiction, poetry, and drama. Three lecture hours a week for one semester. Prerequisite: Pashto 320 K with a grade of at least C.

PSH 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. Topics in Pashto.
This course is used to record credit the student earns while enrolled at another institution in 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. May be repeated for credit when the topics vary.

## PSH 330. Topics in Advanced Pashto.

Fourth-year Pashto readings on special topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Pashto 320K and 320L with a grade of at least $C$ in each.

## Sanskrit: SAN

## Lower-Division Courses

## SAN 506. First-Year Sanskrit I.

Introduction to basic grammatical principles, with reading of Ramayana episodes as illustrations. Five class hours a week for one semester.

## SAN 507. First-Year Sanskrit II.

Detailed study of problems of grammar and syntax; reading of extracts from Hitopadesha and the Bhagavad Gita. Five class hours a week for one semester. Prerequisite: Sanskrit 506 with a grade of at least C.

## SAN 312K. Second-Year Sanskrit I.

Introduction to classical Sanskrit prose literature; readings from the Epics and Kathasaritsagara. Three lecture hours a week for one semester. Prerequisite: Sanskrit 507 with a grade of at least C.

## SAN 312L. Second-Year Sanskrit II.

Introduction to classical Sanskrit poetry and philosophical literature; readings from the Upanishads and Kalidasa's Meghaduta. Three lecture hours a week for one semester. Prerequisite: Sanskrit 312K with a grade of at least $C$.

SAN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

SAN 325K. Advanced Sanskrit Readings and Composition I.
Three lecture hours a week for one semester. Prerequisite: Sanskrit 312L with a grade of at least C.

## SAN 325L. Advanced Sanskrit Readings and Composition II.

Three lecture hours a week for one semester. Prerequisite: Sanskrit 325K with a grade of at least C .

SAN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## SAN 330. Topics in Sanskrit Language and Literature.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Sanskrit 312L with a grade of at least C.

Topic 1: Sanskrit Drama. Provides students with a firmer foundation in Sanskrit grammar, syntax, and vocabulary; and an appreciation of the aesthetics of Sanskrit drama. Sanskrit 330 (Topic: Sanskrit Drama) and 330 (Topic 1) may not both be counted.

## SAN 360. Conference Course in Sanskrit Language and Literature.

Supervised individual study of selected problems in Sanskrit language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing, Sanskrit 312L, and written consent of instructor on form obtained from the undergraduate adviser.

## Tamil: TAM

## Lower-Division Courses

## TAM 604. Accelerated First-Year Tamil.

Not open to native speakers of Tamil. Designed for students who understand or speak but do not read or write Tamil. Six class hours a week for one semester. Tamil 604 and 506 may not both be counted; Tamil 604 and 507 may not both be counted.

## TAM 506. First-Year Tamil I.

Not open to native speakers of Tamil. Five lecture hours a week for one semester. Tamil 506 and 604 may not both be counted.

## TAM 507. First-Year Tamil II.

Not open to native speakers of Tamil. Five lecture hours a week for one semester. Tamil 604 and 507 may not both be counted. Prerequisite: Tamil 506 with a grade of at least C.

## TAM 612. Accelerated Second-Year Tamil.

Not open to native speakers of Tamil. Continuation of Tamil 604. Designed for students who understand or speak but do not read or write Tamil. Six class hours a week for one semester. Tamil 612 and 312K may not both be counted; Tamil 612 and 312L may not both be counted. Prerequisite: Tamil 604 with a grade of at least C.

## TAM 312K. Second-Year Tamil I.

Not open to native speakers of Tamil. Three lecture hours a week for one semester. Tamil 612 and 312 K may not both be counted. Prerequisite: Tamil 507 with a grade of at least C.

## TAM 312L. Second-Year Tamil II.

Not open to native speakers of Tamil. Three lecture hours a week for one semester. Tamil 612 and 312L may not both be counted. Prerequisite:
Tamil 312 K with a grade of at least C.

## Upper-Division Courses

## TAM 320K. Advanced Tamil I.

Not open to native speakers of Tamil. Three lecture hours a week for one semester. Prerequisite: Tamil 312L with a grade of at least C.

## TAM 320L. Advanced Tamil II.

Not open to native speakers of Tamil. Three lecture hours a week for one semester. Prerequisite: Tamil 320K with a grade of at least C.

TAM 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## TAM 330. Topics in Tamil Language and Literature.

Not open to native speakers of Tamil. Study of specific subjects related to South Asian culture as reflected in Tamil literary productions and other
modes of expression. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Tamil 312L with a grade of at least $C$.

## TAM 360. Conference Course in Tamil Language and Literature.

Supervised individual study of selected problems in Tamil language and literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

## Telugu: TEL

## Lower-Division Courses

## TEL 604. Accelerated First-Year Telugu.

Six lecture hours a week for one semester. Telugu 604 and 506 may not both be counted; Telugu 604 and 507 may not both be counted.

## TEL 506. First-Year Telugu I.

Not open to native speakers of Telugu. Five class hours a week for one semester. Telugu 604 and 506 may not both be counted.

## TEL 507. First-Year Telugu II.

Not open to native speakers of Telugu. Five class hours a week for one semester. Telugu 604 and 507 may not both be counted. Prerequisite: Telugu 506 with a grade of at least C .

## TEL 612. Accelerated Second-Year Telugu.

Continuation of Telugu 604. Six lecture hours a week for one semester. Telugu 612 and 312K may not both be counted; Telugu 612 and 312L may not both be counted. Prerequisite: Telugu 604.

## TEL 312K. Second-Year Telugu I.

Not open to native speakers of Telugu. Three lecture hours a week for one semester. Telugu 612 and 312K may not both be counted. Prerequisite: Telugu 507 with a grade of at least C .

## TEL 312L. Second-Year Telugu II.

Not open to native speakers of Telugu. Three lecture hours a week for one semester. Telugu 612 and 312L may not both be counted. Prerequisite: Telugu 312K with a grade of at least C.

## TEL 118K. Practice in Spoken Telugu.

Not open to native speakers of Telugu. Instruction and practice in conversation for intermediate-level students. Two lecture hours a week for one semester. Prerequisite: Telugu 507 with a grade of at least $C$.

## TEL 118L. Practice in Spoken Telugu II.

Not open to native speakers of Telugu. Instruction and practice in conversation for intermediate-level students. Two lecture hours a week for one semester. Prerequisite: Telugu 312 K or 118 K with a grade of at least C.

## Upper-Division Courses

TEL 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S.
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. May be repeated for credit when the topics vary.

## TEL 330. Telugu Language and Literature.

Three lecture hours a week for one semester. Prerequisite: Telugu 312L with a grade of at least C .

## TEL 360. Conference Course in Telugu Language and Literature.

Individual instruction. May be repeated for credit. Prerequisite: Upperdivision standing and written consent of instructor on form obtained from the undergraduate adviser.

## Urdu: URD

## Lower-Division Courses

## URD 604. Accelerated First-Year Urdu.

Designed for students who have some knowledge of spoken Urdu but have not studied Urdu formally. Six lecture hours a week for one semester. Hindi 604 and Urdu 604 may not both be counted; Hindi 506 and Urdu 604 may not both be counted; Hindi 507 and Urdu 604 may not both be counted; Urdu 604 and 506 may not both be counted; Urdu 604 and 507 may not both be counted.

## URD 506. First-Year Urdu I.

Not open to native speakers of Urdu. Five class hours a week for one semester. Urdu 604 and 506 may not both be counted.

## URD 507. First-Year Urdu II.

Not open to native speakers of Urdu. Five class hours a week for one semester. Urdu 604 and 507 may not both be counted. Prerequisite: Urdu 506 with a grade of at least C.

## URD 612. Accelerated Second-Year Urdu.

Continuation of Urdu 604. Six lecture hours a week for one semester. Urdu 612 and 312K may not both be counted; Urdu 612 and 312L may not both be counted. Prerequisite: Urdu 604 with a grade of at least C.

## URD 312K. Second-Year Urdu I.

Not open to native speakers of Urdu. Introduction to the Urdu script, followed by Urdu reading, composition, and conversation. Three lecture hours a week for one semester. Urdu 612 and 312K may not both be counted. Prerequisite: Urdu 507 with a grade of at least C.

## URD 312L. Second-Year Urdu II.

Not open to native speakers of Urdu. Continuation of Urdu 312K. Three lecture hours a week for one semester. Urdu 612 and 312L may not both be counted. Prerequisite: Urdu 312K with a grade of at least C.

## URD 118K. Practice in Spoken Urdu I.

Not open to native speakers of Urdu. Instruction and practice in conversation for intermediate-level students. Two lecture hours a week for one semester. Prerequisite: Urdu 507 with a grade of at least C.

## URD 118L. Practice in Spoken Urdu II.

Not open to native speakers of Urdu. Two lecture hours a week for one semester. Prerequisite: Urdu 118 K with a grade of at least C.

## Upper-Division Courses

URD 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## URD 330. Topics in Urdu Language and Literature.

Study of specific subjects related to Urdu culture as reflected in literary productions and other modes of expression. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Urdu 312L with a grade of at least C.

Topic 1: Female Voices in Urdu Literature. Survey of prose and poetry written in Urdu by women during the last three centuries. Only one of the following may be counted: Religious Studies 341 (Topic:
Female Voices in Urdu Literature), Urdu 330 (Topic 1), 384 (Topic 4: Female Voices in Urdu Literature).
Topic 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. Urdu 330 (Topic 2) and 384 (Topic 5: Love and Devotion in Urdu Literature) may not both be counted.
Topic 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. Urdu 330 (Topic 3) and 384 (Topic 6: Philosophy and Poetry of lqbal) may not both be counted.
Topic 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. Urdu 330 (Topic 4) and 384 (Topic 7: Urdu Aesthetics) may not both be counted.

## URD 130D. Urdu Across Disciplines.

Reading of Urdu language materials related to the subject matter of another designated course in Asian studies. One lecture hour a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit. Prerequisite: Registration for an appropriate Asian studies course, and written consent of instructor on form obtained from the undergraduate adviser.

## URD $431 \mathrm{~K}, 531 \mathrm{~K}, 631 \mathrm{~K}$. Flagship Urdu I.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## URD 431L, 531L, 631L. Flagship Urdu II.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## URD 332. 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. Three lecture hours a week for one semester. Urdu 330 (Topic: Style and Register in Urdu) and 332 may not both be counted. Prerequisite: Urdu 312L with a grade of at least C .

URD 432K, 532K, 632K. Flagship Urdu III.
For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

URD 432L, 532L, 632L. Flagship Urdu IV.
For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

URD 433K, 533K, 633K. Flagship Urdu V.
Students attend a variety of language and area studies courses at one or more universities in India. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## URD 433L, 533L, 633L. Flagship Urdu VI.

Students attend a variety of language and area studies courses at one or more universities in India. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## URD 434K, 534K, 634K. Flagship Urdu VII.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## URD 434L, 534L, 634L. Flagship Urdu VIII.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

## URD 360. Conference Course in Urdu Language and Literature.

Supervised individual study of selected problems in Urdu language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

## Department of Classics

No knowledge of Greek or Latin is required for courses in classical civilization or in ancient history and classical civilization. These courses may not be counted toward fulfillment of any foreign language requirement.

Unless otherwise indicated, all Greek courses are ancient Greek (including New Testament Greek). Students beginning ancient Greek normally follow the regular sequence: Greek $506,507,311$, and 312 K . An intensive sequence is also available: Greek 804 and 412, normally followed by 311 .

Students beginning Latin normally follow the regular sequence: Latin 506, 507,311 , and 312 K or 316 . Students may instead follow an accelerated sequence; information about this sequence is available from the undergraduate departmental adviser. Students with high school or transfer credit in Latin usually begin University coursework at a higher level. To ensure proper placement, students should consult the undergraduate adviser for the Department of Classics before registering.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Ancient History and Classical Civilization: AHC

## Lower-Division Courses

AHC 310. Introductory Surveys in Premodern History. Introductory survey of premodern history with emphasis on regions outside of the ancient Mediterranean world. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Introduction to the History and Culture of Spain. Same as European Studies 306 (Topic 2) and History 306N (Topic 13).

The history of Spain from its beginnings in the stone age through the great social and economic upheavals of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Introduction to the History and Culture of Spain), 310 (Topic 1), European Studies 306 (Topic: Introduction to the History and Culture of Spain), 306 (Topic 2), History 306N (Topic: Introduction to the History and Culture of Spain), 306N (Topic 13).

## AHC 319. Introductory Surveys in Roman and Greek History.

Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary.

Topic 1: The Ancient Mediterranean World. Same as Classical Civilization 319D and History 319D. 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.

AHC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. Topics in Ancient 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 ancient history and classical civilization program. University credit is awarded for work 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

## AHC 325. Topics in Ancient History.

Topics in the history of the Greek and Roman empires and the surrounding area. Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: The History of Rome: The Republic. Same as History 321 M . A survey of Roman history from the founding of Rome to the death of Julius Caesar. Prerequisite: Upper-division standing.
Topic 2: The History of Rome: The Empire. Same as History 321. A survey of the Roman world from Augustus to Constantine the Great. Prerequisite: Upper-division standing.
Topic 3: Rome and Jerusalem. Same as History 321G, Jewish Studies 365 (Topic 7: Rome and Jerusalem), Middle Eastern Studies 342 (Topic 21: Rome and Jerusalem), and Religious Studies 365 (Topic 1: Rome and Jerusalem). A study of daily life in Israel during the Roman period, focusing on Jerusalem, ancient Palestinian synagogues and churches, Jewish and Christian symbolism, agriculture, warfare, and burial practices. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 3), Classical Civilization 348 (Topic: Rome and Jerusalem), History 321G, Jewish Studies 365 (Topic 7), Middle Eastern Studies 320 (Topic 2: Rome and Jerusalem), 342 (Topic 21), Religious Studies 365 (Topic 1), Urban Studies 353 (Topic: Rome and Jerusalem). Prerequisite: Upper-division standing. Topic 4: History of Greece to the End of the Peloponnesian War. Same as Classical Civilization 354C and History 354C. Survey of Greek history from the emergence of the city-states through the end of the Peloponnesian War (ca. 700 to 404 BC ). Prerequisite: Upperdivision standing.
Topic 5: History of Greece to $\mathbf{1 4 6}$ BC. Same as Classical Civilization 354D and History 354D. Survey of Greek history from the end of the Peloponnesian War to the defeat of Greece by Rome ( 404 to 146 BC). Prerequisite: Upper-division standing.

Topic 6: The Hellenistic Age: Alexander to Actium. Same as Classical Civilization 351D and History 351D. 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). Prerequisite: Upper-division standing.
Topic 13: The Ancient Historians. Same as Classical Civilization 322 (Topic 13). Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Ancient Historians), 325 (Topic 13), Classical Civilization 322 (Topic: Ancient Historians), 322 (Topic 13). Topic 15: Civil War in Rome. Same as Classical Civilization 348 (Topic 15). Examines the sequence of civil conflict in Rome from the struggle of the orders through the rise of Constantine the Great. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Civil War in Rome), 325 (Topic 15), Classical Civilization 348 (Topic: Civil War in Rome), 348 (Topic 15), History 362G (Topic: Civil War in Rome).

AHC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. Topics in Ancient 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 ancient history and classical civilization program. University credit is awarded for work 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.

## AHC 330. Topics in Premodern History.

Topics in premodern history with emphasis on regions outside of the ancient Mediterranean world. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: The Dead Sea Scrolls. Same as History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Dead Sea Scrolls), 330 (Topic 1), History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 320 (Topic 13), 342 (Topic 23), Religious Studies 353D. Additional prerequisite: Upper-division standing.
Topic 2: Epics and Heroes of India. Same as Asian Studies 372 (Topic 40), Core Texts and Ideas 345 (Topic 11), and History 350L (Topic 54). Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Epics and Heroes of India), 330 (Topic 2), Asian Studies 372 (Topic: Epics and Heroes of India), 372 (Topic 40), Core Texts and Ideas 345 (Topic: Epics and Heroes of India), 345 (Topic 11), History 350L (Topic 54).
Topic 3: Mystics, Visionaries, and Heretics in Medieval Europe. Same as History 350L (Topic 74) and Religious Studies 375S (Topic 3). Examines particular mystical and visionary experiences within the context of medieval European Christianity. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 330 (Topic 3), History 350L (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 350L (Topic 74), Religious Studies 375S (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 375S (Topic 3).

## AHC 378. Undergraduate Seminar in Ancient History.

Restricted to students in the Department of Classics. Lectures, discussion, reading, and research on selected topics in Greek and Roman history. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Roman Law. Same as Classical Civilization 375 (Topic 1). Introduction to Roman law with close study of primary sources. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Roman Law), 378 (Topic 1), Classical Civilization 375 (Topic 1).
Topic 2: Aegean Prehistory. Same as Classical Civilization 375 (Topic 2). Traces political, social, economic, and general cultural developments on Crete and the Greek mainland between roughly 2200 and 1100 BCE. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Aegean Prehistory), 378 (Topic 2), Classical Civilization 375 (Topic 2), History 350L (Topic: Aegean Prehistory).
Topic 3: Writing Ancient History Today. Same as Classical Civilization 375 (Topic 3). Questions that engage ancient historians today and the methods that they use. Some background in ancient Greek history is recommended. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Writing Ancient History Today), 378 (Topic 3), Classical Civilization 375 (Topic 3), History 350L (Topic: Writing Ancient History Today).

Topic 4: The Athenian Empire. Same as Classical Civilization 375 (Topic 4). 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. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Athenian Empire), 378 (Topic 4), Classical Civilization 375 (Topic 4), History 350L (Topic: Athenian Empire).

## AHC 679H. Honors Tutorial Course.

Supervised conference course for honors candidates in ancient history and classical civilization. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Ancient History and Classical Civilization Honors Program; for 679HB, Ancient History and Classical Civilization 679HA.

## Classical Civilization: C C Lower-Division Courses

## C C 301. Introduction to Ancient Greece.

Greatness of Greece as reflected in Greek history, literature, philosophy, art, religion, and politics. No knowledge of Greek is required. Three class hours a week for one semester. Classical Civilization 301 and 342 may not both be counted.

## C C 302. Introduction to Ancient Rome.

Survey of the highlights and the influence of Roman civilization. No knowledge of Latin is required. Three class hours a week for one semester. Classical Civilization 302 and 347 may not both be counted.

## C C 303. Introduction to Classical Mythology.

Survey of major Greek and Roman myths and their influence on literature, art, and music. Three class hours a week for one semester. Classical Civilization 303 and 352 may not both be counted.

## C C 304C. 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. Three lecture hours a week for one semester. Classical Civilization 304C and

348 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## Topic 1: Introduction to Greek Private Life.

## Topic 2: Paganism to Christianity: An Introduction.

Topic 3: Introduction to Ancient Egypt. A survey of the language, culture, and history of Egypt from the prehistorical period ( $13,000 \mathrm{BC}$ ) to the New Kingdom (1069 BC). Classical Civilization 304C (Topic 3) and 348 (Topic 11: Ancient Egypt) may not both be counted.
Topic 4: Greece and Rome: Film and Reality. Key events and personalities of ancient Greece and Rome and their treatment in major European and American films. Only one of the following may be counted: Classical Civilization 304C (Topic: Greece and Rome: Film and Reality), 304C (Topic 4), European Studies 307 (Topic: Greece and Rome: Film and Reality).
Topic 6: Ancient Philosophy. Same as Philosophy 301K. Primarily for lower-division students. An introduction to the philosophical achievements of the ancient world, concentrating on Plato and Aristotle. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Classical Civilization 304C (Topic: Ancient Philosophy), 304C (Topic 6), Philosophy 301K.

## C C 305. Topics in Roman Civilization

A survey of the social life and customs of ancient Rome and Pompeii. No knowledge of Latin is required. Three class hours a week for one semester. Classical Civilization 305 and 335 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

Topic 1: Introduction to Caesar and Augustus.
Topic 2: Introduction to Roman Private Life.

## C C 306. 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. Three class hours a week for one semester. Classical Civilization 306 and 336 may not both be counted.

## C C 306M. 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. Three lecture hours a week for one semester. Classical Civilization 306M and 336M may not both be counted.

## C C 307C. 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. Three lecture hours a week for one semester. Classical Civilization 307C and 307K (Topic 1: Greek Archaeology Survey) may not both be counted.

## C C 307D. 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. Three lecture hours a week for one semester.

## C C 307K. Topics in Archaeology.

Survey of archaeological discoveries about ancient Greece or Rome in their historical and cultural context; emphasis on the major sites and monuments of architecture and art. No knowledge of Greek or Latin is required. Three class hours a week for one semester. Classical

Civilization 307K and 340 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

C C 317. Classical Archaeology: Methods and Approaches.
An overview of the history of classical archaeology and its methods and approaches. Focuses on case studies of major sites and their excavation and interpretation. No knowledge of Greek or Latin is required. Three lecture hours a week for one semester. Classical Civilization 302K and 317 may not both be counted. Prerequisite: One of the following courses: Ancient History and Classical Civilization 319 (Topic 1: The Ancient Mediterranean World), Art History 302, Classical Civilization 301, 302, 307C, 307D, 318, 319D, History 319D, Religious Studies 318.

## C C 318. The Rise of Christianity.

Same as Religious Studies 318. Introduction to the origins and development of Christianity. Three lecture hours a week for one semester.

## C C 319D. The Ancient Mediterranean World.

Same as Ancient History and Classical Civilization 319 (Topic 1: The Ancient Mediterranean World) and History 319D. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

C C 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## C C 322. Classical Literature in Translation.

Survey of Greek and Latin philosophical, literary, and historical classics, in translation. No knowledge of Greek or Latin is required. Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 3: Wit and Humor in Antiquity.
Topic 4: Ancient Epic. Classical Civilization 322 (Topic 4) and 322 (Topic: Epic Tradition: From Homer to Tennyson) may not both be counted.
Topic 13: The Ancient Historians. Same as Ancient History and Classical Civilization 325 (Topic 13). Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Ancient Historians), 325 (Topic 13), Classical Civilization 322 (Topic: Ancient Historians), 322 (Topic 13).

## C C 327. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

C C 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## C C 330K. Ancient Philosophy after Aristotle.

Same as Philosophy 330K. Epicureans, Stoics, Skeptics, Plotinus and the Neoplatonist tradition. No knowledge of Greek is required. Three class hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

## C C 336M. 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. Three lecture hours a week for one semester. Classical Civilization 306M and 336M may not both be counted. Prerequisite: Upper-division standing.

## C C 340. 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. Three lecture hours a week for one semester. Classical Civilization 307K and 340 may not both be counted unless the topics vary. Classical Civilization 340 and 375 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 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. Prerequisite: Upperdivision standing.
Topic 2: Art and Politics in Imperial Rome. Same as Art History 327 N . Public art of the Roman Empire from Augustus to late antiquity, ca. 31 BC to AD 350. Three lecture hours a week for one semester. Additional prerequisite: Upper-division standing.
Topic 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. Prerequisite: For art history and visual art studies majors, Art History 302 and 303 ; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.
Topic 4: Roman Architecture. Prerequisite: For art history and visual art studies majors, Art History 302 and 303; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.
Topic 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. Prerequisite: For art history and visual art studies majors, Art History 302 and 303; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.
Topic 6: Food, Health, and Culture in the Ancient Mediterranean. Values and social practices in the ancient Mediterranean as expressed by foodways and nutritional choices. Classical Civilization 340 (Topic 6) and 348 (Topic: Food and Drink) may not both be counted.
Topic 7: Pompeii. Uses ancient literary texts and various analytical approaches to examine the ancient remains of Pompeii and Herculaneum in context. Classical Civilization 340 (Topic: Pompeii) and 340 (Topic 7) may not both be counted.
Topic 8: Archaeology of Greek Prehistory. Explores the development of complex societies in ancient Greece by studying its prehistory through archaeology. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Archaeology of Greek Prehistory), Classical Civilization 340 (Topic:

Archaeology of Greek Prehistory), 340 (Topic 8), Middle Eastern Studies 320 (Topic: Archaeology of Greek Prehistory), Persian 372 (Topic: Archaeology of Greek Prehistory).
Topic 9: Topography and Monuments of Ancient Rome. Examines the architecture and urban development of Rome from its beginnings until late antiquity. Only one of the following may be counted: Classical Civilization 340 (Topic: Topography and Monuments of Ancient Rome), 340 (Topic 9), European Studies 346 (Topic: Topography and Monuments of Ancient Rome).
Topic 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. Only one of the following may be counted: Anthropology 324L (Topic: Archaeology, Art and Analysis of Greco-Roman and Aegean Pottery), Classical Civilization 340 (Topic: Archaeology, Art and Analysis of Greco-Roman and Aegean Pottery), 340 (Topic 10).

## C C 348. 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. Three lecture hours a week for one semester; additional hours may be required for some topics. Classical Civilization 304C and 348 may not both be counted unless the topics vary. Classical Civilization 348 and 375 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 4: History of Ancient Philosophy. Same as Philosophy 329K. Development of Western philosophy from the pre-Socratics to the early Christian era; emphasis on Plato and Aristotle. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Classical Civilization 342 (Topic: History of Ancient Philosophy), 348 (Topic 4), Philosophy 329K. Prerequisite: Six semester hours of coursework in philosophy.
Topic 5: Homosexuality in Antiquity. Prerequisite: Upper-division standing.
Topic 7: Women in Classical Antiquity. Same as Women's and Gender Studies 345 (Topic 9: Women in Classical Antiquity).
Topic 9: The German Language: Historical Perspectives. Only one of the following may be counted: Anthropology 320L (Topic 8: German and English: Historical Perspectives), 320L (Topic 9), Classical Civilization 348 (Topic 8: German and English: Historical Perspectives), 348 (Topic 9), German 369 (Topic 4), Germanic Civilization 327E (Topic 9: German and English: Historical Perspectives), Linguistics 373 (Topic 8: German and English: Historical Perspectives), 373 (Topic 9). Additional prerequisite: Six semester hours of upper-division coursework in German, or fourteen hours of coursework in German and six hours of coursework in linguistics.
Topic 10: Jesus in History and Tradition. Same as Religious Studies 335. Critical issues, scholarly debates, and historical methods in studying the development of the Christian tradition regarding the figure of Jesus. Prerequisite: Upper-division standing.
Topic 11: Ancient Egypt. Discussion of Egypt's culture, language, and history from the prehistorical period ( $13,000 \mathrm{BC}$ ) to the New Kingdom (1069 BC). Classical Civilization 304C (Topic 3: Introduction to Ancient Egypt) and 348 (Topic 11) may not both be counted. Prerequisite: Upper-division standing.
Topic 13: Gender and Sexuality in Ancient Novel. Same as Women's and Gender Studies 345 (Topic 53). The major works of prose fiction from Greco-Roman antiquity and how those works relate to the intellectual, cultural, and social currents of late antiquity. Only one of the following may be counted: Classical Civilization 348 (Topic: Gender and Sexuality in Ancient Novel), 348 (Topic 13), Women's and

Gender Studies 345 (Topic: Gender and Sexuality in Ancient Novel), 345 (Topic 53).
Topic 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. Classical Civilization 348 (Topic: Ancient Greek Medicine) and 348 (Topic 14) may not both be counted. Additional prerequisite: Upper-division standing.
Topic 15: Civil War in Rome. Same as Ancient History and Classical Civilization 325 (Topic 15). Examines the sequence of civil conflict in Rome from the struggle of the orders through the rise of Constantine the Great. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Civil War in Rome), 325 (Topic 15), Classical Civilization 348 (Topic: Civil War in Rome), 348 (Topic 15), History 362G (Topic: Civil War in Rome).

Topic 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. Only one of the following may be counted: Classical Civilization 348 (Topic: Moral Agency In Greek Tragedy), 348 (Topic 16), Core Texts and Ideas 345 (Topic: Moral Agency In Greek Tragedy).
Topic 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. Classical Civilization 348 (Topic: Egyptian Hieroglyphics in Cultural Context) and 348 (Topic 17) may not both be counted.
Topic 18: Ancient Mediterranean Masculinities. Same as Women's and Gender Studies 340 (Topic 59). Examines in-depth literary and artistic evidence from multiple ancient cultures to determine how each society defined the distinctively "masculine" role it expected of men and boys and how each society transformed boys into men. Only one of the following may be counted: Classical Civilization 348 (Topic: Ancient Mediterranean Masculinities), 348 (Topic 18), Women's and Gender Studies 340 (Topic: Ancient Mediterranean Masculinities), 340 (Topic 59).

Topic 19: Nero. Nero's life in its larger social and historical context, as well as his reception in the medieval period and beyond. Only one of the following may be counted: Classical Civilization 348 (Topic: Nero), 348 (Topic 19), European Studies 346 (Topic: Nero).

## C C 351D. The Hellenistic Age: Alexander to Actium.

Same as Ancient History and Classical Civilization 325 (Topic 6: The Hellenistic Age: Alexander to Actium) and History 351D. 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). Two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## C C 352. Classical Mythology.

Survey of major Greek and Roman myths and their influence on literature, art, and music. Three lecture hours a week for one semester. Classical Civilization 303 and 352 may not both be counted. Prerequisite: Upperdivision standing.

## C C 354C. History of Greece to the End of the Peloponnesian War.

Same as Ancient History and Classical Civilization 325 (Topic 4: History of Greece to the End of the Peloponnesian War) and History 354C. Survey of Greek history from the emergence of the city-states through the end of the Peloponnesian War (ca. 700 to 404 BC). Two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## C C 354D. History of Greece to 146 BC.

Same as Ancient History and Classical Civilization 325 (Topic 5: History of Greece to 146 BC ) and History 354D. Survey of Greek history from the end of the Peloponnesian War to the defeat of Greece by Rome (404 to 146 BC). Two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## C C 362. Conference Course in Classical Archaeology.

Advanced archaeological instruction and research in classical archaeology. No knowledge of Greek is required. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## C C 363. Conference Course in Classical Civilization.

Supervised work in various specialized aspects of classical civilization. No knowledge of Greek or Latin is required. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## C C 375. Seminar in Classical Studies.

Restricted to students in the Department of Classics. Study of selected topics in classical studies. Some knowledge of Greek or Latin is expected. Three lecture hours a week for one semester. Classical Civilization 340 and 375 may not both be counted unless the topics vary. Classical Civilization 348 and 375 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing.

Topic 1: Roman Law. Same as Ancient History and Classical Civilization 378 (Topic 1). Introduction to Roman law with close study of primary sources. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Roman Law), 378 (Topic 1), Classical Civilization 375 (Topic 1).

Topic 2: Aegean Prehistory. Same as Ancient History and Classical Civilization 378 (Topic 2). Traces political, social, economic, and general cultural developments on Crete and the Greek mainland between roughly 2200 and 1100 BCE. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Aegean Prehistory), 378 (Topic 2), Classical Civilization 375 (Topic 2), History 350L (Topic: Aegean Prehistory).
Topic 3: Writing Ancient History Today. Same as Ancient History and Classical Civilization 378 (Topic 3). Questions that engage ancient historians today and the methods that they use. Some background in ancient Greek history is recommended. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Writing Ancient History Today), 378 (Topic 3), Classical Civilization 375 (Topic 3), History 350L (Topic: Writing Ancient History Today).
Topic 4: The Athenian Empire. Same as Ancient History and Classical Civilization 378 (Topic 4). 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. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Athenian Empire), 378 (Topic 4), Classical Civilization 375 (Topic 4), History 350L (Topic: Athenian Empire).

## C C 679H. Honors Tutorial Course.

Supervised conference course for honors candidates in classics. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Classics Honors Program; for 679HB, Classical Civilization 679HA.

## Greek: GK

## Lower-Division Courses

## GK 601C. Beginning Greek.

Studies the fundamentals of grammar and reading in ancient Greek. Six lecture hours a week for one semester. Only one of the following may be counted: Greek 601C; 804; 506 and 507; 606Q.

## GK 502. First-Year Modern Greek I.

Introduction to grammar and reading. Five lecture hours a week for one semester. Greek 502 and 602C may not both be counted.

## GK 602C. Beginning Modern Greek.

Six lecture hours a week for one semester. Greek 502 and 602C may not both be counted. Greek 602C and 503 may not both be counted.

## GK 503. First-Year Modern Greek II.

Continuation of Greek 502. Five lecture hours a week for one semester. Greek 602C and 503 may not both be counted. Prerequisite: Greek 502 with a grade of at least C .

## GK 804. 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. Offered in the summer session as part of the Intensive Greek Program. The Intensive Greek Program meets for five hours each weekday during the summer session. Only one of the following may be counted: Greek 601C; 804; 506 and 507; 606Q. The student must complete both Greek 804 and 412 in order to earn credit for either; the same grade will be awarded for both courses. Prerequisite: Concurrent enrollment in Greek 412. Students who enroll in 804 must take Greek 412 in the same summer session.

## GK 506 (TCCN: GREE 1511). First-Year Greek I.

Studies the fundamentals of grammar and reading in ancient Greek. Five lecture hours a week for one semester. Only one of the following may be counted: Greek 601C; 804; 506 and 507; 606Q.

## GK 507 (TCCN: GREE 1512). First-Year Greek II.

Continuation of Greek 506. Five lecture hours a week for one semester. Only one of the following may be counted: Greek 601C; 804; 506 and $507 ; 606$ Q. Greek 507 and 412 may not both be counted. Prerequisite: Greek 506 with a grade of at least C.

## GK 309K. Conference Course.

Supervised individual instruction in second-year ancient or modern Greek reading. Conference course. May be repeated for credit. Prerequisite: Consent of instructor.

## GK 310. Second-Year Modern Greek I.

Culture, language, and literature of present-day Greece. Three lecture hours a week for one semester. Greek 310 and 610C may not both be counted. Prerequisite: Greek 602C or 503 with a grade of at least C.

## GK 610C. Intermediate Modern Greek.

Continuation of Greek 602C. Six lecture hours a week for one semester. Greek 310 and 610C may not both be counted. Greek 610C and 310K may not both be counted. Prerequisite: Greek 602C or 503 with a grade of at least $C$.

## GK 310K. Second-Year Modern Greek II.

Continuation of Greek 310. Three lecture hours a week for one semester. Greek 610C and 310K may not both be counted. Prerequisite: Greek 310 with a grade of at least $C$.

GK 311 (TCCN: GREE 2311). Intermediate Greek I.
Continuation of Greek 601C or 507. Introductory readings from classical authors such as Lysias, Plato, and Xenophon. Includes grammar review. Three lecture hours a week for one semester. Prerequisite: Greek 601C or 507 with a grade of at least $C$, or Greek 804 and 412 with a grade of at least $C$ in each.

## GK 412. 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. The Intensive Greek Program meets for five hours each weekday during the summer session. Greek 507 and 412 may not both be counted. Prerequisite: Concurrent enrollment in Greek 804.

## GK 312K. Intermediate Greek II.

Continuation of Greek 311. Selected readings from classical and biblical authors. Three lecture hours a week for one semester. Greek 312K and 312L may not both be counted. Prerequisite: Greek 311 with a grade of at least C.

## GK 312L. Intermediate Greek II: Biblical Greek.

Continuation of Greek 311. A parallel to Greek 312K with a focus on biblical Greek. Three class hours a week for one semester. Greek 312K and 312 L may not both be counted. Prerequisite: Greek 311 with a grade of at least $C$.

GK 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## GK 324. Advanced Greek.

Reading and analysis of classical authors such as Homer, Herodotus, Euripides, and Plato. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Greek 312K or 312 L (or 322) with a grade of at least C; or Greek 412 with a grade of at least A-, and consent of the undergraduate adviser.

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## GK 326. Advanced Greek Grammar and Composition.

Study of syntax, style, and principles of written composition. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Greek 324.

## GK 328. Advanced Biblical Greek.

Reading and analysis of selections from the New Testament, the Septuagint, and related writings. Three lecture hours a week for one semester. Greek 328 and 362 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Greek 312 K or 312L (or 322) with a grade of at least C; or Greek 412 with a grade of at least $A-$, and consent of the undergraduate adviser.

## Topic 1: Pauline Epistles.

Topic 2: The Gospel of John.
Topic 3: Biblical Greek: Acts. Greek 328 (Topic: Biblical Greek: Acts)
and 328 (Topic 3) may not both be counted.
GK 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## GK 365. Seminar in Greek.

Critical study of authors such as Thucydides, Demosthenes, and Aeschylus. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Greek 324 or 328.

Topic 1: Aeschylus.
Topic 2: Sophocles.
Topic 3: Thucydides.
Topic 4: Aristophanes.
Topic 5: Plato and Greek Prose. Greek 365 (Topic: Plato and Greek Prose) and 365 (Topic 5) may not both be counted.
Topic 6: Female Poets of Ancient Greece. Greek 365 (Topic: Female Poets of Ancient Greece) and 365 (Topic 6) may not both be counted.
Topic 7: Callimachus. Greek 365 (Topic: Callimachus) and 365 (Topic 7) may not both be counted.

## GK 370. Advanced Conference Course.

Supervised reading. Conference course. May be repeated for credit. Prerequisite: Greek 310K or 324, and consent of instructor.

## GK 679H. Honors Tutorial Course.

Supervised conference course for honors candidates in Greek. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the honors program in Greek; for 679HB, Greek 679HA.

## Latin: LAT

Lower-Division Courses

## LAT 601C. Beginning Latin.

Fundamentals of grammar and reading. Six lecture hours a week for one semester. Only one of the following may be counted: Latin 601C; 506 and 507; 506Q; 508.

## LAT 506 (TCCN: LATI 1511). First-Year Latin I.

Fundamentals of grammar and reading. Five lecture hours a week for one semester. Only one of the following may be counted: Latin 601C; 506 and 507; 506Q; 508.

## LAT 507 (TCCN: LATI 1512). First-Year Latin II.

Continuation of Latin 506. Five lecture hours a week for one semester. Only one of the following may be counted: Latin 601C; 506 and 507; 506Q; 508. Prerequisite: Latin 506 with a grade of at least C.

## LAT 309K. Conference Course.

Supervised individual instruction in second-year Latin reading.
Conference course. May be repeated for credit. Prerequisite: Consent of instructor.

## LAT 311 (TCCN: LATI 2311). Intermediate Latin I.

Continuation of Latin 601C and 507. Introduction to reading classical authors in their cultural context. Includes grammar review. Three lecture hours a week for one semester. Latin 311 and 511 K may not both be counted. Prerequisite: Latin 601C or 507 (or 506Q or 508) with a grade of at least C.

## LAT 511K. Accelerated Intermediate Latin.

Designed primarily for students of high academic ability and motivation. Comparable to Latin 311 and 312K together. Five lecture hours a week for one semester. Only one of the following may be counted: Latin $511 \mathrm{~K}, 312 \mathrm{~K}, 312 \mathrm{M}, 316$. Latin 311 and 511 K may not both be counted. Prerequisite: Latin 601C or 507 (or 506Q or 508) with a grade of at least A-

## LAT 312K. Intermediate Latin II.

Continuation of Latin 311. Selected readings from classical authors. Three lecture hours a week for one semester. Only one of the following may be counted: Latin $511 \mathrm{~K}, 312 \mathrm{~K}, 312 \mathrm{M}, 316$. Prerequisite: Latin 311 with a grade of at least $C$.

## LAT 316. Intermediate Latin II: Poetry.

Continuation of Latin 311. Selected readings from classical and medieval poets. Three lecture hours a week for one semester. Only one of the following may be counted: Latin 511K, 312K, 312M, 316. Prerequisite: Latin 311 with a grade of at least C.

LAT 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## LAT 322. Advanced Latin I.

Reading and analysis of selected classical authors. Three lecture hours a week for one semester. Prerequisite: Latin 511K, 312K, or 316 (or 312M) with a grade of at least C .

## LAT 323. Advanced Latin II.

Reading and interpretation of prose and poetry texts at an early advanced level. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Latin 322 with a grade of at least C.

Topic 5: Cicero and Catullus. Latin 323 (Topic: Cicero and Catullus) and 323 (Topic 5) may not both be counted.
Topic 6: Elegy. Latin 323 (Topic: Elegy) and 323 (Topic 6) may not both be counted.
Topic 7: Images of Augustus . Latin 323 (Topic: Images of Augustus) and 323 (Topic 7) may not both be counted.

Topic 8: Christian Martyrs in the Roman Empire. Latin 323 (Topic: Christian Martyrs in the Roman Empire) and 323 (Topic 8) may not both be counted.

## LAT 324. Advanced Latin Grammar and Composition.

Study of syntax, style, and principles of written composition. Three lecture hours a week for one semester. Required of all Latin majors and students seeking a secondary school teaching certificate with Latin as a teaching field. Prerequisite: Latin 322 with a grade of at least C.

LAT 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## LAT 365. Seminar in Latin.

Critical study of authors such as Horace, Livy, Lucretius, and Tacitus. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Latin 323 with a grade of at least C.

Topic 1: Horace.
Topic 2: Lucretius.
Topic 4: Tacitus.
Topic 8: Plautus and Early Latin. Latin 365 (Topic: Plautus and Early Latin) and 365 (Topic 8) may not both be counted.
Topic 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. Latin 365 (Topic: Nero) and 365 (Topic 9) may not both be counted.
Topic 10: Seneca. Latin 365 (Topic: Seneca) and 365 (Topic 10) may not both be counted.
Topic 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. Latin 365 (Topic: Seminar: Intertextuality) and 365 (Topic 11) may not both be counted.

## LAT 370. Advanced Conference Course.

Supervised reading. Conference course. May be repeated for credit. Prerequisite: Consent of instructor.

## LAT 679H. Honors Tutorial Course.

Supervised conference course for honors candidates in Latin. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Latin Honors Program; for 679HB, Latin 679HA

## Classical Languages

## Classical Civilization: C C

## Lower-Division Courses

## C C 301. Introduction to Ancient Greece.

Greatness of Greece as reflected in Greek history, literature, philosophy, art, religion, and politics. No knowledge of Greek is required. Three class hours a week for one semester. Classical Civilization 301 and 342 may not both be counted.

## C C 302. Introduction to Ancient Rome.

Survey of the highlights and the influence of Roman civilization. No knowledge of Latin is required. Three class hours a week for one semester. Classical Civilization 302 and 347 may not both be counted.

## C C 303. Introduction to Classical Mythology.

Survey of major Greek and Roman myths and their influence on literature, art, and music. Three class hours a week for one semester. Classical Civilization 303 and 352 may not both be counted.

## C C 304C. 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. Three lecture hours a week for one semester. Classical Civilization 304C and 348 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## Topic 1: Introduction to Greek Private Life.

Topic 2: Paganism to Christianity: An Introduction.
Topic 3: Introduction to Ancient Egypt. A survey of the language, culture, and history of Egypt from the prehistorical period ( $13,000 \mathrm{BC}$ ) to the New Kingdom (1069 BC). Classical Civilization 304C (Topic 3) and 348 (Topic 11: Ancient Egypt) may not both be counted.
Topic 4: Greece and Rome: Film and Reality. Key events and personalities of ancient Greece and Rome and their treatment in major European and American films. Only one of the following may be counted: Classical Civilization 304C (Topic: Greece and Rome: Film and Reality), 304C (Topic 4), European Studies 307 (Topic: Greece and Rome: Film and Reality).
Topic 6: Ancient Philosophy. Same as Philosophy 301K. Primarily for lower-division students. An introduction to the philosophical achievements of the ancient world, concentrating on Plato and Aristotle. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Classical Civilization 304C (Topic: Ancient Philosophy), 304C (Topic 6), Philosophy 301K.

## C C 305. Topics in Roman Civilization.

A survey of the social life and customs of ancient Rome and Pompeii. No knowledge of Latin is required. Three class hours a week for one semester. Classical Civilization 305 and 335 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## Topic 1: Introduction to Caesar and Augustus.

Topic 2: Introduction to Roman Private Life.

## C C 306. 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. Three class hours a week for one semester. Classical Civilization 306 and 336 may not both be counted.

## C C 306M. 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. Three lecture hours a week for one semester. Classical Civilization 306M and 336M may not both be counted.

## C C 307C. 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. Three lecture hours a week for
one semester. Classical Civilization 307C and 307K (Topic 1: Greek Archaeology Survey) may not both be counted.

C C 307D. 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. Three lecture hours a week for one semester.

## C C 307K. Topics in Archaeology.

Survey of archaeological discoveries about ancient Greece or Rome in their historical and cultural context; emphasis on the major sites and monuments of architecture and art. No knowledge of Greek or Latin is required. Three class hours a week for one semester. Classical Civilization 307 K and 340 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## C C 317. Classical Archaeology: Methods and Approaches.

An overview of the history of classical archaeology and its methods and approaches. Focuses on case studies of major sites and their excavation and interpretation. No knowledge of Greek or Latin is required. Three lecture hours a week for one semester. Classical Civilization 302 K and 317 may not both be counted. Prerequisite: One of the following courses: Ancient History and Classical Civilization 319 (Topic 1: The Ancient Mediterranean World), Art History 302, Classical Civilization 301, 302, 307C, 307D, 318, 319D, History 319D, Religious Studies 318.

## C C 318. The Rise of Christianity.

Same as Religious Studies 318. Introduction to the origins and development of Christianity. Three lecture hours a week for one semester.

## C C 319D. The Ancient Mediterranean World.

Same as Ancient History and Classical Civilization 319 (Topic 1: The Ancient Mediterranean World) and History 319D. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

C C 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## C C 322. Classical Literature in Translation.

Survey of Greek and Latin philosophical, literary, and historical classics, in translation. No knowledge of Greek or Latin is required. Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 3: Wit and Humor in Antiquity.
Topic 4: Ancient Epic. Classical Civilization 322 (Topic 4) and 322 (Topic: Epic Tradition: From Homer to Tennyson) may not both be counted.
Topic 13: The Ancient Historians. Same as Ancient History and Classical Civilization 325 (Topic 13). Examines the main works of ancient historiography, and provides grounding in the central issues
with which these works engage. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Ancient Historians), 325 (Topic 13), Classical Civilization 322 (Topic: Ancient Historians), 322 (Topic 13).

## C C 327. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

C C 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## C C 330K. Ancient Philosophy after Aristotle.

Same as Philosophy 330K. Epicureans, Stoics, Skeptics, Plotinus and the Neoplatonist tradition. No knowledge of Greek is required. Three class hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

## C C 336M. 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. Three lecture hours a week for one semester. Classical Civilization 306M and 336M may not both be counted. Prerequisite: Upper-division standing.

## C C 340. 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. Three lecture hours a week for one semester. Classical Civilization 307K and 340 may not both be counted unless the topics vary. Classical Civilization 340 and 375 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 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. Prerequisite: Upperdivision standing.
Topic 2: Art and Politics in Imperial Rome. Same as Art History 327 N . Public art of the Roman Empire from Augustus to late antiquity, ca. 31 BC to AD 350. Three lecture hours a week for one semester. Additional prerequisite: Upper-division standing.
Topic 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. Prerequisite: For art history and visual art studies majors, Art History 302 and 303; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.
Topic 4: Roman Architecture. Prerequisite: For art history and visual art studies majors, Art History 302 and 303; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.
Topic 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. Prerequisite: For art history and visual art studies majors, Art History 302 and 303 ; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

Topic 6: Food, Health, and Culture in the Ancient Mediterranean.
Values and social practices in the ancient Mediterranean as expressed by foodways and nutritional choices. Classical Civilization 340 (Topic 6) and 348 (Topic: Food and Drink) may not both be counted.
Topic 7: Pompeii. Uses ancient literary texts and various analytical approaches to examine the ancient remains of Pompeii and Herculaneum in context. Classical Civilization 340 (Topic: Pompeii) and 340 (Topic 7) may not both be counted.
Topic 8: Archaeology of Greek Prehistory. Explores the development of complex societies in ancient Greece by studying its prehistory through archaeology. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Archaeology of Greek Prehistory), Classical Civilization 340 (Topic: Archaeology of Greek Prehistory), 340 (Topic 8), Middle Eastern Studies 320 (Topic: Archaeology of Greek Prehistory), Persian 372 (Topic: Archaeology of Greek Prehistory).
Topic 9: Topography and Monuments of Ancient Rome. Examines the architecture and urban development of Rome from its beginnings until late antiquity. Only one of the following may be counted: Classical Civilization 340 (Topic: Topography and Monuments of Ancient Rome), 340 (Topic 9), European Studies 346 (Topic: Topography and Monuments of Ancient Rome).
Topic 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. Only one of the following may be counted: Anthropology 324L (Topic: Archaeology, Art and Analysis of Greco-Roman and Aegean Pottery), Classical Civilization 340 (Topic: Archaeology, Art and Analysis of Greco-Roman and Aegean Pottery), 340 (Topic 10).

## C C 348. 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. Three lecture hours a week for one semester; additional hours may be required for some topics. Classical Civilization 304C and 348 may not both be counted unless the topics vary. Classical Civilization 348 and 375 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 4: History of Ancient Philosophy. Same as Philosophy 329K. Development of Western philosophy from the pre-Socratics to the early Christian era; emphasis on Plato and Aristotle. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Classical Civilization 342 (Topic: History of Ancient Philosophy), 348 (Topic 4), Philosophy 329K. Prerequisite: Six semester hours of coursework in philosophy.
Topic 5: Homosexuality in Antiquity. Prerequisite: Upper-division standing.
Topic 7: Women in Classical Antiquity. Same as Women's and Gender Studies 345 (Topic 9: Women in Classical Antiquity).
Topic 9: The German Language: Historical Perspectives. Only one of the following may be counted: Anthropology 320L (Topic 8: German and English: Historical Perspectives), 320L (Topic 9), Classical Civilization 348 (Topic 8: German and English: Historical Perspectives), 348 (Topic 9), German 369 (Topic 4), Germanic Civilization 327E (Topic 9: German and English: Historical Perspectives), Linguistics 373 (Topic 8: German and English: Historical Perspectives), 373 (Topic 9). Additional prerequisite: Six semester hours of upper-division coursework in German, or fourteen hours of coursework in German and six hours of coursework in linguistics.
Topic 10: Jesus in History and Tradition. Same as Religious Studies 335. Critical issues, scholarly debates, and historical methods in
studying the development of the Christian tradition regarding the figure of Jesus. Prerequisite: Upper-division standing.
Topic 11: Ancient Egypt. Discussion of Egypt's culture, language, and history from the prehistorical period (13,000 BC) to the New Kingdom (1069 BC). Classical Civilization 304C (Topic 3: Introduction to Ancient Egypt) and 348 (Topic 11) may not both be counted. Prerequisite: Upper-division standing.
Topic 13: Gender and Sexuality in Ancient Novel. Same as Women's and Gender Studies 345 (Topic 53). The major works of prose fiction from Greco-Roman antiquity and how those works relate to the intellectual, cultural, and social currents of late antiquity. Only one of the following may be counted: Classical Civilization 348 (Topic: Gender and Sexuality in Ancient Novel), 348 (Topic 13), Women's and Gender Studies 345 (Topic: Gender and Sexuality in Ancient Novel), 345 (Topic 53).
Topic 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. Classical Civilization 348 (Topic: Ancient Greek Medicine) and 348 (Topic 14) may not both be counted. Additional prerequisite: Upper-division standing.
Topic 15: Civil War in Rome. Same as Ancient History and Classical Civilization 325 (Topic 15). Examines the sequence of civil conflict in Rome from the struggle of the orders through the rise of Constantine the Great. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Civil War in Rome), 325 (Topic 15), Classical Civilization 348 (Topic: Civil War in Rome), 348 (Topic 15), History 362G (Topic: Civil War in Rome).

Topic 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. Only one of the following may be counted: Classical Civilization 348 (Topic: Moral Agency In Greek Tragedy), 348 (Topic 16), Core Texts and Ideas 345 (Topic: Moral Agency In Greek Tragedy).
Topic 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. Classical Civilization 348 (Topic: Egyptian Hieroglyphics in Cultural Context) and 348 (Topic 17) may not both be counted.
Topic 18: Ancient Mediterranean Masculinities. Same as Women's and Gender Studies 340 (Topic 59). Examines in-depth literary and artistic evidence from multiple ancient cultures to determine how each society defined the distinctively "masculine" role it expected of men and boys and how each society transformed boys into men. Only one of the following may be counted: Classical Civilization 348 (Topic: Ancient Mediterranean Masculinities), 348 (Topic 18), Women's and Gender Studies 340 (Topic: Ancient Mediterranean Masculinities), 340 (Topic 59).

Topic 19: Nero. Nero's life in its larger social and historical context, as well as his reception in the medieval period and beyond. Only one of the following may be counted: Classical Civilization 348 (Topic: Nero), 348 (Topic 19), European Studies 346 (Topic: Nero).

## C C 351D. The Hellenistic Age: Alexander to Actium.

Same as Ancient History and Classical Civilization 325 (Topic 6: The Hellenistic Age: Alexander to Actium) and History 351D. 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). Two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## C C 352. Classical Mythology.

Survey of major Greek and Roman myths and their influence on literature, art, and music. Three lecture hours a week for one semester. Classical

Civilization 303 and 352 may not both be counted. Prerequisite: Upperdivision standing.

## C C 354C. History of Greece to the End of the Peloponnesian War.

Same as Ancient History and Classical Civilization 325 (Topic 4: History of Greece to the End of the Peloponnesian War) and History 354C. Survey of Greek history from the emergence of the city-states through the end of the Peloponnesian War (ca. 700 to 404 BC). Two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## C C 354D. History of Greece to 146 BC.

Same as Ancient History and Classical Civilization 325 (Topic 5: History of Greece to 146 BC ) and History 354D. Survey of Greek history from the end of the Peloponnesian War to the defeat of Greece by Rome (404 to 146 BC ). Two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## C C 362. Conference Course in Classical Archaeology.

Advanced archaeological instruction and research in classical archaeology. No knowledge of Greek is required. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## C C 363. Conference Course in Classical Civilization.

Supervised work in various specialized aspects of classical civilization. No knowledge of Greek or Latin is required. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## C C 375. Seminar in Classical Studies.

Restricted to students in the Department of Classics. Study of selected topics in classical studies. Some knowledge of Greek or Latin is expected. Three lecture hours a week for one semester. Classical Civilization 340 and 375 may not both be counted unless the topics vary. Classical Civilization 348 and 375 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing.

Topic 1: Roman Law. Same as Ancient History and Classical Civilization 378 (Topic 1). Introduction to Roman law with close study of primary sources. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Roman Law), 378 (Topic 1), Classical Civilization 375 (Topic 1).

Topic 2: Aegean Prehistory. Same as Ancient History and Classical Civilization 378 (Topic 2). Traces political, social, economic, and general cultural developments on Crete and the Greek mainland between roughly 2200 and 1100 BCE. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Aegean Prehistory), 378 (Topic 2), Classical Civilization 375 (Topic 2), History 350L (Topic: Aegean Prehistory).
Topic 3: Writing Ancient History Today. Same as Ancient History and Classical Civilization 378 (Topic 3). Questions that engage ancient historians today and the methods that they use. Some background in ancient Greek history is recommended. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Writing Ancient History Today), 378 (Topic 3), Classical Civilization 375 (Topic 3), History 350L (Topic: Writing Ancient History Today). Topic 4: The Athenian Empire. Same as Ancient History and Classical Civilization 378 (Topic 4). 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. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Athenian Empire), 378 (Topic 4),

Classical Civilization 375 (Topic 4), History 350L (Topic: Athenian Empire)

## C C 679H. Honors Tutorial Course.

Supervised conference course for honors candidates in classics. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Classics Honors Program; for 679HB, Classical Civilization 679HA.

## Greek: GK

## Lower-Division Courses

## GK 601C. Beginning Greek.

Studies the fundamentals of grammar and reading in ancient Greek. Six lecture hours a week for one semester. Only one of the following may be counted: Greek 601C; 804; 506 and 507; 606Q.

## GK 502. First-Year Modern Greek I.

Introduction to grammar and reading. Five lecture hours a week for one semester. Greek 502 and 602C may not both be counted.

## GK 602C. Beginning Modern Greek.

Six lecture hours a week for one semester. Greek 502 and 602C may not both be counted. Greek 602C and 503 may not both be counted.

## GK 503. First-Year Modern Greek II.

Continuation of Greek 502. Five lecture hours a week for one semester. Greek 602C and 503 may not both be counted. Prerequisite: Greek 502 with a grade of at least C.

## GK 804. 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. Offered in the summer session as part of the Intensive Greek Program. The Intensive Greek Program meets for five hours each weekday during the summer session. Only one of the following may be counted: Greek 601C; 804; 506 and 507; 606Q. The student must complete both Greek 804 and 412 in order to earn credit for either; the same grade will be awarded for both courses. Prerequisite: Concurrent enrollment in Greek 412. Students who enroll in 804 must take Greek 412 in the same summer session.

## GK 506 (TCCN: GREE 1511). First-Year Greek I.

Studies the fundamentals of grammar and reading in ancient Greek. Five lecture hours a week for one semester. Only one of the following may be counted: Greek 601C; 804; 506 and 507; 606Q.

## GK 507 (TCCN: GREE 1512). First-Year Greek II.

Continuation of Greek 506. Five lecture hours a week for one semester. Only one of the following may be counted: Greek 601C; 804; 506 and 507; 606Q. Greek 507 and 412 may not both be counted. Prerequisite: Greek 506 with a grade of at least C.

## GK 309K. Conference Course.

Supervised individual instruction in second-year ancient or modern Greek reading. Conference course. May be repeated for credit. Prerequisite: Consent of instructor.

## GK 310. Second-Year Modern Greek I.

Culture, language, and literature of present-day Greece. Three lecture hours a week for one semester. Greek 310 and 610C may not both be counted. Prerequisite: Greek 602C or 503 with a grade of at least C.

## GK 610C. Intermediate Modern Greek.

Continuation of Greek 602C. Six lecture hours a week for one semester. Greek 310 and 610C may not both be counted. Greek 610C and 310K may not both be counted. Prerequisite: Greek 602C or 503 with a grade of at least $C$.

## GK 310K. Second-Year Modern Greek II.

Continuation of Greek 310. Three lecture hours a week for one semester. Greek 610C and 310K may not both be counted. Prerequisite: Greek 310 with a grade of at least $C$.

## GK 311 (TCCN: GREE 2311). Intermediate Greek I.

Continuation of Greek 601C or 507. Introductory readings from classical authors such as Lysias, Plato, and Xenophon. Includes grammar review. Three lecture hours a week for one semester. Prerequisite: Greek 601C or 507 with a grade of at least C, or Greek 804 and 412 with a grade of at least C in each.

## GK 412. 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. The Intensive Greek Program meets for five hours each weekday during the summer session. Greek 507 and 412 may not both be counted. Prerequisite: Concurrent enrollment in Greek 804.

## GK 312K. Intermediate Greek II.

Continuation of Greek 311. Selected readings from classical and biblical authors. Three lecture hours a week for one semester. Greek 312K and 312 L may not both be counted. Prerequisite: Greek 311 with a grade of at least $C$.

## GK 312L. Intermediate Greek II: Biblical Greek.

Continuation of Greek 311. A parallel to Greek 312 K with a focus on biblical Greek. Three class hours a week for one semester. Greek 312K and 312L may not both be counted. Prerequisite: Greek 311 with a grade of at least C .

GK 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses <br> GK 324. Advanced Greek.

Reading and analysis of classical authors such as Homer, Herodotus, Euripides, and Plato. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Greek 312K or 312L (or 322) with a grade of at least C; or Greek 412 with a grade of at least $A$-, and consent of the undergraduate adviser.

## Topic 1: Euripides.

Topic 2: Herodotus.
Topic 3: Homer's lliad.
Topic 4: Plato.
Topic 5: Sophocles. Greek 324 (Topic: Junior Reading: Sophocles) and 324 (Topic 5) may not both be counted.
Topic 6: Life of Themistocles. Greek 324 (Topic: Life of
Themistocles) and 324 (Topic 6) may not both be counted.

Topic 7: Apollonius. Greek 324 (Topic: Apollonius) and 324 (Topic 7) may not both be counted.
Topic 8: Greek Love Poetry. Greek 324 (Topic: Greek Love Poetry) and 324 (Topic 8) may not both be counted.

## GK 326. Advanced Greek Grammar and Composition.

Study of syntax, style, and principles of written composition. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Greek 324.

## GK 328. Advanced Biblical Greek.

Reading and analysis of selections from the New Testament, the Septuagint, and related writings. Three lecture hours a week for one semester. Greek 328 and 362 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Greek 312 K or 312 L (or 322) with a grade of at least C; or Greek 412 with a grade of at least A-, and consent of the undergraduate adviser.

Topic 1: Pauline Epistles.
Topic 2: The Gospel of John.
Topic 3: Biblical Greek: Acts. Greek 328 (Topic: Biblical Greek: Acts) and 328 (Topic 3) may not both be counted.

GK 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## GK 365. Seminar in Greek.

Critical study of authors such as Thucydides, Demosthenes, and Aeschylus. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Greek 324 or 328.

## Topic 1: Aeschylus.

Topic 2: Sophocles.
Topic 3: Thucydides.
Topic 4: Aristophanes.
Topic 5: Plato and Greek Prose. Greek 365 (Topic: Plato and Greek Prose) and 365 (Topic 5) may not both be counted.
Topic 6: Female Poets of Ancient Greece. Greek 365 (Topic: Female Poets of Ancient Greece) and 365 (Topic 6) may not both be counted.
Topic 7: Callimachus. Greek 365 (Topic: Callimachus) and 365 (Topic
7) may not both be counted.

## GK 370. Advanced Conference Course.

Supervised reading. Conference course. May be repeated for credit.
Prerequisite: Greek 310K or 324, and consent of instructor.

## GK 679H. Honors Tutorial Course.

Supervised conference course for honors candidates in Greek. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the honors program in Greek; for 679HB, Greek 679HA.

## Latin: LAT

## Lower-Division Courses

## LAT 601C. Beginning Latin.

Fundamentals of grammar and reading. Six lecture hours a week for one semester. Only one of the following may be counted: Latin 601C; 506 and 507; 506Q; 508.

## LAT 506 (TCCN: LATI 1511). First-Year Latin I.

Fundamentals of grammar and reading. Five lecture hours a week for one semester. Only one of the following may be counted: Latin 601C; 506 and 507; 506Q; 508.

## LAT 507 (TCCN: LATI 1512). First-Year Latin II.

Continuation of Latin 506 . Five lecture hours a week for one semester. Only one of the following may be counted: Latin 601C; 506 and 507; 506Q; 508. Prerequisite: Latin 506 with a grade of at least C.

## LAT 309K. Conference Course.

Supervised individual instruction in second-year Latin reading. Conference course. May be repeated for credit. Prerequisite: Consent of instructor.

## LAT 311 (TCCN: LATI 2311). Intermediate Latin I.

Continuation of Latin 601C and 507. Introduction to reading classical authors in their cultural context. Includes grammar review. Three lecture hours a week for one semester. Latin 311 and 511 K may not both be counted. Prerequisite: Latin 601C or 507 (or 506Q or 508) with a grade of at least $C$.

## LAT 511K. Accelerated Intermediate Latin.

Designed primarily for students of high academic ability and motivation. Comparable to Latin 311 and 312 K together. Five lecture hours a week for one semester. Only one of the following may be counted: Latin $511 \mathrm{~K}, 312 \mathrm{~K}, 312 \mathrm{M}, 316$. Latin 311 and 511 K may not both be counted. Prerequisite: Latin 601C or 507 (or 506Q or 508) with a grade of at least A.

## LAT 312K. Intermediate Latin II.

Continuation of Latin 311. Selected readings from classical authors. Three lecture hours a week for one semester. Only one of the following may be counted: Latin $511 \mathrm{~K}, 312 \mathrm{~K}, 312 \mathrm{M}, 316$. Prerequisite: Latin 311 with a grade of at least $C$.

## LAT 316. Intermediate Latin II: Poetry.

Continuation of Latin 311. Selected readings from classical and medieval poets. Three lecture hours a week for one semester. Only one of the following may be counted: Latin 511K, 312K, 312M, 316. Prerequisite: Latin 311 with a grade of at least C.

LAT 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## LAT 322. Advanced Latin I.

Reading and analysis of selected classical authors. Three lecture hours a week for one semester. Prerequisite: Latin 511K, 312K, or 316 (or 312M) with a grade of at least $C$.

## LAT 323. Advanced Latin II.

Reading and interpretation of prose and poetry texts at an early advanced level. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Latin 322 with a grade of at least C.

Topic 5: Cicero and Catullus. Latin 323 (Topic: Cicero and Catullus) and 323 (Topic 5) may not both be counted.
Topic 6: Elegy. Latin 323 (Topic: Elegy) and 323 (Topic 6) may not both be counted.
Topic 7: Images of Augustus . Latin 323 (Topic: Images of Augustus) and 323 (Topic 7) may not both be counted.
Topic 8: Christian Martyrs in the Roman Empire. Latin 323 (Topic: Christian Martyrs in the Roman Empire) and 323 (Topic 8) may not both be counted.

## LAT 324. Advanced Latin Grammar and Composition.

Study of syntax, style, and principles of written composition. Three lecture hours a week for one semester. Required of all Latin majors and students seeking a secondary school teaching certificate with Latin as a teaching field. Prerequisite: Latin 322 with a grade of at least C.

LAT 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## LAT 365. Seminar in Latin.

Critical study of authors such as Horace, Livy, Lucretius, and Tacitus. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Latin 323 with a grade of at least C .

Topic 1: Horace.
Topic 2: Lucretius.
Topic 4: Tacitus.
Topic 8: Plautus and Early Latin. Latin 365 (Topic: Plautus and Early Latin) and 365 (Topic 8) may not both be counted.
Topic 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. Latin 365 (Topic: Nero) and 365 (Topic 9) may not both be counted.
Topic 10: Seneca. Latin 365 (Topic: Seneca) and 365 (Topic 10) may not both be counted.
Topic 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. Latin 365 (Topic: Seminar: Intertextuality) and 365 (Topic 11) may not both be counted.

## LAT 370. Advanced Conference Course.

Supervised reading. Conference course. May be repeated for credit. Prerequisite: Consent of instructor.

## LAT 679H. Honors Tutorial Course.

Supervised conference course for honors candidates in Latin. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Latin Honors Program; for 679HB, Latin 679HA.

## Classical Studies

## Ancient History and Classical Civilization: AHC

## Lower-Division Courses

AHC 310. Introductory Surveys in Premodern History. Introductory survey of premodern history with emphasis on regions outside of the ancient Mediterranean world. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Introduction to the History and Culture of Spain. Same as European Studies 306 (Topic 2) and History 306N (Topic 13). The history of Spain from its beginnings in the stone age through the great social and economic upheavals of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Introduction to the History and Culture of Spain), 310 (Topic 1), European Studies 306 (Topic: Introduction to the History and Culture of Spain), 306 (Topic 2), History 306N (Topic: Introduction to the History and Culture of Spain), 306N (Topic 13).

AHC 319. Introductory Surveys in Roman and Greek History.
Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary.

Topic 1: The Ancient Mediterranean World. Same as Classical Civilization 319D and History 319D. 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.

AHC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. Topics in Ancient 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 ancient history and classical civilization program. University credit is awarded for work 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

## AHC 325. Topics in Ancient History.

Topics in the history of the Greek and Roman empires and the surrounding area. Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: The History of Rome: The Republic. Same as History 321M. A survey of Roman history from the founding of Rome to the death of Julius Caesar. Prerequisite: Upper-division standing.
Topic 2: The History of Rome: The Empire. Same as History 321. A survey of the Roman world from Augustus to Constantine the Great. Prerequisite: Upper-division standing.

Topic 3: Rome and Jerusalem. Same as History 321G, Jewish Studies 365 (Topic 7: Rome and Jerusalem), Middle Eastern Studies 342 (Topic 21: Rome and Jerusalem), and Religious Studies 365 (Topic 1: Rome and Jerusalem). A study of daily life in Israel during the Roman period, focusing on Jerusalem, ancient Palestinian synagogues and churches, Jewish and Christian symbolism, agriculture, warfare, and burial practices. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 3), Classical Civilization 348 (Topic: Rome and Jerusalem), History 321G, Jewish Studies 365 (Topic 7), Middle Eastern Studies 320 (Topic 2: Rome and Jerusalem), 342 (Topic 21), Religious Studies 365 (Topic 1), Urban Studies 353 (Topic: Rome and Jerusalem). Prerequisite: Upper-division standing. Topic 4: History of Greece to the End of the Peloponnesian War. Same as Classical Civilization 354C and History 354C. Survey of Greek history from the emergence of the city-states through the end of the Peloponnesian War (ca. 700 to 404 BC). Prerequisite: Upperdivision standing.
Topic 5: History of Greece to $\mathbf{1 4 6}$ BC. Same as Classical Civilization 354D and History 354D. Survey of Greek history from the end of the Peloponnesian War to the defeat of Greece by Rome ( 404 to 146 BC). Prerequisite: Upper-division standing.
Topic 6: The Hellenistic Age: Alexander to Actium. Same as Classical Civilization 351D and History 351D. 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). Prerequisite: Upper-division standing.
Topic 13: The Ancient Historians. Same as Classical Civilization 322 (Topic 13). Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Ancient Historians), 325 (Topic 13), Classical Civilization 322 (Topic: Ancient Historians), 322 (Topic 13).
Topic 15: Civil War in Rome. Same as Classical Civilization 348 (Topic 15). Examines the sequence of civil conflict in Rome from the struggle of the orders through the rise of Constantine the Great. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Civil War in Rome), 325 (Topic 15), Classical Civilization 348 (Topic: Civil War in Rome), 348 (Topic 15), History 362G (Topic: Civil War in Rome).

AHC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. Topics in Ancient 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 ancient history and classical civilization program. University credit is awarded for work 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.

## AHC 330. Topics in Premodern History.

Topics in premodern history with emphasis on regions outside of the ancient Mediterranean world. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: The Dead Sea Scrolls. Same as History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Dead Sea Scrolls), 330 (Topic 1), History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern

Studies 320 (Topic 13), 342 (Topic 23), Religious Studies 353D. Additional prerequisite: Upper-division standing.
Topic 2: Epics and Heroes of India. Same as Asian Studies 372 (Topic 40), Core Texts and Ideas 345 (Topic 11), and History 350L (Topic 54). Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Epics and Heroes of India), 330 (Topic 2), Asian Studies 372 (Topic: Epics and Heroes of India), 372 (Topic 40), Core Texts and Ideas 345 (Topic: Epics and Heroes of India), 345 (Topic 11), History 350L (Topic 54).
Topic 3: Mystics, Visionaries, and Heretics in Medieval Europe. Same as History 350L (Topic 74) and Religious Studies 375S (Topic 3). Examines particular mystical and visionary experiences within the context of medieval European Christianity. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 330 (Topic 3), History 350L (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 350L (Topic 74), Religious Studies 375S (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 375S (Topic 3).

## AHC 378. Undergraduate Seminar in Ancient History.

Restricted to students in the Department of Classics. Lectures, discussion, reading, and research on selected topics in Greek and Roman history. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Roman Law. Same as Classical Civilization 375 (Topic 1). Introduction to Roman law with close study of primary sources. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Roman Law), 378 (Topic 1), Classical Civilization 375 (Topic 1).
Topic 2: Aegean Prehistory. Same as Classical Civilization 375 (Topic 2). Traces political, social, economic, and general cultural developments on Crete and the Greek mainland between roughly 2200 and 1100 BCE. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Aegean Prehistory), 378 (Topic 2), Classical Civilization 375 (Topic 2), History 350L (Topic: Aegean Prehistory).
Topic 3: Writing Ancient History Today. Same as Classical Civilization 375 (Topic 3). Questions that engage ancient historians today and the methods that they use. Some background in ancient Greek history is recommended. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Writing Ancient History Today), 378 (Topic 3), Classical Civilization 375 (Topic 3), History 350L (Topic: Writing Ancient History Today).

Topic 4: The Athenian Empire. Same as Classical Civilization 375 (Topic 4). 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. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Athenian Empire), 378 (Topic 4), Classical Civilization 375 (Topic 4), History 350L (Topic: Athenian Empire).

## AHC 679H. Honors Tutorial Course.

Supervised conference course for honors candidates in ancient history and classical civilization. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Ancient History and Classical Civilization Honors Program; for 679HB, Ancient History and Classical Civilization 679HA.

## Cognitive Science

## Cognitive Science: CGS

## Lower-Division Courses

Upper-Division Courses

## CGS 360. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Introduction to Cognitive Science. Same as Linguistics 373 (Topic 7: Introduction to Cognitive Science) and Philosophy 365 (Topic 2: Introduction to Cognitive Science).

## Comparative Literature

## Comparative Literature: C L

## Lower-Division Courses

## C L 301. 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. Three lecture hours a week for one semester.

## C L 305. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Forbidden Romance in Modern Chinese Literature. Same as Asian Studies 301M (Topic 13). Introduction to modern Chinese literature from the late Qing Dynasty (latter half of the nineteenth century) to the present. Only one of the following may be counted: Asian Studies 301M (Topic: Forbidden Romance in Modern Chinese Literature), 301M (Topic 13), Comparative Literature 305 (Topic: Forbidden Romance in Modern Chinese Literature), 305 (Topic 1).
Topic 2: The Vampire in Slavic Cultures. Same as European Studies 307 (Topic 1), Russian, East European, and Eurasian Studies 302 (Topic 1), and Slavic 301 (Topic 1). 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. Only one of the following may be counted: Comparative Literature 305 (Topic: The Vampire in Slavic Cultures), 305 (Topic 2), European Studies 307 (Topic: The Vampire in Slavic Cultures), 307 (Topic 1), Russian, East European, and Eurasian Studies 302 (Topic: The Vampire in Slavic Cultures), 302 (Topic 1), Slavic 301 (Topic: The Vampire in Slavic Cultures), 301 (Topic 1).
Topic 3: Movies Go To War. Same as American Studies 315C, European Studies 307 (Topic 4), and German, Scandinavian, and Dutch Studies 311C. 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. Only one of the following may be counted: American Studies 315 (Topic: Movies Go to War, World War I to Vietnam), 315C, Comparative Literature 305 (Topic: Movies Go to War, World War I to Vietnam), 305 (Topic 3), European Studies 307 (Topic: Movies Go to War, World War I to Vietnam), 307 (Topic 4), German, Scandinavian,
and Dutch Studies 311C, Germanic Civilization 311 (Topic 2: Movies Go to War, World War I to Vietnam).

## C L 315. Masterworks of World Literature.

Introduction to masterpieces of the world's literary traditions, emphasizing historical, generic, and thematic connections. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week. Only one of the following may be counted: Comparative Literature 315, English 603B, Tutorial Course 603B. Prerequisite: One of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A; and a passing score on the reading section of the Texas Higher Education Assessment (THEA) test.

## C L 318Q. Supervised Research.

Individual instruction.

## Upper-Division Courses

C L 320. Conference Course in Comparative Literature.
Independent study of literary projects under supervision of professors in comparative literature. Conference course. Prerequisite: Six semester hours of upper-division coursework in literature, of which three hours must be in a classical or foreign language.

## C L 323. 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. Three lecture hours a week for one semester. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 3: Autobiography: A Modern Literary Species. Same as Middle Eastern Studies 342 (Topic 20). Only one of the following may be counted: African and African Diaspora Studies 374 (Topic 25), Comparative Literature 323 (Topic 3), English 379N (Topic 5), Middle Eastern Studies 322K (Topic 25), 342 (Topic 20), Women’s and Gender Studies 340 (Topic: Autobiography: A Modern Literary Species). Additional prerequisite: Upper-division standing.
Topic 4: Self-Revelation in Women's Writing. Same as African and African Diaspora Studies 372E (Topic 8), Middle Eastern Studies 342 (Topic 19), and Women's and Gender Studies 340 (Topic 14). Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 8), 374 (Topic 26), Comparative Literature 323 (Topic 4), English 322 (Topic: Self-Revelation in Women's Writing), Middle Eastern Studies 322K (Topic 26), 342 (Topic 19), Persian 361 (Topic: Self-Revelation in Women's Writing), Women's and Gender Studies 340 (Topic 14).
Topic 6: Caribbean Literature. Same as English 360L (Topic 2: Caribbean Literature) and African and African Diaspora Studies 374F (Topic 7: Caribbean Literature). Only one of the following may be counted: African and African Diaspora Studies 374F (Topic 4), Comparative Literature 323 (Topic 6), English 379N (Topic: Caribbean Literature), 360L (Topic 2). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 7: Historical Survey of Russian Music. Same as Humanities 350 (Topic 9), Music 376G (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic 20), and Russian 330 (Topic 3). Focus on the role of Russian music in its social and historical context. Only one of the following may be counted: Comparative Literature 323 (Topic: Historical Survey of Russian Music), 323 (Topic 7), Humanities 350 (Topic: Historical Survey of Russian Music), 350 (Topic 9), Music 376G (Topic: Historical Survey of Russian Music), 376G (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic: Historical Survey of Russian Music), 325 (Topic 20), Russian 330 (Topic: Historical Survey of Russian Music), 330 (Topic 3). Additional prerequisite: For music
majors, upper-division standing and consent of instructor; for others, upper-division standing.
Topic 8: Bulgakov's Master and Margarita. Same as Russian, East European, and Eurasian Studies 325 (Topic 29) and Russian 360
(Topic 3). Explores the novel in the context of other literary works by Bulgakov and its varied sources in world literature, music, and the visual arts. Only one of the following may be counted: Comparative Literature 323 (Topic: Bulgakov's Master and Margarita), 323 (Topic 8), Russian 360 (Topic: Bulgakov's Master and Margarita), 360 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic: Bulgakov's Master and Margarita), 325 (Topic 29). Additional prerequisite: Upperdivision standing.
Topic 9: Modern Czech Literature. Same as Czech 330, European Studies 347 (Topic 9), and Russian, East European, and Eurasian Studies 325 (Topic 30). A study of Czech literature from the 1860s to the present; course is conducted in English. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Modern Czech Literature), 323 (Topic 9), Czech 330, European Studies 347 (Topic: Modern Czech Literature), 347 (Topic 9), Russian, East European, and Eurasian Studies 325 (Topic: Modern Czech Literature), 325 (Topic 30). Additional prerequisite: Upper-division standing.
Topic 10: Contemporary Scandinavian Stories. Same as European Studies 347 (Topic 16) and German, Scandinavian, and Dutch Studies 341J. An analysis of contemporary Scandinavian literature and films, how they reflect Scandinavian reality, and how Scandinavian identity is created through sports, food, and politics. Only one of the following may be counted: Comparative Literature 323 (Topic: Contemporary Scandinavian Stories), 323 (Topic 10), European Studies 347 (Topic: Contemporary Scandinavian Stories), 347 (Topic 16), German, Scandinavian, and Dutch Studies 341J, Germanic Civilization 323E (Topic: Contemporary Scandinavian Stories), Scandinavian 373 (Topic: Contemporary Scandinavian Stories). Additional prerequisite: Upperdivision standing.
Topic 11: Films of Ingmar Bergman. Same as European Studies 347 (Topic 13) and German, Scandinavian, and Dutch Studies 331C. An introduction to the films of Ingmar Bergman. Only one of the following may be counted: Comparative Literature 323 (Topic: Films of Ingmar Bergman), 323 (Topic 11), English 322 (Topic 18), European Studies 347 (Topic: Films of Ingmar Bergman), 347 (Topic 13), German, Scandinavian, and Dutch Studies 331C, Scandinavian 327 (Topic 9). Additional prerequisite: Upper-division standing.
Topic 12: Hans Christian Andersen. Same as European Studies 347 (Topic 14) and German, Scandinavian, and Dutch Studies 341E. 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Hans Christian Andersen), 323 (Topic 12), English 322 (Topic 19), European Studies 347 (Topic: Hans Christian Andersen), 347 (Topic 14), German, Scandinavian, and Dutch Studies 341E, Germanic Civilization 323E (Topic 4), Scandinavian 373 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 13: Introduction to Arabic Literature. Same as Islamic Studies 373 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 1), and Middle Eastern Studies 342 (Topic 1). General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era. Only one of the following may be counted: Arabic 322, Comparative Literature 323 (Topic: Introduction to Arabic Literature), 323 (Topic 13), Islamic Studies 372 (Topic 15: Introduction to Arabic Literature), 373 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 1), Middle Eastern Studies 328 (Topic: Introduction to Arabic Literature), 342 (Topic 1), Religious Studies 358 (Topic

1: Introduction to Arabic Literature). Additional prerequisite: Upperdivision standing.
Topic 14: Isak Dinesen/Karen Blixen. Same as European Studies 347 (Topic 15), German, Scandinavian, and Dutch Studies 341G, and Women's and Gender Studies 345 (Topic 13). 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Isak Dinesen/Karen Blixen), 323 (Topic 14), European Studies 347 (Topic: Isak Dinesen/Karen Blixen), 347 (Topic 15), German, Scandinavian, and Dutch Studies 341G, Germanic Civilization 323E (Topic 1), Scandinavian 373 (Topic 6), Women's and Gender Studies 345 (Topic 13). Additional prerequisite: Upper-division standing.
Topic 15: Israel Through Its Literature. Same as Jewish Studies 363 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic 5), and Middle Eastern Studies 342 (Topic 5). Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Israeli Literature), Comparative Literature 323 (Topic 15), English 322 (Topic: Introduction to Israeli Literature), Hebrew 374 (Topic 10: Introduction to Israeli Literature), Jewish Studies 363 (Topic 17), Middle Eastern Studies 325 (Topic 7), Middle Eastern Studies 342 (Topic 5). Additional prerequisite: Upper-division standing.
Topic 16: The Scandinavian Contribution to World Literature. Same as European Studies 347 (Topic 17) and German, Scandinavian, and Dutch Studies 341K. 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. Only one of the following may be counted: Comparative Literature 323 (Topic: The Scandinavian Contribution to World Literature), 323 (Topic 16), European Studies 347 (Topic: The Scandinavian Contribution to World Literature), 347 (Topic 17), German, Scandinavian, and Dutch Studies 341 K , Germanic Civilization 323E (Topic: The Scandinavian Contribution to World Literature), Scandinavian 373 (Topic: The Scandinavian Contribution to World Literature). Additional prerequisite: Upper-division standing.
Topic 17: Social Dramas of Henrik Ibsen. Same as English 322 (Topic 17), European Studies 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, and Women's and Gender Studies 345 (Topic 14). 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 topics 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Social Dramas of Henrik Ibsen), 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic: Social Dramas of Henrik Ibsen), 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, Scandinavian 323 (Topic 2), Women's and Gender Studies 345 (Topic 14). Additional prerequisite: Upper-division standing.
Topic 18: Squaring the Vienna Circle. Same as European Studies 347 (Topic 20) and German, Scandinavian, and Dutch Studies 361F. 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Squaring the Vienna Circle), 323 (Topic 18), European Studies 347 (Topic: Squaring the Vienna Circle), 347 (Topic 20), German, Scandinavian, and Dutch Studies 361F, Germanic Civilization 362E (Topic: Squaring the Vienna Circle),

Philosophy 327 (Topic: Squaring the Vienna Circle), 354 (Topic: Squaring the Vienna Circle). Additional prerequisite: Upper-division standing.
Topic 19: Women and the Holocaust. Same as European Studies 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Jewish Studies 363 (Topic 11), and Women's and Gender Studies 340 (Topic 50). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women's Narratives of the Holocaust and World War II), 323 (Topic 19), European Studies 346 (Topic: Women's Narratives of the Holocaust and World War II), 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Germanic Civilization 323E (Topic: Women's Narratives of the Holocaust and World War II), Jewish Studies 363 (Topic 11), Women's and Gender Studies 340 (Topic: Women's Narratives of the Holocaust and World War II), 340 (Topic 50). Additional prerequisite: Upperdivision standing.
Topic 20: Rebels and Revolutionaries in Russian History and Literature. Same as History 362G (Topic 15), Russian, East European, and Eurasian Studies 325 (Topic 24), and Russian 356 (Topic 4). Study of fictional and real rebels and revolutionaries across almost a century of Russian literature. Only one of the following may be counted: Comparative Literature 323 (Topic: Rebels and Revolutionaries in Russian History and Literature), 323 (Topic 20), History 362G (Topic: Rebels and Revolutionaries in Russian History and Literature), 362G (Topic 15), Russian 356 (Topic: Rebels and Revolutionaries in Russian History and Literature), 356 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic: Rebels and Revolutionaries in Russian History and Literature), 325 (Topic 24). Additional prerequisite: Upper-division standing.
Topic 21: Russia and Its World. Same as Humanities 350 (Topic 11), Russian, East European, and Eurasian Studies 325 (Topic 21), and Russian 330 (Topic 11). Survey of the political, cultural, and social history of Russia, from its prehistoric origins to the installation of communist rule in 1917. Emphasis on the arts and on enduring themes of cultural identity, imagination, and conflict with neighboring peoples and within Russia. Only one of the following may be counted: Comparative Literature 323 (Topic: Russia and Its World), 323 (Topic 21), Humanities 350 (Topic: Russia and Its World), 350 (Topic 11), Russian 330 (Topic: Russia and Its World), 330 (Topic 11), Russian, East European, and Eurasian Studies 325 (Topic: Russia and Its World), 325 (Topic 21). Additional prerequisite: Upper-division standing.
Topic 22: Twentieth-Century Russian Culture. Same as Humanities 350 (Topic 12), Russian, East European, and Eurasian Studies 325 (Topic 14), and Russian 330 (Topic 7). Survey of the political, social, and cultural history of Russia during the Soviet period, from the revolutionary events of 1917 until the dissolution of the Soviet government and political system in December 1991. Only one of the following may be counted: Comparative Literature 323 (Topic: Twentieth-Century Russian Culture), 323 (Topic 22), Humanities 350 (Topic: Twentieth-Century Russian Culture), 350 (Topic 12), Russian 330 (Topic: Twentieth-Century Russian Culture), 330 (Topic 7), Russian, East European, and Eurasian Studies 325 (Topic: TwentiethCentury Russian Culture), 325 (Topic 14). Additional prerequisite: Upper-division standing.
Topic 23: The Supernatural in Traditional Chinese Fiction. Same as Asian Studies 372 (Topic 36). Conducted in English. Introduction to Chinese notions of the supernatural and otherworldly phenomena in traditional Chinese literature and pseudohistory, focusing on the literary, cultural, historical, social, political, philosophical, and religious background against which representative works arose. Only one of the
following may be counted: Asian Studies 372 (Topic: Supernatural in Traditional Chinese Fiction), 372 (Topic 36), Comparative Literature 323 (Topic: Supernatural in Traditional Chinese Fiction), 323 (Topic 23).

Topic 24: Modern Indian Literature. Same as Asian Studies 372 (Topic 39). Examines modern India through religious literary masterpieces, poems, short stories, essays, and memoirs, and how literature reveals an interconnected history and redefinition of cultural dynamics in everyday Indian life long after colonial rule. Only one of the following may be counted: Anthropology 324L (Topic: Modern India and Literature), Asian Studies 372 (Topic: Modern India and Literature), 372 (Topic 39), Comparative Literature 323 (Topic: Modern India and Literature), 323 (Topic 24).
Topic 25: Visions of The Apocalypse in Russian Literature and Culture. Same as Russian, East European, and Eurasian Studies 325 (Topic 12) and Russian 330 (Topic 5). Explores and analyzes apocalyptic consciousness in Russian literature and culture from the Middle Ages to the present. Emphasis will be on such themes as the expectation of the end of the world, identification of the Antichrist, messianic prophecy, and visions of an afterlife. Only one of the following may be counted: Comparative Literature 323 (Topic: The Apocalypse in Russian Literature and Culture), 323 (Topic 25), 330 (Topic 5), Russian, East European and Eurasian Studies 325 (Topic: The Apocalypse in Russian Literature and Culture), 325 (Topic 12). Additional prerequisite: Upper-division standing.
Topic 26: Living Epics of India. Same as Asian Studies 372 (Topic 38) and Religious Studies 341 (Topic 14). Exploration of Indian epics in the Sanskritic textual heritage, performative arts, and regional language versions, and their impact in the formation of the values of the people of India. Only one of the following may be counted: Asian Studies 372 (Topic: Living Epics of India), 372 (Topic 38), Comparative Literature 323 (Topic: Living Epics of India), 323 (Topic 26), Theatre and Dance 357T (Topic: Living Epics of India), Religious Studies 341 (Topic: Living Epics of India), 341 (Topic 14).
Topic 27: The Major Works of Tolstoy. Same as Russian, East European, and Eurasian Studies 325 (Topic 16) and Russian 360 (Topic 2). Explores Russian writer Lev Nikolaevich Tolstoy, particularly his progression from idealizing family life and the Russian state to renouncing sexual love and national allegiances. Only one of the following may be counted: Comparative Literature 323 (Topic: The Major Works of Tolstoy), 323 (Topic 27), Russian 360 (Topic: Majors Works of Tolstoy), 360 (Topic 2), Russian, East European, and Eurasian Studies 325 (Topic: The Major Works of Tolstoy), 325 (Topic 16). Additional prerequisite: Upper-division standing.

Topic 28: Slavs in the Western Imagination. Same as European Studies 347 (Topic 11), Russian, East European, and Eurasian Studies 325 (Topic 15), and Slavic 324 (Topic 4). Examines representations of Eastern, Western, and Southern Slavs in Western Europe and North America. Only one of the following may be counted: Comparative Literature 323 (Topic: Slavs in the Western Imagination), 323 (Topic 28), European Studies 347 (Topic: Slavs in the Western Imagination), 347 (Topic 11), Russian, East European, and Eurasian Studies 325 (Topic: Slavs in the Western Imagination), 325 (Topic 15), Slavic 324 (Topic: Slavs in the Western Imagination), 324 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 29: The Russian Novel. Same as Core Texts and Ideas 345 (Topic 6), European Studies 347 (Topic 22), Russian, East European, and Eurasian Studies 325 (Topic 9), and Russian 356 (Topic 1). A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century. Only one of the following may be counted: Comparative Literature 323 (Topic: The Russian Novel), 323 (Topic 29), Core Texts and Ideas 345 (Topic: The Russian Novel), 345 (Topic 6), English 322 (Topic 37), European Studies 347 (Topic 22), Russian 356 (Topic 1), Russian,

East European, and Eurasian Studies 325 (Topic 9). Additional prerequisite: Upper-division standing.
Topic 30: The Major Works of Dostoevsky. Same as Core Texts and Ideas 345 (Topic 5), European Studies 347 (Topic 10), Russian, East European, and Eurasian Studies 325 (Topic 10), and Russian 360 (Topic 1). Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky. Only one of the following may be counted: Comparative Literature 323 (Topic: The Major Works of Dostoevsky), 323 (Topic 30), Core Texts and Ideas 345 (Topic: Major Works of Dostoevsky), 345 (Topic 5), European Studies 347 (Topic: Major Works of Dostoevsky), 347 (Topic 10), Russian 360 (Topic: Major Works of Dostoevsky), 360 (Topic 1), Russian, East European and Eurasian Studies 325 (Topic: Major Works of Dostoevsky), 325 (Topic 10). Additional prerequisite: Upper-division standing.
Topic 31: War and Revolution in Russian Literature and Culture. Same as Core Texts and Ideas 345 (Topic 8), Russian, East European, and Eurasian Studies 325 (Topic 18), and Russian 356 (Topic 3). Examines Russian narratives of war and revolution as represented in fiction, cinema, and journalism. Only one of the following may be counted: Comparative Literature 323 (Topic: War and Peace in Russian Literature and Culture), 323 (Topic 31), Core Texts and Ideas 345 (Topic: War and Peace in Russian Literature and Culture), 345 (Topic 8), Russian 356 (Topic: War and Peace in Russian Literature and Culture), 356 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic: War and Peace in Russian Literature and Culture), 325 (Topic 18). Additional prerequisite: Upper-division standing.
Topic 32: Polish Literature and Culture in Film: Nineteenth Century to Contemporary. Same as European Studies 347 (Topic 8), Polish 324 (Topic 2), and Russian, East European, and Eurasian Studies 325 (Topic 27). Study of the cultural and intellectual history represented in the major works of Polish literature in the nineteenth and twentieth centuries. Only one of the following may be counted: Comparative Literature 323 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 323 (Topic 32), European Studies 347 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 347 (Topic 8), Polish 324 (Topic: 19th-CenturyContemporary Polish Literature and Culture in Film), 324 (Topic 2), Russian, East European, and Eurasian Studies 325 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 325 (Topic 27). Additional prerequisite: Upper-division standing. Topic 34: Russian Myths and Folktales. Same as Anthropology 325L (Topic 12), Russian, East European, and Eurasian Studies 325 (Topic 22), and Russian 330 (Topic 9). 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. Only one of the following may be counted: Anthropology 325L (Topic: Russian Myths and Folk Tales), 325L (Topic 12), Comparative Literature 323 (Topic: Russian Myths and Folk Tales), 323 (Topic 34), Russian 330 (Topic: Russian Myths and Folk Tales), 330 (Topic 9), Russian, East European and Eurasian Studies 325 (Topic: Russian Myths and Folk Tales), 325 (Topic 22). Additional prerequisite: Upperdivision standing.
Topic 35: Leo Tolstoy's Early Works. Same as Core Texts and Ideas 345 (Topic 7), Russian, East European, and Eurasian Studies 325 (Topic 23), and Russian 360 (Topic 4). A survey of Tolstoy's early works, including his pedagogical essays. Study of his evolution as a writer and the birth and formation of his literary genius. Only one of the following may be counted: Comparative Literature 323 (Topic: Leo Tolstoy's Early Works), 323 (Topic 35), Core Texts and Ideas 345 (Topic: Leo Tolstoy's Early Works), 345 (Topic 7), Russian 360 (Topic: Leo Tolstoy's Early Works), 360 (Topic 4), Russian, East European,
and Eurasian Studies 325 (Topic: Leo Tolstoy's Early Works), 325 (Topic 23). Additional prerequisite: Upper-division standing.
Topic 36: Love in the East and West. Same as Core Texts and Ideas 345 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 25), and Middle Eastern Studies 342 (Topic 33). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Love in the East and West), Comparative Literature 323 (Topic 36), Core Texts and Ideas 345 (Topic: Love in the East and West), Core Texts and Ideas 345 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic: Love in the East and West), Middle Eastern Languages and Cultures 321 (Topic 25), Middle Eastern Studies 321K (Topic: Love in the East and West), Middle Eastern Studies 342 (Topic 33), Turkish 372 (Topic: Love in the East and West). Additional prerequisite: Upper-division standing.
Topic 37: The Qur'an. Same as Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious
Studies 325G, and Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Arabic 372 (Topic 2: The Qur'an), Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 320 (Topic 14: The Qur'an), 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.
Topic 38: Postcolonial Women Writers. Same as African and African Diaspora Studies 372C (Topic 15). Literary exploration of how postcolonial women across the world view their positions as citizens, migrants, workers, parents, activists, and artists in the new millennium. Subjects include the effects of imperialism in women's lives, western feminisms developed to address global women's needs, and what new possibilities for decolonization, feminism, and creativity remain to be explored. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic: Postcolonial Women Writers), 372C (Topic 15), Comparative Literature 323 (Topic: Postcolonial Women Writers), 323 (Topic 38), English 370W (Topic: Postcolonial Women Writers).

## C L 358Q. Supervised Research.

Individual instruction. Prerequisite: Upper-division standing.

## Thomas Jefferson Center for the Study of Core Texts and Ideas

## Core Texts and Ideas: CTI

## Lower-Division Courses

## CTI 301. Ancient Philosophy and Literature.

Studies classical philosophy and literature, primarily from ancient Greece, to explore fundamental questions about human nature, justice, ethics, and humanity's place in the cosmos. Readings include one or more masterpieces of epic or tragedy and one or more dialogues of Plato. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Core Texts and Ideas 301 and Western Civilization 301 may not both be counted.

## CTI 302. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

## CTI 303. Competing Visions of the Good Life.

Same as Government 314 (Topic 6: 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. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 303, Government 314 (Topic 6), Western Civilization 303 (Topic: Competing Visions of the Good Life).

## CTI 304. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Core Texts and Ideas 304 and Western Civilization 303 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

Topic 1: The Bible and Its Interpreters. Same as Religious Studies 315 (Topic 1). 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. Only one of the following may be counted: Core Texts and Ideas 304 (Topic 1), Religious Studies 315 (Topic: The Bible and Its Interpreters), Religious Studies 315 (Topic 1).

## CTI 305G. Introduction to the Old Testament.

Same as Jewish Studies 311 (Topic 4), Middle Eastern Studies 310 (Topic 3), and Religious Studies 313C. 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. Only one of the following may be counted: Core Texts and Ideas 305G, 310 (Topic: Introduction to the Hebrew Bible), Jewish Studies 311 (Topic: Introduction to the Hebrew Bible), 311 (Topic 4), Middle Eastern Studies 310 (Topic: Introduction to the Hebrew Bible), 310 (Topic 3), Religious Studies 313 (Topic: Introduction to the Hebrew Bible), 313C.

## CTI 310. Topics in Core Texts and Ideas.

Introduction to fundamental texts and questions that have helped shape the world. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Core Texts and Ideas 310 and Western Civilization 303 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## CTI 111. Core Texts Seminar.

Close reading and discussion of primary sources, normally pursued in conjunction with another three-hour course in a field of study such as history or government. One discussion hour a week for one semester. May be repeated for credit when the topics vary.

## Upper-Division Courses

## CTI 320. The Classical Quest for Justice.

Same as Government 351C. Introduces students to classical political thought through a study of seminal works of antiquity, focusing on those of Plato and Aristotle. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 320, 335 (Topic: Classical Quest for Justice), Government 335M (Topic: Classical

Quest for Justice), 351C, Western Civilization 320 (Topic: Classical Quest for Justice). Prerequisite: Completion of at least thirty semester hours of coursework.

## CTI 321. The Theoretical Foundations of Modern Politics.

Same as Government 351D. Examines competing foundations of the ongoing development of political and social modernity. Examines a selection of major authors from Machiavelli to Nietzsche. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 321, 335 (Topic: The Theoretical Foundations of Modern Politics), Government 335M (Topic: The Theoretical Foundations of Modern Politics), 351D Western Civilization 320 (Topic: The Theoretical Foundations of Modern Politics). Prerequisite: Completion of at least thirty semester hours of coursework.

## CTI 321F. Spinoza and Modernity.

Same as European Studies 346 (Topic 21), History 362P, Jewish Studies 364 (Topic 9), Philosophy 354 (Topic 7), and Religious Studies 357 (Topic 8). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Spinoza and Modernity), 321F, European Studies 346 (Topic: Spinoza and Modernity), 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362G (Topic: Spinoza and Modernity), 362P, Jewish Studies 364 (Topic: Spinoza and Modernity), 364 (Topic 9), Philosophy 334K (Topic: Spinoza and Modernity), 354 (Topic: Spinoza and Modernity), 354 (Topic 7), Religious Studies 357 (Topic: Spinoza and Modernity), 357 (Topic 8). Prerequisite: Upper-division standing.

## CTI 322. Critics of Modern Liberalism.

Same as Government 351G. Selected critics of the philosophy of the Enlightenment from both the Left and the Right, and from the time of Rousseau to the present. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 322, Government 335M (Topic: Liberalism and its Critics), 351G. Prerequisite: Upper-division standing.

## CTI 323. Might and Right among Nations.

Same as Government 351J. Major alternative approaches to the question of the moral character of international relations, as elaborated by some of the greatest political thinkers. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 323, 335 (Topic: Might and Right among Nations), Government 335M (Topic: Might and Right among Nations), 351J, Western Civilization 320 (Topic: Might and Right among Nations). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

## CTI 324. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Prerequisite: Upperdivision standing.

## CTI 325. Morality and Politics.

Same as Government 351L. Interdisciplinary readings from major works exploring issues of ethics and leadership. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 325, Government

335M (Topic: Morality and Politics), 351L. Prerequisite: Upper-division standing.

## CTI 326. Core Texts on American Democracy.

A close study of major texts and documents that shed light on fundamental issues in American democracy such as rights, equality, individual liberty, and the proper ends and limits of government. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Core Texts and Ideas 326 and Western Civilization 320 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: The Tragicomedy of American Democracy. Same as African and African Diaspora Studies 372F (Topic 15) and American Studies 370 (Topic 44). Examines the foundational ideas and practices essential to the unfolding of American democracy by focusing on founding documents, public speeches, major political conflicts, and canonical texts of political philosophy. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Tragicomedy of American Democracy), 372F (Topic 15), American Studies 370 (Topic: Tragicomedy of American Democracy), 370 (Topic 44), Core Texts and Ideas 326 (Topic: Tragicomedy of American Democracy), 326 (Topic 2), Western Civilization 320 (Topic: Tragicomedy of American Democracy).
Topic 3: African American Social and Political Thought. Same as African and African Diaspora Studies 374D (Topic 21), American Studies 321J, and Government 335M (Topic 10). Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: African American Social and Political Thought), 374D (Topic 21), American Studies 321 (Topic: African American Social and Political Thought), 321J, Core Texts and Ideas 326 (Topic 3), 335 (Topic: African American Social and Political Thought), Government 335M (Topic: African American Social and Political Thought), 335M (Topic 10). Additional prerequisite: Upperdivision standing and six semester hours of lower-division coursework in government.

## CTI 335. Core Texts in Philosophy.

Three lecture hours or two lecture hours and one discussion hour a week for one semester. Core Texts and Ideas 335 and Western Civilization 320 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## CTI 345. Core Texts in Literature.

Major works of literature from one or more cultures, studied with special attention to questions of universal human concern. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Core Texts and Ideas 345 and Western Civilization 320 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Boccaccio's Decameron. Same as Italian Civilization 349 (Topic 6). An in-depth look at one of the masterpieces of Italian literature and how its author explores the fundamental elements of the human condition - love and desire, power and politics, virtue and fortune - while at the same time exposing the ambiguities of language and the pitfalls of representation. Only one of the following may be counted: Core Texts and Ideas 345 (Topic: Boccaccio's Decameron), 345 (Topic 1), European Studies 347 (Topic: Boccaccio's Decameron), Italian Civilization 349 (Topic: Boccaccio's Decameron), 349 (Topic 6), Women's and Gender Studies 345 (Topic: Boccaccio's Decameron).
Topic 4: Fictions of the Self and Other. Same as French Civilization 349 (Topic 2). Focuses on representative works from nineteenth- and twentieth-century French fiction, from Balzac's Realism to the present.

Examines literature in its relation to history, culture, and society, with special attention to both form and style in the development of the novel, poetry, and theatre. Only one of the following may be counted: Comparative Literature 323 (Topic: Fictions of the Self and Other), Core Texts and Ideas 345 (Topic: Fictions of the Self and Other), 345 (Topic 4), European Studies 347 (Topic: Fictions of the Self and Other), French Civilization 349 (Topic: Fictions of the Self and Other), 349 (Topic 2), Women's and Gender Studies 345 (Topic: Fictions of the Self and Other). Additional prerequisite: Upper-division standing.
Topic 5: The Major Works of Dostoevsky. Same as Comparative Literature 323 (Topic 30), European Studies 347 (Topic 10), Russian, East European, and Eurasian Studies 325 (Topic 10), and Russian 360 (Topic 1). Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky. Only one of the following may be counted: Comparative Literature 323 (Topic: The Major Works of Dostoevsky), 323 (Topic 30), Core Texts and Ideas 345 (Topic: Major Works of Dostoevsky), 345 (Topic 5), European Studies 347 (Topic: Major Works of Dostoevsky), 347 (Topic 10), Russian 360 (Topic: Major Works of Dostoevsky), 360 (Topic 1), Russian, East European and Eurasian Studies 325 (Topic: Major Works of Dostoevsky), 325 (Topic 10). Additional prerequisite: Upper-division standing.
Topic 6: The Russian Novel. Same as Comparative Literature 323 (Topic 29), European Studies 347 (Topic 22), Russian, East European, and Eurasian Studies 325 (Topic 9), and Russian 356 (Topic 1). A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century. Only one of the following may be counted: Comparative Literature 323 (Topic: The Russian Novel), 323 (Topic 29), Core Texts and Ideas 345 (Topic: The Russian Novel), 345 (Topic 6), English 322 (Topic 37), European Studies 347 (Topic 22), Russian 356 (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic 9). Additional prerequisite: Upper-division standing.
Topic 7: Leo Tolstoy's Early Works. Same as Comparative Literature 323 (Topic 35), Russian, East European, and Eurasian Studies 325 (Topic 23), and Russian 360 (Topic 4). A survey of Tolstoy's early works, including his pedagogical essays. Study of his evolution as a writer and the birth and formation of his literary genius. Only one of the following may be counted: Comparative Literature 323 (Topic: Leo Tolstoy's Early Works), 323 (Topic 35), Core Texts and Ideas 345 (Topic: Leo Tolstoy's Early Works), 345 (Topic 7), Russian 360 (Topic: Leo Tolstoy's Early Works), 360 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic: Leo Tolstoy's Early Works), 325 (Topic 23). Additional prerequisite: Upper-division standing.
Topic 8: War and Revolution in Russian Literature and Culture. Same as Comparative Literature 323 (Topic 31), Russian, East European, and Eurasian Studies 325 (Topic 18), and Russian 356 (Topic 3). Examines Russian narratives of war and revolution as represented in fiction, cinema, and journalism. Only one of the following may be counted: Comparative Literature 323 (Topic: War and Peace in Russian Literature and Culture), 323 (Topic 31), Core Texts and Ideas 345 (Topic: War and Peace in Russian Literature and Culture), 345 (Topic 8), Russian 356 (Topic: War and Peace in Russian Literature and Culture), 356 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic: War and Peace in Russian Literature and Culture), 325 (Topic 18). Additional prerequisite: Upper-division standing.
Topic 10: Love in the East and West. Same as Comparative Literature 323 (Topic 36), Middle Eastern Languages and Cultures 321 (Topic 25), and Middle Eastern Studies 342 (Topic 33). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Love in the East and West), Comparative Literature 323 (Topic 36), Core Texts and Ideas 345 (Topic: Love in the East and West), Core Texts and Ideas 345 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic: Love
in the East and West), Middle Eastern Languages and Cultures 321 (Topic 25), Middle Eastern Studies 321K (Topic: Love in the East and West), Middle Eastern Studies 342 (Topic 33), Turkish 372 (Topic: Love in the East and West). Additional prerequisite: Upper-division standing.
Topic 11: Epics and Heroes of India. Same as Ancient History and Classical Civilization 330 (Topic 2), Asian Studies 372 (Topic 40), and History 350L (Topic 54). Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Epics and Heroes of India), 330 (Topic 2), Asian Studies 372 (Topic: Epics and Heroes of India), 372 (Topic 40), Core Texts and Ideas 345 (Topic: Epics and Heroes of India), 345 (Topic 11), History 350L (Topic 54).

## CTI 350. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## CTI 351. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## CTI 365. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## CTI 366. Topics in Economic and Social Thought.

Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## CTI 370. Core Texts of Science and Mathematics.

Studies works of major scientists, mathematicians, and philosophers, and explores the fundamental ideas from one discipline or time period and the nature and grounds of human knowledge. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Core Texts and Ideas 370 and Western Civilization 320 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: Biology, Behavior, and Injustice. Same as History 366N (Topic 16). Explores questions about human behavior related to biological factors as compared with personal experiences and societal standards. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 370 (Topic: Biology, Behavior, and Injustice), 370 (Topic 2), History 366N (Topic: Biology, Behavior, and Injustice), 366N (Topic 16).

## CTI 371. Einstein in the Age of Conflict.

Same as History 350L (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 370 (Topic: Einstein in the Age of Conflicts), 371, History 350L (Topic 64). Prerequisite: Upper-division standing.

## CTI 372. Darwin and the Politics of Evolution.

Same as Government 353D. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 370 (Topic: The Politics of Evolution), 372, Government 335M (Topic: The Politics of Evolution), 353D. Prerequisite: Upperdivision standing and six semester hours of lower-division coursework in government.

## CTI 375. Topics in Core Texts and Ideas.

Study of classic texts, connected historically or thematically. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Core Texts and Ideas 375 and Western Civilization 320 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: The Qur'an. Same as Comparative Literature 323 (Topic 37), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, and Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Arabic 372 (Topic 2: The Qur'an), Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 320 (Topic 14: The Qur'an), 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.
Topic 2: Islamic Theology. Same as Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), Middle Eastern Studies 342 (Topic 35), and Religious Studies 358 (Topic 14). Three lecture hours per week for one semester. Only one of the following may be counted: Core Texts and Ideas 375 (Topic: Islamic Theology), 375 (Topic 2), Islamic Studies 340 (Topic: Islamic Theology), 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic: Islamic Theology), 321 (Topic: 27), Middle Eastern Studies 321 K (Topic: Islamic Theology), 342 (Topic: Islamic Theology), 342 (Topic 35), Religious Studies 358 (Topic: Islamic Theology), 358 (Topic 14). Additional prerequisite: Upper-division standing.

## CTI 379. Conference Course.

Intensive tutorial study of selected major texts. Individual instruction. May be repeated for credit. Prerequisite: Upper-division standing and consent of the director of the Jefferson Center and instructor.

## Américo Paredes Center for Cultural Studies

## Cultural Studies: CLS

## Lower-Division Courses

CLS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. Topics in Folklore and Cultural 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 cultural 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

CLS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S.
Topics in Folklore and Cultural 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 cultural 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. May be repeated for credit when the topics vary.

## CLS 340. Conference Course in Folklore and Cultural Studies.

Supervised reading and research on a folklore or cultural studies subject, including the writing of an original paper. Conference course. Prerequisite: Upper-division standing and a concentration in cultural studies.

## Department of Economics

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Economics: ECO

## Lower-Division Courses

ECO 301. Introduction to Economics.
Explores how economists describe and measure the economy in the aggregate and in specific markets, such as the labor market, the housing market, financial markets, and international trade. Studies concepts for measurement and data, as well as methods, approaches, and technologies used in social and behavioral science. Three lecture hours a week for one semester. May not be counted toward a major in economics.

## ECO 304K (TCCN: ECON 2302). Introduction to Microeconomics.

Analysis of the economic behavior of individual consumers, firms, and workers; special attention to the role of markets. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week.

## ECO 304L (TCCN: ECON 2301). Introduction to

 Macroeconomics.Analysis of the economy as a whole (its organization and the basic forces influencing its growth and development); money and banking, national income, public finance, and international linkages. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week. Prerequisite: Economics 304 K with a grade of at least C-.

ECO 305. Introductory Topics in Economics.
Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

ECO 318Q. Supervised Research.
Individual instruction. May be repeated once for credit when the research topics vary. Prerequisite: Economics 304K and 304L with a grade of at least $C$ - in each.

ECO 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, $919 S$. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses <br> ECO 420K. Microeconomic Theory.

A survey of neoclassical and contemporary theories of the principal determinants of prices and of the role of prices in economic organization. Four lecture hours a week for one semester. Required of students majoring in economics. Students may not attempt Economics 420K more than twice. Prerequisite: Economics 304 K and 304 L with a grade of at least C- in each; and Mathematics 408C and 408D, or 408K and 408L, or 408 N and 408 S , with a grade of at least C - in each.

## ECO 320L. Macroeconomic Theory.

Theory of the determination of national income, employment, and the price level, with policy implications. Three lecture hours a week for one semester. Required of students majoring in economics. Prerequisite: Economics 420K with a grade of at least C-.

## ECO 321. 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. Three lecture hours a week for one semester. Prerequisite: Economics 420 K with a grade of at least C-.

## ECO 322. Money and Banking.

The role of money and depository institutions in the economy; introduction to financial and monetary theory and policy. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 322, Finance 354, 354H. Prerequisite: Economics 420 K and 320 L with a grade of at least C- in each.

## ECO 323T. Studies in Economic History.

Study of economic development, emphasizing more recent periods; causal factors, emerging problems, and major policy issues. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Economics 304 K and 304L with a grade of at least $C$ - in each.

Topic 1: Economic History of the United States. Economic history of the United States from colonial times to the present. Includes some aspects of labor history, industrial organization, financial history, and socioeconomic perspectives.
Topic 2: World Economic History. Economic history of the world from the Industrial Revolution to the present, with emphasis on technology as the engine of change.

## ECO 324. Introduction to Labor Economics.

Study of labor in industrial societies, with emphasis on principles, institutions, and policies for understanding labor and personnel problems.

Three lecture hours a week for one semester. Prerequisite: Economics 420 K with a grade of at least C -

## ECO 327. Comparative Economic Systems.

Theories of and practices in the principal types of economic systems. Three lecture hours a week for one semester. Prerequisite: Economics 304 K and 304 L with a grade of at least C - in each.

## ECO 328. Industrial Organization.

The organization of industries and markets: competition, monopoly, and oligopoly; antitrust policy and its alternatives. Three lecture hours a week for one semester. Prerequisite: Economics 420 K with a grade of at least C-

## ECO 329. Economic Statistics.

Methods of statistical analysis and interpretation of quantitative data in the field of economics. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 329, Statistics 309, 309 H . Prerequisite: Economics 304K and 304L with a grade of at least Cin each; and Mathematics 408C and 408D, or 408K and 408L, or 408N and 408 S , with a grade of at least C- in each.

ECO 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## ECO 330T. Topics in Economics.

Open to nonmajors. Topics may include economic theory, applications, and policy. Three lecture hours a week for one semester. Economics 330 T and 350K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## ECO 333K. Development Economics.

Same as Urban Studies 351 (Topic 4). Introduction to theories of economic development; discussion of leading issues. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 333K, Urban Studies 351 (Topic: Development Economics), 351 (Topic 4). Prerequisite: Economics 420K with a grade of at least C-.

## ECO 334K. Urban Economics.

Same as Urban Studies 351 (Topic 2: Urban Economics). Economic analysis of urban areas; emphasis on the nature of current urban problems--slums, transportation, finance--and an evaluation of current policy. Three lecture hours a week for one semester. Prerequisite: Economics 420 K with a grade of at least C -.

## ECO 334L. Regional Economics.

Same as Urban Studies 351 (Topic 3: Regional Economics). Spatial aspects of economics, including concepts, theories, and policy applications. Three lecture hours a week for one semester. Prerequisite: Economics 420 K with a grade of at least C -.

## ECO 339K. International Trade and Investment.

Topics addressed include patterns and theories in the international trade of goods and services between Organisation for Economic Cooperation and Development (OECD) member countries, and between OECD countries and emerging markets; questions facing firms of where to locate production facilities; implications of international trade for per
capita income, growth, and inequality. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 339K, European Studies 348 (Topic 2: International Trade), International Business 320F, 350. Prerequisite: Economics 420 K with a grade of at least C-.

## ECO 339L. International Finance.

Exchange rates and foreign exchange markets; reasons for financial globalization; open-economy macro; exchange rate regimes (fixed and floating exchange rates, currency boards, and currency areas such the eurozone); central bank accumulation of foreign exchange reserves; and sovereign debt crises and currency crashes. Reasons for different exchange rate arrangements and other policies are also explored. Three lecture hours a week for one semester. Prerequisite: Economics 420K and 320 L with a grade of at least C - in each.

## ECO 341K. Introduction to Econometrics.

Introduces the student to standard regression procedures of parameter estimation and hypothesis testing in economics. Three lecture hours a week for one semester. Prerequisite: Economics 420 K and 329 with a grade of at least C- in each.

## ECO 346K. Russian Economic Development since 1917.

The growth of the planned economy in industry, agriculture, and labor. Three lecture hours a week for one semester. Economics 346K and Russian, East European, and Eurasian Studies 335 (Topic 13: Russian Economic Development since 1917) may not both be counted. Prerequisite: Economics 304 K and 304 L with a grade of at least C - in each.

## ECO 350K. Advanced Topics in Economics.

Designed primarily for economics majors. Topics may include in-depth analysis of problems in economic theory, applications, and economic policy. Three lecture hours a week for one semester. Economics 330T and 350 K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Economics 420K with a grade of at least C-. Additional prerequisites may vary with the topic and are given in the Course Schedule.

Topic 4: Advanced Econometrics. Theory of the linear regression model used widely in economic applications, including model specification, least squares and maximum likelihood estimation, hypothesis testing, multicollinearity, dummy variables, heteroskedasticity, and discrete choice models. Additional prerequisite: Economics 341 K with a grade of at least C -.
Topic 6: Advanced Microeconomic Theory. Modern theory of the consumer and the firm. Topics include an analysis of consumer choice and demand functions, the theory of supply, cost and profit functions, duality theory, consumer surplus, choice under uncertainty, and partial equilibrium analysis. Emphasis on both economic principles and quantitative methods, especially static and dynamic optimization models. Additional prerequisite: Economics 329 with a grade of at least C-
Topic 7: Applied Economic Analysis. Major issues in applied economics, including relevant theoretical and empirical models. Additional prerequisite: Economics 341 K with a grade of at least a C-; Mathematics 408D or 408M; and Mathematics 340L or 341.
Topic 8: Applied Macroeconomics. Advanced study of
macroeconomics with a focus on the economics and the politics of the subject and the mathematical and computational models that are used to develop macroeconomic policy. Economics 350K (Topic: Applied Macroeconomics) and 350 K (Topic 8) may not both be counted.
Topic 9: Health Economics. Examines the role and justification for government involvement in the medical care system. Subjects include the special features of medical care as a commodity, the
demand for health and medical services, the economic explanations for the behavior of medical care providers, the functioning of insurance markets, federal health insurance programs, and regulation. Only one of the following may be counted: Economics 330T (Topic: Health Economics), 350K (Topic: Health Economics), 350K (Topic 9).

## ECO 351K. Current Issues in Business Economics.

Newly emerging problems in business and the approaches used for structuring, analyzing, and treating them. Three lecture hours a week for one semester. Prerequisite: Economics 420 K with a grade of at least C -

## ECO 351L. Business Trends and the Operational Environment in the United States Economy.

The technological basis of the United States economy; conditions, such as regulations, that define the macroenvironment. Three lecture hours a week for one semester. Prerequisite: Economics 420K, 320L, and 329 with a grade of at least $C$ - in each.

## ECO 351M. Managerial Economics.

The use of economic analysis optimizing techniques as tools for improving managerial decision making in business. Three lecture hours a week for one semester. Prerequisite: Economics 420K, and Economics 329 or Mathematics 362 K , with a grade of at least C-in each.

## ECO 354K. 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. Three lecture hours a week for one semester. Prerequisite: Economics 420 K and 329 with a grade of at least C- in each.

## ECO 355. Development Problems and Policies in Latin America.

Same as Latin American Studies 355 (Topic 1: Development Problems and Policies in Latin America) and Urban Studies 351 (Topic 1: Development Problems and Policies in Latin America). Description of the Latin American economy; business and market organization; problem of growth (involving credit, public finance, trade, investment aspects). Three lecture hours a week for one semester. Prerequisite: Economics 304K and 304 L with a grade of at least C - in each.

## ECO 357K. Marxist Economics.

An introduction to the Marxian economic theory of capitalism through the study of Karl Marx's Capital, volume I, and of its contemporary relevance. Three lecture hours a week for one semester. Economics 357K and Russian, East European, and Eurasian Studies 335 (Topic 1: Marxist Economics) may not both be counted. Prerequisite: Upper-division standing.

## ECO 357L. 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. Three lecture hours a week for one semester. Economics 357L and Russian, East European, and Eurasian Studies 335 (Topic 14: Political Economy of International Crises) may not both be counted. Prerequisite: Economics 304 K and 304 L with a grade of at least C - in each.

## ECO 358Q. Supervised Research.

Individual instruction. May be repeated once for credit when the research topics vary. May not be counted toward the twenty-five semester hours in economics required for the major in economics. Prerequisite: Economics 420 K and 329 with a grade of at least C - in each.

## ECO 359M. 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. Three lecture hours a week for one semester. Prerequisite: Economics 420 K and 329 with a grade of at least C - in each.

## ECO 361. Studies in Public Economics.

Studies in the principal problem areas of governmental revenues and expenditures. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Economics 420K with a grade of at least C-

## ECO 361N. Informational Society.

The social impact of the current technological changes in electronics, communications, and automation; focus on efficient institutions given the technological possibilities. Three lecture hours a week for one semester. Prerequisite: Economics 304 K and 304 L with a grade of at least C - in each.

## ECO 362M. Mathematics for Economists.

Application of mathematics in economic analysis. Three lecture hours a week for one semester. Prerequisite: Economics 420K, and Mathematics 408D or 408M, with a grade of at least C- in each.

## ECO 363C. Computational Economics.

Three lecture hours a week for one semester. Prerequisite: Economics 420 K or 320 L with a grade of at least C-.

## ECO 367R. Monetary Economics.

Major issues in the monetary field. Three lecture hours a week for one semester. Prerequisite: Economics 430K and 320L with a grade of at least C- in each.

## ECO 368. Survey of the History of Economic Thought.

Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## ECO 369F. Financial Economics.

Economic analysis of the operation of financial markets, including arbitrage theory, asset pricing, and corporate finance. Three lecture hours a week for one semester. Prerequisite: Economics 420K, 320L, and 329 with a grade of at least C - in each.

## ECO 372M. Studies in Developing Economies.

An introductory analysis of the structure, functioning, and problems of developing economies. Specific geographical areas to be studied will vary each semester. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Economics 420K with a grade of at least C-

## ECO 376M. Studies in Labor Economics.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Economics 420 K with a grade of at least C-

Topic 1: Personnel Economics. An analysis of decision making by profit-maximizing firms involving human resources through economic theory. Includes neoclassical theory of labor demand, recruiting and hiring strategies, training and investment in workers' human capital, organizational design and job design, provision of non-wage job attributes and fringe benefits, and evaluating and motivating employee
performance. Economics 376M (Topic: Personnel Economics) and 376M (Topic 1) may not both be counted.

## ECO 377R. Selected Topics in Economics Research.

Designed to teach undergraduate students how to conduct research. Focus on four fundamentals of economic research: the economic theory that underlies the research question, the research methods used, conducting research, and writing the research report. Three lecture hours a week for one semester; some topics may require field trips. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and Economics $420 \mathrm{~K}, 320 \mathrm{~L}$, and 329 with a grade of at least Cin each.

## ECO 378H. Honors Tutorial Course I.

Supervised individual reading, research, and writing of a substantial paper on a special topic in the field of economics. Conference course. Prerequisite: Upper-division standing, admission to the Economics Honors Program, and consent of the honors adviser.

## ECO 379C. Individual Conference Course.

Supervised individual study of selected problems in economics. Conference course. May not be counted toward the twenty-four semester hours in economics required for the major in economics. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor. Students should ordinarily have completed six semester hours of upperdivision coursework in economics and coursework with supervising instructor.

## ECO 379D. Internship in Economics.

Students conduct research while working in an appropriate government agency or private business. Ten hours of fieldwork a week for one semester. May be repeated once for credit when the internships vary. Offered on the pass/fail basis only. Prerequisite: Economics 420 K with a grade of at least C-

## ECO 379H. Honors Tutorial Course II.

Supervised individual reading, research, and writing of a substantial paper on a special topic in the field of economics. Conference course. Prerequisite: Economics 378H.

## Department of English

Students are discouraged from taking more than six semester hours of coursework in English in a semester or summer term. No student may take more than nine semester hours of coursework in English in a semester.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p.675).

## Creative Writing: CRW

## Lower-Division Courses

## Upper-Division Courses

## CRW 325. 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. Three lecture hours a week for one semester. Creative Writing 325 and English 325 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: One of the following: Comparative Literature 315, English

603B, 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 603B.

## CRW 325F. Fiction Writing.

Detailed study and practice of the techniques of fiction writing; includes reading and analysis of contemporary models. Three lecture hours a week for one semester. Only one of the following may be counted: Creative Writing 325F, English 325 (Topic 1: Creative Writing: Fiction), 325F. Prerequisite: One of the following: Comparative Literature 315, English 603B, 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 603B.

## CRW 325M. 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. Two lecture hours and one and one half workshop hours a week for one semester. Only one of the following may be counted: Creative Writing 325M, English 315F, 315P. Prerequisite: One of the following: Comparative Literature 315, English 603B, 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 603B.

## CRW 325P. Poetry Writing.

Detailed study and practice of the techniques of poetry writing; includes reading and analysis of contemporary models. Three lecture hours a week for one semester. Only one of the following may be counted: Creative Writing 325P, English 325 (Topic 2: Creative Writing: Poetry), 325P. Prerequisite: One of the following: Comparative Literature 315, English 603B, 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 603B.

## CRW 330. Literature for Writers.

Readings in fiction, poetry, drama, literary criticism, biography, and autobiography from the point of view of a creative writer. Three lecture hours a week for one semester. Prerequisite: One of the following: Creative Writing 325 (or English 325), 325F (or English 325F), 325M, 325P (or English 325P).

## CRW 340F. Short Story Workshop.

Practice in writing the short story, with study of contemporary models. The equivalent of three lecture hours a week for one semester. Creative Writing 340F and English 341 may not both be counted. Prerequisite: Creative Writing 325F (or English 325F), or 325M.

## CRW 340P. Poetry Workshop.

Practice in writing poetry, with study of contemporary models. The equivalent of three lecture hours a week for one semester. Creative Writing 340P and English 341L may not both be counted. Prerequisite: Creative Writing 325M or 325P (or English 325P).

## CRW 355F. Advanced Fiction Workshop.

A third semester seminar-style workshop in fiction for experienced creative writers. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Creative Writing 355F, 660, English 355K. Prerequisite: Creative Writing 340F (or English 341).

## CRW 355P. Advanced Poetry Workshop.

A third semester seminar-style workshop in poetry for experienced creative writers. The equivalent of three lecture hours a week for one semester. Creative Writing 355P and English 355K may not both be counted. Prerequisite: Creative Writing 340P (or English 341L).

## CRW 660. Intensive Creative Writing.

An accelerated seminar-style workshop for highly motivated students. Designed to be taken over two consecutive summer sessions; offered
only during the summer semester. Three lecture-workshop hours a week for two semesters. Completion of this course is equivalent to completion of both Creative Writing 340F and 355F. Only one of the following may be counted: Creative Writing 340F and 355F; or 660; or English 355K. Prerequisite: For 660A, credit or registration for Creative Writing 325F or English 325F; for 660B, Creative Writing 660A.

## CRW 370H. Honors Creative Writing Project.

For advanced students already proficient in writing who wish to work under supervision on specific and substantial projects. The equivalent of three lecture hours a week for one semester. Creative Writing 370 H and English 367K may not both be counted. Prerequisite: Consent of the honors adviser.

## English: E

## Lower-Division Courses

E 603. Composition and Reading in World Literature.
Reading of masterpieces of world literature and intensive training in writing and in critical analysis of literature. Three lecture hours a week for two semesters. Only one of the following may be counted: English 603A, Rhetoric and Writing 306, 306Q, Tutorial Course 603A; only one of the following may be counted: Comparative Literature 315, English 603B, Tutorial Course 603B. Prerequisite: For 603A, admission to the Plan II Honors Program; for 603B, English 603A.

## E 314J. Literature across the Curriculum.

Readings selected to highlight the connections between literary study and other fields of inquiry. Three lecture hours a week for one semester. May not be substituted for English 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316K). May be repeated for credit when the topics vary. Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

Topic 1: Literature and Film. English 314 J (Topic: Literature and Film) and 314 J (Topic 1) may not both be counted.
Topic 2: Literature and Religion. Same as Religious Studies 306 (Topic 2). Only one of the following may be counted: English 314J (Topic: Literature and Religion), 314J (Topic 2), Religious Studies 306 (Topic: Literature and Religion), 306 (Topic 2).
Topic 3: Literature and Theatre. English 314J (Topic: Literature and Theatre) and 314 J (Topic 3) may not both be counted.

## E 314L. 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. Three lecture hours a week for one semester. May not be substituted for English 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316K). May be repeated for credit when the topics vary. Prerequisite: One of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## Topic 3: Banned Books and Novel Ideas. <br> Topic 4: Reading Literature in Context. <br> Topic 5: Reading Poetry. <br> Topic 6: Reading Women Writers. <br> Topic 7: Women's Popular Genres.

## E 314V (TCCN: ENGL 2351). 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. Three lecture hours a week for one semester. May not be substituted for English 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K). May
be repeated for credit when the topics vary. Prerequisite: One of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

Topic 1: African American Literature and Culture. Same as African and African Diaspora Studies 317F (Topic 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. African and African Diaspora 317F (Topic 1) and English 314V (Topic 1) may not both be counted.
Topic 2: Asian American Literature and Culture. Same as Asian American Studies 314. 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.
Topic 3: Mexican American Literature and Culture. Same as Mexican American Studies 314. Representative Chicano writers and genres, such as poetry, prose fiction, and theatre. Three lecture hours a week for one semester. English 314V (Topic 3) and Mexican American Studies 314 may not both be counted. May not be substituted for English 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K). Additional prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.
Topic 4: Gay and Lesbian Literature and Culture. Same as Women's and Gender Studies 301 (Topic 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. English 314V (Topic 4) and Women's and Gender Studies 301 (Topic 12) may not both be counted.
Topic 5: Native American Literature and Culture. Same as American Studies 315F. Studies Native American literature from different regions and cultures and considers this literary tradition in tribal national and United States national contexts. Only one of the following may be counted: American Studies 315 (Topic: Native American Literature and Culture), 315F, English 314V (Topic 5).

## E 316L. British Literature.

Introduction to masterpieces of the British literary tradition, emphasizing historical, generic, and thematic connections. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week. Prerequisite: One of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## E 316M. American Literature.

Introduction to masterpieces of the American literary tradition, emphasizing historical, generic, and thematic connections. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week. Prerequisite: One of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## E 316N. World Literature.

Introduction to masterpieces of world literature, emphasizing historical, generic, and thematic connections. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week. Prerequisite: One of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## E 316P. Masterworks of Literature.

Introduction to masterpieces of literature, emphasizing historical, generic, and thematic connections. Three lecture hours a week for one semester. Some sections require an additional hour a week. Prerequisite: One of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## E 317C. Classics and Classes.

Explores how literary classics are made, and the relationship between the classics and various classes of identity, including socioeconomic, ethnic/racial, sexual, and generational. Three lecture hours a week for one semester. English 314J (Topic: Classics and Classes) and 317C may not both be counted. Prerequisite: One of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## E 318M. 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. Three lecture hours a week for one semester. Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## E 318Q. Supervised Research.

Student-initiated research conducted with instructor supervision. Three conference hours a week for one semester. May be repeated once for credit. Prerequisite: Approval of written application by supervising instructor and the undergraduate faculty adviser.

E 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, $919 S$. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## E 320L. Major Writers of the Restoration and Eighteenth Century.

A study of the principal writers: Dryden, Pope, Swift, Johnson, Boswell, Burns, and others. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 321. Shakespeare: Selected Plays.

A representative selection of Shakespeare's best comedies, tragedies, and histories. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 321K. 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. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 321L. American English.

Same as Linguistics 321L. An overview of the historical development of English in the Americas. Attention to regional, social, and ethnic differences, and their implications for public education. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 321P. 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. Three lecture hours a week for one semester, with additional laboratory hours as required. English 321P and 379M (Topic 4: Shakespeare
through Performance) may not both be counted. Prerequisites: Nine semester hours of coursework in English or rhetoric and writing, and consent of instructor.

## E 322. Literature in Translation.

World literatures in English translation. Three lecture hours a week for one semester. English 322 and 324 may not both be counted unless the topics vary. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 17: Social Dramas of Henrik Ibsen. Same as Comparative Literature 323 (Topic 17), European Studies 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, and Women's and Gender Studies 345 (Topic 14). 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 topics 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Social Dramas of Henrik Ibsen), 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic: Social Dramas of Henrik Ibsen), 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, Scandinavian 323 (Topic 2), Women's and Gender Studies 345 (Topic 14). Additional prerequisite: Upper-division standing.
Topic 23: Dante. Same as Italian Civilization 349 (Topic 2: Dante).

## E 323L. English as a World Language.

Same as Linguistics 323L. An account of the spread of English around the world; national, social, and regional varieties. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 324. Topics in Language and Literature.

Three lecture hours a week for one semester. English 322 and 324 may not both be counted unless the topics vary. Only one of the following may be counted unless the topics vary: English 320M, 324, 376L, 379M, 379 N . Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Comparative Literature 315, English 603B, 316L (or 316K), 316M (or 316K), 316N (or 316 K ), or 316P (or 316K), or Tutorial Course 603B.

Topic 6: Troubled Literary Marriages. Examines how the personal lives of authors may be expressed in their works. Uses 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. Only one of the following may be counted: English 324 (Topic: Literary Marriages from Hell), 324 (Topic 5: Authors' Lives in Literature), 324 (Topic 6).
Topic 8: The History of English as a Language of Law. English 324 (Topic: History of English as a Language of Law) and 324 (Topic 8) may not both be counted.

## E 326K. The Literature of the Middle Ages in Translation.

Romances, chronicles, legends, tales, and plays by English, Celtic, and Continental writers. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 326L. Survey of Middle English Language and Literature.

Language and literature from 1100 to 1500. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 327. 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. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 328. The British Novel in the Nineteenth Century.

Representative works by such writers as Dickens, Thackeray, the Brontes, George Eliot, Meredith, and Hardy. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 329R. The Romantic Period.

The prose and poetry of writers such as Blake, Wordsworth, Coleridge, Byron, Keats, Shelley, and others. Three lecture hours a week for one semester. English 329K and 329R may not both be counted. English 329L and 329R may not both be counted. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

E 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, $929 S$. 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. May be repeated for credit when the topics vary.

## E 336E. British Literature: Beginnings through the Renaissance.

A survey of major writers, poetry, and prose. Three lecture hours a week for one semester. English 336E and 379N (Topic: British Literature: Beginnings to the Renaissance) may not both be counted. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 337. American Literature: From the Beginnings to 1865.

A survey of major writers, poetry, and prose. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 337E. British Literature: The Restoration through the Romantic Era.

A survey of major writers, poetry, and prose. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 338. American Literature: From 1865 to the Present.

A survey of major writers, poetry, and prose. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 338E. British Literature: The Victorian Era through World War II.

A survey of major writers, poetry, and prose. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis
only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 340. The American Novel before 1920.

Representative novels by such writers as Brown, Melville, Fern, Hawthorne, Twain, Crane, James, Wharton, and Dreiser. Three lecture hours a week for one semester. Some sections are offered on the lettergrade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 342. Life and Literature of the Southwest.

Verse, fiction, travels, and memoirs, to acquaint students with the literature reflecting the social inheritance of Texas and the neighboring territory. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

Topic 1: Life and Literature of the Southwest--Mexican American. Same as Mexican American Studies 374 (Topic 2: Life and Literature of the Southwest--Mexican American).
Topic 2: Life and Literature of Texas. English 342 (Topic: Life and Literature of Texas) and 342 (Topic 2) may not both be counted.

## E 343L. Modernism and Literature.

Strands of thought and literature that form the network of modernist writing. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 343P. 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. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 344L. Contemporary Literature and Other Media.

A study of the relationship between literary forms and other media (film, television, music, the visual arts). Three lecture hours a week for one semester; additional hours may be required for some topics. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Comparative Literature 315, English 603B, 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316 K ), or Tutorial Course 603B.

## Topic 4: Australian Literature and Film.

Topic 5: Representations of Childhood and Adolescence in Literature and Film. Only one of the following may be counted: English 344L (Topic: Representations of Childhood and Adolescence in Literature and Film), 344L (Topic 5), Liberal Arts Honors 350 (Topic: Representations of Childhood and Adolescence in Literature and Film).
Topic 6: Writer-Directors: European Literary Cinema. Examines the aesthetic and political foundations of European cinema, including the Russian Constructivists, the French Nouvelle Vague, and the Dogme95 Collective. Subjects include the influences of literary and visual arts movements, such as surrealism, neo-realism, and the Nouveau Roman. English 344L (Topic: Writers and Directors: Literary Cinema) and 344L (Topic 6) may not both be counted.

## E 348. 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. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite:

Comparative Literature 315, English 603B, 316L (or 316K), 316M (or 316 K ), 316N (or 316K), 316P (or 316K), or Tutorial Course 603B.

## E 349S. Topics on Major Authors.

Intensive study of the works of a single major author or two major authors. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: English 320M, 349S, 370W, 376L, 376M, 379M, 379N. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in English.

## Topic 1: Jane Austen.

Topic 2: The Brontes. English 349S (Topic 2) and 370W (Topic: Brontes: Self and Society) may not both be counted.
Topic 3: James and Wharton.
Topic 4: James Joyce.
Topic 5: Toni Morrison. Same as African and African Diaspora Studies 372E (Topic 1: Toni Morrison) and Women's and Gender Studies 345 (Topic 46: 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. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 1), 374F (Topic: Toni Morrison), English 349S (Topic 5), Women's and Gender Studies 340 (Topic: Toni Morrison), 345 (Topic 46).

Topic 6: Walt Whitman.
Topic 7: Oscar Wilde.
Topic 8: Virginia Woolf. Same as Women's and Gender Studies 345 (Topic 40: 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. Only one of the following may be counted: English 349S (Topic 8), 370W (Topic 10: Virginia Woolf), Women's and Gender Studies 345 (Topic 40).
Topic 9: William Faulkner. English 349S (Topic 9) and 379M (Topic: Faulkner) may not both be counted.
Topic 10: Graham Greene. English 349S (Topic: Graham Greene) and 349S (Topic 10) may not both be counted.
Topic 11: Nathaniel Hawthorne. English 349S (Topic: Nathaniel Hawthorne) and 349 (Topic 11) may not both be counted.
Topic 12: Alice Munro. English 349S (Topic: Alice Munro) and 349S (Topic 12) may not both be counted.

## E 350E. Topics in Language and Literature: Beginnings to 1630.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: English 320M, 350E, 376L, 379M, 379 N . Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## Topic 1: Classical and Scriptural Backgrounds of Literature.

Topic 2: Saracens in Medieval Literature. Same as Middle Eastern Studies 342 (Topic 18: Saracens in Medieval Literature). Muslims, Arabs, Turks, Persians, Berbers, and Moors were often identified in literature and historical texts under the invented group name Saracens. Course explores who, and what, a Saracen is. Includes selected readings of literature, historical documents, and critical scholarship on Saracens in European medieval romances and epics, crusade literature, travel narratives, maps, and polemical treatises. For critical contrast, readings also include Islamic texts on, or by some of the most famous (or infamous) Saracens known to medieval Europe. Only one
of the following may be counted: English 350E (Topic 2), 379N (Topic: Saracens in Medieval Literature), Middle Eastern Studies 321K (Topic: Saracens in Medieval Literature), Middle Eastern Studies 342 (Topic 18).

Topic 3: Literature and the Visual Arts. Examines the relationship between words and images across a broad historical sweep. Only one of the following may be counted: English 320M (Topic: Literature and the Visual Arts), 350E (Topic: Literature and the Visual Arts), 350E (Topic 3).

## E 350M. Topics in Language and Literature: 1630 to 1830.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: English 320M, 350M, 376L, 379M, 379 N . Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

Topic 1: Eighteenth-Century Women Writers. Same as Women's and Gender Studies 345 (Topic 7: Eighteenth-Century Women Writers). Women writers in the early 18th-century canon. Argues for a historical perspective that demonstrates the centrality of early 18thcentury women writers to the western canon. Only one of the following may be counted: English 350M (Topic 1), 376L (Topic: Aphra Behn and 18th Century Women Writers), Women's and Gender Studies 345 (Topic 7).

## E 350R. Topics in Language and Literature: 1830 to 1940.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: English 320M, 350R, 376L, 379M, 379 N . Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## Topic 1: Law, Society, and the Novel in Nineteenth-Century Britain.

Topic 2: Animal Humanities. Explores the intersection of literature with animal studies. Only one of the following may be counted: English 350R (Topic: Animal Humanities), 350R (Topic 2), 379N (Topic: Animal Humanities).
Topic 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. Only one of the following may be counted: English 350R (Topic 3), 376L (Topic: Literature, Cultural Memory, and the American Civil War), Liberal Arts Honors 350 (Topic: Literature, Cultural Memory, and the American Civil War).

## E 356. The European Novel.

Same as European Studies 347 (Topic 7: The European Novel). Selected masterpieces of continental fiction in English translation; representative novelists of the nineteenth and twentieth centuries. English 356 and European Studies 347 (Topic 7) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 358J. The Bible as Literature.

Same as Religious Studies 355. In-depth literary study of the Bible, with emphasis on the formal features of narrative, hymn, prophecy, apocalypse, gospel, and epistle. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Comparative Literature 315, English 603B, 316L (or 316K), 316 M (or 316K), 316N (or 316K), or 316P (or 316K), or Tutorial Course 603B.

## E 358K. The Bible in British and American Literature.

Same as Religious Studies 355K. The reading of biblical masterpieces as literature; consideration of different versions of the Bible and their
influence on British and American literature. Three lecture hours a week for one semester. English 358 K and Religious Studies 355 K may not both be counted. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 358Q. Supervised Research.

Student-initiated research conducted with instructor supervision. Three conference hours a week for one semester. May be repeated once for credit. Prerequisite: Completion of at least sixty semester hours of coursework, including at least six semester hours of upper-division coursework in English or rhetoric and writing; a University grade point average of at least 3.00; and approval of written application by supervising instructor and the undergraduate faculty adviser.

## E 359. English Drama from 1660 to 1900.

Representative drama texts from the Restoration to the beginnings of modern theatre, including Behn, Sheridan, Wilde, and Shaw. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 360K. English Grammar.

The study of traditional and transformational grammar. Attention to social differences in language relevant to the teaching of English. Three lecture hours a week for one semester. English 360K and Linguistics 360K may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 360L. English as a World Literature.

English literature from around the world, including Canada, Australasia, Africa, and India. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: English 320M, 360L, 360S, 376L, 379M, 379N. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

Topic 2: Caribbean Literature. Same as Comparative Literature 323 (Topic 6: Caribbean Literature) and African and African Diaspora Studies 374F (Topic 7: Caribbean Literature).

## E 360R. 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. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 360S. Literature and Global Society.

Contexts for the study of literature and for the study of pressing issues through literature in an age of globalization. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: English 320M, 360S, 376L, 379M, 379N. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

Topic 1: Literature and Social Justice. English 360L (Topic 1: Literature and Social Justice) and 360S (Topic 1) may not both be counted.
Topic 2: Literature of AIDS in Africa. Same as African and African Diaspora Studies 372G (Topic 1: Literature of AIDS in Africa). Examines the emerging cultural representations of AIDS in subSaharan Africa through journalistic, social science, and historical accounts. Examines the difficulty of representing the various aspects
of a public-health crisis. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic 1), 374C (Topic: Literature of African AIDS), English 360S (Topic 2), 376L (Topic: Literature of African AIDS).
Topic 3: Envisioning Muslims: The Middle Ages and Today. Same as Middle Eastern Studies 342 (Topic 17: Envisioning Muslims: The Middle Ages and Today). Covers the representation of Muslims in the dominant cultural media of the European Middle Ages and in the contemporary world of the twentieth and twenty-first centuries. Modern cultural media includes film and digital visual media. Readings are selected to show how Europeans envisioned Muslims, and how Muslims envisioned themselves. Only one of the following may be counted: English 360S (Topic 3), 379N (Topic: Envisioning Muslims), Islamic Studies 372 (Topic: Envisioning Muslims), Middle Eastern Studies 321 K (Topic: Envisioning Muslims), 342 (Topic 17).
Topic 4: Africa and the Victorians. English 360S (Topic: Africa and the Victorians) and 360S (Topic 4) may not both be counted.

## E 361K. British Drama to 1642.

A survey of early British drama, usually including works by Marlowe, Kyd, Shakespeare, Jonson, Webster, and Middleton. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 362L. The Contemporary British Novel.

Representative novels, including those of Joyce, Lawrence, and Woolf. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 363. The Poetry of Milton.

All the poetry of Milton, with particular attention to Comus, Samson Agonistes, and Paradise Lost. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 363K. Classic to Romantic.

The theory and practice of Classicism in literature and other arts; the rise of the Romanticists in the eighteenth century. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 364D. Topics in Diverse Perspectives on Language and Culture.

Studies in English with particular attention to linguistic and cultural diversity. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 364M. History of the English Language.

Same as Linguistics 364M. Development of sounds, forms, and vocabulary of the English language from its origins to the present. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 364P. 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. Three lecture hours a week for one semester. English 364P and 395N (Topic 1: Old English) may not both be counted. May be counted as the equivalent to English 364M in fulfilling the requirements for a Bachelor of

Arts degree with a major in linguistics. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 364S. Language and Gender.

Same as Women's and Gender Studies 345 (Topic 17: Language and Gender). Linguistic, social, and political dimensions of gender-related speech differences. Three lecture hours a week for one semester. Only one of the following may be counted: English 346S, Linguistics 373 (Topic: Language and the Sexes), Women's and Gender Studies 345 (Topic 17). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 364T. 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. Three lecture hours a week for one semester. Only one of the following may be counted: English 364T, 376L (Topic: The English Language and Its Social Context), 376L (Topic: The English Language in Its Social Context). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 366K. Shakespeare: Selected Tragedies.

A representative selection of Shakespeare's tragedies. Three lecture hours a week for one semester. Some sections are offered on the lettergrade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 367C. Conference Course in Literature and Language.

For students who wish to work under supervision on specific projects in literature or language. Three conference hours a week for one semester. May be repeated once for credit. Prerequisite: Completion of at least sixty semester hours of coursework, including at least six semester hours of upper-division coursework in English or rhetoric and writing; a University grade point average of at least 3.00; and approval of written application by supervising instructor and the undergraduate faculty adviser.

## E 367E. English Internship.

Research and staff experience working in an appropriate agency or private business. At least twelve hours of fieldwork a week for one semester. May not be counted toward the English major or minor. Offered on the pass/fail basis only. Prerequisite: Completion of at least sixty semester hours of coursework, including at least six semester hours of upper-division coursework in English or rhetoric and writing; a University grade point average of at least 3.00; and approval of written application by the undergraduate faculty adviser.

## E 369. Twentieth-Century Drama.

Ibsen and other major dramatists; tradition and innovation in the substance and form of selected modern plays. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 370. 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. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 370W. Studies in Literature, Culture, and Gender.

Gender as a category of literary and cultural analysis. Texts may include literature, film, popular culture, and other forms. Three lecture hours
a week for one semester. Only one of the following may be counted unless the topics vary: English 320M, 349S, 370W, 376L, 376M, 379M, 379 N . Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

Topic 2: Contemporary Women Authors. Same as African and African Diaspora Studies 374F (Topic 4: Contemporary Women Authors) and Women's and Gender Studies 345 (Topic 15: Contemporary Women Authors).
Topic 8: Gay and Lesbian Literature and Culture. Same as Women's and Gender Studies 345 (Topic 30: Gay and Lesbian Literature and Culture).
Topic 9: Gender, Sexuality, and Migration. Same as Women's and Gender Studies 345 (Topic 39: Gender, Sexuality, and Migration). Only one of the following may be counted: Asian American Studies 320
(Topic: Gender, Sexuality, and Migration), English 370W (Topic 9), 370W (Topic: Cultures of Immigration and Dislocation), Women's and Gender Studies 345 (Topic 39).
Topic 11: Women's Autobiographical Writing. Same as Women's and Gender Studies 345 (Topic 48). 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. Only one of the following may be counted: English 370W (Topic: Women's Autobiographical Writing), 370W (Topic 11), Women's and Gender Studies 345 (Topic: Women's Autobiographical Writing), 345 (Topic 48).

Topic 12: American Literary Masculinities. Same as Women's and Gender Studies 345 (Topic 52). 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. Only one of the following may be counted: English 370W (Topic: American Literary Masculinities), 370W (Topic 12), Women's and Gender Studies 345 (Topic: American Literary Masculinities), 345 (Topic 52). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

## E 371K. Modern and Contemporary Poetry.

Poets that may be studied include Eliot, Auden, Stevens, Thomas, Bishop, Rich, and Merwin. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 372L. The American Renaissance.

Selected writers of the pre-Civil War Romantic movement, including Emerson, Douglass, Fuller, Hawthorne, Melville, Thoreau, Whitman, and others. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 372M. American Realism.

Selected writers of the post-Civil War realistic movement: Howells, Twain, James, Jewett, Freeman, Crane, and others. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 374G. Beowulf.

A word-by-word, line-by-line translation, with special attention to language and context. Three lecture hours a week for one semester. English 374G
and 379 N (Topic: Beowulf) may not both be counted. Prerequisite: English 364P.

## E 374K. Elizabethan Poetry and Prose.

Renaissance thought and culture as revealed in the lyric and narrative poetry and in the prose masterpieces. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 374L. 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. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 375K. English and American Satire.

Theory of satire, with readings in the works of such representative figures as Chaucer, Dryden, Pope, Byron, Twain, and Thurber. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 375L. 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. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 376. 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. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 376M. Studies in Ethnic American Literature.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: English 320M, 349S, 370W, 376L, $376 \mathrm{M}, 379 \mathrm{M}, 379 \mathrm{~N}$. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

Topic 3: Writing Slavery. Same as African and African Diaspora Studies 374F (Topic 6) and Women's and Gender Studies 340 (Topic 31). 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. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Writing Slavery), 374F (Topic 6), English 376M (Topic: Writing Slavery), 376M (Topic 3), Women's and Gender 340 (Topic: Writing Slavery), 340 (Topic 31). Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## Topic 4: Mexican American Modernism.

Topic 5: Contemporary Asian American Novels. Same as Asian American Studies 320 (Topic 3: Contemporary Asian American Novels). Only one of the following may be counted: Asian American Studies 320 (Topic 3), English 376M (Topic 5), 379N (Topic: Contemporary Asian American Novels).
Topic 6: Contemporary Native American Literature. English 376M (Topic 6) and 379N (Topic: 20th-Century Native American Literature) may not both be counted.

Topic 7: Contemporary African American Women's Fiction.
Same as African and African Diaspora Studies 372E (Topic 15) and Women's and Gender Studies 340 (Topic 29). Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Contemporary African American Women's Fiction), 372E (Topic 15), English 376M (Topic: Contemporary African American Women's Fiction), 376M (Topic 7), Women's and Gender Studies 340 (Topic: Contemporary African American Women's Fiction), 340 (Topic 29). Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 8: Black Queer Literature and Film. Same as African and African Diaspora Studies 372E (Topic 13) and Women's and Gender Studies 340 (Topic 47). 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. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic: Black Queer Literature and Film), 372E (Topic 13), 374F (Topic: Black Queer Literature and Film), English 376M (Topic: Black Queer Literature and Film), 376M (Topic 8), Women's and Gender Studies 340 (Topic: Black Queer Literature and Film), 340 (Topic 47).

## E 376R. African American Literature through the Harlem Renaissance.

Same as African and African Diaspora Studies 372E (Topic 4: 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 4), 374F (Topic 1), English 376R. Some sections are offered on the letter-grade basis only. Prerequisite:
Nine semester hours of coursework in English or rhetoric and writing.

## E 376S. African American Literature since the Harlem Renaissance.

Same as African and African Diaspora Studies 372E (Topic 5: 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. Three lecture hours a week for one semester. African and African Diaspora Studies 372E (Topic 5) and English 376S may not both be counted. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 377K. The American Novel after 1920.

Representative works by such writers as Faulkner, Hemingway, Fitzgerald, Larsen, Hurston, Morrison, Bellow, Erdrich, and Tan. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 377M. 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. Three lecture hours a week for one semester. English 324 (Topic: American Novels after 1960) and English 377M may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 678S. 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. For 678SA, the equivalent of five lecture hours a week for one semester; for 678SB, fifteen to eighteen hours of work a day, including weekends. Offered in the summer session only. English 678S and 379M (Topic 2: Shakespeare at Winedale) may not both be counted. Prerequisite: For 678SA, consent of instructor; for 678SB, English 678SA and consent of instructor.

## E 379. 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. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 679H. Honors Tutorial Course.

Research into and development of a thesis topic and proposal followed by the writing and defense of a thesis. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679HA, enrollment in or completion of at least one honors section of an English course, admission to the English Honors Program, and consent of the honors adviser; for 679HB, English 679HA.

## E 379K. American Literature and Thought: 1840-1920.

Such topics as transcendentalism, manifest destiny, Utopian thought, and the impact of the theory of organic evolution. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 379L. Contemporary Drama.

Major playwrights since 1950, such as Williams, Shepard, Beckett, Stoppard, Churchill, Fugard, and Pinter. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 379P. Drama in Performance.

Intensive study of drama through active performance as a means of interpretation and an aid to comprehension. Three lecture hours a week for one semester. English 379M (Topic 6: Modern Drama in Performance) and 379P may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## E 379R. Undergraduate Seminar.

Intensive study of selected topics in English. Three lecture hours a week for one semester. Some sections require additional time for film screenings. English 379R and 379S may not both be counted. Only one of the following may be counted unless the topics vary: English 320M, 376L, 379M, 379N, 379R. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in English.

Topic 1: Complicated Reading: The Adaptation of Film. Topic 2: Fiction and Medievalism. By examining selected works of fiction, as well as some literary criticism, poetry, visual arts, and film, students will explore how the category of 'the medieval' has been constructed, and its imagery activated, in postmedieval settings from the eighteenth century onwards. English 379R (Topic: Fiction and Medievalism) and 379R (Topic 2) may not both be counted.
Topic 3: The Kennedy Assassination: Fact, Fiction, and Fantasy. Subjects include establishing a factual basis regarding different
aspects of the Kennedy assassination; fiction inspired by the assassination; and examining conspiracy theories of the assassination. Only one of the following may be counted: English 379R (Topic: The Kennedy Assassination: Fact, Fiction and Fantasy), 379R (Topic 3), Liberal Arts Honors 350 (Topic: The Kennedy Assassination: Fact, Fiction and Fantasy).
Topic 4: Producing American Literature. English 379R (Topic: Producing American Literature) and 379R (Topic 4) may not both be counted.

## Center for Asian American Studies

## Asian American Studies: AAS

## Lower-Division Courses

## AAS 301. Introduction to Asian American Studies.

Same as American Studies 315 (Topic 1). 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. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Introduction to Asian American Studies), American Studies 315 (Topic 1), Asian American Studies 301, Sociology 308 (Topic: Introduction to Asian American Studies).

## AAS 310. Introductory Topics in Asian American Studies.

An introduction to Asian American studies through a variety of disciplines. Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 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. Only one of the following may be counted: American Studies 315 (Topic: Psychological Perspectives on Asian American Identity), Asian American Studies 310 (Topic: Psychological Perspectives on Asian American Identity), 310 (Topic 1).
Topic 2: Race, Politics, and Identity in Asian America. Same as Government 314 (Topic 7). An introduction to Asian American politics. Subjects include the American political process, and the historic and contemporary role of Asian Americans within that process. Only one of the following may be counted: Asian American Studies 310 (Topic: Race, Identity, and Politics in Asian America), 310 (Topic 2), Government 314 (Topic: Race, Identity and Politics in Asian America), 314 (Topic 7).
Topic 3: Mixed Race Identities. Same as American Studies 315 (Topic 2). 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. Only one of the following may be counted: American Studies 315 (Topic: Mixed Race and the Media), 315 (Topic 2), Asian American Studies 310 (Topic: Mixed Race and the Media), 310 (Topic 3).
Topic 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. Only one of
the following may be counted: American Studies 315 (Topic: Asian American Theatre and Dance), Asian American Studies 310 (Topic: Asian American Theatre and Dance), 310 (Topic 4), Theatre and Dance 311T (Topic: Asian American Theatre and Dance).
Topic 5: Race, Immigration, and Family. Same as American Studies 315 (Topic 3) and Women's and Gender Studies 301 (Topic 24). 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. Only one of the following may be counted: American Studies 315 (Topic: Alternative Family Systems), 315 (Topic 3), Asian American Studies 310 (Topic: Alternative Family Systems), 310 (Topic 5), Women's and Gender Studies 301 (Topic: Alternative Family Systems), 301 (Topic 24).

## AAS 312. Introduction to Asian American History.

Same as History 317L (Topic 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. Asian American Studies 312 and History 317L (Topic 4) may not both be counted. Partially fulfills legislative requirement for American history.

## AAS 314. Asian American Literature and Culture.

Same as English 314V (Topic 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. Three lecture hours a week for one semester. Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## AAS 318Q. Supervised Research.

For Asian American studies majors only. Supervised, student-derived research in Asian American studies. Individual instruction. May be repeated for credit when the research projects vary. Prerequisite: Rhetoric and Writing 306 and consent of the director of the Center for Asian American Studies.

## Upper-Division Courses

## AAS 320. Topics in Asian American Culture, Literature, and Media Studies.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Immigrants, Amusements, and Consumer Culture. Same as American Studies 370 (Topic 25: Immigrants, Amusements, and Consumer Culture). Studies the growth of consumer capitalism as it coincides with the migration and integration of immigrants into American society. Examines the emergence of consumer culture as a force that defines modern American society and traces its developments and current manifestations throughout the world. Prerequisite: Upper-division standing.
Topic 2: Comparative Cultures of Beauty. Same as American Studies 370 (Topic 24: Comparative Cultures of Beauty) and Women's and Gender Studies 345 (Topic 45: Comparative Cultures of Beauty). Examines fashion and beauty as discourses and cultural practices affecting identity, body politics, race, gender, sexuality, and class. Additional prerequisite: Upper-division standing.
Topic 3: Contemporary Asian American Novels. Same as English 376M (Topic 5: Contemporary Asian American Novels). Only one of the following may be counted: Asian American Studies 320 (Topic 3), English 376M (Topic 5), 379N (Topic: Contemporary Asian American

Novels). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## AAS 325. Topics in Asian American Economics, History, and Government.

Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: The Chinese in Diaspora. Same as Asian Studies 361 (Topic 28) and History 350L (Topic 65). 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. For 361, three lecture hours a week for one semester; for 461, four lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Chinese in Diaspora), 325 (Topic 2: The Chinese in Diaspora), Asian Studies 361 (Topic: Chinese in Diaspora), 361, 461 (Topic 28), History 350L (Topic: The Chinese in Diaspora), 350L (Topic 65: The Chinese Diaspora). Additional prerequisite: Upper-division standing.
Topic 3: The Chinese in the United States. Same as Asian Studies 340S and History 340S. A lecture and discussion course on the 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. Only one of the following may be counted: Asian American Studies 325 (Topic: Chinese in the United States), 325 (Topic 3), Asian Studies 340S, History 340S. Partially fulfills the legislative requirement for American history. Prerequisite: Upperdivision standing.
Topic 4: Taiwan: Colonization, Migration, and Identity. Same as Asian Studies 340T and History 340T. 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. Only one of the following may be counted: Asian American Studies 325 (Topic 4), Asian Studies 340T, 361 (Topic: Taiwan: Colonization, Migration, and Identity), History 340T, 364G (Topic: Taiwan: Colonization, Migration, and Identity). Prerequisite: Upperdivision standing.
Topic 5: Asian American Jurisprudence. Same as American Studies 321 (Topic 5: Asian American Jurisprudence) and Government 357M (Topic 9: Asian American Jurisprudence). Introduction to the study of Asian Americans and the law. Examines 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. Additional prerequisite: Upper-division standing.
Topic 6: Cuisine and Culture in Asia. Same as Asian Studies 379 (Topic 7). Explores various themes related to food preparation, distribution, and consumption in the shaping of modern Asian societies, including gender; family; politics and nationalism; political economy of food; immigration; diaspora and cuisine; globalization of food brands and fast food outlets; aesthetics; tourism and travel; and how Asian food is represented in media. Only one of the following may be counted: Asian American Studies 325 (Topic 6); Asian Studies 379 (Topic: Cuisine and Culture in Asia), 379 (Topic 7).
Topic 7: The Two Koreas and the United States. Same as Asian Studies 361 (Topic 24). The political, social, and cultural relationship between North and South Korea, and between the Koreas and the United States, since 1945. Only one of the following may be counted:

Anthropology 324L (Topic: The Two Koreas and the US), Asian American Studies 325 (Topic: The Two Koreas and the US), 325 (Topic 7), Asian Studies 361, (Topic 24), Government 360N (Topic: The Two Koreas and the US), History 364G (Topic: The Two Koreas and the US).

## AAS 330. Topics in Asian American Anthropology, Geography, and Sociology.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Racism and Antiracism. Same as African and African Diaspora Studies 324E. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 324E, 374D (Topic: Racism and Antiracism), 374D (Topic 10), Anthropology 324L (Topic: Racism and Antiracism), Asian American Studies 330 (Topic: Racism and Antiracism), 330 (Topic 2). Additional prerequisite: Upper-division standing.
Topic 4: The Sociology of Race and Work. Same as Sociology 321 R and Women's and Gender Studies 322 (Topic 6). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic: Sociology of Race and Work), 330 (Topic 4), Sociology 321K (Topic: Sociology of Race and Work), 321R, Women's and Gender Studies 322 (Topic: Sociology of Race and Work), 322 (Topic 6). Additional prerequisite: Upper-division standing.
Topic 5: Transnational Korea. Same as Asian Studies 379 (Topic 6 ). 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. Only one of the following may be counted: Anthropology 324L (Topic: Transnational Korea); Asian American Studies 330 (Topic: Transnational Korea), 330 (Topic 5); Asian Studies 379 (Topic: Transnational Korea), 379 (Topic 6).
Topic 6: Urban Unrest. Same as African and African Diaspora Studies 372F (Topic 13), American Studies 321 (Topic 8), Anthropology 324L (Topic 46), and Urban Studies 354 (Topic 14). 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. Only one of the following may be counted: African and African Diaspora Studies 372F (Topic: Urban Unrest), 372F (Topic 13), 374D (Topic: Urban Unrest), American Studies 321 (Topic: Urban Unrest), 321 (Topic 8), Anthropology 324L (Topic: Urban Unrest), 324L (Topic 46), Asian American Studies 330 (Topic: Urban Unrest), 330 (Topic 6), Urban Studies 354 (Topic: Urban Unrest), 354 (Topic 14).

## AAS 335. Topics in Asian American Studies.

Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 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. Only one of the following may be counted: Asian American Studies 335 (Topic: Bridging Community Thru Service-Learning), 335 (Topic 1), Social Work 360K (Topic: Bridging Community Through Service Learning). Additional prerequisite: Upper-division standing.

## AAS 358Q. Supervised Research.

For Asian American studies majors only. Supervised, student-derived research in Asian American studies. Individual instruction. May be repeated for credit when the research projects vary. Prerequisite: Upperdivision standing, Rhetoric and Writing 306, and consent of the director of the Center for Asian American Studies.

## AAS 378. 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. The equivalent of three lecture hours a week for one semester, with additional field hours to be arranged. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and consent of the director of the Center for Asian American Studies.

## AAS 379. Conference Course in Asian American Studies.

Supervised individual study of selected problems in Asian American studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of the director of the Center for Asian American Studies.

## AAS 679H. 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. Conference course for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Asian American Studies Honors Program; for 679HB, Asian American Studies 679HA.

## Center for Mexican American Studies

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Mexican American Studies: MAS

## Lower-Division Courses

## MAS 307. 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. Three lecture hours a week for one semester.

MAS 308. Introduction to Mexican American Policy Studies.
An introduction to the basics of policy analysis, employing demographic and empirical information on the Mexican American and Latino populations in the United States. Current policy issues such as bilingual education, affirmative action, the English-only movement, immigration, Latino consumers, Latino entrepreneurship, and NAFTA. Three lecture hours a week for one semester.

MAS 310 (TCCN: HUMA 1305). Chicanos in American Society.
Same as Sociology 309. Introduction to the study of American character and its bearing on the Chicano experience. Three lecture hours a week for one semester.

## MAS 312 (TCCN: GOVT 2311). Mexican American Politics.

Mexican American political life from 1848 to the present; focuses on Mexican American institutions, values, and political groups. Three lecture hours a week for one semester. Mexican American Studies 312 and 313 may not both be counted. Prerequisite: Three semester hours of lowerdivision coursework in government.

## MAS 313. Latino Politics.

Analysis of issues involving political institutions and policies, with emphasis on Latino politics. Three lecture hours a week for one semester. Mexican American Studies 312 and 313 may not both be counted. Prerequisite: Three semester hours of lower-division coursework in government.

## MAS 314. Mexican American Literature and Culture.

Same as English 314V (Topic 3: Mexican American Literature and Culture). Representative Chicano writers and genres, such as poetry, prose fiction, and theatre. Three lecture hours a week for one semester. English 314V (Topic 3) and Mexican American Studies 314 may not both be counted. May not be substituted for English 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K). Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

MAS 316. History of Mexican Americans in the United States. Same as History 314K. Examines the origin and growth of the Mexican American community in the United States. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history.

## MAS 318. Mexican American Culture.

Same as Anthropology 318L. Mexican American cultural distinctiveness in the areas of social organization, child rearing, food culture, folklore, language, and religion. Three lecture hours a week for one semester.

## MAS 319. Special Topics.

Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary.

Topic 1: Ethnicity and Gender: La Chicana. Same as Sociology 308D and Women's and Gender Studies 301 (Topic 6: Ethnicity and Gender: La Chicana).
Topic 3: Latino Histories. Same as History 317L (Topic 11). Explore the cultures, politics, and policies that shape the many Latino histories in the United States. Only one of the following may be counted: History 317L (Topic: Latino Histories), 317L (Topic 11), Mexican American Studies 319 (Topic: Latino Histories), 319 (Topic 3).
Topic 4: Mexican American Women, 1910-Present. Same as History 317 L (Topic 12) and Women's and Gender Studies 301 (Topic 13).
Examines the history of Mexican and Mexican American women in the

United States from the twentieth century to the present. Only one of the following may be counted: History 317L (Topic: Mexican American Women, 1910-Present), 317L (Topic 12), Mexican American Studies 319 (Topic: Mexican American Women, 1910-Present), 319 (Topic 4), Women's and Gender Studies 301 (Topic: Mexican American Women, 1910-Present), 301 (Topic 13).

MAS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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 in the Center for Mexican 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

MAS 320L. Texas until 1845.
Same as History 320L. A study of Texas from before the European discovery through the exploration and mission periods to status as a Mexican colony and an independent republic. Three lecture hours a week for one semester. Only one of the following may be counted: History 320L, Mexican American Studies 320L, 374 (Topic: Texas until 1845). Three semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Upper-division standing.

MAS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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 in the Center for Mexican American 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. May be repeated for credit when the topics vary.

## MAS 350. Advanced Grammar and Composition for Bilingual/ Bicultural Speakers.

Designed for Hispanic bilingual students whose home language is Spanish, but whose dominant language is English. The principal objective is to learn to write correctly and proficiently and to gain a strong cultural perspective on Latin America. The main focus of the course is on writing discourse, but oral language development is also addressed. Three lecture hours a week for one semester. International Business 372 (Topic 8: Business Spanish) and Mexican American Studies 350 may not both be counted. Prerequisite: Spanish 612 or 312L.

## MAS 361. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Mexican American Studies 307.

## MAS 362. 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. Three lecture hours a week for one semester. Mexican American Studies 362 and 374 (Topic: Mexican American Public Policy Issues) may not both be counted. Prerequisite: Upper-division standing and Mexican American Studies 308.

## MAS 371. Readings in Mexican American Studies.

Supervised readings with parallel work in relevant non-Chicano materials; preparation for Mexican American Studies 372. Individual instruction. Prerequisite: Mexican American Studies 310, 318, and 374; or consent of the director.

## MAS 372. Research Seminar in Mexican American Studies.

Supervised research on a Mexican American topic chosen in consultation with adviser and leading to a full-length essay. Individual instruction. Prerequisite: Mexican American Studies 310, 318, and 374; or consent of the director.

## MAS 373. Independent Research.

Individual instruction. May be repeated for credit. Prerequisite: Mexican American Studies 310, 318, and 374; or consent of the director.

## MAS 374. Special Topics.

Three lecture hours a week for one semester. Additional hours are required for some topics; these topics are identified in the Course Schedule. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Life and Literature of the Southwest--Mexican American. Same as English 342 (Topic 1: Life and Literature of the Southwest-Mexican American). Verse, fiction, travels, and memoirs, to acquaint students with the literature reflecting the social inheritance of Texas and the neighboring territory. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 3: Chicanos: Sociological Perspectives. Anglo-American and Mexican American contacts and relations in the southwestern United States from colonial times to the present; emphasis on social and cultural differences and problems of assimilation. Prerequisite: Upperdivision standing.
Topic 4: Narrative Journalism. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Journalism 335, Latin American Studies 322 (Topic 11: Latino Community Journalism), 322 (Topic 11: Narrative Journalism), Mexican American Studies 374 (Topic 4: Latino Community Journalism), 374 (Topic 4: Narrative Journalism). Prerequisite: Upper-division standing and consent of instructor.
Topic 6: Feature Writing. Same as Latin American Studies 322
(Topic 4: Feature Writing). Procedures in gathering material for feature stories, with stress on newspaper articles; analysis of reader appeal; study of feature story structure; development of style by practice in writing feature stories. Only one of the following may be counted: Journalism 327, Latin American Studies 322 (Topic 4), Mexican American Studies 374 (Topic 6). Prerequisite: Consent of instructor and a passing score on the College of Communication Grammar, Spelling and Punctuation Test.
Topic 8: Mexican Americans in the Schooling Process. Same as Educational Psychology 362 (Topic 4: Mexican Americans in the Schooling Process). Prerequisite: Upper-division standing.
Topic 9: Hispanic Images and Counterimages. Same as Latin American Studies 322 (Topic 1: Hispanic Images and Counterimages) and Radio-Television-Film 359S (Topic 1: Hispanic Images and Counterimages). The critical analysis of Hispanic images in media. Three lecture hours and one two-hour film screening a week for one semester. Only one of the following may be counted: Latin American Studies 322 (Topic 1), Mexican American Studies 374 (Topic 9), Radio-Television-Film 359S (Topic 1). Additional prerequisite: For radio-television-film majors: upper-division standing, Radio-TelevisionFilm 314 or 316, and nine additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing.

Topic 10: Latino Audiences. Same as Latin American Studies 322 (Topic 2: Latino Audiences) and Radio-Television-Film 365 (Topic 2: Latino Audiences). Prerequisite: For radio-television-film majors: upperdivision standing and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305 and nine additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 11: Mass Media and Ethnic Groups. Same as Latin American Studies 322 (Topic 3: Mass Media and Ethnic Groups) and Radio-Television-Film 365 (Topic 3: Mass Media and Ethnic Groups). Prerequisite: For radio-television-film majors: upper-division standing and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305 and nine additional semester hours of lowerdivision coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 14: United States-Mexican Border Relations. Same as Government 337M (Topic 4: United States-Mexican Border Relations) and Latin American Studies 337M (Topic 4: United States-Mexican Border Relations). Prerequisite: Six semester hours of lower-division coursework in government.
Topic 15: Latino Politics. Same as Latin American Studies 337M (Topic 8: Latino Politics) and Government 370K (Topic 2: Latino Politics). Prerequisite: Six semester hours of lower-division coursework in government.
Topic 16: Texas, 1914 to the Present. Same as History 320R and Urban Studies 353 (Topic 2: Texas, 1914 to the Present). The steady dissociation of Texas from its Old South status to a transitional state and a power in national politics. Three semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Upper-division standing.
Topic 17: International Communication: Third World Issues.
Same as Latin American Studies 322 (Topic 7) and Radio-TelevisionFilm 342 (Topic 3). Additional prerequisite: For radio-televisionfilm majors, upper-division standing; consent of instructor; and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305 and nine additional semester hours of lowerdivision coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 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. Only one of the following may be counted: Journalism 340C (Topic 1: Mass Media and Minorities), 341H, Latin American Studies 322 (Topic 10: Minorities and the Media), Mexican American Studies 374 (Topic 22), Urban Studies 354 (Topic: Mass Media and Minorities), Women's and Gender Studies 340 (Topic 21: Minorities and the Media). Prerequisite: Upper-division standing.
Topic 23: Mexican American Indigenous Heritage. Same as Anthropology 322M (Topic 10: Mexican American Indigenous Heritage). The prehistory, history, and contemporary racial understanding of Mexican Americans. Prerequisite: Upper-division standing.
Topic 24: Latinos and Media. Same as Latin American Studies 322 (Topic 12: Latinos and Media) and Radio-Television-Film 365 (Topic 6: Latinos and Media). Prerequisite: For radio-television-film majors, upper-division standing and the following coursework, with a grade of at least C in each course: Radio-Television-Film 305 and nine additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 25: Chicano Educational Struggles. Same as Educational Psychology 362 (Topic 5: Chicano Educational Struggles). Prerequisite: Upper-division standing.

Topic 32: Radical Latinos. Same as American Studies 370 (Topic 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. Only one of the following may be counted: American Studies 370 (Topic Radical Latinos), 370 (Topic 39), Mexican American Studies 374 (Topic: Radical Latinos), 374 (Topic 32). Prerequisite: Upper-division standing.
Topic 33: United States Latino and Latina Ethnographies. Same as Anthropology 324L (Topic 42). Explores past and present anthropological representations of Latinos and Latinas in the United States. Only one of the following may be counted: Anthropology 324L (Topic: U.S. Latino/a Ethnographies), 324L (Topic 42), Mexican American Studies 374 (Topic: U.S. Latino/a Ethnographies), 374 (Topic 33).

Topic 35: Race and Citizenship in United States History. Same as American Studies 370 (Topic 48) and History 350R (Topic 25). Uses primary and secondary sources to analyze how race and citizenship have functioned for populations of color in the United States. Only one of the following may be counted: American Studies 370 (Topic: Race and Citizenship in United States History), 370 (Topic 48), History 350R (Topic: Race and Citizenship in United States History), 350R (Topic 25), Mexican American Studies 374 (Topic: Race and Citizenship in United States History), 374 (Topic 35). Partially fulfills legislative requirement for American history.
Topic 36: The United States in the Civil Rights Era. Same as African and African Diaspora Studies 374D (Topic 17), American Studies 321 (Topic 9), and History 356P. 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. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: The United States in the Civil Rights Era), 374D (Topic 17), American Studies 321 (Topic: The United States in the Civil Rights Era), 321 (Topic 9), History 356P, Mexican American Studies 374 (Topic: The United States in the Civil Rights Era), 374 (Topic 36). Partially fulfills legislative requirement for American history.
Topic 37: United States Catholic History. Same as American Studies 327 (Topic 4), History 365G (Topic 1), and Religious Studies 346 (Topic 5). Examines how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latinos/as. Only one of the following may be counted: American Studies 321 (Topic: United States Catholic History), 327 (Topic 4), History 365G (Topic: United States Catholic History), 365G (Topic 1), Mexican American Studies 374 (Topic: United States Catholic History), 374 (Topic 37), Religious Studies 346 (Topic: United States Catholic History), 346 (Topic 5). Partially fulfills legislative requirement for American history.
Topic 38: Feminist Interventions in Borderlands History. Same as American Studies 370 (Topic 45) and Women's and Gender Studies 340 (Topic 45). 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. Only one of the following may be counted: American Studies 370 (Topic: Feminist Interventions in Borderlands History), 370 (Topic 45), Mexican American Studies 374 (Topic: Feminist Interventions in Borderlands History), 374 (Topic 38), Women's and Gender Studies 340 (Topic: Feminist Interventions in Borderlands History), 340 (Topic 45).
Topic 39: Latina/o Pop. Same as American Studies 370 (Topic 46). Examines how Latinas/os have been a major force in the production of popular culture. Only one of the following may be counted: American Studies 370 (Topic: Latina/o Pop), 370 (Topic 46), Mexican American Studies 374 (Topic: Latina/o Pop), 374 (Topic 39).

## MAS 375. Internship.

Restricted to Mexican American studies majors. Students 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. Under the supervision of a faculty member, students write a report based on the internship project. The equivalent of three lecture hours a week for one semester. Additional weekly meeting times are sometimes required. With consent of the director or academic adviser, may be repeated for credit. Prerequisite: Mexican American Studies 310, 318, and 374; or consent of the director.

## MAS 679H. Honors Tutorial Course.

Restricted to Mexican American studies majors. Supervised research, readings, and writing of a substantial paper on a Mexican American studies topic. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679HA, Mexican American Studies 361, 362, or 372 with a grade of $A$; admission to the Mexican American Studies Honors Program no later than two semesters before expected graduation; a University grade point average of at least 3.00; and a grade point average in Mexican American studies of at least 3.50 ; for 679 HB , Mexican American Studies 679HA.

## Center for European Studies

## European Studies: EUS

## Lower-Division Courses

## EUS 302. Introductory Interdisciplinary Topics in European Studies.

Analysis of various aspects of European culture, science, and technology. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 301, 302, 306, 307, 308. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## EUS 305. Introduction to European Studies.

The myths, ideas, and sociopolitical realities that underpin the intellectual and cultural construction of Europe. Core course. Three lecture hours a week for one semester.

## EUS 306. Introductory Topics in European Anthropology,

 Geography, History, and Sociology.Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 302, 306, 307, 308. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Race and Gender Stereotypes in Germany. Same as German, Scandinavian, and Dutch Studies 311D. 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. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Bad Blood), 306 (Topic 1), German, Scandinavian, and Dutch Studies 311D, Germanic Civilization 301 (Topic: Bad Blood). Topic 2: Introduction to the History and Culture of Spain. Same as Ancient History and Classical Civilization 310 (Topic 1) and History 306 N (Topic 13). The history of Spain from its beginnings in the stone age through the great social and economic upheavals of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Introduction to the History and Culture of Spain), 310
(Topic 1), European Studies 306 (Topic: Introduction to the History and

Culture of Spain), 306 (Topic 2), History 306N (Topic: Introduction to the History and Culture of Spain), 306N (Topic 13).
Topic 3: The Roots of Religious Toleration. Same as History 317N (Topic 1), Jewish Studies 311 (Topic 5), and Religious Studies 306 (Topic 1). Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Roots of Religious Toleration), European Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 3), History 317N (Topic: Roots of Religious Toleration), 317 N (Topic 1), Jewish Studies 311 (Topic: Roots of Religious Toleration), 311 (Topic 5), Religious Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 1).

## EUS 307. Introductory Topics in European Culture, Literature, Art, Music, and Media.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 302, 306, 307, 308. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: The Vampire in Slavic Cultures. Same as Comparative Literature 305 (Topic 2), Russian, East European, and Eurasian Studies 302 (Topic 1), and Slavic 301 (Topic 1). 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. Only one of the following may be counted: Comparative Literature 305 (Topic: The Vampire in Slavic Cultures), 305 (Topic 2), European Studies 307 (Topic: The Vampire in Slavic Cultures), 307 (Topic 1), Russian, East European, and Eurasian Studies 302 (Topic: The Vampire in Slavic Cultures), 302 (Topic 1), Slavic 301 (Topic: The Vampire in Slavic Cultures), 301 (Topic 1).
Topic 2: Introduction To Czech History and Culture: Puppets, Pubs And Polyglots. Same as Czech 301K (Topic 3) and Russian, East European, and Eurasian Studies 302 (Topic 3). 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. Only one of the following may be counted: Czech 301K (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 301K (Topic 3), European Studies 307 (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 307 (Topic 2), Russian, East European, and Eurasian Studies 302 (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 302 (Topic 3).
Topic 4: Movies Go To War. Same as American Studies 315C, Comparative Literature 305 (Topic 3), and German, Scandinavian, and Dutch Studies 311C. 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. Only one of the following may be counted: American Studies 315 (Topic: Movies Go to War, World War I to Vietnam), 315C, Comparative Literature 305 (Topic: Movies Go to War, World War I to Vietnam), 305 (Topic 3), European Studies 307 (Topic: Movies Go to War, World War I to Vietnam), 307 (Topic 4), German, Scandinavian, and Dutch Studies 311C, Germanic Civilization 311 (Topic 2: Movies Go to War, World War I to Vietnam).

## EUS 308. Introductory Topics in European Economics, Government, Business, and Policy.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 302, 306, 307, 308. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## EUS 113. Preparation for Study Abroad in Europe.

One lecture hour a week for one semester. May not be counted by students who have previously taken an international learning seminar. Offered on the pass/fail basis only.

## EUS 318Q. Supervised Research.

Individual instruction.
EUS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

EUS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## EUS 340M. Continuity and Change in Modern France.

Same as French Civilization 340M. Focuses on various social, political, and cultural crises in France from the revolution of 1789 to the present time. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 340M, French 340T, French Civilization 340M. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upperdivision standing.

## EUS 346. Topics in European Anthropology, Geography, History, and Sociology.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 346, 347, 348, 363. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## Topic 1: History of Britain from 1783 through World War I.

Same as History 358M. 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. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 1), History 358M. Additional prerequisite: Upper-division standing.
Topic 2: Great Discoveries in Archaeology. Same as Anthropology 326F. The stories, myths, and people behind some of the great archaeological discoveries. Only one of the following may be counted: Anthropology 324L (Topic: Great Discoveries in Archaeology), Anthropology 326F, European Studies 346 (Topic 2). Prerequisite: Upper-division standing.
Topic 3: Witches, Workers, and Wives. Same as History 343W and Women's and Gender Studies 345 (Topic 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. Prerequisite: Upper-division standing.
Topic 4: Law and Society in Early Modern Europe. Same as History 350L (Topic 57: Law and Society in Early Modern Europe) and

Women's and Gender Studies 340 (Topic 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. Only one of the following may be counted: European Studies 346 (Topic 4), History 350L (Topic 57), Women's and Gender Studies 340 (Topic 13).
Topic 5: Vienna: Memory and the City. American Studies 370 (Topic 41: Vienna: Memory and the City), History 362G (Topic 2: Vienna: Memory and the City), and Urban Studies 354 (Topic 7: Vienna: Memory and the City). Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria. Only one of the following may be counted: American Studies 315 (Topic: Vienna: Memory and the City), 370 (Topic 41), 306 (Topic: Vienna: Memory and the City), 346 (Topic 5), Geography 309 (Topic: Vienna: Memory and the City), Germanic Civilization 311(Topic: Vienna: Memory and the City), History 306N (Topic: Vienna: Memory and the City), 362G (Topic 2), Urban Studies 305 (Topic: Vienna: Memory and the City), 354 (Topic 7). Additional prerequisite: Upper-division standing.
Topic 6: Sport and English Society. Same as Sociology 323M. Restricted to students in the Maymester Abroad Program; contact the University's Study Abroad Office for permission to register for this class. Uses the context of sport to explore the internal divisions around class and region that are central to understanding English identity, particularly the tensions between "the north" and "the south," as well as to discover the origins of American sports such as football and baseball. The equivalent of three lecture hours a week for one semester. Taught in Leeds, England. Only one of the following may be counted: European Studies 346 (Topic: Sport and English Society), 346 (Topic 6), Kinesiology 350, Sociology 321K (Topic: Sport and English Society), 323M. Additional prerequisite: Upper-division standing.
Topic 7: Globalization. Same as Sociology 340C. 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. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Globalization), 346 (Topic 7), Sociology 321 K (Topic: Globalization), 340C. Additional prerequisite: Upper-division standing.
Topic 8: Heretics and Freedom Fighters, 1350-1650. Same as Czech 324 (Topic 4), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic 12), Religious Studies 357 (Topic 12), and Russian, East European, and Eurasian Studies 325 (Topic 28). Explores the theologies, politics, and personal identities that emerged and passed away in this era. Only one of the following may be counted: Czech 324 (Topic: Heretics and Freedom Fighters, 1350-1650), 324 (Topic 4), European Studies 346 (Topic: Heretics and Freedom Fighters, 1350-1650), 346 (Topic 8), Germanic Civilization 327E (Topic: Heretics and Freedom Fighters, 1350-1650), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic: Heretics and Freedom Fighters, 1350-1650), 362G (Topic 12), Religious Studies 357 (Topic: Heretics and Freedom Fighters, 1350-1650), 357 (Topic 12), Russian, East European, and Eurasian Studies 325 (Topic: Heretics and Freedom Fighters, 1350-1650), 325 (Topic 28).
Topic 9: Northern Lands and Cultures. Same as Geography 356T (Topic 4) and Russian, East European, and Eurasian Studies 345 (Topic 6). Develops geographical understanding of the Circumpolar region of the North, an ancient human habitat, home to distinct millennia-old civilizations. Only one of the following may be counted: European Studies 346 (Topic: Northern Lands and Cultures), 346 (Topic 9), Geography 356T (Topic: Northern Lands and Cultures), 356 T (Topic 4), Russian, East European, and Eurasian Studies

345 (Topic: Northern Lands and Cultures), 345 (Topic 6). Additional prerequisite: Upper-division standing.
Topic 10: Women and the Holocaust. Same as Comparative Literature 323 (Topic 19), German, Scandinavian, and Dutch Studies 341F, Jewish Studies 363 (Topic 11), and Women's and Gender Studies 340 (Topic 50). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women's Narratives of the Holocaust and World War II), 323 (Topic 19), European Studies 346 (Topic: Women's Narratives of the Holocaust and World War II), 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Germanic Civilization 323E (Topic: Women's Narratives of the Holocaust and World War II), Jewish Studies 363 (Topic 11), Women's and Gender Studies 340 (Topic: Women's Narratives of the Holocaust and World War II), 340 (Topic 50). Additional prerequisite: Upper-division standing.
Topic 11: The Spanish Inquisition. Same as History 350L (Topic 77), Jewish Studies 364 (Topic 5), and Religious Studies 357 (Topic 10). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: The Spanish Inquisition), 346 (Topic 11), History 350L (Topic: The Spanish Inquisition), 350L (Topic 77), Jewish Studies 364 (Topic: The Spanish Inquisition), 364 (Topic 5), Religious Studies 357 (Topic: The Spanish Inquisition), 357 (Topic 10).
Topic 12: World War II in Eastern Europe. Same as History 350L (Topic 79), Jewish Studies 364 (Topic 11), and Russian, East European, and Eurasian Studies 335 (Topic 19). 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. Only one of the following may be counted: European Studies 346 (Topic: World War II in Eastern Europe), 346 (Topic 12), History 350L (Topic: World War II in Eastern Europe), History 350L (Topic 79), Jewish Studies 364 (Topic: World War II in Eastern Europe), 364 (Topic 11), Russian, East European, and Eurasian Studies 335 (Topic: World War II in Eastern Europe), 335 (Topic 19).
Topic 13: Creation. Same as History 350L (Topic 80) and Religious Studies 373 (Topic 5). Explores the writings of premodern authors as related to creation and early developments in western theology, science, and philosophy. Only one of the following may be counted: European Studies 346 (Topic: Creation), 346 (Topic 13), History 350L (Topic: Creation), 350L (Topic 80), Religious Studies 373 (Topic: Creation), 373 (Topic 5), Women's and Gender Studies 345 (Topic: Creation).
Topic 14: Enlightenment and Revolution. Same as History 350L (Topic 81). Examines the relationship between the intellectual project of the Enlightenment and the political and social transformations that unfolded in western Europe and North America from the beginnings of the Dutch Revolt in the 1560s to the decade following the Paris Commune of 1871. Only one of the following may be counted: Core Texts and Ideas 375 (Topic: Enlightenment and Revolution), European Studies 346 (Topic: Enlightenment and Revolution), 346 (Topic 14), History 350L (Topic: Enlightenment and Revolution), 350L (Topic 81). Topic 15: Early Western Colonialism. Same as History 362G (Topic 5). 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. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Early Western Colonialism), 346 (Topic 15), History 362G (Topic: Early Western Colonialism), 362G (Topic 5).

Topic 16: Eastern Europe in the Twentieth Century. Same as History 362G (Topic 7) and Russian, East European, and Eurasian Studies 335 (Topic 16). Examines the major political, social, and cultural events that shaped Eastern European society in the twentieth century. Only one of the following may be counted: European Studies 346 (Topic: Eastern Europe in the 20th-Century), 346 (Topic 16), History 362G (Topic: Eastern Europe in the 20th-Century), 362G (Topic 7), Russian, East European, and Eurasian Studies 335 (Topic: Eastern Europe in the 20th-Century), 335 (Topic 16).
Topic 17: Introduction to the Holocaust. Same as History 362G (Topic 3), Jewish Studies 364 (Topic 6), and Russian, East European, and Eurasian Studies 335 (Topic 17). Examines the mass killing of Jews and other victims in the context of Nazi Germany's quest for race and space during World War II. Only one of the following may be counted: European Studies 346 (Topic: Introduction to the Holocaust), 346 (Topic 17), History 362G (Topic: Introduction to the Holocaust), 362G (Topic 3), Jewish Studies 364 (Topic: Introduction to the Holocaust), 364 (Topic 6), Middle Eastern Studies 325 (Topic: Introduction to the Holocaust), Russian, East European, and Eurasian Studies 335 (Topic: Introduction to the Holocaust), 335 (Topic 17).
Topic 18: Southeast Europe in the Twentieth Century. Same as History 362G (Topic 9), Jewish Studies 364 (Topic 8), and Russian, East European, and Eurasian Studies 335 (Topic 18). Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century. Only one of the following may be counted: European Studies 346 (Topic: Southeast Europe in the Twentieth Century), 346 (Topic 18), History 362G (Topic: Southeast Europe in the Twentieth Century), 362G (Topic 9), Jewish Studies 364 (Topic: Southeast Europe in the Twentieth Century), 364 (Topic 8), Russian, East European, and Eurasian Studies 335 (Topic: Southeast Europe in the Twentieth Century), 335 (Topic 18).
Topic 19: Regions and Cultures of Europe. Same as Geography 326 and Russian, East European, and Eurasian Studies 345 (Topic 2). Spatial patterns in Europe, with emphasis on cultural, historical, and political geography. Only one of the following may be counted: European Studies 346 (Topic: Regions and Cultures of Europe), 346 (Topic 19), Geography 326, Russian, East European, and Eurasian Studies 345 (Topic 2). Additional prerequisite: Upper-division standing.
Topic 21: Spinoza and Modernity. Same as Core Texts and Ideas 321F, History 362P, Jewish Studies 364 (Topic 9), Philosophy 354 (Topic 7), and Religious Studies 357 (Topic 8). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Spinoza and Modernity), 321F, European Studies 346 (Topic: Spinoza and Modernity), 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362G (Topic: Spinoza and Modernity), 362P, Jewish Studies 364 (Topic: Spinoza and Modernity), 364 (Topic 9), Philosophy 334K (Topic: Spinoza and Modernity), 354 (Topic: Spinoza and Modernity), 354 (Topic 7), Religious Studies 357 (Topic: Spinoza and Modernity), 357 (Topic 8). Additional prerequisite: Upper-division standing.

## EUS 347. Topics in European Culture, Literature, Art, Music, and Media.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 346, 347, 348, 363. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Italian Civilization. Same as Italian Civilization 360. Survey of the social, political, and cultural history of Italy. Taught in English.

Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic 1), Italian Civilization 360. With consent of the undergraduate adviser in the Department of French and Italian, may be counted toward a major in Italian. Additional prerequisite: Upper-division standing.
Topic 3: Introduction to Germanic Religion and Myth. Same as German, Scandinavian, and Dutch Studies 361C and Religious Studies 357 (Topic 17). 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. Three lecture hours a week for one semester. Only one of the following may be counted: English 322 (Topic 2), European Studies 347 (Topic 3), German, Scandinavian, and Dutch Studies 361C, Germanic Civilization 340E (Topic 1), Religious Studies 365 (Topic 2), Religious Studies 357 (Topic 17). Additional prerequisite: Upper-division standing.
Topic 7: The European Novel. Same as English 356. Selected masterpieces of continental fiction in English translation; representative novelists of the nineteenth and twentieth centuries. English 356 and European Studies 347 (Topic 7) may not both be counted. Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 8: Polish Literature and Culture in Film: Nineteenth Century to Contemporary. Same as Comparative Literature 323 (Topic 32), Polish 324 (Topic 2), and Russian, East European, and Eurasian Studies 325 (Topic 27). Study of the cultural and intellectual history represented in the major works of Polish literature in the nineteenth and twentieth centuries. Only one of the following may be counted: Comparative Literature 323 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 323 (Topic 32), European Studies 347 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 347 (Topic 8), Polish 324 (Topic: 19th-CenturyContemporary Polish Literature and Culture in Film), 324 (Topic 2), Russian, East European, and Eurasian Studies 325 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 325 (Topic 27). Additional prerequisite: Upper-division standing.
Topic 9: Modern Czech Literature. Same as Comparative Literature 323 (Topic 9), Czech 330, and Russian, East European, and Eurasian Studies 325 (Topic 30). A study of Czech literature from the 1860s to the present; course is conducted in English. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Modern Czech Literature), 323 (Topic 9), Czech 330, European Studies 347 (Topic: Modern Czech Literature), 347 (Topic 9), Russian, East European, and Eurasian Studies 325 (Topic: Modern Czech Literature), 325 (Topic 30). Additional prerequisite: Upper-division standing.
Topic 10: The Major Works of Dostoevsky. Same as Comparative Literature 323 (Topic 30), Core Texts and Ideas 345 (Topic 5), Russian, East European, and Eurasian Studies 325 (Topic 10), and Russian 360 (Topic 1). Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky. Only one of the following may be counted: Comparative Literature 323 (Topic: The Major Works of Dostoevsky), 323 (Topic 30), Core Texts and Ideas 345 (Topic: Major Works of Dostoevsky), 345 (Topic 5), European Studies 347 (Topic: Major Works of Dostoevsky), 347 (Topic 10), Russian 360 (Topic: Major Works of Dostoevsky), 360 (Topic 1), Russian, East European and Eurasian Studies 325 (Topic: Major Works of Dostoevsky), 325 (Topic 10). Additional prerequisite: Upperdivision standing.
Topic 11: Slavs in the Western Imagination. Same as Comparative Literature 323 (Topic 28), Russian, East European, and Eurasian Studies 325 (Topic 15), and Slavic 324 (Topic 4). Examines representations of Eastern, Western, and Southern Slavs in Western

Europe and North America. Only one of the following may be counted: Comparative Literature 323 (Topic: Slavs in the Western Imagination), 323 (Topic 28), European Studies 347 (Topic: Slavs in the Western Imagination), 347 (Topic 11), Russian, East European, and Eurasian Studies 325 (Topic: Slavs in the Western Imagination), 325 (Topic 15), Slavic 324 (Topic: Slavs in the Western Imagination), 324 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 12: Social Dramas of Henrik Ibsen. Same as Comparative Literature 323 (Topic 17), English 322 (Topic 17), German, Scandinavian, and Dutch Studies 341D, and Women's and Gender Studies 345 (Topic 14). 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 topics 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Social Dramas of Henrik Ibsen), 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic: Social Dramas of Henrik Ibsen), 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, Scandinavian 323 (Topic 2), Women's and Gender Studies 345 (Topic 14). Additional prerequisite: Upper-division standing.
Topic 13: Films of Ingmar Bergman. Same as Comparative Literature 323 (Topic 11) and German, Scandinavian, and Dutch Studies 331C. An introduction to the films of Ingmar Bergman. Only one of the following may be counted: Comparative Literature 323 (Topic: Films of Ingmar Bergman), 323 (Topic 11), English 322 (Topic 18), European Studies 347 (Topic: Films of Ingmar Bergman), 347 (Topic 13), German, Scandinavian, and Dutch Studies 331C, Scandinavian 327 (Topic 9). Additional prerequisite: Upper-division standing.
Topic 14: Hans Christian Andersen. Same as Comparative Literature 323 (Topic 12) and German, Scandinavian, and Dutch Studies 341E. 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Hans Christian Andersen), 323 (Topic 12), English 322 (Topic 19), European Studies 347 (Topic: Hans Christian Andersen), 347 (Topic 14), German, Scandinavian, and Dutch Studies 341E, Germanic Civilization 323E (Topic 4), Scandinavian 373 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 15: Isak Dinesen/Karen Blixen. Same as Comparative Literature 323 (Topic 14), German, Scandinavian, and Dutch Studies 341G, and Women's and Gender Studies 345 (Topic 13). 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Isak Dinesen/Karen Blixen), 323 (Topic 14), European Studies 347 (Topic: Isak Dinesen/ Karen Blixen), 347 (Topic 15), German, Scandinavian, and Dutch Studies 341G, Germanic Civilization 323E (Topic 1), Scandinavian 373 (Topic 6), Women's and Gender Studies 345 (Topic 13). Additional prerequisite: Upper-division standing.
Topic 16: Contemporary Scandinavian Stories. Same as Comparative Literature 323 (Topic 10) and German, Scandinavian, and Dutch Studies 341J. An analysis of contemporary Scandinavian literature and films, how they reflect Scandinavian reality, and how Scandinavian identity is created through sports, food, and politics. Only one of the following may be counted: Comparative Literature 323 (Topic: Contemporary Scandinavian Stories), 323 (Topic 10), European Studies 347 (Topic: Contemporary Scandinavian Stories), 347 (Topic 16), German, Scandinavian, and Dutch Studies 341J,

Germanic Civilization 323E (Topic: Contemporary Scandinavian Stories), Scandinavian 373 (Topic: Contemporary Scandinavian Stories). Additional prerequisite: Upper-division standing.
Topic 17: The Scandinavian Contribution to World Literature. Same as Comparative Literature 323 (Topic 16) and German, Scandinavian, and Dutch Studies 341K. Close readings of the most influential Scandinavian texts, including works by Nobel Prizewinning 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. Only one of the following may be counted: Comparative Literature 323 (Topic: The Scandinavian Contribution to World Literature), 323 (Topic 16), European Studies 347 (Topic: The Scandinavian Contribution to World Literature), 347 (Topic 17), German, Scandinavian, and Dutch Studies 341K, Germanic Civilization 323E (Topic: The Scandinavian Contribution to World Literature), Scandinavian 373 (Topic: The Scandinavian Contribution to World Literature). Additional prerequisite: Upper-division standing.
Topic 18: Birgitta, Hildegard, and Margery. Same as German, Scandinavian, and Dutch Studies 361D, Religious Studies 357 (Topic 15), and Women's and Gender Studies 340 (Topic 51). 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 visionary women will be explored in depth. Only one of the following may be counted: English 322 (Topic: Birgitta, Hildegard, and Margery), European Studies 347 (Topic: Birgitta, Hildegard, and Margery), 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, Germanic Civilization 327E (Topic 10), Religious Studies 357 (Topic: Birgitta, Hildegard, and Margery), 357 (Topic 15), Scandinavian 373 (Topic 8), Women's and Gender Studies 340 (Topic: Birgitta, Hildegard, and Margery), 340 (Topic 51). Additional prerequisite: Upper-division standing.
Topic 19: Tolerance in Dutch Culture. Same as German, Scandinavian, and Dutch Studies 361E and Women's and Gender Studies 340 (Topic 37). 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. Only one of the following may be counted: European Studies 347 (Topic: Dutch Culture: Too tolerant?), 347 (Topic 19), German, Scandinavian, and Dutch Studies 361E, Germanic Civilization 327E (Topic: Dutch Culture: Too tolerant?), Women's and Gender Studies 340 (Topic: Dutch Culture: Too tolerant?), 340 (Topic 37). Additional prerequisite: Upper-division standing.

Topic 20: Squaring the Vienna Circle. Same as Comparative Literature 323 (Topic 18) and German, Scandinavian, and Dutch Studies 361F. 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Squaring the Vienna Circle), 323 (Topic 18), European Studies 347 (Topic: Squaring the Vienna Circle), 347 (Topic 20), German, Scandinavian, and Dutch Studies 361F, Germanic Civilization 362E (Topic: Squaring the Vienna Circle), Philosophy 327 (Topic: Squaring the Vienna Circle), 354 (Topic: Squaring the Vienna Circle). Additional prerequisite: Upperdivision standing.
Topic 21: European Folktale. Same as German, Scandinavian, and Dutch Studies 341C. Examination of a wide selection of collected Indo-European folktales as well as numerous perspectives for understanding, interpreting, and applying these tales. Frameworks
for analysis ed include formalist and structuralist; nationalist and aesthetic; mythic and archetypal; socio-historical; psychoanalytical and therapeutic; and feminist and gender studies. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: European Folktale), European Studies 307 (Topic: European Folktale), 347 (Topic 21), German, Scandinavian, and Dutch Studies 341C, Germanic Civilization 301 (Topic: European Folktale), Scandinavian 302 (Topic: European Folktale). Additional prerequisite: Upper-division standing.
Topic 22: The Russian Novel. Same as Comparative Literature 323 (Topic 29), Core Texts and Ideas 345 (Topic 6), Russian, East European, and Eurasian Studies 325 (Topic 9), and Russian 356 (Topic 1). A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century. Only one of the following may be counted: Comparative Literature 323 (Topic: The Russian Novel), 323 (Topic 29), Core Texts and Ideas 345 (Topic: The Russian Novel), 345 (Topic 6), English 322 (Topic 37), European Studies 347 (Topic 22), Russian 356 (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic 9). Additional prerequisite: Upper-division standing.

## EUS 348. Topics in European Economics, Government, Business, and Policy.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 346, 347, 348, 363. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Governments and Politics of Eastern Europe. Same as Government 324 J and Russian, East European, and Eurasian Studies 335 (Topic 2: Governments and Politics of Eastern Europe). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic 1), Government 324 J , Russian, East European, and Eurasian Studies 335 (Topic 2). Additional prerequisite: Six semester hours of lower-division coursework in government.
Topic 2: International Trade. Same as International Business 350. Study of the principles, policies, and problems of the international exchange of goods and investments. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 339K, European Studies 348 (Topic 2), International Business 320F, 350. Additional prerequisite: Upper-division standing.

## EUS 350. Governments and Politics of Western Europe.

Same as Government 324L. 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. Three lecture hours a week for one semester. European Studies 350 and Government 324L may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

## EUS 356. Germany and Europe since 1945.

Restricted to students participating in the summer program in Wuerzburg, Germany. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing and consent of instructor.

## EUS 358Q. Supervised Research.

Individual instruction. Prerequisite: Upper-division standing.
EUS 362. Independent Research in European Studies.
Tutorially directed research on a modern European topic. Conference course. Required for the concentration in European studies. May be repeated for credit. Prerequisite: Upper-division standing, admission to the European studies program, and consent of instructor.

EUS 363. Interdisciplinary Topics in European Studies.
An analysis of various aspects of European culture, science, and technology. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 346, 347, 348, 363. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## EUS 375. 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. Individual instruction. Prerequisite: Upper-division standing, admission to the European studies major, and consent of instructor.

## Department of French and Italian

In all French civilization and Italian civilization courses, both lectures and readings are in English. In French 301, lectures are in English and readings are in French. All other courses are conducted primarily in the foreign language.

Students with knowledge of either language must take appropriate steps to determine at which level they may begin work at the University. Students with transfer credit for college work done at another institution may start at the next higher level here. All other students with knowledge of either language are required to take the placement test administered by the Center for Teaching and Learning for placement in French or the departmentally administered classification test for placement in Italian.

Students are urged to consult departmental advisers about any problem either with placement or with credit by examination.

Students who wish to continue their study of French or Italian may consult departmental advisers about appropriate upper-division courses and prerequisites.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## French: FR

## Lower-Division Courses

## FR 301. French for Graduate Students in Other Departments.

No auditors permitted. Intensive reading course for graduate students, emphasizing basic grammar and vocabulary with translation practice. Three lecture hours a week for one semester. The symbol CR fulfills the foreign language requirement for the Doctor of Philosophy degree in some departments. May not be used to fulfill the foreign language requirement for any bachelor's degree. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

## FR 601C. Beginning French.

An intensive beginning course with an emphasis on basic skills: listening, speaking, reading, and writing. Six lecture hours a week for one semester. Only one of the following may be counted: French 601C, 604, 506. Only one of the following may be counted: French 601C, 604, 507, 508K.

## FR 604. Accelerated First-Year French.

Designed for students of high motivation. A six-hour course comparable to French 506 and 507. Six lecture hours a week for one semester. Only one of the following may be counted: French 601C, 604, 506. Only one of the following may be counted: French 601C, 604, 507, 508K.

## FR 506 (TCCN: FREN 1511). First-Year French I.

Emphasis on basic skills: listening, speaking, reading, and writing. Designed for students with no previous coursework in French. Five lecture hours a week for one semester. Only one of the following may be counted: French 601C, 604, 506.

## FR 507 (TCCN: FREN 1512). First-Year French II.

Five lecture hours a week for one semester. Only one of the following may be counted: French 601C, 604, 507, 508K. Prerequisite: French 506 completed at the University with a grade of at least C.

## FR 508K. Alternate First-Year French II.

An accelerated review of material covered in French 506, followed by study of new material covered in French 507. Five lecture hours a week for one semester. Only one of the following may be counted: French 601C, 604, 507, 508K. Prerequisite: Transfer credit or credit by examination for French 506; or credit for French 506 earned at the University more than one calendar year prior to registering, with a grade of at least $C$.

## FR 611C. 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. Six lecture hours a week for one semester. Only one of the following may be counted: French 611C, 612, 312K. French 310L and 611C may not both be counted. French 611C and 612 may not both be counted. French 611 C and 312 L may not both be counted. Prerequisite: French 601C, 604, 507, or 508 K with a grade of at least $C$.

## FR 612. Accelerated Second-Year French: Four Skills.

Designed for students of high motivation. A six-hour course comparable to French 312K and 312L combined. Six lecture hours a week for one semester. Only one of the following may be counted: French 310L, 612, $312 \mathrm{~L}, 312 \mathrm{~N}$. Only one of the following may be counted: French 611C, 612, 312K. French 611C and 612 may not both be counted. Prerequisite: French 604,507 , or 508 K with a grade of at least C .

## FR 312K (TCCN: FREN 2311). Second-Year French I: Four

 Skills.Listening, speaking, reading, and writing at the second-year level. Three lecture hours a week for one semester. Only one of the following may be counted: French 611C, 612, 312K. Prerequisite: French 604, 507, or 508K with a grade of at least $C$.

FR 312L (TCCN: FREN 2312). Second-Year French II: Four Skills.
Listening, speaking, reading, and writing at the advanced, second-year level. Three lecture hours a week for one semester. Only one of the following may be counted: French 310L, 612, 312L, 312N. French 611C and 312 L may not both be counted. Prerequisite: French 312 K with a grade of at least $C$.

## FR 317C. Enhancing French Skills.

Listening, speaking, reading, and writing course designed to provide additional preparation for upper-division French courses. Three lecture hours a week for one semester. Prerequisite: French 611C with a grade of at least $C$.

## FR 118L. Practice in Spoken French.

Designed to be taken concurrently with French 317C. Two lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: French 611 C or 312 K with a grade of at least C .

FR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## FR 320E. 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. Three lecture hours a week for one semester. Prerequisite: French 612, 312L, (312N), or 317C with a grade of at least C.

## FR 120M. Advanced Practice in Spoken French I.

Two lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: French 612, 312L, (312N), or 317C with a grade of at least C.

## FR 120N. Advanced Practice in Spoken French II.

Two lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Completion of at least one upper-division French course, or equivalent proficiency.

## FR 322E. 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. Three lecture hours a week for one semester. Prerequisite: French 320E.

## FR 324L. Practical Phonetics.

A thorough review of French phonetics, with emphasis on improving production and understanding of spoken French. Three lecture hours a week for one semester. Prerequisite: French 612, 312L, (312N), or 317C with a grade of at least $C$.

## FR 326K. Introduction to French Literature I: From the Middle Ages through the Eighteenth Century.

Introduction to the reading and analysis of representative texts, with some attention to cultural and historical background. Three lecture hours a week for one semester. Prerequisite: French 320E.

## FR 326L. Introduction to French Literature II: From the French Revolution to the Present.

Introduction to the reading and analysis of representative texts, with some attention to cultural and historical background. Three lecture hours a week for one semester. Prerequisite: French 320E.

FR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## FR 130D. French across Disciplines.

Students read and discuss French language materials related to the subject matter of another designated course. One lecture hour a week for one semester. Prerequisite: Upper-division standing and three semester hours of upper-division coursework in French.

## FR 330K. Studies in French Language and Cultures.

Topics with a focus on language or culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: French 320E.

Topic 1: Scientific French.
Topic 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. French 330K (Topic: French Cuisine) and 330K (Topic 2) may not both be counted.

## FR 340C. 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. Three lecture hours a week for one semester. Prerequisite: French 320E.

## FR 340P. 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. Three lecture hours a week for one semester. Prerequisite: French 320E.

## FR 340T. France and the Francophone World Today.

An introduction to life in France and francophone regions through the study of contemporary society and culture. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 340M, French 340T, French Civilization 340M. Prerequisite: French 320E.

## FR 342C. French for Business.

Development of the ability to function in French in business-related situations, both orally and in writing. Three lecture hours a week for one semester. Prerequisite: French 320E.

## FR 348. 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. The equivalent of three lecture hours a week for one semester. Prerequisite: French 320E.

## FR 355. Topics in Medieval and Renaissance French Literature.

Study of literary texts from the Middle Ages and the Renaissance. Topics may focus on a specific writer or period, a genre, or a theme. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in French.

## FR 356. Topics in French Literature of the Baroque, Classicism, and the Enlightenment.

Study of literary texts of the seventeenth-century baroque and classical periods and the eighteenth-century Enlightenment. Topics may focus on a specific writer or period, a literary mode or movement, a genre, or a theme. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upperdivision coursework in French.

## FR 357. Topics in French Literature from the Nineteenth Century to the Present.

Study of literary texts since the French revolution. Topics may focus on a specific writer or period, a literary mode or movement, a genre, or a theme. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upperdivision coursework in French.

## FR 358. Seminar in French and Francophone Studies.

Topics in literature or culture, with a focus on study in depth or on synthesis. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upperdivision coursework in French.

## FR 359. Topics in French Linguistics.

Advanced introduction to linguistic analysis of French. Topics may include analysis of contemporary French, introduction to French linguistics, contrastive analysis of French and English, and advanced French grammar. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upperdivision coursework in French.

## FR 364L. Introduction to French Linguistics.

Introduction to the syntactic, phonological, morphological, lexical, historical, and applied aspects of French linguistics. Three lecture hours a week for one semester. Prerequisite: Six semester hours of upper-division coursework in French.

## FR 165K, 265K, 365K. Conference Course.

Supervised individual study of selected problems in French language and literature. Prerequisite: French 612, 312L, (312N), or 317C; and consent of instructor.

## FR 371L. Advanced Written and Oral Composition.

Designed to guide students toward smooth and effective written and oral expression; weekly compositions on assigned topics; periodic oral presentations. Three lecture hours a week for one semester. Prerequisite: French 320E and 322E.

## FR 372. 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. Three lecture hours a week for one semester. Prerequisite: French 320E and 322E.

## FR 379H. 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. Conference course. Prerequisite: Admission to the French Honors Program.

## French Civilization: F C Lower-Division Courses

F C 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## F C 320. The French Heritage.

Introduction to French civilization: architecture, painting, music, and social and political history. Given in English; requires no knowledge of French. Three lecture hours a week for one semester. May not be counted toward a major or minor in French. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upper-division standing.

F C 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## F C 339. The Development of the French Film.

Films in French, with subtitles in English; lectures in English. Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. English 322 (Topic 20: The Development of the French Film) and French Civilization 339 may not both be counted. Prerequisite: Upper-division standing.

## F C 340M. Continuity and Change in Modern France.

Same as European Studies 340M. Focuses on various social, political, and cultural crises in France from the revolution of 1789 to the present time. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 340M, French 340T, French Civilization 340M. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upperdivision standing.

F C 345. Studies in the Cultures of French-Speaking Peoples. Lectures and readings in English. Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## Topic 1: The Cultural and Intellectual History of France and Germany, 1870 to 1945.

Topic 2: Doing Business in France. Designed to help students cross cultural boundaries whether they are planning on living abroad as a student, an intern, or an employee. A combined study of the obvious elements of a culture known as "big C culture" and the opaque aspects of culture known as "small c culture." Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Doing Business in France), French Civilization 345 (Topic: Doing Business in France), 345 (Topic 2).

## F C 349. French Literature in Translation.

Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing.

Topic 2: Fictions of the Self and Other. Same as Core Texts and Ideas 345 (Topic 4). Focuses on representative works from nineteenthand twentieth-century French fiction, from Balzac's Realism to the present. Examines literature in its relation to history, culture, and society, with special attention to both form and style in the development of the novel, poetry, and theatre. Only one of the following may be counted: Comparative Literature 323 (Topic: Fictions of the Self and

Other), Core Texts and Ideas 345 (Topic: Fictions of the Self and Other), 345 (Topic 4), European Studies 347 (Topic: Fictions of the Self and Other), French Civilization 349 (Topic: Fictions of the Self and Other), 349 (Topic 2), Women's and Gender Studies 345 (Topic: Fictions of the Self and Other). Additional prerequisite: Upper-division standing.

## Italian: ITL

## Lower-Division Courses

## ITL 601C. Beginning Italian.

An intensive beginning course with an emphasis on basic skills: listening, speaking, reading, and writing. Six lecture hours a week for one semester. Only one of the following may be counted: Italian 601C, 604, 506. Only one of the following may be counted: Italian 601C, 604, 507.

## ITL 604. Accelerated First-Year Italian.

Designed for students of high motivation. A six-hour course comparable to Italian 506 and 507 . Six lecture hours a week for one semester. Only one of the following may be counted: Italian 601C, 604, 506. Only one of the following may be counted: Italian 601C, 604, 507.

## ITL 305. Introduction to Italian Language and Culture.

An introductory course in Italian language and culture taught in CastiglionFiorentino, Italy. Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Designed for students studying abroad who wish to receive University credit.

ITL 506 (TCCN: ITAL 1511). First-Year Italian I: Language and Culture.
Grounding in the basic skills: listening, speaking, reading, and writing; one class hour a week devoted to Italian cultural topics. Five lecture hours a week for one semester. Only one of the following may be counted: Italian 601C, 604, 506.

## ITL 507 (TCCN: ITAL 1512). First-Year Italian II: Language and Culture.

Emphasis on basic skills: listening, speaking, reading, and writing; one class hour a week devoted to Italian cultural topics. Five lecture hours a week for one semester. Only one of the following may be counted: Italian 601C, 604, 507. Prerequisite: Italian 506 with a grade of at least C.

## ITL 611C. 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. Six lecture hours a week for one semester. Only one of the following may be counted: Italian 611C, $612,312 \mathrm{~K}$. Only one of the following may be counted: Italian 611C, 612, 312L. Prerequisite: Italian 601C, 604, or 507 with a grade of at least C.

## ITL 612. Accelerated Second-Year Italian.

Comparable to Italian 312K and 312L combined. Intensive work in writing, reading, and speaking at the second-year level. Six lecture hours a week for one semester. Only one of the following may be counted: Italian 611C, $612,312 \mathrm{~K}$. Only one of the following may be counted: Italian 611C, 612, 312L. Prerequisite: Italian 604 or 507 with a grade of at least C.

## ITL 312K (TCCN: ITAL 2311). Second-Year Italian I.

Listening, speaking, reading, and writing at the second-year level. Three lecture hours a week for one semester. Only one of the following may be counted: Italian 611C, 612, 312K. Prerequisite: Italian 604 or 507 with a grade of at least $C$.

ITL 312L (TCCN: ITAL 2312). Second-Year Italian II.
Listening, speaking, reading, and writing at the advanced second-year level. Three lecture hours a week for one semester. Only one of the following may be counted: Italian 611C, 612, 312L. Prerequisite: Italian 312 K with a grade of at least C .

## ITL 317C. 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. Three lecture hours a week for one semester. Prerequisite: Italian 611C with a grade of at least C.

## ITL 118K. Practice in Spoken Italian I.

Designed to be taken concurrently with Italian 312K. Two lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Italian 604 or 507 with a grade of at least C.

## ITL 118L. Practice in Spoken Italian II.

Designed to be taken concurrently with Italian 312L. Two lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Italian 611C or 312 K with a grade of at least C.

ITL 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## ITL 321. Introduction to Italian Literature.

Reading and analysis of literature, literary criticism, textual analysis. Three lecture hours a week for one semester. Italian 321 and 326 K may not both be counted. Italian 321 and 326L may not both be counted. Prerequisite: Italian 328 with a grade of at least C.

## ITL 322L. Tradition and Change in Contemporary Italy.

An analysis of Italy's trends and of conflicting values in its political, economic, and social development. Three lecture hours a week for one semester. Prerequisite: Three semester hours of upper-division coursework in Italian.

## ITL 326K. Introduction to Italian Literature I: From the Middle Ages to the Eighteenth Century.

Introduction to the reading and analysis of representative texts, with some attention to cultural and historical background. Three lecture hours a week for one semester. Italian 321 and 326K may not both be counted. Prerequisite: Credit or registration for Italian 328.

## ITL 326L. Introduction to Italian Literature II: From the Eighteenth Century to the Present.

Introduction to the reading and analysis of representative texts, with some attention to cultural and historical background. Three lecture hours a week for one semester. Italian 321 and 326L may not both be counted. Prerequisite: Credit or registration for Italian 328.

## ITL 328. Composition and Conversation.

Focuses on idioms, grammar, syntax, and style. Three lecture hours a week for one semester. Prerequisite: Italian 611C, 612, or 312L with a grade of at least $C$.

## ITL 329. Advanced Composition and Conversation.

Advanced work in writing and speech, based on current events and contemporary readings. Three lecture hours a week for one semester. Prerequisite: Italian 328.

ITL 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## ITL 130D. Italian across Disciplines.

Students read and discuss Italian language materials related to the subject matter of another designated course. One lecture hour a week for one semester. Prerequisite: Upper-division standing, three semester hours of upper-division coursework in Italian, and consent of instructor.

## ITL 330K. Studies in Italian Language.

Study in specific areas of Italian language. Topics may include history of the Italian language, applied Italian linguistics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Italian 328.

Topic 1: Italian of the Third Millennium: Change and Variation in Contemporary Italian. An analysis of how different types of linguistic material such as the language of the media, bureaucracy, comics, and advertising have changed written and spoken Italian over the last fifty years, with an emphasis on the how these changes have reduced the divide between standard and nonstandard varieties. Italian 330K
(Topic: Change/Variation in Contemporary Italian) and 330K (Topic 1) may not both be counted.

## ITL 331. Topics in Italian Culture.

Analysis of Italian culture. Texts include literature, film, popular culture, and other forms. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Italian 328.

## ITL 348. 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. Three lecture hours a week for one semester, with additional rehearsal hours to be arranged. Prerequisite: The following coursework with a grade of at least C in each: Italian 321 and 328, or Italian 326K and 326L.

## ITL 365. 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. Conference course. Prerequisite: Upper-division standing and consent of the undergraduate adviser or the chair. Italian majors may take conference courses only in exceptional cases.

## ITL 375. Studies in Italian Literature.

Intensive examination of a period or a major writer. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Prerequisite: The following coursework with a grade of at least C in each: Italian 321 and 328, or Italian 326K and 326L.

Topic 1: Writing Fascism: Writing the Resistance. Examines major novels dealing with the Italian narrative on World War II and the resistance. Italian 375 (Topic: Writing Fascism: Writing the Resistance) and 375 (Topic 1) may not both be counted.
Topic 2: The Anti-hero in the Twentieth-Century Italian Novel. Only one of the following may be counted: European Studies 347 (Topic: Antihero in Twentieth-Century Italian Novel), Italian 375 (Topic: Antihero in Twentieth-Century Italian Novel), 375 (Topic 2).
Topic 3: Sicily in Literature and Film. An examination of Sicilian culture through novels and films. Only one of the following may be counted: European Studies 347 (Topic: Sicily in Literature and Film), Italian 375 (Topic: Sicily in Literature and Film), 375 (Topic 3).
Topic 4: Neorealism and its Legacy. An analysis of the legacy of neorealism in Italian literature and cinema from approximately from the late 1940s to the early 1950s. Italian 375 (Topic: Neorealism and its Legacy) and 375 (Topic 4) may not both be counted.

## ITL 379H. 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. Conference course. Prerequisite: Admission to the Italian Honors Program.

## Italian Civilization: ITC

## Lower-Division Courses

ITC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

ITC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## ITC 349. Italian Literature in Translation.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

[^5]literature and how its author explores the fundamental elements of the human condition - love and desire, power and politics, virtue and fortune - while at the same time exposing the ambiguities of language and the pitfalls of representation. Only one of the following may be counted: Core Texts and Ideas 345 (Topic: Boccaccio's Decameron), 345 (Topic 1), European Studies 347 (Topic: Boccaccio's Decameron), Italian Civilization 349 (Topic: Boccaccio's Decameron), 349 (Topic 6), Women's and Gender Studies 345 (Topic: Boccaccio's Decameron).

## ITC 360. Italian Civilization.

Same as European Studies 347 (Topic 1: Italian Civilization). Survey of the social, political, and cultural history of Italy. Taught in English. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic 1), Italian Civilization 360. With consent of the undergraduate adviser in the Department of French and Italian, may be counted toward a major in Italian. Prerequisite: Upperdivision standing.

## Department of Geography and the Environment

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Geography: GRG

Lower-Division Courses
GRG 301C (TCCN: GEOG 1301). The Natural Environment.
Geomorphic processes that shape the earth's surface; origin and evolution of landforms. Groundwater and water resources. Pedogenesis and soil properties. Three lecture hours and one and one-half laboratory hours a week for one semester, and a one-day field trip.

## GRG 301K (TCCN: GEOL 1347). Weather and Climate.

A survey of meteorological phenomena and climatological processes of the earth. Three lecture hours a week for one semester.

## GRG 302P. Topics in Cultural Geography.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## GRG 303P. Topics in Physical Geography.

Three lecture hours or two lecture hours and one discussion hour a week for one semester. Additional hours may be required for some topics. Only one of the following may be counted unless the topics vary: Geography 303P, 304P, 309. May be repeated for credit when the topics vary.

## GRG 304E. Environmental Science: A Changing World.

Surveys the major global environmental concerns affecting the Earth and its residents from the perspectives of the environmental sciences. Three lecture hours and one and one-half laboratory hours a week for one semester.

## GRG 304P. Topics in Geographical Methods.

Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted unless the topics vary: Geography 303P, 304P, 309. May be repeated for credit when the topics vary.

GRG 305 (TCCN: GEOG 1303). 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. Three lecture hours and one laboratory hour a week for one semester.

## GRG 306C. 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. Three lecture hours a week for one semester.

## GRG 307C. Introduction to Urban Studies.

Same as Urban Studies 301. A multidisciplinary study of cities and complex urban environments; historical and contemporary issues from both national and international perspectives. Three lecture hours a week for one semester.

## GRG 309. Topics in Human Geography.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Geography 303P, 304P, 309. May be repeated for credit when the topics vary.

## GRG 310C. 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. Three lecture hours a week for one semester.

## GRG 319. Geography of Latin America.

Same as Latin American Studies 319. Adaptations to population growth and spatial integration in cultural landscapes of great natural and ethnic diversity; problems of frontiers and cities. Three lecture hours a week for one semester.

GRG 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## GRG 320K. 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. Three lecture hours a week for one semester, with one field trip to be arranged. Prerequisite: Upper-division standing.

## GRG 323K. South America: Nature, Society and Sustainability.

Same as Latin American Studies 330 (Topic 3: Geography of South America). 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. Prerequisite: Upper-division standing.

## GRG 325. Geography of Texas.

Texas as an environmental and cultural borderland: as a transition zone between plains and mountains, humid and arid, South and West, AngloAmerica and Latin America. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 326. Regions and Cultures of Europe.

Same as European Studies 346 (Topic 19) and Russian, East European, and Eurasian Studies 345 (Topic 2). Spatial patterns in Europe, with emphasis on cultural, historical, and political geography. Only one of the following may be counted: European Studies 346 (Topic: Regions and Cultures of Europe), 346 (Topic 19), Geography 326, Russian, East European, and Eurasian Studies 345 (Topic 2). Prerequisite: Upperdivision standing.

## GRG 327. Geography of the Former Soviet Union.

Same as Russian, East European, and Eurasian Studies 345 (Topic 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 328. Geography of the Middle East.

Same as Middle Eastern Studies 341 (Topic 1: Geography of the Middle East). Major elements of physical and social environment in the region extending from Egypt to Afghanistan. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 328, Middle Eastern Studies 322K (Topic 3: Geography of the Middle East), 341 (Topic 1). Prerequisite: Upper-division standing.

GRG 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## GRG 331. Geography of Asia.

Natural regions and cultural landscapes of Asia, excluding the former Soviet Union. Three lecture hours a week for one semester. Asian Studies 331 and Geography 331 may not both be counted. Prerequisite: Upperdivision standing.

## GRG 331K. Nature, Society, and Adaptation.

Same as Anthropology 324L (Topic 17: Cultural Ecology). 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 333C. Severe and Unusual Weather.

In-depth discussion of inclement weather phenomena (tornadoes, tropical cyclones, floods, drought) and their effects on human beings, as well as the climatology of those types of weather events. Three lecture hours
a week for one semester, with additional field hours to be arranged. Prerequisite: Geography 301K.

## GRG 333K. 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. Three lecture hours a week for one semester. Geography 333K and 356T (Topic: Climate Change) may not both be counted. Prerequisite: Upper-division standing and Geography 301C or 301K.

## GRG 334. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 334C. Environmental Hazards.

Earth science processes that affect human activities: soil, erosion, flooding, slope stability, earthquakes, volcanism, and water resources and quality. Three lecture hours a week for one semester. Prerequisite: Upperdivision standing.

GRG 334K. Soils.
Morphology, genesis, properties, and distribution of world soils. Factors of soil formation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and six semester hours of coursework in physical geography or one or more of the geological or natural sciences, or the equivalent.

## GRG 335C. 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. Three lecture hours a week for one semester. Geography 335C and 385C may not both be counted. Prerequisite: Upper-division standing and Geography 301C.

## GRG 335K. Mountain Geoecology.

Geological evolution of mountains. Physical geography of mountains: climates, soils, vegetation, landforms and geomorphic processes. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and six semester hours of coursework in physical geography or one or more of the geological or natural sciences.

## GRG 335N. Landscape Ecology.

The study of spatial patterns in the earth's biosphere found within landscapes, typically areas measured in square kilometers. Examines the processes that create those patterns, drawing from ecology, biogeography, and many other disciplines. Also explores the practical applications of landscape ecology to the study of natural environments and those managed or altered by human activities. Three lecture hours a week for one semester. Geography 335N and 356T (Topic: Landscape Ecology) may not both be counted. Prerequisite: Upper-division standing and three semester hours of coursework in physical geography or one of the geological or natural sciences.

## GRG 336. Contemporary Cultural Geography.

Same as Urban Studies 354 (Topic 8). 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. Three lecture hours a week for one semester. Only one of the
following may be counted: Geography 336, Urban Studies 354 (Topic: Contemporary Cultural Geography), 354 (Topic 8). Prerequisite: Upperdivision standing.

## GRG 336C. National Parks and Protected Areas.

The history, purpose, and meaning of national parks (and preserves, refuges, and other publicly protected natural areas), from their inception at Yellowstone in 1872 to their present global distribution. Emphasis is on key management issues and dilemmas in the parks today; and the adoption and modification of Western notions of nature preservation within non-Western cultural settings. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 337. The Modern American City.

Same as Architecture 350R (Topic 1: The Modern American City) and Urban Studies 352 (Topic 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 338C. 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. Three lecture hours a week for one semester, with additional field hours to be arranged. Prerequisite: Upperdivision standing; and Geography 301C or Geological Sciences 401, or the equivalent.

## GRG 339. Process Geomorphology.

Analysis of geomorphic processes and their effects on landform development. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and credit or registration for Geography 301C or Geological Sciences 401.

## GRG 339C. Principles of Environmental Conservation.

Environmental conservation issues, focusing on the factors that control the production and consumption of environment-based resources. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 339K. Environment, Development, and Food Production.

Assessment of various types of agriculture with regard to environmental factors and management techniques. Three lecture hours a week for one semester. Geography 339K and 390S may not both be counted. Prerequisite: Upper-division standing.

## GRG 340D. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 341K. Landscapes of Mexico and Caribbean America.

Same as Latin American Studies 330 (Topic 2: Landscapes of Mexico and Caribbean America). The natural regions and cultural landscapes of Mexico, Central America, and the West Indies. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 342C. Sustainable Development.

Historical and contemporary analysis of international development with a focus on the prospects for environmental sustainability. Three lecture hours a week for one semester. Asian Studies 342C and Geography 342C may not both be counted. Prerequisite: Upper-division standing.

## GRG 344K. 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. Three lecture hours a week for one semester. Geography 344K and 356T (Topic: Farming, Food, and Global Hunger) may not both be counted. Prerequisite: Upper-division standing.

## GRG 346. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 348C. Geography of South Asia.

Same as Asian Studies 348C. Natural regions and cultural landscapes of South Asia. Agriculture, urban structure, issues of environment and development. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 350K. Geographies of Globalization.

Examines the process of globalization by theoretically and empirically analyzing the rise of capitalism and industrial modernity, its evolution into a global system through methods such as colonization and freetrade imperialism, and its metamorphosis into the postmodern cultural, economic and political process known as globalization. Three lecture hours a week for one semester. Geography 350K and 356T (Topic: Introduction to Globalization) may not both be counted.

## GRG 356. Topics in Environmental Geography.

Topics include environmental assessment methods and techniques, the conservation movement, and climate and people. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Children's Environmental Health. Contemporary issues in environmental health, with an emphasis on how modern environmental issues directly affect children. Focuses on the decision-making process and the larger concept of environmental ethics. Examines the relationship between humans and nature, and the concepts of sustainability, resilience, and global health. Geography 356 (Topic: Children's Environmental Health) and 356 (Topic 1) may not both be counted.

## GRG 356C. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 382N, Geography 356C, 382K. Prerequisite: Upper-division standing.

## GRG 356T. Topics in Geography.

Three lecture hours a week for one semester. Some topics may require additional field trips; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: The Culture of Cities. Geography 356T (Topic 1) is same as American Studies 370 (Topic 13: The Culture of Cities) and Urban Studies 354 (Topic 4: 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. Prerequisite: Upper-division standing.
Topic 2: Memory and Place. Geography 356T (Topic 2) is same as American Studies 370 (Topic 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. Prerequisite: Upper-division standing.
Topic 3: Geographical Information Systems and Remote Sensing for Archaeology and Paleontology. Geography 356T (Topic 3) is same as Anthropology 324L (Topic 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. Prerequisite: Upper-division standing.
Topic 4: Northern Lands and Cultures. Same as European Studies 346 (Topic 9) and Russian, East European, and Eurasian Studies 345 (Topic 6). Develops geographical understanding of the Circumpolar region of the North, an ancient human habitat, home to distinct millennia-old civilizations. Only one of the following may be counted: European Studies 346 (Topic: Northern Lands and Cultures), 346 (Topic 9), Geography 356T (Topic: Northern Lands and Cultures), 356T (Topic 4), Russian, East European, and Eurasian Studies 345 (Topic: Northern Lands and Cultures), 345 (Topic 6). Additional prerequisite: Upper-division standing.
Topic 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. Only one of the following may be counted: Geography 356T (Topic: Urban Publics), 356T (Topic 5), Urban Studies 354 (Topic: Urban Publics). Prerequisite: Upper-division standing.
Topic 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. Only one of the following may be counted: Geography 356T (Topic: Environmental Change and Management of Large Rivers), 356T (Topic 6), Latin American Studies 330 (Topic: Environmental Change and Management of Large Rivers). Prerequisite: Upper-division standing.
Topic 7: The Geography Of Media. Explores the media from a geographical perspective. Geography 356T (Topic: Geography of Media) and 356T (Topic 7) may not both be counted. Prerequisite: Upper-division standing.

## GRG 357. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 358. Cities in Developing Countries.

Comparative analysis of demographic, social, economic, and political features of cities in Latin America, the Middle East, Asia, and Africa; emphasis on regional imbalance, migration, occupational and social stratification, housing the poor, and suburbanization. Possibilities for individual research. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 358E. Geography and Religion.

Same as Humanities 350 (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 358E, Humanities 350 (Topic 3), Middle Eastern Studies 322K (Topic 15: Geography and Religion). Prerequisite: Upper-division standing.

## GRG 460C. The Geographer's Craft.

A comprehensive introductory survey of research techniques used in contemporary geography. The course uses the problem-solving approach to teach technical skills and concepts drawn from cartography, remote sensing, geographical information systems, spatial statistics, and maps and map interpretation. Three lecture hours and one and one-half laboratory hours a week for one semester.

GRG 360G. Environmental Geographic Information Systems.
An introduction to the creation and use of geographic information systems. Three lecture hours and two discussion hours a week for one semester. Prerequisite: Geography 310C.

## GRG 360L. Spatial Analysis.

Application of statistical techniques to spatial problems: research and experimental design, hypothesis testing and sampling, with reference to spatial patterns and areal associations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## GRG 462K. Introduction to Remote Sensing of the Environment.

The use of electromagnetic energy to sense objects in the natural environment; interpretation and recognition of patterns detected by sensors. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Upper-division standing.

GRG 464K. Advanced Remote Sensing and Pattern Analysis.
Advanced classification techniques for satellite image processing and landscape pattern analysis. Three lecture hours and one and one-half discussion hours a week for one semester. Geography 356 (Topic: Advanced Remote Sensing and Pattern Analysis) and 464K may not both be counted. Prerequisite: Upper-division standing, and Geography 462K or the equivalent or consent of instructor.

## GRG 366C. 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. Three lecture hours a week for one semester. Geography 356T (Topic: Comparative Ecosystems) and 366C may not both be counted. Prerequisite: Upper-division standing and three semester hours of coursework in physical geography or one of the geological or natural sciences.

## GRG 366K. Biogeography.

Contemporary patterns of plant and animal distribution, and the environmental and historical processes affecting them. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and three semester hours of coursework in physical geography or one of the geological or natural sciences.

## GRG 367K. Vegetation Ecology.

Plant autecology and synecology. Ecological factors and processes of plant communities. Vegetation geoecology, succession, and dynamics. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and six semester hours of coursework in physical geography or one or more of the geological or natural sciences.

## GRG 368C. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and credit or registration for Geography 360G.

## GRG 470C. 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. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Geography 360G and consent of instructor.

## GRG 373F. Field Techniques.

Introduction to the collection and mapping of environmental and cultural data, involving both classroom lectures and outdoor exercises. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, a major in geography, and consent of instructor.

## GRG 373K. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Geography 301C or the equivalent.

## GRG 374. Frontiers in Geography.

Restricted to geography majors and students seeking a secondary school teaching certificate with geography as the second teaching field. Current concerns and methodology in the field of geography; an introduction to theory and research in geography. The equivalent of three lecture hours a week for one semester, with one field trip to be arranged. Prerequisite: Upper-division standing and consent of the undergraduate adviser.

## GRG 476T. Topics in Geography.

Three lecture hours and one and one-half laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## GRG 679H. Honors Tutorial Course.

For honors candidates in geography. 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. Conference course for two semesters. Prerequisite: For 679HA, admission to the Geography Honors Program no later than two semesters before expected graduation; for 679HB, Geography 679HA. A University grade point average of at least 3.00 and a grade point average
in geography of at least 3.50 are required for admission to the Geography Honors Program.

## GRG 379K. Conference Course.

Supervised individual study of selected problems in geography. Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in one or more of the social, geological, or natural sciences; and consent of instructor.

## GRG 379L. Practicum: Internships in Applied Geography.

Research and staff experience working in an appropriate government agency or private business. At least six but no more than nine hours of work a week for one semester. Prerequisite: Completion of at least seventy semester hours of coursework, including twelve semester hours of geography, and consent of the undergraduate adviser.

## Urban Studies: URB

## Lower-Division Courses

## URB 301. Introduction to Urban Studies.

Same as Geography 307C. A multidisciplinary study of cities and complex urban environments; historical and contemporary issues from both national and international perspectives. Three lecture hours a week for one semester.

## URB 305. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## URB 315. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 408 C or 408 K with a grade of at least C-; Mathematics 316 or Statistics and Scientific Computation 305 with a grade of at least C-; and Urban Studies 301.

## Upper-Division Courses

## URB 325. Special Topics in Urban Studies.

Three lecture hours a week for one semester. Additional hours may be required for some topics; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## URB 350. Topics in Urban Politics and Governance.

The basic political and administrative structures of cities and metropolitan regions, including problems associated with local and regional government. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Urban Politics. Same as Government 370L (Topic 11: Urban Politics). Prerequisite: Six semester hours of lower-division coursework in government.

## URB 351. Topics in Urban Economics.

Urban economics and the application of economic analysis to urban concerns, including economic development, urbanization, urban form,
public finance, and competition. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Development Problems and Policies in Latin America. Same as Economics 355 and Latin American Studies 355 (Topic 1: Development Problems and Policies in Latin America). Description of the Latin American economy; business and market organization; problem of growth (involving credit, public finance, trade, investment aspects). Prerequisite: Economics 304K and 304L with a grade of at least C- in each.
Topic 2: Urban Economics. Same as Economics 334K. Economic analysis of urban areas; emphasis on the nature of current urban problems--slums, transportation, finance--and an evaluation of current policy. Prerequisite: Economics 420 K with a grade of at least C-.
Topic 3: Regional Economics. Same as Economics 334L. Spatial aspects of economics, including concepts, theories, and policy applications. Prerequisite: Economics 420 K with a grade of at least C -.
Topic 4: Development Economics. Same as Economics 333K. Introduction to theories of economic development; discussion of leading issues. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 333K, Urban Studies 351 (Topic: Development Economics), 351 (Topic 4). Additional prerequisite: Economics 420 K with a grade of at least C-.
Topic 5: Introduction to Real Estate and Urban Land Development. Same as Real Estate 358. Restricted to students in a McCombs School of Business major. An examination of the principles of real estate and urban land economics. Topics include investment, valuation, financing, and public policy in real estate and mortgage markets. Three lecture hours a week for one semester. Only one of the following may be counted: Real Estate 358, Urban Studies 351 (Topic: Introduction to Real Estate and Urban Land Development), 351 (Topic 5). Additional prerequisite: Credit or registration for Finance 357 or 357H.

## URB 352. Topics in Urban Design and Planning.

Issues concerning the built environment and urban infrastructure, environmental sustainability, and the public policy framework designed to manage the challenges presented by these issues. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: The Modern American City. Same as Architecture 350R (Topic 1: The Modern American City) and Geography 337. 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. Prerequisite: Upper-division standing.
Topic 2: American Dream: Status Quo and Alternatives. Same as Architecture 350R (Topic 2: American Dream: Status Quo and Alternatives).
Topic 3: Urban Design Practice. Same as Architecture 350R (Topic 3: Urban Design Practice).
Topic 4: Economy/Value/Quality of Life. Same as Architecture 350R (Topic 4: Economy/Value/Quality of Life).
Topic 5: Modernism in American Design and Architecture. Same as American Studies 330 and Art History 339Q. A historical survey of artifacts, buildings, and urban environments, focusing on responses to machine-age civilization. Additional prerequisite: Upper-division standing.
Topic 6: Principles of Physical Planning. Same as Community and Regional Planning 369K. Introductory course in the physical dimension of urban planning. Three lecture hours a week for one semester. Only one of the following may be counted: Community and Regional Planning 369K, Urban Studies 352 (Topic: Principles of Physical Planning), 352 (Topic 6). Additional prerequisite: For students in the

School of Architecture: Architecture 560R with a grade of at least C; for others, consent of instructor.

## URB 353. Topics in Urban History.

The historical evolution of cities, contemporary urban development trends, and the links between social development and physical form. Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: African American History since 1860. Same as American Studies 321F, African and African Diaspora Studies 357D, and History 357D. 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. Only one of the following may be counted: African and African Diaspora Studies 357D, American Studies 321 (Topic: African American History since 1860), 321F, History 357D, Urban Studies 353 (Topic 1). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.
Topic 2: Texas, 1914 to the Present. Same as History 320R and Mexican American Studies 374 (Topic 16: Texas, 1914 to the Present). The steady dissociation of Texas from its Old South status to a transitional state and a power in national politics. Three semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Upper-division standing.
Topic 5: Environmental History of North America. Same as American Studies 329 and History 350R (Topic 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. Only one of the following may be counted: American Studies 329, History 350L (Topic 4: Environmental History of North America), 350R (Topic 7), Urban Studies 353 (Topic 5). Partially fulfills legislative requirement for American history. Prerequisite: Upperdivision standing and six semester hours of coursework in history.

## URB 354. Topics in Urban Society and Culture.

Topics on the social and cultural diversity within cities; social policies; and the sociocultural impact of the media and other institutions on urban development. Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Society of Modern Mexico. Same as Latin American Studies 325 (Topic 1: Society of Modern Mexico) and Sociology 335. Family, community, industrialization, and urbanization in modern Mexico.
Topic 4: The Culture of Cities. Same as American Studies 370 (Topic 13: The Culture of Cities) and Geography 356T (Topic 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. Prerequisite: Upperdivision standing.
Topic 7: Vienna: Memory and the City. Same as American Studies 370 (Topic 41: Vienna: Memory and the City), European Studies 346 (Topic 5: Vienna: Memory and the City), and History 362G (Topic 2: Vienna: Memory and the City). Examines the ways in which cultural
memory has shaped, and continues to shape, urban life in Vienna, Austria. Only one of the following may be counted: American Studies 315 (Topic: Vienna: Memory and the City), 370 (Topic 41), 306 (Topic: Vienna: Memory and the City), 346 (Topic 5), Geography 309 (Topic: Vienna: Memory and the City), Germanic Civilization 311(Topic: Vienna: Memory and the City), History 306N (Topic: Vienna: Memory and the City), 362G (Topic 2), Urban Studies 305 (Topic: Vienna: Memory and the City), 354 (Topic 7). Additional prerequisite: Upperdivision standing.
Topic 8: Contemporary Cultural Geography. Same as Geography 336. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 336, Urban Studies 354 (Topic: Contemporary Cultural Geography), 354 (Topic 8). Additional prerequisite: Upper-division standing.
Topic 9: Negotiating Urbanization: Case Studies in Turkey. Same as Middle Eastern Studies 341 (Topic 6). 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. Only one of the following may be counted: Middle Eastern Studies 326 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), 341 (Topic 6), Turkish 372 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), Urban Studies 354 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), 354 (Topic 9).
Topic 10: Human Behavior and Social Environment. Same as Social Work 327. Survey of selected theories of human behavior, including a systems/ecological perspective, ego psychology, and social learning theory, with emphasis on the life cycle from adolescence through adulthood. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Social Work 327, Urban Studies 354 (Topic: Human Behavior and Social Environment), 354 (Topic 10). Additional prerequisite: For social work majors, admission to the major in social work; for others, upperdivision standing.
Topic 11: Urban Sociology. Same as Sociology 321U. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Urban Sociology), 321U, Urban Studies 354 (Topic: Urban Sociology), 354 (Topic 11). Additional prerequisite: Upper-division standing.
Topic 12: Sociology of Criminal Justice. Same as Sociology 325L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 325L, Urban Studies 354 (Topic: Sociology of Criminal Justice), 354 (Topic 12). Additional prerequisite: Upper-division standing.
Topic 13: American Dilemmas. Same as Sociology 336C and Women's and Gender Studies 345 (Topic 26). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 336C, Urban Studies 354 (Topic: American Dilemmas), 354 (Topic 13), Women's and Gender Studies 345 (Topic 26). Additional prerequisite: Upper-division standing.
Topic 14: Urban Unrest. Same as Asian American Studies 330 (Topic 6), African and African Diaspora Studies 372F (Topic 13), American Studies 321 (Topic 8), and Anthropology 324L (Topic 46). 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. Only one of the following may be counted: African and African Diaspora Studies 372F (Topic: Urban Unrest), 372F (Topic 13), 374D (Topic: Urban Unrest), American Studies 321 (Topic: Urban Unrest), 321 (Topic 8), Anthropology 324L (Topic: Urban Unrest), 324L (Topic 46), Asian American Studies 330 (Topic: Urban Unrest), 330 (Topic 6), Urban Studies 354 (Topic: Urban Unrest), 354 (Topic 14).
Topic 15: The Cities of the Middle East. Same as Anthropology 324L (Topic 51), Islamic Studies 373 (Topic 9), and Middle Eastern Studies 341 (Topic 3). Anthropological and sociological analysis of space, with a special emphasis on urban theory and culture in the Middle East. Only one of the following may be counted: Anthropology 324L (Topic: Cities of the Middle East), 324L (Topic 51), Islamic Studies 373 (Topic: Cities of the Middle East), 373 (Topic 9), Middle Eastern Studies 322K (Topic: Cities of the Middle East), 341 (Topic 3), Urban Studies 354 (Topic: Cities of the Middle East), 354 (Topic 15).

## URB 360. Internship and Service Learning.

Internship experience in an urban studies-related public or nonprofit agency. Students have the opportunity to apply the knowledge, theory, and understanding gained from courses in their areas of specialization to urban issues in a professional setting. Includes an academic servicelearning component. Approximately five to ten hours a week for one semester. Prerequisite: Urban Studies 301 and 315, and upper-division standing or consent of instructor.

## URB 370. 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. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing, and Urban Studies 301, 315, and 360 with a grade of at least $C$ in each.

## URB 379. Conference Course.

Supervised individual study of selected problems in urban studies. Conference course. Prerequisite: Upper-division standing and consent of instructor and the undergraduate adviser.

## URB 679H. Honors Tutorial Course.

Directed reading and research or creation of an honors project, followed by the writing of a thesis. Conference course for two semesters. Prerequisite: For 679HA, admission to the Urban Studies Honors Program and consent of the urban studies adviser; for 679HB, Urban Studies 679HA.

## Department of Germanic Studies

Students with knowledge of German must take a placement test before registering for a German course. Students with transfer credit are strongly encouraged to take a placement test. The lower-division placement test consists of the SAT Subject Test in German with a listening component,
with additional questions from the Department of Germanic Studies. The student may earn credit through this examination for any German language course currently offered; the examination also helps the student and the adviser determine with which course the student should begin the study of German at the University. Credit for German 328, and 330C or 331L, may also be earned by special examination. Information about these tests is available from the departmental undergraduate adviser and from the Center for Teaching and Learning, 2616 Wichita.

A student with no knowledge of German may take any beginning German language course. Graduate students preparing for the doctoral reading examination may take German 301.

Before enrolling for the first time in any other language offered in the Department of Germanic Studies, all students with knowledge of that language, however acquired, must be tested to determine the course for which they should register. Information about placement tests is available from the departmental undergraduate adviser.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p.675).

## Danish: DAN

## Lower-Division Courses

DAN 604. Accelerated First-Year Danish.
Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Two high school units or the equivalent in another foreign language, or consent of instructor.

## DAN 612. Accelerated Second-Year Danish.

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Danish 604 or an appropriate score on the placement test.

DAN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

DAN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, $929 S$. 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. May be repeated for credit when the topics vary.

## DAN 379. Conference Course in Danish Language or Literature.

Supervised individual study of selected problems in Danish language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## Dutch: DCH

## Lower-Division Courses

## DCH 604. Accelerated First-Year Dutch.

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Two high school units or the equivalent in another foreign language, or consent of instructor.

## DCH 612. Accelerated Second-Year Dutch.

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Dutch 604 or an appropriate score on the placement test.

DCH 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

DCH 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## DCH 375. Studies in Dutch Literature.

Selected topics in Dutch and Flemish literature. Conducted in Dutch. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Dutch 612 or the equivalent, and consent of instructor.

## DCH 379. Conference Course in Dutch Language or Literature.

Supervised individual study of selected problems in Dutch language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## German, Scandinavian, and Dutch Studies: GSD

## Lower-Division Courses

GSD 301. 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. Three lecture hours a week for one semester.

## GSD 310. 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. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: German, Scandinavian, and Dutch Studies 310, Germanic Civilization 301, and Scandinavian 302. May be repeated for credit when the topics vary.

## GSD 311C. Movies Go To War.

Same as American Studies 315C, Comparative Literature 305 (Topic 3), and European Studies 307 (Topic 4). 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. Only one of the following may be counted: American Studies 315 (Topic: Movies Go to War, World War I to Vietnam), 315C, Comparative Literature 305 (Topic: Movies Go to War, World War I to Vietnam), 305 (Topic 3), European Studies 307 (Topic: Movies Go to War, World War I to Vietnam), 307 (Topic 4), German, Scandinavian, and Dutch Studies 311C, Germanic Civilization 311 (Topic 2: Movies Go to War, World War I to Vietnam).

GSD 311D. Race and Gender Stereotypes in Germany.
Same as European Studies 306 (Topic 1). 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. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Bad Blood), 306 (Topic 1), German, Scandinavian, and Dutch Studies 311D, Germanic Civilization 301 (Topic: Bad Blood).

GSD 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. Only one of the following may be counted: German, Scandinavian, and Dutch Studies 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S, Germanic Civilization 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S, Scandinavian 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. May be repeated for credit when the topics vary.

## Upper-Division Courses

## GSD 321W. German Cultural History.

Restricted to students enrolled in the University of Wuerzburg Summer Program. Excursions, local research, and exposure to a German viewpoint on contemporary European affairs. The equivalent of three lecture hours a week for one semester. Taught in Wuerzburg, Germany. German, Scandinavian, and Dutch Studies 321W and Germanic Civilization 327E (Topic 7: German Cultural History) may not both be counted.

GSD 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. Only one of the following may be counted: German, Scandinavian, and Dutch Studies 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S, Germanic Civilization 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S, Scandinavian 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S, May be repeated for credit when the topics vary.

## GSD 330. Topics in Film and Media.

In-depth explorations of topics and problems in film and media studies from the perspective of one or more of the nations of Northern Europe and/or in relation to Northern Europe's cultural nexuses. Three lecture hours a week for one semester. Some topics may require additional hours for film screenings. Only one of the following may be counted unless the topics vary: German, Scandinavian, and Dutch Studies 330, Germanic Civilization 361E, and Scandinavian 327. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## GSD 331C. Films of Ingmar Bergman.

Same as Comparative Literature 323 (Topic 11) and European Studies 347 (Topic 13). An introduction to the films of Ingmar Bergman. Only one of the following may be counted: Comparative Literature 323 (Topic: Films of Ingmar Bergman), 323 (Topic 11), English 322 (Topic 18), European Studies 347 (Topic: Films of Ingmar Bergman), 347 (Topic 13), German, Scandinavian, and Dutch Studies 331C, Scandinavian 327 (Topic 9). Prerequisite: Upper-division standing.

## GSD 340. Topics in Narrative and Textual Studies.

Examination of significant case studies, often literary, on how narratives and other text-types are constructed (as art and/or material culture), circulated, and understood by readers and on how they work in and between various national traditions in Northern Europe and/or in relation to its cultural nexuses. Only one of the following may be counted unless the topics vary: German, Scandinavian, and Dutch Studies 340, Germanic Civilization 323E, 362E, Scandinavian 323, 373. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## GSD 341C. European Folktale.

Same as European Studies 347 (Topic 21). Examination of a wide selection of collected Indo-European folktales as well as numerous perspectives for understanding, interpreting, and applying these tales. Frameworks for analysis ed include formalist and structuralist; nationalist and aesthetic; mythic and archetypal; socio-historical; psychoanalytical and therapeutic; and feminist and gender studies. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: European Folktale), European Studies 307 (Topic: European Folktale), 347 (Topic 21), German, Scandinavian, and Dutch Studies 341C, Germanic Civilization 301 (Topic: European Folktale), Scandinavian 302 (Topic: European Folktale). Prerequisite: Upper-division standing.

## GSD 341D. Social Dramas of Henrik Ibsen.

Same as Comparative Literature 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic 12), and Women's and Gender Studies 345 (Topic 14). 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 topics such as: the family and the home; the public world of reputation, work, and citizenship; the predicaments of men and women in a maledominated society; and the motives of our interventions into the lives of others. Only one of the following may be counted: Comparative Literature 323 (Topic: Social Dramas of Henrik Ibsen), 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic: Social Dramas of Henrik Ibsen), 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, Scandinavian 323 (Topic 2), Women's and Gender Studies 345 (Topic 14). Prerequisite: Upper-division standing.

## GSD 341E. Hans Christian Andersen.

Same as Comparative Literature 323 (Topic 12) and European Studies 347 (Topic 14). 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Hans Christian Andersen), 323 (Topic 12), English 322 (Topic 19), European Studies 347 (Topic: Hans Christian Andersen), 347 (Topic 14), German, Scandinavian, and Dutch Studies 341E, Germanic Civilization 323E (Topic 4), Scandinavian 373 (Topic 4). Prerequisite: Upper-division standing.

## GSD 341F. Women and the Holocaust.

Same as Comparative Literature 323 (Topic 19), European Studies 346 (Topic 10), Jewish Studies 363 (Topic 11), and Women's and Gender Studies 340 (Topic 50). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women's Narratives of the Holocaust and World War II), 323 (Topic 19), European Studies 346 (Topic: Women's Narratives of the Holocaust and World War II), 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Germanic Civilization 323E (Topic: Women's Narratives of the Holocaust and World War II), Jewish Studies 363 (Topic 11), Women's and Gender Studies 340 (Topic: Women's Narratives of the Holocaust and World War II), 340 (Topic 50). Prerequisite: Upper-division standing.

## GSD 341G. Isak Dinesen/Karen Blixen.

Same as Comparative Literature 323 (Topic 14), European Studies 347 (Topic 15), and Women's and Gender Studies 345 (Topic 13). 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Isak Dinesen/Karen Blixen), 323 (Topic 14), European Studies 347 (Topic: Isak Dinesen/Karen Blixen), 347 (Topic 15), German, Scandinavian, and Dutch Studies 341G, Germanic Civilization 323E (Topic 1), Scandinavian 373 (Topic 6), Women's and Gender Studies 345 (Topic 13). Prerequisite: Upper-division standing.

## GSD 341J. Contemporary Scandinavian Stories.

Same as Comparative Literature 323 (Topic 10) and European Studies 347 (Topic 16). An analysis of contemporary Scandinavian literature and films, how they reflect Scandinavian reality, and how Scandinavian identity is created through sports, food, and politics. Only one of the following may be counted: Comparative Literature 323 (Topic: Contemporary Scandinavian Stories), 323 (Topic 10), European Studies 347 (Topic: Contemporary Scandinavian Stories), 347 (Topic 16), German, Scandinavian, and Dutch Studies 341J, Germanic Civilization 323E (Topic: Contemporary Scandinavian Stories), Scandinavian 373 (Topic: Contemporary Scandinavian Stories). Prerequisite: Upper-division standing.

## GSD 341K. The Scandinavian Contribution to World Literature.

Same as Comparative Literature 323 (Topic 16) and European Studies 347 (Topic 17). 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. Only one of the following may be counted: Comparative Literature 323 (Topic: The Scandinavian Contribution to World Literature), 323 (Topic 16), European Studies 347 (Topic: The Scandinavian Contribution to World Literature), 347 (Topic 17), German, Scandinavian, and Dutch Studies 341K, Germanic Civilization 323E (Topic: The Scandinavian Contribution to World

Literature), Scandinavian 373 (Topic: The Scandinavian Contribution to World Literature). Prerequisite: Upper-division standing.

## GSD 350. Topics in Linguistics.

In-depth explorations in contemporary and historical topics and problems associated with linguistics and the systematic study of languages in Northern Europe and related regions. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## GSD 351C. Language, Culture, and the Texas German Experience.

Same as American Studies 370 (Topic 47), Anthropology 324L (Topic 55), and Linguistics 373 (Topic 10). 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. Three lectures a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Language, Culture, and the Texas German Experience), 370 (Topic 47), Anthropology 324L (Topic: Language, Culture, and the Texas German Experience), 324L (Topic 55), Germanic Civilization 327E (Topic 11) German, Scandinavian, and Dutch Studies 351C, Linguistics 350 (Topic: Language, Culture, and the Texas German Experience), 373 (Topic 10). Prerequisite: Upper-division standing.

## GSD 360. 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. Three lecture hours a week for one semester. Additional hours may be required for some topics. Only one of the following may be counted unless the topics vary: German, Scandinavian, and Dutch Studies 360, Germanic Civilization 327E, 340E, 360E, 362E, Scandinavian 327, and 335 . Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Holocaust Aftereffects), European Studies 346 (Topic: Holocaust Aftereffects), Germanic Civilization 323E (Topic: Holocaust Aftereffects), Jewish Studies 365 (Topic: Holocaust Aftereffects), Liberal Arts Honors 350 (Holocaust Aftereffects), Religious Studies 357 (Topic: Holocaust Aftereffects).
Topic 3: Heretics and Freedom Fighters, 1350-1650. Same as Czech 324 (Topic 4), European Studies 346 (Topic 8), History 362G (Topic 12), Religious Studies 357 (Topic 12), and Russian, East European, and Eurasian Studies 325 (Topic 28). Explores the theologies, politics, and personal identities that emerged and passed away in this era. Only one of the following may be counted: Czech 324 (Topic: Heretics and Freedom Fighters, 1350-1650), 324 (Topic 4), European Studies 346 (Topic: Heretics and Freedom Fighters, 1350-1650), 346 (Topic 8), Germanic Civilization 327E (Topic: Heretics and Freedom Fighters, 1350-1650), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic: Heretics and Freedom Fighters, 1350-1650), 362G (Topic 12), Religious Studies 357 (Topic: Heretics and Freedom Fighters, 1350-1650), 357 (Topic 12), Russian, East European, and Eurasian Studies 325 (Topic: Heretics and Freedom Fighters, 1350-1650), 325 (Topic 28).

## GSD 361C. Introduction to Germanic Religion and Myth.

Same as European Studies 347 (Topic 3) and Religious Studies 357 (Topic 17). 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. Three lecture hours a week for one semester. Only one of the following may be counted: English 322 (Topic 2), European Studies 347 (Topic 3), German, Scandinavian, and Dutch Studies 361C, Germanic Civilization 340E (Topic 1), Religious Studies 365 (Topic 2), Religious Studies 357 (Topic 17). Prerequisite: Upper-division standing.

## GSD 361D. Birgitta, Hildegard, and Margery.

Same as European Studies 347 (Topic 18), Religious Studies 357 (Topic 15), and Women's and Gender Studies 340 (Topic 51). 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 visionary women will be explored in depth. Only one of the following may be counted: English 322 (Topic: Birgitta, Hildegard, and Margery), European Studies 347 (Topic: Birgitta, Hildegard, and Margery), 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, Germanic Civilization 327E (Topic 10), Religious Studies 357 (Topic: Birgitta, Hildegard, and Margery), 357 (Topic 15), Scandinavian 373 (Topic 8), Women's and Gender Studies 340 (Topic: Birgitta, Hildegard, and Margery), 340 (Topic 51). Prerequisite: Upperdivision standing.

## GSD 361E. Tolerance in Dutch Culture.

Same as European Studies 347 (Topic 19) and Women's and Gender Studies 340 (Topic 37). 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. Only one of the following may be counted: European Studies 347 (Topic: Dutch Culture: Too tolerant?), 347 (Topic 19), German, Scandinavian, and Dutch Studies 361E, Germanic Civilization 327E (Topic: Dutch Culture: Too tolerant?), Women's and Gender Studies 340 (Topic: Dutch Culture: Too tolerant?), 340 (Topic 37). Prerequisite: Upperdivision standing.

## GSD 361F. Squaring the Vienna Circle.

Same as Comparative Literature 323 (Topic 18) and European Studies 347 (Topic 20). 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Squaring the Vienna Circle), 323 (Topic 18), European Studies 347 (Topic: Squaring the Vienna Circle), 347 (Topic 20), German, Scandinavian, and Dutch Studies 361F, Germanic Civilization 362E (Topic: Squaring the Vienna Circle), Philosophy 327 (Topic: Squaring the Vienna Circle), 354 (Topic: Squaring the Vienna Circle). Prerequisite: Upper-division standing.

## GSD 361G. Northern Gods, Northern Faiths: The Conversion of Scandinavians, Finns, Northern Slavs and Shamans.

Same as Religious Studies 357 (Topic 16) and Russian, East European, and Eurasian Studies 345 (Topic 7). 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, Only one of the following may be counted: German, Scandinavian, and Dutch Studies 361G, Religious Studies 357 (Topic 16), Russian, East European, and Eurasian Studies 345 (Topic 7). Prerequisite: Upper-division standing.

GSD 377. 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. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing, German, Scandinavian, and Dutch Studies 301, nine semester hours of upper-division coursework in German, Scandinavian, and Dutch Studies, and consent of instructor.

## GSD 379. Conference Course in German, Scandinavian, and Dutch Studies.

Supervised individual study of selected problems in German, Scandinavian, and Dutch Studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## GSD 679H. Honors Tutorial Course.

Supervised individual research on a literary or linguistic problem, culminating in an honors paper of some length. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679HA, upperdivision standing, six semester hours of upper-division coursework in German, Scandinavian, and Dutch Studies, a University grade point average of at least 3.00, a grade point average in German, Scandinavian, and Dutch Studies of at least 3.50, and admission to the German, Scandinavian, and Dutch Studies Honors Program; for 679HB, German, Scandinavian, and Dutch Studies 679HA.

## German: GER

## Lower-Division Courses

GER 301. German for Graduate Students in Other Departments.
No auditors. Beginning reading course for students preparing to fulfill language requirement for advanced degrees. Emphasis on grammar, vocabulary, and translation. Three lecture hours a week for one semester. May not be used to fulfill the undergraduate foreign language requirement. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

## GER 601C. Beginning German.

Not open to native speakers of German. An introduction to the German language and the cultures of the German-speaking countries. Focuses on development of vocabulary, grammatical knowledge, reading, writing, listening, and speaking abilities in a contemporary cultural context. Six lecture hours a week for one semester. Only one of the following may be counted: German 601C, 604, 506. Only one of the following may be counted: German 601C, 604, 507, 507R, 508K.

## GER 604. Accelerated First-Year German.

Covers the same material as German 506 and 507. Six lecture hours a week for one semester, with optional laboratory available. Only one of the following may be counted: German 601C, 604, 506. Only one of the following may be counted: German 601C, 604, 507, 507R, 508K. Prerequisite: Two high school units or the equivalent in another foreign language, or consent of instructor.

## GER 305. German for Graduate Students in Other Departments.

No auditors. Advanced reading. Emphasis on grammar, vocabulary, and translation. Three lecture hours a week for one semester. Fulfills the foreign language requirement for the Doctor of Philosophy degree in some departments. May not be used to fulfill the undergraduate foreign language requirement. Offered on the credit/no credit basis
only. Prerequisite: Graduate standing, and German 301 or equivalent knowledge.

## GER 506 (TCCN: GERM 1511). First-Year German I.

Basic training in grammatical patterns and usage of modern German. Five lecture hours a week for one semester. Only one of the following may be counted: German 601C, 604, 506.

## GER 507 (TCCN: GERM 1512). First-Year German II.

Advanced training in grammatical patterns and usage of modern German. Five lecture hours a week for one semester. Only one of the following may be counted: German 601C, 604, 507, 507R, 508K. Prerequisite: German 506 with a grade of at least C.

## GER 507R. Intensive First-Year German II.

German 507R covers the same material as 507 but is offered only in the spring as part of the Intensive German Program. Students in this program must take German 507R, 312R, and 312S during the same spring semester; they must register for all three courses at or before the beginning of the semester and must earn a grade of at least $C$ in each course to take the next course in the sequence. Credit is given for each course in the sequence only if the student completes the entire sequence. The Intensive German Program meets for eleven hours a week for one semester. Only one of the following may be counted: German 601C, 604, 507, 507R, 508K. Prerequisite: Completion in residence of German 506 and consent of the undergraduate adviser.

## GER 508K. Alternate First-Year German II.

Reviews grammar, pronunciation, and reading skills; for students with beginning preparation below the average provided by German 506. Five lecture hours a week for one semester. Only one of the following may be counted: German 601C, 604, 507, 507R, 508K. Prerequisite: Two high school units of German or transfer credit for German 506, and appropriate score on the placement test.

## GER 310. Conversation and Composition.

Conducted in German. Intended to develop the ability to use German correctly and idiomatically in conversation and in compositions of gradually increasing difficulty. Three class hours a week for one semester. Fulfills fourth-semester language proficiency requirement. Prerequisite: German 312 K or 312 V with a grade of at least C . With consent of the German undergraduate adviser, may be taken concurrently with German 312 K or 312 V .

## GER 611C. Intermediate German.

Not open to native speakers of German. Continuation of German 601C. Development of vocabulary, grammatical knowledge, and reading, writing, listening, and speaking abilities in a contemporary cultural context. Six lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, 312K, 312R, 312V. Only one of the following may be counted: German 611C, 612, 312L, 312S, 312W. Prerequisite: German 601C, 604, 507, or 508 K with a grade of at least $C$.

## GER 612. Accelerated Second-Year German: Readings in Modern German.

Grammar review, composition, readings and recitation, discussion of literary works, and German culture. Six lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, $312 \mathrm{~K}, 312 \mathrm{R}, 312 \mathrm{~V}$. Only one of the following may be counted: German 611C, 612, 312L, 312S, 312W. Prerequisite: German 604, 507, or 508K with a grade of at least $C$.

## GER 312K (TCCN: GERM 2311). Second-Year German I:

 Readings in Humanities and Social Sciences.Three lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, 312K, 312R, 312V. Prerequisite: German 604,507 , or 508 K with a grade of at least C .

## GER 312L (TCCN: GERM 2312). Second-Year German II: Readings in Humanities and Social Sciences.

Three lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, 312L, 312S, 312W. Prerequisite: German 312 K or 312 V with a grade of at least C .

## GER 312R. Intensive Second-Year German: Oral and Written Expression and Reading Skill.

German 312R covers the same material as 312 K but is offered only in the spring as part of the Intensive German Program. Students in this program must take German 507R, 312R, and 312S during the same spring semester; they must register for all three courses at or before the beginning of the semester and must earn a grade of at least $C$ in each course to take the next course in the sequence. Credit is given for each course in the sequence only if the student completes the entire sequence. The Intensive German Program meets for eleven hours a week for one semester. Only one of the following may be counted: German 611C, 612, $312 \mathrm{~K}, 312 \mathrm{R}, 312 \mathrm{~V}$. Prerequisite: Completion in residence of German 506 and consent of the undergraduate adviser.

## GER 312S. Intensive Second-Year German II: Readings in Humanities and Social Sciences.

German 312S covers the same material as 312L but is offered only in the spring as part of the Intensive German Program. Students in this program must take German 507R, 312R, and 312S during the same spring semester; they must register for all three courses at or before the beginning of the semester and must earn a grade of at least $C$ in each course to take the next course in the sequence. Credit is given for each course in the sequence only if the student completes the entire sequence. The Intensive German Program meets for eleven hours a week for one semester. Only one of the following may be counted: German 611C, 612, 312L, 312S, 312W. Prerequisite: Completion in residence of German 506 and consent of the undergraduate adviser.

## GER 312V. Second-Year German I: Business German.

German 312V covers the same material as 312 K , but with readings, discussions, and exercises that focus on the business world. Emphasis on practical, career-oriented competence. Three lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, $312 \mathrm{~K}, 312 \mathrm{R}, 312 \mathrm{~V}$. Prerequisite: German 604,507 , or 508 K with a grade of at least $C$.

## GER 312W. 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. Three lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, 312L, 312S, 312W. Prerequisite: German 312K or 312V with a grade of at least $C$.

## GER 317C. Advanced Intermediate German.

Not open to native speakers of German. Designed to prepare students with credit for German 611C for upper-division German language courses. Special focus on text and media literacy, advanced oral language practice, debate and writing, and accuracy. Three lecture hours a week for one semester. Prerequisite: German 611C with a grade of at least C.

## GER 118C, 218C. Practice in Spoken German.

Conducted in German. Recommended for all German majors. For each semester hour of credit earned, one class hour a week for one semester. May not be counted toward a German major or minor. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit. Prerequisite: German 310, 312L, 612, or the equivalent with a grade of at least C .

GER 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## GER 328. Advanced German Grammar.

Description of German sounds, grammatical structures, pronunciation, word formation. Three lecture hours a week for one semester.
Prerequisite: German 310, 612, 312L, 312S, 312W, or 317C with a grade of at least C .

GER 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## GER 330C. Advanced Conversation and Composition: <br> 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. Three lecture hours a week for one semester. Only one of the following may be counted: German 330C or 331L. Prerequisite: German 310, 612, 312L, 312S, 312W, or 317C with a grade of at least C .

## GER 130D. German across Disciplines.

Students read and discuss German language materials related to the subject matter of another designated course. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Three semester hours of upper-division coursework in German with a grade of at least $C$.

## GER 331L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: German 330C or 331L. Prerequisite: German 310, 612, 312L, 312S, 312W, or 317C with a grade of at least $C$.

## GER 336W. Advanced Business German I.

Development of proficiency through readings, discussions, and assignments based on materials dealing with the German economic system and Germany's role in international trade. Emphasis on practical, job-related competence in business German. Taught in German. Three
lecture hours a week for one semester. Normally meets with International Business 372 (Topic 7: Advanced Business German). Only one of the following may be counted: German 336W, or International Business 372 (Topic 7: Advanced Business German). Prerequisite: German 310, 612, $312 \mathrm{~L}, 312 \mathrm{~S}, 312 \mathrm{~W}$, or 317C with a grade of at least C.

## GER 340C. Historical Backgrounds of German Civilization.

Cultural, social, and literary history of German-speaking Europe of the Middle Ages. Studies humanism, the Reformation, absolutism, and the early Enlightenment (between 1200 and 1750). Taught in German. Three lecture hours a week for one semester. Prerequisite: Three semester hours of upper-division coursework in German with a grade of at least C.

## GER 343C. Contemporary German Civilization.

Cultural, social, and literary history of Germany between 1900 and reunification. Taught in German. Three lecture hours a week for one semester. Prerequisite: Three semester hours of upper-division coursework in German with a grade of at least C.

## GER 345L. German Literature between the Beginnings and

 the Baroque.Three lecture hours a week for one semester. Prerequisite: Six semester hours of upper-division coursework in German.

## GER 346L. German Literature between the Enlightenment and the Present.

Cultural, social, and literary history of German-speaking Europe between 1750 and 1900. Taught in German. Three lecture hours a week for one semester. Prerequisite: Three semester hours of upper-division coursework in German with a grade of at least C .

GER 347L. 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. Three lecture hours a week for one semester. Prerequisite: Three semester hours of upperdivision coursework in German with a grade of at least C .

## GER 348D. German Play: Student Production.

Discussion, staging, and production of a German play. Three hours of lecture or laboratory a week for one semester. Prerequisite: German 310, $612,312 \mathrm{~L}$, or the equivalent with a grade of at least C.

## GER 149T, 249T, 349T. 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. Weekly class meetings for four weeks, followed by one, two, or three student teaching hours a week for eight weeks. Additional class meetings may also be required. May be repeated for credit, but no more than three semester hours may be counted toward a degree in the College of Liberal Arts. May not be counted toward a major in German. Prerequisite: Credit or registration for German 312L or the equivalent.

## GER 356W. Advanced Business German II.

Readings, discussions, and assignments based on material dealing with key areas of German business such as management and corporate hierarchies. Preparation for the German Certificate for Professional Purposes. Recommended for students planning a career in international business. Taught in German. Three lecture hours a week for one semester. German 356W and International Business 372 (Topic 6: Business German) may not both be counted. Prerequisite: Three semester hours of upper-division coursework in German with a grade of at least C.

## GER 363K. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upperdivision coursework in German.

## GER 366K. Practicum in German Stylistics.

Three lecture hours a week for one semester. Prerequisite: German 328 (or 356), and three additional semester hours of upper-division coursework in German.

## GER 369. Topics in Germanic Languages.

Introduction to the phonology, morphology, syntax, dialectology, or lexicography of individual Germanic languages. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: The Structure of the German Language. German 369 (Topic 1) and Linguistics 373 (Topic 6: The Structure of the German Language) may not both be counted. Additional prerequisite: Three semester hours of upper-division coursework in German or linguistics.
Topic 4: The German Language: Historical Perspectives. Same as Anthropology 320L (Topic 9) and Linguistics 373 (Topic 9). Only one of the following may be counted: Anthropology 320L (Topic 8: German and English: Historical Perspectives), 320L (Topic 9), Classical Civilization 348 (Topic 8: German and English: Historical Perspectives), 348 (Topic 9: The German Language: Historical Perspectives), German 369 (Topic 4), Germanic Civilization 327E (Topic 9: German and English: Historical Perspectives), Linguistics 373
(Topic 8: German and English: Historical Perspectives), 373 (Topic 9). Additional prerequisite: Three semester hours of upper-division coursework in German or Linguistics.
Topic 7: Translation I.
Topic 8: Translation II.

## GER 373. Topics in Germanic Literature.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in German.

Topic 1: German Short Prose. The linguistic, stylistic, and thematic varieties of short prose (anecdotes, meditations, fables, parables, reports, impressions, and sketches) seen through translation, critical discussion, and literary-historical contextualization.
Topic 2: German Folktale and Fantasy Tale.

## GER 179, 279, 379. 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. Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in German.

## GER 679H. Honors Tutorial Course.

Supervised individual research on a literary or linguistic problem, culminating in an honors paper of some length. Conference course for two semesters. Prerequisite: For 679HA, upper-division standing, six semester hours of upper-division German, a University grade point average of at least 3.00 , a grade point average in German of at least 3.50, and admission to the Germanic Studies Honors Program; for 679HB, German 679HA.

## Norwegian: NOR <br> Lower-Division Courses

## NOR 604. Accelerated First-Year Norwegian.

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Two high school units or the equivalent in another foreign language, or consent of instructor.

## NOR 612. Accelerated Second-Year Norwegian.

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Norwegian 604 or an appropriate score on the placement test.

NOR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

NOR 327. Advanced Norwegian I.
Norwegian language and culture with a focus on the skills of speaking, comprehension, reading, and writing Norwegian. Three lecture hours a week for one semester. Norwegian 327 and Scandinavian 369 (Topic: Advanced Norwegian Language and Culture I) may not both be counted. Prerequisite: Norwegian 612 with a grade of at least C .

## NOR 328. 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. Three lecture hours a week for one semester. Norwegian 328 and Scandinavian 369 (Topic: Advanced Norwegian Language and Culture II) may not both be counted. Prerequisite: Norwegian 327 with a grade of at least C.

NOR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## NOR 379. Conference Course in Norwegian Language or

 Literature.Supervised individual study of selected problems in Norwegian language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## Swedish: SWE

## Lower-Division Courses

SWE 604. Accelerated First-Year Swedish.
Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Two high school units or the equivalent in another foreign language, or consent of instructor.

## SWE 612. Accelerated Second-Year Swedish.

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Swedish 604 or an appropriate score on the placement test.

SWE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

SWE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## SWE 379. Conference Course in Swedish Language or Literature.

Supervised individual study of selected problems in Swedish language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## Yiddish: YID

## Lower-Division Courses

## YID 604. Accelerated First-Year Yiddish.

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Two high school units or the equivalent in another foreign language, or consent of instructor.

## YID 612. Accelerated Second-Year Yiddish.

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Yiddish 604 or an appropriate score on the placement test.

YID 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, $919 S$. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

YID 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## YID 179, 279, 379. 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. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## Department of Government

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Government: GOV

## Lower-Division Courses

## GOV 105. Texas Government.

A brief survey of the organization and process of Texas government. Topics include the Constitution, political parties, interest groups, elections, branches of government, taxing and spending. The equivalent of one lecture hour a week for one semester.

## GOV 310L (TCCN: GOVT 2301). American Government.

A basic survey of American government, including fundamental political institutions, federal, state, and local; special attention to the United States and Texas Constitutions. Part of a six-semester-hour integrated sequence, the second half of which is Government 312L. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Fulfills first half of legislative requirement for government. Prerequisite: Twelve semester hours of college coursework and a passing score on the reading section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

## GOV 312L (TCCN: GOVT 2302). Issues and Policies in American Government.

Analysis of varying topics concerned with American political institutions and policies, including the United States Constitution. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Fulfills second half of legislative requirement for government. May be taken for credit only once. Offered on the letter-grade basis only. Prerequisite: Twenty-four semester hours of college coursework, including Government 310L, and a passing score on the reading section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

## GOV 312P. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Fulfills second half of legislative requirement for government. Government 312P and 312R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Twenty-four semester hours of college coursework, including Government 310L, and a passing score on the reading section of the Texas Higher Education Assessment (THEA) test.

## GOV 314. Introductory Topics in Political Science.

Introduction to varying topics in government and politics. Three lecture hours a week for one semester. Does not fulfill any part of the legislative
requirement for government. May be repeated for credit when the topics vary.

Topic 2: American Policy toward Eastern Europe.
Topic 3: Introduction to the Middle East: Adjustment and Change in Modern Times. Same as History 306N (Topic 5: Introduction to the Middle East: Adjustment and Change in Modern Times) and Middle Eastern Studies 301L. 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.
Topic 4: Introduction to Russian, East European, and Eurasian
Studies: Political Science. Government 314 (Topic 4) and Russian, East European, and Eurasian Studies 301 may not both be counted.
Topic 5: Asia's Futures. Same as Asian Studies 301M (Topic 6: Asia's Futures). Current issues, visible trends, and projections for Asia's future.
Topic 6: Competing Visions of the Good Life. Same as Core Texts and Ideas 303 . 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. Only one of the following may be counted: Core Texts and Ideas 303, Government 314 (Topic 6), Western Civilization 303 (Topic: Competing Visions of the Good Life).
Topic 7: Race, Politics, and Identity in Asian America. Same as Asian American Studies 310 (Topic 2). An introduction to Asian American politics. Subjects include the American political process, and the historic and contemporary role of Asian Americans within that process. Only one of the following may be counted: Asian American Studies 310 (Topic: Race, Identity, and Politics in Asian America), 310 (Topic 2), Government 314 (Topic: Race, Identity and Politics in Asian America), 314 (Topic 7).
Topic 8: Big Power Politics: Regional Integration in Southeast Asia. Politics of peace, development, and regional cooperation among the countries of Southeast Asia. Only one of the following may be counted: Asian Studies 301M (Topic: Big Power Politics in Southeast Asia), Government 314 (Topic: Big Power Politics in Southeast Asia), 314 (Topic 8).
Topic 9: Human Rights: Theories and Practices: Government. Competing viewpoints on issues of human rights from multidisciplinary perspectives. Only one of the following may be counted: English 314J (Topic: Human Rights: Theories and Practices), Government 314 (Topic: Human Rights: Theories and Practices), 314 (Topic 9).

## GOV 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S .

 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## GOV 320K. United States Constitutional Development: Structures.

Primarily for prelaw students and government majors. A survey of the origin and growth of the American constitutional system, with emphasis on political structures and processes. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 320L. Arab-Israeli Politics.

Same as Middle Eastern Studies 341 (Topic 5: Arab-Israeli Politics). Indepth study of domestic, regional, and international factors involved in politics in the Middle East, including simulation of diplomatic interaction in the Arab-Israeli conflict. Three lecture hours a week for one semester. Only one of the following may be counted: Government 320L, Middle Eastern Studies 322K (Topic 30: Arab-Israeli Politics), 323K (Topic 1: Arab-Israeli Politics), 341 (Topic 5). Prerequisite: Upper-division standing.

## GOV 320N. United States Constitutional Development: Rights.

Primarily for prelaw students and government majors. 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. Three lecture hours a week for one semester. Government 320N and 357M (Topic: American Constitutional Development II) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 321. American State Politics.

The states as subsystems of the American political system; state political cultures, social-economic environments, federalism, political participation, interest groups, parties, legislatures, executives, courts, and selected public policies. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 321M. Politics in Japan.

Same as Asian Studies 321M. Survey of postwar Japanese politics; the occupation, governmental institutions, interest groups, protest movements, industrial policy, the government-business relationship, and political and economic reform. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 321M, 361 (Topic: Politics in Japan), Government 321M. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 322M. Politics in China.

Same as Asian Studies 322M. Survey of twentieth-century China: historical trends; 1911 revolution; Warlord-Nationalist period; Communist revolution; post-1949 issues; new social and political institutions. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 322M, 361 (Topic: Politics in China), Government 322M. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 324J. Governments and Politics of Eastern Europe.

Same as European Studies 348 (Topic 1: Governments and Politics of Eastern Europe) and Russian, East European, and Eurasian Studies 335 (Topic 2: Governments and Politics of Eastern Europe). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic 1), Government 324J, Russian, East European, and Eurasian Studies 335 (Topic 2). Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 324L. Governments and Politics of Western Europe.

Same as European Studies 350. 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. Three lecture hours a week for one semester. European Studies 350 and Government 324 L may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 325. 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. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 327L. 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. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 328L. Introduction to Latin American Government and

 Politics.Same as Latin American Studies 337M (Topic 5: Introduction to Latin American Government and Politics). An introductory survey of Latin American political systems: governmental organization, political processes, and current problems. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

GOV 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## GOV 330K. 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. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 331L. Law and Society.

Designed primarily for prelaw students. The role of law in the context of major social issues; legal research and oral argument. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lowerdivision coursework in government.

## GOV 335M. Topics in Political Thought.

Intensive examination of selected issues in political thought. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

## Topic 3: Politics and Reality.

Topic 5: Religion in American Political Thought. Same as Religious Studies 346 (Topic 2: Religion in American Political Thought).
Topic 7: Feminist Theory. Government 335M (Topic 7) and Women's and Gender Studies 322 (Topic 4: Feminist Theory) may not both be counted.
Topic 9: Contemporary American Social Theory. Same as Philosophy 365 (Topic 5). Only one of the following may be counted: Government 335M (Topic: Social Theory), 335M (Topic 9), Philosophy 365 (Topic 5), Sociology 352M (Topic 8). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.
Topic 10: African American Social and Political Thought. Same as African and African Diaspora Studies 374D (Topic 21), American Studies 321J, and Core Texts and Ideas 326 (Topic 3). Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought. Three lecture hours a week for one
semester. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: African American Social and Political Thought), 374D (Topic 21), American Studies 321 (Topic: African American Social and Political Thought), 321J, Core Texts and Ideas 326 (Topic 3), 335 (Topic: African American Social and Political Thought), Government 335M (Topic: African American Social and Political Thought), 335M (Topic 10). Additional prerequisite: Upperdivision standing and six semester hours of lower-division coursework in government.

## GOV 335N. Topics in American State Government and Politics.

Analysis of varying topics in the study of American state government and politics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lowerdivision coursework in government.

## Topic 1: American State Constitutions. <br> Topic 2: American State Legislatures. <br> Topic 3: Texas Political History.

Topic 4: Texas Political Parties and Elections. An examination of the nature of Texas electoral politics.
Topic 5: State Politics and Public Policy. Survey of the revitalization of political institutions in the American states and the implications for the making of public policy.
Topic 6: American State Politics. Examination of the political power, policy responsibilities, and institutional capacities of state governments. Topic 7: Southern Political History. Covers the colonial period to the present and includes topics such as progressive nationalism, defensive sectionalism, reconstruction, the civil rights movement, and partisan realignment. Government 335 N (Topic 7 ) and 335 N (Topic: Texas and the New Southern Politics) may not both be counted.

## GOV 336M. 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. Three lecture hours a week for one semester. Government 336M and Russian, East European, and Eurasian Studies 335 (Topic 3: Governments and Politics of Russia) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 337M. Topics in Latin American Government and Politics.

In-depth analysis of the governmental process in Latin American countries, and topical treatment of political and administrative patterns across the region. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 2: Parties, Elections, and Democracy in Latin America.
Same as Latin American Studies 337M (Topic 2: Parties, Elections, and Democracy in Latin America).
Topic 3: Politics in South America. Same as Latin American Studies 337M (Topic 3: Politics in South America).
Topic 4: United States-Mexican Border Relations. Same as Mexican American Studies 374 (Topic 14: United States-Mexican Border Relations) and Latin American Studies 337M (Topic 4: United States-Mexican Border Relations).
Topic 6: Politics of Mexico. Same as Latin American Studies 337M (Topic 11). Survey of twentieth century politics in Mexico with an emphasis on political and economic development. Only one of the following may be counted: Government 337M (Topic: Politics of Mexico), 337M (Topic 6), Latin American Studies 337M (Topic: Politics of Mexico), 337M (Topic 11).

Topic 7: Law and Democracy in Latin America. Same as Latin American Studies 337M (Topic 12). Explores many of the challenges to the rule of law across Latin America and how they affect the quality of democracy in the region. Only one of the following may be counted: Government 337M (Topic: Law and Democracy in Latin America), 337M (Topic 7), Latin American Studies 337M (Topic: Law and Democracy in Latin America), 337M (Topic 12).
Topic 8: International Politics of Latin America. Same as Latin American Studies 337M (Topic 13). Analysis of Latin America's political and economic relations with respect to external actors since the late twentieth century. Only one of the following may be counted: Government 337M (Topic: International Politics of Latin America), 337M (Topic 8), Latin American Studies 337M (Topic: International Politics of Latin America), 337M (Topic 13).
Topic 9: Politics, Economy, and Society of Contemporary Brazil. Same as Latin American Studies 337M (Topic 14). An introduction to Brazil with a focus on domestic politics; economic development and management; social relations and social policy issues; and foreign policy. Only one of the following may be counted: Government 337M (Topic: Politics, Economy, and Society of Contemporary Brazil), 337M (Topic 9), Latin American Studies 337M (Topic: Politics, Economy, and Society of Contemporary Brazil), 337M (Topic 14). Additional prerequisite:

## GOV 338L. East Asian International Relations.

Same as Asian Studies 338L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 338L, 361 (Topic: East Asian International Relations), Government 338L. Prerequisite: Upper-division standing and six semester hours of lowerdivision coursework in government.

## GOV 339L. Research Methods in Government.

An introduction to research design, data collection and analysis, and the use of the computer and related equipment. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 340M. Readings in Government.

Individually guided and supervised readings and research in selected topics in government. Schedule and topic of study determined by student in consultation with instructor. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, and written consent of instructor and the undergraduate adviser.

## GOV 341M. 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. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 342N. Public Choice.

The political-economic models that have developed in this area of social science. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 344. American Foreign Relations.

The aims, methods, and accomplishments of United States foreign policy since World War II, by geographic areas and by special problems. Three
lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 344L. 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. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 347K. Governments and Politics of South Asia.

Same as Asian Studies 347K. A survey of political developments, governmental organization, and economic and social problems in South Asia. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 347L. Introduction to Political Theory.

Study of political theory: what it is; its origins; tradition; political theory today. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 348. Government and the American Economy.

Relationship of government to the economic system; past trends and present problems in government policy in the United States. Three lecture hours a week for one semester. Prerequisite: Economics 304L and six semester hours of lower-division coursework in government.

## GOV 350K. Statistical Analysis in Political Science.

Elementary statistical techniques and their applications to problems in political science. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 351C. The Classical Quest for Justice.

Same as Core Texts and Ideas 320. Introduces students to classical political thought through a study of seminal works of antiquity, focusing on those of Plato and Aristotle. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 320, 335 (Topic: Classical Quest for Justice), Government 335M (Topic: Classical Quest for Justice), 351C, Western Civilization 320 (Topic: Classical Quest for Justice). Prerequisite: Completion of at least thirty semester hours of coursework.

GOV 351D. The Theoretical Foundations of Modern Politics.
Same as Core Texts and Ideas 321. Examines competing foundations of the ongoing development of political and social modernity. Examines a selection of major authors from Machiavelli to Nietzsche. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 321, 335 (Topic: The Theoretical Foundations of Modern Politics), Government 335M (Topic: The Theoretical Foundations of Modern Politics), 351D, Western Civilization 320 (Topic: The Theoretical Foundations of Modern Politics). Prerequisite: Completion of at least thirty semester hours of coursework.

## GOV 351E. 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. Three lecture hours a week for one semester. Government 335M (Topic: Contemporary Political Theory) and 351E may not both be counted. Prerequisite: Completion of at least thirty semester hours of coursework.

## GOV 351G. Critics of Modern Liberalism.

Same as Core Texts and Ideas 322. Selected critics of the philosophy of the Enlightenment from both the Left and the Right, and from the time of

Rousseau to the present. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 322, Government 335M (Topic: Liberalism and its Critics), 351G. Prerequisite: Upper-division standing.

## GOV 351J. Might and Right among Nations.

Same as Core Texts and Ideas 323. Major alternative approaches to the question of the moral character of international relations, as elaborated by some of the greatest political thinkers. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 323, 335 (Topic: Might and Right among Nations), Government 335M (Topic: Might and Right among Nations), 351J, Western Civilization 320 (Topic: Might and Right among Nations). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

## GOV 351L. Morality and Politics.

Same as Core Texts and Ideas 325. Interdisciplinary readings from major works exploring issues of ethics and leadership. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 325, Government 335M (Topic: Morality and Politics), 351L. Prerequisite: Upper-division standing.

## GOV 353D. Darwin and the Politics of Evolution.

Same as Core Texts and Ideas 372. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 370 (Topic: The Politics of Evolution), 372, Government 335M (Topic: The Politics of Evolution), 353D. Prerequisite: Upperdivision standing and six semester hours of lower-division coursework in government.

## GOV 355M. Topics in Political Science.

Emphasis on varying topics in government and politics of contemporary interest and concern. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 1: Human Behavior as Rational Action.

## GOV 355P. Political Sociology.

Same as Sociology 320K. A survey of approaches to the study of the state as a social structure; political power and power systems; ideology; political parties and elites. Three lecture hours a week for one semester. Only one of the following may be counted: Government 355M (Topic: Political Sociology), 355P, Sociology 320K. Prerequisite: Upper-division standing.

## GOV 357L. 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. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 357M. Topics in Public Law.

Intensive study of various aspects of law and the legal system. Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 1: Gender-Based Discrimination. Same as American Studies 370 (Topic 6: Gender-Based Discrimination) and Women's and Gender Studies 345 (Topic 8: Gender-Based Discrimination). Studies the substance of laws that relate to gender-based roles, and the participation of women in the legal process. Three lecture hours a week for one semester. Additional prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, a University grade point average of at least 3.50 , and consent of department received prior to registering.
Topic 3: Supreme Court and Public Policy. Two lecture hours and one discussion hour a week for one semester.
Topic 4: Civil Liberties. Three lecture hours a week for one semester. Topic 5: Constitutional Interpretation. Three lecture hours a week for one semester.
Topic 6: Constitutional Politics, Law, and Citizenship. Examination of the development of constitutional order and the debates over citizenship and civic membership. Three lecture hours a week for one semester. Asian American Studies 325 (Topic: Constitutional Politics, Law, and Citizenship) and Government 357M (Topic 6) may not both be counted.
Topic 7: Constitutional Structure of Power. Examination of the power of federal and state governments, the emergency power of the executive branch, and the authority of the Supreme Court. Three lecture hours a week for one semester.
Topic 8: Structure of Individual Liberties. Study of individual rights protected by the Constitution, with an emphasis on the United States Supreme Court. Three lecture hours a week for one semester.
Topic 9: Asian American Jurisprudence. Same as American Studies 321 (Topic 5: Asian American Jurisprudence) and Asian American Studies 325 (Topic 5: Asian American Jurisprudence). Introduction to the study of Asian Americans and the law. Examines 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. Three lecture hours a week for one semester. Additional prerequisite: Upper-division standing.
Topic 11: The Face of Justice. Same as Women's and Gender Studies 345 (Topic 47). Examination of the inalienable rights: liberty, due process, equality, speech, assembly, security in the home, and practice or nonpractice of religion. Historical overview of women's rights and women's participation in the justice system. Discussion of individuals whose rights are being protected, and those whose rights are being overlooked by the American judicial system. Only one of the following may be counted: Government 357M (Topic: Face of Justice), 357M (Topic 11), Liberal Arts Honors 350 (Topic: Face of Justice), Women's and Gender Studies 345 (Topic: Face of Justice), 345 (Topic 47). Offered on the letter-grade basis only. Additional prerequisite: For government majors, six semester hours of lower-division coursework in government; for others, upper-division standing.

## GOV 358. Introduction to Public Policy.

A survey of American public policy, with emphasis on modern problems and trends. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 360N. Topics in International Relations.

Special studies stressing the theoretical aspects or the substantive policy problems of international politics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and six semester hours of lowerdivision coursework in government.

## Topic 1: America in Decline?.

Topic 2: Causes of War. Same as Russian, East European, and Eurasian Studies 335 (Topic 21). Only one of the following may be
counted: Government 360N (Topic 2), Russian, East European, and Eurasian Studies 335 (Topic: Causes of War), 335 (Topic 21).
Topic 4: Understanding the Cold War. Government 360N (Topic 4) is same as Russian, East European, and Eurasian Studies 335 (Topic 15: Understanding the Cold War).
Topic 8: Democracy, War, and Peace.
Topic 9: Force and Politics.
Topic 10: Introduction to International Relations. Asian Studies 361 (Topic: Introduction to International Relations Theory) and Government 360 N (Topic 10) may not both be counted.
Topic 11: International Political Economy. Study of the changing relationship between political and economic power in international relations.
Topic 12: International Security. Comprehensive survey of conventional security issues, including causes of war, ethnic conflict, and terrorism.

## GOV 362L, 662L. Government Research Internship.

Fieldwork in research and analysis on governmental and political problems. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only six semester hours of an internship course in government may be counted toward a major in government. Prerequisite: Six semester hours of lower-division coursework in government and consent of instructor.

## GOV 365L. Studies in Asian Politics.

Special studies of political behavior and institutions, problems, or developments in individual countries or in the region. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 1: Politics of Economic Development in East Asia.
Topic 2: Japanese Foreign Policy. Same as Asian Studies 361 (Topic 22: Japanese Foreign Policy). An introduction to the foreign and domestic determinants of Japanese foreign policy.
Topic 3: International Relations of East and Southeast Asia. Same as Asian Studies 361 (Topic 23: International Relations of East and Southeast Asia). An introduction to 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.
Topic 4: Political Economy of Asia. Explores the political economies of East Asia with an emphasis on Japan, China, South Korea, and Taiwan. Only one of the following may be counted: Asian Studies 361 (Topic: Political Economy of Asia), Government 365L (Topic: Political Economy of Asia), 365L (Topic 4).
Topic 5: Asian Regionalism and Multilateral Cooperation.
Addresses the nature, functional principles, leadership, and policymaking process of contemporary Asian regionalism in comparison to the experiences of European integration. Only one of the following may be counted: Asian Studies 361 (Topic: Asian Regionalism and Multilateral Cooperation), Government 365L (Topic: Asian Regionalism and Multilateral Cooperation), 365L (Topic 5).
Topic 6: China and the New Asian Region. Foreign policy issues in in China, Asia, and Eastern Russia. Government 365L (Topic: China and the New Asian Region) and 365L (Topic 6) may not both be counted.
Topic 7: Rights and the State in South Asia. A study of states and societies in South Asia and the challenge of creating rights and respecting political orders. Only one of the following may be counted: Asian Studies 361 (Topic: Rights and the State in South Asia), Government 365L (Topic: Rights and the State in South Asia), 365L (Topic 7).

## GOV 365N. Topics in Comparative Politics.

Analysis of varying topics in the comparative study of political processes. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Politics in Contemporary Africa. Government 365N (Topic 1 ) is same as African and African Diaspora Studies 365. Prerequisite: Six semester hours of lower-division coursework in government.
Topic 2: Immigration and Comparative Politics. Prerequisite: Six semester hours of lower-division coursework in government.
Topic 3: The Military in Politics. Only one of the following may be counted: Government 365N (Topic 3); Latin American Studies 337M (Topic 9: The Military in Politics); Russian, East European, and Eurasian Studies 335 (Topic 10: The Military in Politics). Prerequisite: Six semester hours of lower-division coursework in government.
Topic 4: Political Development in Eastern Europe and Latin America. Government 365N (Topic 4) is same as Latin American Studies 337M (Topic 6: Political Development in Eastern Europe and Latin America). Only one of the following may be counted: Government 365N (Topic 4), Latin American Studies 337M (Topic 6), Russian, East European, and Eurasian Studies 335 (Topic 7: Political Development in Eastern Europe and Latin America). Prerequisite: Six semester hours of lower-division coursework in government.
Topic 5: States and Peasants. Government 365 N (Topic 5) is same as African and African Diaspora Studies 372F (Topic 3: States and Peasants). African and African Diaspora Studies 374 (Topic 5: States and Peasants) and Government 365N (Topic 5) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.
Topic 9: International Environmental Policy. Government 365N (Topic 9) is same as Asian Studies 361 (Topic 20: International Environmental Policy). Prerequisite: Six semester hours of lowerdivision coursework in government.
Topic 10: Australian Society and Politics. Government 365N (Topic 10 ) is same as Sociology 352M (Topic 12: Australian Society and Politics). Prerequisite: Six semester hours of lower-division coursework in government.
Topic 11: Political Transition in Europe and Latin America. Government 365N (Topic 11) is same as Latin American Studies 337M (Topic 10: Political Transition in Europe and Latin America). Only one of the following may be counted: Government 365 N (Topic 11), Latin American Studies 337M (Topic 10). Additional prerequisite: Six semester hours of lower-division coursework in government.
Topic 12: Globalization in the Middle East and North Africa. A comparison of economic and political development strategies in the countries of the Middle East and North Africa. Government 365N (Topic 12), and Middle Eastern Studies 323K (Topic: Globalization in the Middle East and North Africa) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.
Topic 13: Politics of New Democracies. Same as Latin American Studies 337M (Topic 15) and Russian, East European, and Eurasian Studies 335 (Topic 22). Examination of the process of democratization and factors related to its success. Only one of the following may be counted: Government 365N (Topic 13), Latin American Studies 337M (Topic: Politics of New Democracies), 337M (Topic 15), Russian, East European, and Eurasian Studies 335 (Topic: Politics of New Democracies), 335 (Topic 22). Prerequisite: For government majors, six semester hours of lower-division coursework in government; for others, upper-division standing.
Topic 14: Politics of the Welfare State. Introductory survey of trends in welfare state development in North America, Western Europe, and Australia.
Topic 15: Suicide Terrorism. Studies the causes of suicide terrorism at elite, community, and rank-and-file levels. Only one of the following
may be counted: Government 365N (Topic: Suicide Terrorism), 365N (Topic 15), Islamic Studies 372 (Topic: Suicide Terrorism), Middle Eastern Studies 322K (Topic: Suicide Terrorism), 341 (Topic: Suicide Terrorism).
Topic 16: Israel: Society and Politics. Same as Jewish Studies 365 (Topic 10). Analysis of Israeli politics and society in a comparative perspective with a major focus on the social and political cleavages in Israel. Only one of the following may be counted: Government 365N (Topic: Israel: Society and Politics), 365N (Topic 16), Jewish Studies 361 (Topic: Israel: Society and Politics), 365 (Topic: Israel: Society and Politics), 365 (Topic 10), Middle Eastern Studies 325 (Topic: Israel: Society and Politics).
Topic 17: Issues in Third World Development. Examines economic, sociological, and political frameworks for understanding some of the major constraints to and opportunities for advancement in developing societies. Government 365N (Topic: Issues in Third World Development) and 365 N (Topic 17) may not both be counted.
Topic 18: Comparative Political Institutions. Introduction to the concept and role of political institutions including constitutions, electoral systems, federalism, and the court system. Government 365N (Topic: Comparative Political Institutions) and 365N (Topic 18) may not both be counted.

## GOV 365P. The Politics of Oil.

The national and international political complexities of petroleum; relationship of trends in petroleum economics to international political alignments. Three lecture hours a week for one semester. Government 365P and Middle Eastern Studies 322K (Topic 7: The Politics of Oil) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

## GOV 370K. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 2: Latino Politics. Same as Mexican American Studies 374 (Topic 15: Latino Politics) and Latin American Studies 337M (Topic 8: Latino Politics).
Topic 3: African American Politics. Same as African and African Diaspora Studies 374D (Topic 13). The evolution and role of African American politics within the American political system. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: African American Politics), 374D (Topic 13), Government 370K (Topic 3).
Topic 4: The Black Church in African American Politics. Same as African and African Diaspora Studies 374D (Topic 14) and Religious Studies 346 (Topic 7). Examination of the political role of the black church and its leaders in the development of African American political behavior. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Black Church in African American Politics), 374D (Topic 14), Government 370K (Topic 4), Religious Studies 346 (Topic: Black Church in African American Politics), 346 (Topic 7).
Topic 5: Race and Democracy. Examination of multicultural and multiracial influences on democratic societies. Only one of the following may be counted: African and African Diaspora Studies 374 (Topic: Race and Democracy), 374D (Topic: Race and Democracy), Government 370K (Topic 5).

## GOV 370L. Topics in American Government and Politics.

Analysis of varying topics in the study of American government and politics. Three lecture hours a week for one semester. May be repeated
for credit when the topics vary. Prerequisite: Six semester hours of lowerdivision coursework in government.

## Topic 1: Election Campaigns.

Topic 2: Leadership in America. Same as American Studies 370
(Topic 10: Leadership in America) and Women's and Gender Studies
345 (Topic 34: Leadership in America). Introduction to the concepts
of leadership and the application of those concepts in public and political leadership. Additional prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, a University grade point average of at least 3.50, and consent of department received prior to registering.
Topic 3: Bureaucracy in America.
Topic 5: Parties and Electoral Politics in the United States.
Topic 6: Politics of Hollywood.
Topic 7: The United States Congress.
Topic 8: Congress and the Executive Branch.
Topic 9: Social Movements: Theory and Practice.
Topic 10: Congress and the Presidency.
Topic 11: Urban Politics. Same as Urban Studies 350 (Topic 1: Urban Politics).
Topic 12: Congressional Elections. Examination of congressional campaigns and election outcomes from both historical and contemporary perspectives.
Topic 13: Leaders and Followers in American Politics. Examination of the relationship between elected officials and voters.
Topic 14: The News Media as a Political Institution. Analysis of the role of the news media in American politics and the operation of national government. Government 370L (Topic 14) and Urban Studies 350 (Topic: News Media as a Political Institution) may not both be counted.
Topic 15: Political Communication. Introduction to the impact of modern forms of communication on American governance.
Topic 16: Political Psychology. Study of the role of psychological theories in understanding politics and forming political views.
Topic 17: Money in United States Politics. Study of the nature and consequences of campaign finance on American politics. Government 370 L (Topic 17) and 379S (Topic: Money in Politics--Honors) may not both be counted.
Topic 18: Politics and the Economy. Survey of the relationship between politics and market behavior in democracies.
Topic 19: The United States as a Territorial Nation. Examination of the history, public policy, law, and political philosophy behind United States territories and land acquisitions.
Topic 20: Campaigns and Elections. Introduction to American political campaigns and elections with a focus on federal elections. Government 370L (Topic: Campaigns and Elections) and 370L (Topic 20) may not both be counted.

Topic 21: Politics of Food in America. Examines the political history, current law and practices, and ethics and philosophy of how food is produced and consumed in the United States. Government 370L (Topic: Politics of Food in America) and 370L (Topic 21) may not both be counted. Additional prerequisite:
Topic 22: President, Congress, and the Supreme Court. An examination of the political relationship of the President, Congress and the Supreme Court in the American constitutional order. Government 370L (Topic: President, Congress, and Court) and 370L (Topic 22) may not both be counted. Additional prerequisite:
Topic 23: The Politics of Health Care. The role of political institutions and the public in the development of the American health care system. Government 370L (Topic: The Politics of Health Care) and 370L (Topic 23) may not both be counted.

GOV 370M. Research on the United States Congress.
Independent research on lawmaking in the modern United States Congress. Individual instruction. Prerequisite: Six semester hours of lower-division coursework in government.

GOV 371N, 671N. Administrative Internship.
Students perform research and related activities in a national, state, or local administrative agency. Written reports required. The equivalent of three or six lecture hours a week for one semester. Only six semester hours of an internship course in government may be counted toward a major in government. Prerequisite: Twelve semester hours of coursework in government and consent of instructor.

GOV 372N, 672N. Campaigns and Elections Internship.
Students perform research and related activities in political campaigns and polling. Written reports required. The equivalent of three or six lecture hours a week for one semester. Only six semester hours of an internship course in government may be counted toward a major in government. Prerequisite: Twelve semester hours of coursework in government and consent of instructor.

## GOV 373N, 673N. Legislative Internship.

Students perform research and related activities in a national, state, or local legislature. Written reports required. The equivalent of three or six lecture hours a week for one semester. Only six semester hours of an internship course in government may be counted toward a major in government. Prerequisite: Twelve semester hours of coursework in government and consent of instructor.

## GOV 374N. Political Internship.

Students perform research and related activities for an entity directly related to government and politics. Written reports required. The equivalent of three lecture hours a week for one semester. Only six semester hours of an internship course in government may be counted toward a major in government. Prerequisite: Twelve semester hours of coursework in government.

## GOV 679H. 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. Three lecture hours a week for two semesters. Prerequisite: For 679HA, upper-division standing, admission to the Government Honors Program, and written consent of the Government Honors Program adviser; for 679HB, Government 679HA.

## GOV 379S. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Completion of thirty semester hours of coursework, including at least six hours of government.

## Department of Health and Society

## Health and Society: H S

Lower-Division Courses

## H S 301. Introduction to Health and Society.

Same as Sociology 308S. A broad, multidisciplinary overview that introduces students to the study of health and society. Three lecture hours a week for one semester. Only one of the following may be counted:

Health and Society 301, Sociology 308 (Topic: Introduction to Health and Society), 308S.

## Upper-Division Courses

H S 320. Social Worth, Ethical Dilemmas, and Health Care. Explores how the resolution of ethical dilemmas and the assessment of social worth influence the organization and distribution of health care. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## H S 330. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## H S 377R. Advanced Research in Health and Society.

Three lecture hours a week for one semester. Prerequisite: Upper-division standing; Health and Society 301 with a grade of at least B- and one of the following with a grade of at least B-: Biology 318M, Educational Psychology 371, Geography 310C, Sociology 317L, Statistics and Data Sciences 302, 304, 318, (or Statistics and Scientific Computation 302, 304, 318), Social Work 318.

## H S 378. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Health and Society 301.

## H S 679H. Honors Tutorial Course.

A supervised conference course to provide training in research and writing. The equivalent of three lecture hours a week for two semesters. Offered on the letter-grade basis only. Prerequisite: For 679HA, upperdivision standing and admission to the honors program in Health and Society; for 679HB, Health and Society 679HA.

## Department of History

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## History: HIS

## Lower-Division Courses

HIS 301F. The Premodern World.
Survey of world history from human origins to the sixteenth century. Three lecture hours or two lecture hours and one discussion hour a week for one semester. History 301F and 306N (Topic: Premodern World) may not both be counted.

## HIS 301G. Modern World.

Survey of world history from the sixteenth century to the present. Three lecture hours or two lecture hours and one discussion hour a week for one semester. History 301G and 306N (Topic: Modern World) may not both be counted.

## HIS 302C. Introduction to China.

Same as Asian Studies 302C. Introduction to Chinese civilization, past and present, including religion, literature, arts, philosophy, and history.

Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 302C, History 302C, 306N (Topic: Introduction to China).

## HIS 304K (TCCN: HIST 2313). English Civilization before

 1603.Survey of English civilization from Roman times to the death of Queen Elizabeth I. Three lecture hours a week for one semester.

## HIS 304L (TCCN: HIST 2314). English Civilization since 1603.

Survey of English history from the seventeenth century to the present. Three lecture hours a week for one semester.

HIS 304R. Judaism, Christianity, and Islam: An Introduction. Same as Islamic Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction), Jewish Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction), and Religious Studies 304. 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. Three lecture hours a week for one semester.

## HIS 305K. History of East Asia to 1800.

Same as Asian Studies 301M (Topic 3: History of East Asia to 1800). A survey of the traditional history and culture of China, Japan, Korea, and Vietnam. Three lecture hours a week for one semester.

## HIS 305L. History of East Asia since 1800.

Same as Asian Studies 301M (Topic 4: History of East Asia since 1800). A survey of the modern history of China, Japan, Korea, and Vietnam. Three lecture hours a week for one semester.

HIS 306K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations.
Same as Middle Eastern Studies 301K and Religious Studies 314K. A survey of the history and civilization of the Middle East from the sixth to the fourteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: History 306K, Middle Eastern Studies 301K, Religious Studies 314 (Topic: Intro M East: Rel/Cul/Hist Fnd), 314K.

## HIS 306N. Topics in History.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 3: Key Ideas and Issues in Latin America. Same as Latin American Studies 301. Broad introductory course to acquaint students with the main areas of interest in Latin American studies.
Topic 4: Introduction to Russian, East European, and Eurasian
Studies: History. History 306N (Topic 4) and Russian, East European, and Eurasian Studies 301 may not both be counted.
Topic 5: Introduction to the Middle East: Adjustment and Change in Modern Times. Same as Government 314 (Topic 3: Introduction to the Middle East: Adjustment and Change in Modern Times) and Middle Eastern Studies 301L. 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.
Topic 7: Introduction to Islam. Same as Asian Studies 301M (Topic 15), Islamic Studies 310, and Religious Studies 319. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 15), History 306N (Topic 7), Islamic Studies 310,

Middle Eastern Studies 310 (Topic 1: Introduction to Islam), Religious Studies 319.
Topic 10: Jewish Civilization: Beginnings to 1492. Same as Jewish Studies 304M and Religious Studies 313M. 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. Only one of the following may be counted: History 306N (Topic: Jewish Civilization I), 306N (Topic 10), Jewish Studies 304M, 311 (Topic: Jewish Civilization I), Religious Studies 313 (Topic: Jewish Civilization I), 313M.

Topic 11: Jewish Civilization: 1492 to the Present. Same as Jewish Studies 304 N and Religious Studies 313N. 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. Only one of the following may be counted: History 306N (Topic 11), Jewish Studies 304N, 311 (Topic: Jewish Civilization: 1492 to the Present), Religious Studies 313 (Topic: Jewish Civilization: 1492 to the Present), 313N.
Topic 12: Introduction to Modern North Africa. Introduction to the major themes of North African history from the sixteenth century to the present. History 306N (Topic: Introduction to Modern North Africa) and 306 N (Topic 12) may not both be counted.
Topic 13: Introduction to the History and Culture of Spain. Same as Ancient History and Classical Civilization 310 (Topic 1) and European Studies 306 (Topic 2). The history of Spain from its beginnings in the stone age through the great social and economic upheavals of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Introduction to the History and Culture of Spain), 310 (Topic 1), European Studies 306 (Topic: Introduction to the History and Culture of Spain), 306 (Topic 2), History 306N (Topic: Introduction to the History and Culture of Spain), 306N (Topic 13).
Topic 14: Prague, Magic, and the Struggle for Power. Same as Czech 301 K (Topic 2) and Russian, East European, and Eurasian Studies 302 (Topic 2). 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. Only one of the following may be counted: Czech 301 K (Topic: Magic and Power in Prague: The Struggle for Power), 301K (Topic 2), History 306N (Topic: Magic and Power in Prague: The Struggle for Power), 306N (Topic 14), Religious Studies 306 (Topic: Magic and Power in Prague: The Struggle for Power), Russian, East European, and Eurasian Studies 302 (Topic: Magic and Power in Prague: The Struggle of Power), 302 (Topic 2).

## HIS 307C. Introduction to the History of India.

Same as Asian Studies 307C. Survey of the history of the Indian subcontinent from prehistoric times to the present. Three lecture hours a week for one semester.

## HIS 309K (TCCN: HIST 2311). Western Civilization in Medieval Times.

Survey of medieval Europe from late antiquity to the fifteenth century. Three lecture hours a week for one semester.

## HIS 309L (TCCN: HIST 2312). Western Civilization in Modern Times.

Survey of European civilization since the fifteenth century. Three lecture hours a week for one semester.

## HIS 310. Introduction to Modern Africa.

Same as African and African Diaspora Studies 310K. Introduction to modern Africa, with focus on colonial and postcolonial development in political organization, economics, sociolinguistics, and literature. Three lecture hours a week for one semester.

## HIS 310K. Latin American Civilization: The Colonial Experience.

Same as Latin American Studies 310 (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 310K, 346K, Latin American Studies 310 (Topic 1), 366 (Topic 2: Latin America before 1810).

## HIS 310L. Latin American Civilization: The National Experience.

Same as Latin American Studies 310 (Topic 2: Latin American Civilization: The National Experience). A broad survey of the political, social, and cultural aspects of the Latin American past. Three lecture hours a week for one semester. Only one of the following may be counted: History 310L, 346L, Latin American Studies 310 (Topic 2), 366 (Topic 3: Latin America since 1810).

## HIS 310M. Film and History in Latin America: Colonial Period.

Same as Latin American Studies 310 (Topic 5). Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Film History in Latin America: Colonial), 310M, Latin American Studies 310 (Topic: Film History in Latin America: Colonial), Latin American Studies 310 (Topic 5).

## HIS 310N. Film and History in Latin America: Modern Period.

Same as Latin American Studies 310 (Topic 6). Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Film History in Latin America: Modern), 310N, Latin American Studies 310 (Topic: Film History in Latin America: Modern), 310 (Topic 6).

## HIS 311K. Introduction to Traditional Africa.

Same as African and African Diaspora Studies 310L. Introductory, interdisciplinary course on the peoples and cultures of Africa. Three lecture hours a week for one semester.

## HIS 314K (TCCN: HIST 2328). History of Mexican Americans in the United States.

Same as Mexican American Studies 316. Examines the origin and growth of the Mexican American community in the United States. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history.

## HIS 315G. Introduction to American Studies.

Same as American Studies 310. An interdisciplinary introduction to the historical exploration of American culture. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 310, History 306N (Topic 2: Introduction to American Studies), 315G. Partially fulfills legislative requirement for American history.

HIS 315K (TCCN: HIST 1301). The United States, 1492-1865.
Survey of United States history from the colonial period through the Civil War. Three lecture hours or two lecture hours and one discussion
hour a week for one semester. Partially fulfills legislative requirement for American history.

## HIS 315L (TCCN: HIST 1302). The United States since 1865.

Survey of United States history since the Civil War. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Partially fulfills legislative requirement for American history.

HIS 317L (TCCN: HIST 2381). Topics in United States History.
Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. May be repeated for credit when the topics vary.

Topic 1: Colonial America.
Topic 2: The Era of the American Revolution.
Topic 3: Introduction to African American History. Same as African and African Diaspora Studies 317D (Topic 1: Introduction to African American History). Only one of the following may be counted: African and African Diaspora Studies 317 (Topic: Introduction to African American History), 317D (Topic 1), History 317L (Topic 3). Partially fulfills legislative requirement for American history.
Topic 4: Introduction to Asian American History. Same as Asian American Studies 312. 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. Asian American Studies 312 and History 317L (Topic 4) may not both be counted. Partially fulfills legislative requirement for American history.
Topic 5: United States Women, Sexuality, and Gender to 1865. Same as Women's and Gender Studies 301 (Topic 11: United States Women, Sexuality, and Gender to 1865). History 317L (Topic 5) and Women's and Gender Studies 301 (Topic 11) may not both be counted. Partially fulfills legislative requirement for American history. Topic 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.
Topic 7: The United States and Africa. Same as African and African Diaspora Studies 317C (Topic 1: 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. Only one of the following may be counted: African and African Diaspora Studies 317 (Topic: United States and Africa), 317C (Topic 1), History 317L (Topic 7). Partially fulfills legislative requirement for American history.
Topic 8: Introduction to American Indian History.
Topic 9: The Black Power Movement. Same as African and African Diaspora Studies 317D (Topic 3: The Black Power Movement). Examines the major organizations, key figures, and ideologies of the Black Power movement from the late 1960s and early 1970s. Only one of the following may be counted: African and African Diaspora Studies 317D (Topic: Black Power Movement), 317D (Topic 3), History 317L (Topic: Black Power Movement), 317L (Topic 9). Partially fulfills legislative requirement for American history.
Topic 10: Rights in Modern America. History 317L (Topic: Rights in Modern America) and 317L (Topic 10) may not both be counted.
Topic 11: Latino Histories. Same as Mexican American Studies 319 (Topic 3). Explore the cultures, politics, and policies that shape the many Latino histories in the United States. Only one of the following may be counted: History 317L (Topic: Latino Histories), 317L (Topic 11), Mexican American Studies 319 (Topic: Latino Histories), 319 (Topic 3).
Topic 12: Mexican American Women, 1910-Present. Same as Mexican American Studies 319 (Topic 4) and Women's and Gender

Studies 301 (Topic 13). Examines the history of Mexican and Mexican American women in the United States from the twentieth century to the present. Only one of the following may be counted: History 317L (Topic: Mexican American Women, 1910-Present), 317L (Topic 12), Mexican American Studies 319 (Topic: Mexican American Women, 1910-Present), 319 (Topic 4), Women's and Gender Studies 301 (Topic: Mexican American Women, 1910-Present), 301 (Topic 13). Topic 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. Three lecture hours a week for one semester. History 317L (Topic: Origins of American Revolution) and 317L (Topic 13) may not both be counted.

## HIS 317N. Topics in History.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: The Roots of Religious Toleration. Same as European Studies 306 (Topic 3), Jewish Studies 311 (Topic 5), and Religious Studies 306 (Topic 1). Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Roots of Religious Toleration), European Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 3), History 317N (Topic: Roots of Religious Toleration), 317N (Topic 1), Jewish Studies 311 (Topic: Roots of Religious Toleration), 311 (Topic 5), Religious Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 1).
Topic 2: Thinking Like a Historian. Designed for sophomore History majors, this seminar introduces students to historical research as a professional discipline: research methods, types of sources, historiography, and structure of research papers. History 317N (Topic: Thinking Like a Historian) and 317 N (Topic 2) may not both be counted.
Topic 3: The Civilizations of Africa to $\mathbf{1 8 0 0}$. Same as African and African Diaspora Studies 317C (Topic 4). Introductory course exposes students to ancient Africa, its peoples, cultures, and landscapes. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 317C (Topic: Civilizations of Africa to 1800), 317C (Topic 4), History 317N (Topic: Civilizations of Africa to 1800), 317N (Topic 3).

## HIS 318Q. Supervised Research.

Individual instruction.

## HIS 319D. The Ancient Mediterranean World.

Same as Ancient History and Classical Civilization 319 (Topic 1: The Ancient Mediterranean World) and Classical Civilization 319D. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

HIS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

HIS 320L. Texas until 1845.
Same as Mexican American Studies 320L. A study of Texas from before the European discovery through the exploration and mission periods to status as a Mexican colony and an independent republic. Three lecture hours a week for one semester. Only one of the following may be counted: History 320L, Mexican American Studies 320L, 374 (Topic: Texas until 1845). Three semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 320P. Texas, 1845-1914.

A study of Texas through early statehood, the Civil War and Reconstruction, and its expansion from a dependent state to a beginning industrial entity. Three lecture hours a week for one semester. Three semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 320R. Texas, 1914 to the Present.

Same as Mexican American Studies 374 (Topic 16: Texas, 1914 to the Present) and Urban Studies 353 (Topic 2: Texas, 1914 to the Present). The steady dissociation of Texas from its Old South status to a transitional state and a power in national politics. Three lecture hours a week for one semester. Three semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 321. The History of Rome: The Empire.

Same as Ancient History and Classical Civilization 325 (Topic 2: The History of Rome: The Empire). A survey of the Roman world from Augustus to Constantine the Great. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 321G. Rome and Jerusalem.

Same as Ancient History and Classical Civilization 325 (Topic 3: Rome and Jerusalem), Jewish Studies 365 (Topic 7: Rome and Jerusalem), Middle Eastern Studies 342 (Topic 21: Rome and Jerusalem), and Religious Studies 365 (Topic 1: Rome and Jerusalem). A study of daily life in Israel during the Roman period, focusing on Jerusalem, ancient Palestinian synagogues and churches, Jewish and Christian symbolism, agriculture, warfare, and burial practices. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 3), Classical Civilization 348 (Topic: Rome and Jerusalem), History 321G, Jewish Studies 365 (Topic 7), Middle Eastern Studies 320 (Topic 2: Rome and Jerusalem), 342 (Topic 21), Religious Studies 365 (Topic 1), Urban Studies 353 (Topic: Rome and Jerusalem). Prerequisite: Upper-division standing.

## HIS 321M. The History of Rome: The Republic.

Same as Ancient History and Classical Civilization 325 (Topic 1: The History of Rome: The Republic). A survey of Roman history from the founding of Rome to the death of Julius Caesar. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 322C. Cultural History of World Science to 1650.

Cultural history of science from ancient times to the seventeenth century. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 322D. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 322G. History of the Modern Life Sciences.

History of the life sciences from the eighteenth century to the present. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 322M. History of Modern Science.

The history of science and its place in society from the time of Newton to the present. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 323L. Europe since 1919.

Survey course emphasizing the impact of the two world wars on European social, political, and cultural life in the twentieth century. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 328M. Modern Brazil.

Same as Latin American Studies 366 (Topic 12: Modern Brazil). The social, economic, political, and cultural forces that have shaped modern Brazil. Three lecture hours a week for one semester. Prerequisite: Upperdivision standing.

## HIS 329P. History of the Atomic Bomb.

The development, use, and influence of nuclear weapons from the 1930s to 1954. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

HIS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## HIS 329U. 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. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: History 329U, 366N (Topic: Perspectives on Science and Mathematics), Philosophy 329U. Prerequisite: Upper-division standing and consent of instructor.

## HIS 331C. History of the Ottoman Empire.

Same as Middle Eastern Studies 331C. A survey of Ottoman society and culture and of the empire's place on the world scene. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 331G. History of Iran to 1800.

Same as Middle Eastern Studies 343 (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: History

331G, Middle Eastern Studies 321K (Topic 3 History of Iran to 1800), 343 (Topic 3). Prerequisite: Upper-division standing.

## HIS 331J. History of the Arab World.

A general survey of the origins and development of Arabic civilization. Three lecture hours a week for one semester. History 331J and Middle Eastern Studies 321K (Topic 2: History of the Arab World) may not both be counted. Prerequisite: Upper-division standing.

## HIS 331L. Modern Iran.

Same as Middle Eastern Studies 343 (Topic 6: Modern Iran). 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 . Only one of the following may be counted: History 331L, Middle Eastern Studies 324K (Topic 5: Modern Iran), 343 (Topic 6). Prerequisite: Upper-division standing.

## HIS 331R. Re-forming the Arab East, 1914-Present.

Same as Middle Eastern Studies 343 (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 331R, History 364G (Topic: Re-forming the Arab East), Middle Eastern Studies 322K (Topic: Re-forming the Arab East), 343 (Topic 2). Prerequisite: Upper-division standing.

## HIS 332G. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 332J. Twentieth-Century European Intellectual History.

Explores significant intellectual developments in Europe in the twentieth century. Topics include psychoanalysis, sociology, existentialism, and poststructuralism. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

HIS 333L. 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. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.
HIS 333M. 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. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 334C. Music Cultures of the Middle East, Past and Present.

Same as Middle Eastern Studies 334C. A historical and ethnomusicological survey of the Arab, Turkish, and Persian music cultures. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 334E. Modern Egypt: A History.

Same as Islamic Studies 373 (Topic 5: Modern Egypt: A History) and Middle Eastern Studies 343 (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: Arabic 372 (Topic: Modern Egypt: A History), History 334E, History 364G (Topic: Modern Egypt: A History), Islamic Studies 372 (Topic: Modern Egypt: A History), 373 (Topic 5), Middle Eastern Studies 322K (Topic: Mdern Egypt: A History), 343 (Topic 1). Prerequisite: Upperdivision standing.

## HIS 334J. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 334L. The American Revolution and the Founding of the

 United States, 1763-1800.The Revolutionary transformation of America between 1763 and 1800. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 337N. Germany in the Twentieth Century.

Same as Russian, East European, and Eurasian Studies 335 (Topic 11: Germany in the Twentieth Century). Survey of German political and military institutions, economic development, culture, and society. Some sections offered on the letter-grade basis only. Prerequisite: Upperdivision standing.

## HIS 340L. Post-Mao China: Change and Transformation.

Same as Asian Studies 340L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340L, 361 (Topic: Post-Mao China: Change and Transformation), History 340L, 364G (Topic: Post-Mao China: Change and Transformation). Prerequisite: Upper-division standing.

## HIS 340M. Modern China.

Same as Asian Studies 340M. History of China from the intrusion of the West circa 1500 to the Communist revolution. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 340P. European Expansion in Asia.

Same as Asian Studies 340P. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 340R. European Empires in Asia.

Same as Asian Studies 340R. The British in India and Malaya, the Dutch in Indonesia, and the French in Indochina since 1800. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 340S. The Chinese in the United States.

Same as Asian American Studies 325 (Topic 3: The Chinese in the United States) and Asian Studies 340S. A lecture and discussion course on the 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Chinese in the United States), 325 (Topic 3), Asian Studies 340S, History 340S. Partially fulfills the legislative requirement for American history. Prerequisite: Upper-division standing.

HIS 340T. Taiwan: Colonization, Migration, and Identity.
Same as Asian American Studies 325 (Topic 4: Taiwan: Colonization, Migration, and Identity) and Asian Studies 340T. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic 4), Asian Studies 340T, 361 (Topic: Taiwan: Colonization, Migration, and Identity), History 340T, 364G (Topic: Taiwan: Colonization, Migration, and Identity). Prerequisite: Upper-division standing.

## HIS 341K. Origins of Modern Japan.

Same as Asian Studies 341K. Japan to the beginnings of the Industrial Revolution, with a focus on the culminating age of samurai rule, the Tokugawa period (1600-1867). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 341M. Imperial Japan.

Same as Asian Studies 341M. Japan from the Meiji transformation through war, defeat, and occupation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 342C. Postwar Japan.

Same as Asian Studies 341N. Japan since the war and occupation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 342D. Political Economy of Japan.

Same as Asian Studies 342D. Historical development of the Japanese economy since early modern times. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 343. The Age of Reformation.

Same as Religious Studies 344. Examines late medieval religion, the rise of Protestant movements, and the Catholic response in their cultural, political, and social contexts. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 343G. Italian Renaissance, 1350-1550.

Survey of political, socioeconomic, religious, and intellectual trends during the Italian Renaissance. Three lecture hours a week for one semester. History 343G and 362K (Topic: Italian Renaissance, 1350-1550) may not both be counted. Prerequisite: Upper-division standing.

## HIS 343L. History of Russia to 1917.

Same as Russian, East European, and Eurasian Studies 335 (Topic 5: History of Russia to 1917). Survey of Russian history from seventeenthcentury Muscovy to the fall of the Romanovs in 1917. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 343M. History of Russia since 1917.

Same as Russian, East European, and Eurasian Studies 335 (Topic 6: History of Russia since 1917). A survey of Russian history from the revolution of 1917 to the collapse of the Soviet Union. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 343P. History of Witchcraft.

A study of witch beliefs and witchcraft prosecutions in western Europe and colonial America, mainly between 1100 and 1700. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 343W. Witches, Workers, and Wives.

Same as European Studies 346 (Topic 3: Witches, Workers, and Wives) and Women's and Gender Studies 345 (Topic 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 344E. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 344F. Anglo-Saxon England.

The political, social, cultural, and legal history of England from about 410 to 1154 . Lectures and discussion of primary sources. Three lecture hours a week for one semester. History 344F and 362K (Topic: Anglo-Saxon England) may not both be counted. Prerequisite: Upper-division standing.

## HIS 344G. Twelfth-Century Renaissance: 1050-1200.

An examination of social, cultural, and intellectual developments in eleventh- and twelfth-century Europe. Three lecture hours a week for one semester. History 344G and 362K (Topic: Twelfth-Century Renaissance: 1050-1200) may not both be counted. Prerequisite: Upper-division standing.

## HIS 344J. 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. Three lecture hours a week for one semester. History 344J and 362K (Topic: Norman and Angevin England) may not both be counted.

## HIS 344M. Everyday Life in Early Modern Europe.

Social history of early modern Europe (1400-1700), with emphasis on material conditions of social existence. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

HIS 345J. The Coming of the Civil War, 1829-1861.
Lecture and discussion course dealing with the historical conditions that led to the American Civil War. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 345L. The American Civil War and Reconstruction, 1861-1877.

Lecture and discussion course on the Civil War and Reconstruction period. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 346C. Ancient India.

Same as Asian Studies 346C. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 346D. Medieval India.

Same as Asian Studies 346D. History and culture of South Asia from approximately 500 to 1500 , with emphasis on religious and political
institutions and the emergence of regional cultures. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 346J. Colonial Latin America through Objects.

Same as Latin American Studies 366 (Topic 20). 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 346J, 363K (Topic: Colonial Latin America through Objects), Latin American Studies 366 (Topic 20). Prerequisite: Upper-division standing.

## HIS 346K. Colonial Latin America.

Same as Latin American Studies 366 (Topic 2: Colonial Latin America). Basic survey course, designed as an introduction to Latin American history in the colonial period. Three lecture hours a week for one semester. Only one of the following may be counted: History 310K, 346K, Latin American Studies 310 (Topic 1: Latin American Civilization: The Colonial Experience), 366 (Topic 2). Prerequisite: Upper-division standing.

## HIS 346L. Modern Latin America.

Same as African and African Diaspora Studies 374E (Topic 5) and Latin American Studies 366 (Topic 3). Continuation of History 346K and Latin American Studies 366 (Topic 2). Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Modern Latin America), 374E (Topic 5), History 310L, 346L, Latin American Studies 310 (Topic 2: Latin American Civilization: The National Experience), 366 (Topic 3). Prerequisite: Upper-division standing.

## HIS 346M. Early Modern India.

Same as Asian Studies 346M. The history and culture of South Asia from approximately 1500 to 1750. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 346M, History 346M, Religious Studies 341 (Topic 6). Prerequisite: Upperdivision standing.

## HIS 346N. The Indian Subcontinent, 1750-1950.

Same as Asian Studies 346N. Examines the cultural and political movements and events that led to formation of the two nation-states India and Pakistan. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 346P. The Indian Republic Since 1947.

An overview of Contemporary India, a republic that emerged from the British Empire. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 346R. Revolution in Modern Latin America.

Same as Latin American Studies 366 (Topic 13: Revolution in Modern Latin America). Comparison of the Mexican and Cuban revolutions and of their challenges to inter-American relations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 346S. Revolution in Twentieth-Century Latin America.

Same as Latin American Studies 366 (Topic 9: Revolution in TwentiethCentury 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 346L, 366N (Topic: Revolution in Twentieth-Century Latin America), Latin American Studies 366 (Topic 9). Prerequisite: Upper-division standing.

## HIS 346T. The Cuban Revolution and the United States.

Same as Latin American Studies 366 (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 346T, 366N (Topic: The Cuban Revolution and the US), Latin American Studies 366 (Topic: The Cuban Revolution and the US), 366 (Topic 17). Prerequisite: Upperdivision standing.

## HIS 346V. Twentieth-Century Rural Latin America.

Same as Latin American Studies 366 (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 346V, 363K (Topic: Twentieth-Century Rural Latin America), Latin American Studies 366 (Topic 19). Prerequisite: Upper-division standing.

## HIS 346W. Church and State in Latin America.

Same as Latin American Studies 366 (Topic 21: Church and State in Latin America) and Religious Studies 368 (Topic 1: 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 twentiethcentury periods. Three lecture hours a week for one semester. Only one of the following may be counted: History 346W, 363K (Topic: Church and State in Latin America), Latin American Studies 366 (Topic 21), Religious Studies 368 (Topic 1). Prerequisite: Upper-division standing.

## HIS 347C. Reimagining Cuba, 1868-Present.

Same as African and African Diaspora Studies 374E (Topic 4) and Latin American Studies 366 (Topic 22). 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. Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Reimagining Cuba, 1868-Present), 374E (Topic 4), History 347C, 363K (Topic: Reimagining Cuba, 1868-Present), Latin American Studies 366 (Topic 22). Prerequisite: Upper-division standing.

## HIS 347L. Seminar in Historiography.

Restricted to students in the History Honors Program. Designed to familiarize students in the honors program with general problems of historiography, historical interpretation, and the philosophy of history. Three lecture hours a week for one semester. Prerequisite: Consent of instructor.

## HIS 349R. Military History to 1640.

A broad survey of world military systems from ancient times to about 1640. Three lecture hours a week for one semester. Prerequisite: Upperdivision standing.

## HIS 349S. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 350L. Undergraduate Seminar in History.

Lectures, discussion, reading, and research on selected topics in the field of history. Three lecture hours a week for one semester. History 350L and 350 R may not both be counted unless the topics vary. Some sections are
offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 5: Gandhi and Gandhism. Same as Asian Studies 361 (Topic 6: Gandhi and Gandhism) and Religious Studies 341 (Topic 5: Gandhi and Gandhism).
Topic 19: Resistance, Rebellion, and Revolution in Colonial Spanish America. Same as Latin American Studies 366 (Topic 7: Resistance, Rebellion, and Revolution in Colonial Spanish America). Only one of the following may be counted: History 350L (Topic 19), Latin American Studies 366 (Topic: Resistance, Rebellion, and Revolution in Colonial Spanish America), 366 (Topic 7).

## Topic 32: The Galileo Affair.

Topic 33: Heresy and the Inquisition. Same as Religious Studies 357 (Topic 1: Heresy and the Inquisition).
Topic 34: Medieval Islam: Faith and History. Same as Middle Eastern Studies 343 (Topic 5: Medieval Islam: Faith and History) and Religious Studies 358 (Topic 2: Medieval Islam: Faith and History). Only one of the following may be counted: History 350L (Topic 34), Middle Eastern Studies 321K (Topic 7: Medieval Islam: faith and History), 343 (Topic 5), Religious Studies 358 (Topic 2).
Topic 35: Nigeria: A History of Nation-Building. Same as African and African Diaspora Studies 372G (Topic 2: Nigeria: A History of Nation-Building). Only one of the following may be counted: African and African Diaspora Studies 372G (Topic 2), 374C (Topic 1: Nigeria: A History of Nation-Building), History 350L (Topic 35).
Topic 41: Stalinist Russia. Same as Russian, East European, and Eurasian Studies 335 (Topic 12: Stalinist Russia).
Topic 42: History of Modern Central America. Same as Latin American Studies 366 (Topic 15: History of Modern Central America). Only one of the following may be counted: History 350L (Topic 42), 363K (Topic: History of Modern Central America), Latin American Studies 366 (Topic 15).
Topic 44: Culture and Identity in Colonial Mexico. Same as Latin American Studies 366 (Topic 16: Culture and Identity in Colonial Mexico).
Topic 46: Women and Gender in China. Same as Asian Studies 372 (Topic 21: Women and Gender in China) and Women's and Gender Studies 340 (Topic 18: Women and Gender in China).
Topic 49: History of Imperialism.
Topic 50: Imperialism: Empire to Globalization.
Topic 54: Epics and Heroes of India. Same as Ancient History and Classical Civilization 330 (Topic 2), Asian Studies 372 (Topic 40), and Core Texts and Ideas 345 (Topic 11). Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Epics and Heroes of India), 330 (Topic 2), Asian Studies 372 (Topic: Epics and Heroes of India), 372 (Topic 40), Core Texts and Ideas 345 (Topic: Epics and Heroes of India), 345 (Topic 11), History 350L (Topic 54).
Topic 56: Germany since Hitler.
Topic 57: Law and Society in Early Modern Europe. Same as European Studies 346 (Topic 4: Law and Society in Early Modern Europe) and Women's and Gender Studies 340 (Topic 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. Only one of the following may be counted: European Studies 346 (Topic 4), History 350L (Topic 57), Women's and Gender Studies 340 (Topic 13).
Topic 59: Stalin's Russia at War. Only one of the following may be counted: History 350L (Topic 59), 362G (Topic: Stalin's Russia at War), 366N (Topic: Stalin's Russia at War).
Topic 62: History of the Caribbean. Same as Latin American Studies 366 (Topic 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.
Topic 63: Electrification. An examination of how electrical technologies have changed the workings of the world and the lives of ordinary people over the past 175 years. History 350L (Topic: Electrification) and 350L (Topic 63) may not both be counted.
Topic 64: Einstein in the Age of Conflict. Same as Core Texts and Ideas 371 . 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. Only one of the following may be counted: Core Texts and Ideas 370 (Topic: Einstein in the Age of Conflicts), History 350L (Topic: Einstein in the Age of Conflicts), 350L (Topic: 64).
Topic 65: The Chinese in Diaspora. Same as Asian American Studies 325 (Topic 2) and Asian Studies 361 (Topic 28). 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. For 361, three lecture hours a week for one semester; for 461, four lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Chinese in Diaspora), 325 (Topic 2: The Chinese in Diaspora), Asian Studies 361 (Topic: Chinese in Diaspora), 361, 461 (Topic 28), History 350L (Topic: The Chinese in Diaspora), 350L (Topic 65: The Chinese Diaspora). Additional prerequisite: Upper-division standing.
Topic 66: Dictatorship, Dirty War, and Democracy in Latin America. Same as Latin American Studies 366 (Topic 23). Only one of the following may be counted: History 350L (Topic: Dictator/Dirty War in Latin America), 350L (Topic 66), Latin American Studies 366 (Topic: Dictator/Dirty War in Latin America), 366 (Topic 23).
Topic 67: Mughal India in History and Memory. Same as Asian Studies 361 (Topic 33) and Islamic Studies 372 (Topic 20). 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. Only one of the following may be counted: Asian Studies 361 (Topic: Mughal India in History and Memory), 361 (Topic 33), History 350L (Topic: Mughal India in History and Memory), 350L (Topic 67), Islamic Studies 372 (Topic: Mughal India in History and Memory), 372 (Topic 20).
Topic 68: Afro-Latin America. Same as African and African Diaspora Studies 372G (Topic 10) and Latin American Studies 366 (Topic 31). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Afro-Latin America), 372G (Topic 10), 374E (Topic: Afro-Latin America), History 350L (Topic: Afro-Latin America), 350L (Topic 68), Latin American Studies 366 (Topic: AfroLatin America), 366 (Topic 31). Additional prerequisite: Upper-division standing.
Topic 69: The Decolonization of the British Empire. Explores the era of decolonization of the British empire after World War II. Only one of the following may be counted: History 350L (Topic: Decolonization of British Empire), 350L (Topic 69), Liberal Arts Honors 350 (Topic: Decolonization of British Empire). Offered on the letter-grade basis only.
Topic 70: Historical Imagining of Africa in Films. Same as African and African Diaspora Studies 374F (Topic 18) and Women's and Gender Studies 340 (Topic 40). Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Historical Imagining of Africa in Film), 374F (Topic 18), History 350L (Topic:

Historical Imagining of Africa in Film), 350L (Topic 70), Women's and Gender Studies 340 (Topic: Historical Imagining of Africa in Film), 340 (Topic 40).
Topic 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. History 350 L (Topic: Liberalism and the British Empire) and 350L (Topic 71) may not both be counted.
Topic 72: History of Southern Africa. Same as African and African Diaspora Studies 374C (Topic 4) and Women's and Gender Studies 340 (Topic 39). Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: History of Southern Africa), 374C (Topic 4), History 350L (Topic: History of Southern Africa), 350 L (Topic 72), Women's and Gender Studies 340 (Topic: History of Southern Africa), 340 (Topic 39).
Topic 74: Mystics, Visionaries, and Heretics in Medieval Europe. Same as Ancient History and Classical Civilization 330 (Topic 3) and Religious Studies 375S (Topic 3). Examines particular mystical and visionary experiences within the context of medieval European Christianity. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 330 (Topic 3), History 350L (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 350L (Topic 74), Religious Studies 375S (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 375S (Topic 3).
Topic 75: Rethinking the Conquest of Mexico. Same as Latin American Studies 366 (Topic 24). Explores the "conquest" of Mexico and the social, cultural, political, and economic processes which were set in motion by the Spanish invasion of Mexico. Only one of the following may be counted: History 350L (Topic: Rethinking Conquest of Mexico), 350L (Topic 75), Latin American Studies 366 (Topic: Rethinking Conquest of Mexico), 366 (Topic 24), Tutorial Course 357 (Topic: Rethinking Conquest of Mexico).
Topic 76: The Religious Tradition in Latin America. Same as Latin American Studies 366 (Topic 25) and Religious Studies 368 (Topic 3). Explores the different ways in which religion has helped to define the political, social, and philosophical structures of Latin America from colonial times to the present. Only one of the following may be counted: History 350L (Topic: The Religious Tradition in Latin America), 350L (Topic 76), Latin American Studies 366 (Topic: The Religious Tradition in Latin America), 366 (Topic 25), Religious Studies 368 (Topic: The Religious Tradition in Latin America), 368 (Topic 3).
Topic 77: The Spanish Inquisition. Same as European Studies 346 (Topic 11), Jewish Studies 364 (Topic 5), and Religious Studies 357 (Topic 10). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: The Spanish Inquisition), 346 (Topic 11), History 350L (Topic: The Spanish Inquisition), 350L (Topic 77), Jewish Studies 364 (Topic: The Spanish Inquisition), 364 (Topic 5), Religious Studies 357 (Topic: The Spanish Inquisition), 357 (Topic 10).
Topic 78: Visual and Material Culture in Colonial Latin America. Same as Latin American Studies 366 (Topic 26). Focuses on the visual and material culture of colonial Spanish America. Only one of the following may be counted: History 350L (Topic: Visual and Material Culture in Colonial Latin America), 350L (Topic 78), Latin American Studies 366 (Topic: Visual and Material Culture in Colonial Latin America), 366 (Topic 26).
Topic 79: World War II in Eastern Europe. Same as European Studies 346 (Topic 12), Jewish Studies 364 (Topic 11), and Russian, East European, and Eurasian Studies 335 (Topic 19). 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. Only one of the following
may be counted: European Studies 346 (Topic: World War II in Eastern Europe), 346 (Topic 12), History 350L (Topic: World War II in Eastern Europe), History 350L (Topic 79), Jewish Studies 364 (Topic: World War II in Eastern Europe), 364 (Topic 11), Russian, East European, and Eurasian Studies 335 (Topic: World War II in Eastern Europe), 335 (Topic 19).
Topic 80: Creation. Same as European Studies 346 (Topic 13) and Religious Studies 373 (Topic 5). Explores the writings of premodern authors as related to creation and early developments in western theology, science, and philosophy. Only one of the following may be counted: European Studies 346 (Topic: Creation), 346 (Topic 13), History 350L (Topic: Creation), 350L (Topic 80), Religious Studies 373 (Topic: Creation), 373 (Topic 5), Women's and Gender Studies 345 (Topic: Creation).
Topic 81: Enlightenment and Revolution. Same as European Studies 346 (Topic 14). Examines the relationship between the intellectual project of the Enlightenment and the political and social transformations that unfolded in western Europe and North America from the beginnings of the Dutch Revolt in the 1560 s to the decade following the Paris Commune of 1871 . Only one of the following may be counted: Core Texts and Ideas 375 (Topic: Enlightenment and Revolution), European Studies 346 (Topic: Enlightenment and Revolution), 346 (Topic 14), History 350L (Topic: Enlightenment and Revolution), 350L (Topic 81).
Topic 82: Indian Ocean Travel and Trade, 1000-1700. Examines long-distance travel and trade in the Indian Ocean region from approximately 1000 to 1700 AD. Only one of the following may be counted: Asian Studies 361 (Topic: Indian Ocean Travel and Trade, 1000-1700), History 350L (Topic: Indian Ocean Travel and Trade, 1000-1700), 350L (Topic 82).
Topic 83: Writing Violence in History. Examines how historians have approached episodes of violence and will also look outside of the discipline of history to see how psychoanalysts, anthropologists, novelists, and activists have both understood violence and how they represent it in their work. History 350L (Topic: Writing Violence in History) and 350L (Topic 83) may not both be counted.

## HIS 350R. Undergraduate Seminar in United States History.

Lectures, discussion, reading, and research on selected topics in the field of United States history. Three lecture hours a week for one semester. History 350L and 350R may not both be counted unless the topics vary. Partially fulfills legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and six semester hours of coursework in history.

Topic 1: Coastal Communities in Early America.
Topic 2: Lyndon Johnson and His Times.
Topic 3: Myth and Construction of American Identity. Topic 4: Constitutional Issues in the Twentieth-Century United States.
Topic 5: American Cultural History of Alcohol and Drugs. Same as American Studies 370 (Topic 1: 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. Only one of the following may be counted: American Studies 370 (Topic 1), History 350L (Topic 2: American Cultural History of Alcohol and Drugs), 350R (Topic 5). Partially fulfills legislative requirement for American history.
Topic 6: Deviance in America: An Alternative History. Same as American Studies 370 (Topic 22: Deviance in America: An Alternative History). Examines movements and individuals outside the conventional mainstream and how they reflect American ideals and dilemmas. Only one of the following may be counted: American Studies 370 (Topic 22), History 350L (Topic 61: Deviance in America:

An Alternative History), 350R (Topic 6). Partially fulfills legislative requirement for American history.
Topic 7: Environmental History of North America. Same as American Studies 329 and Urban Studies 353 (Topic 5: 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. Only one of the following may be counted: American Studies 329, History 350L (Topic 4: Environmental History of North America), 350R (Topic 7), Urban Studies 353 (Topic 5). Partially fulfills legislative requirement for American history.
Topic 8: Women in Postwar America. Same as American Studies 370 (Topic 30: Women in Postwar America) and Women's and Gender Studies 345 (Topic 37: Women in Postwar America). Only one of the following may be counted: American Studies 370 (Topic 30), History 350L (Topic 58: Women in Postwar America), 350R (Topic 8), Women's and Gender Studies 345 (Topic 37). Partially fulfills legislative requirement for American history.
Topic 9: Animals and American Culture. Same as American Studies 370 (Topic 28: Animals and American Culture) and Women's and Gender Studies 345 (Topic 43: Animals and American Culture). Explores the role of animals in American history, culture, and society. Only one of the following may be counted: American Studies 370 (Topic 28), History 350L (Topic 60: Animals and American Culture), 350 R (Topic 9), Women's and Gender Studies 345 (Topic 43). Partially fulfills legislative requirement for American history.
Topic 10: Slavery in the United States. Same as African and African Diaspora Studies 374D (Topic 3: Slavery in the United States). Only one of the following may be counted: African and African Diaspora Studies 374D (Topic 3), History 350L (Topic 39), 350R (Topic 10). Partially fulfills legislative requirement for American history.
Topic 11: Race and Beauty in American Culture. Same as African and African Diaspora Studies 372C (Topic 2: Race and Beauty in American Culture). Only one of the following may be counted: African and African Diaspora Studies 372C (Topic 2), 374D (Topic 1: Race and Beauty in American Culture), History 350L (Topic 52: Race and Beauty in American Culture), 350R (Topic 11). Partially fulfills legislative requirement for American history.
Topic 12: History of Black Entrepreneurship in the United States. Same as African and African Diaspora Studies 374D (Topic 2: History of Black Entrepreneurship in the United States). Only one of the following may be counted: African and African Diaspora Studies 374D (Topic 2), History 350L (Topic 53: History of Black Entrepreneurship in the United States), 350R (Topic 12). Partially fulfills legislative requirement for American history.
Topic 13: History of Sexuality in America. Same as Women's and Gender Studies 345 (Topic 38: History of Sexuality in America). Only one of the following may be counted: History 350L (Topic 55: History of Sexuality in America), 350R (Topic 13), Women's and Gender Studies 345 (Topic 38). Partially fulfills legislative requirement for American history.
Topic 14: Gender and Slavery in the United States. Same as African and African Diaspora Studies 372C (Topic 4: Gender and Slavery in the United States) and Women and Gender Studies 345, (Topic 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. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic 4), 374D (Topic: Gender and Slavery in the United States), History 350L (Topic: Gender and Slavery in the United States), 350R (Topic 14), Women's and Gender Studies 340 (Topic: Gender and Slavery in the United States), 345 (Topic 31). Partially fulfills legislative requirement for American history.

Topic 15: Thomas Jefferson and His World. Examination of the public and private Jefferson: author of the Declaration of Independence, governor of Virginia, secretary of state during the Washington administration, third president of the United States, master of Monticello, and owner of nearly three hundred people.
Topic 16: Innovation in the United States Economy. Examines creativity in the United States' economy, primarily since 1865. Includes major innovations associated with the evolution of the economy, such as the development of branding and the coming of the computer industry.
Topic 17: Black Women in America. Same as African and African Diaspora Studies 374D (Topic 9: Black Women in America) and Women's and Gender Studies 340 (Topic 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. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic 9) History 350L (Topic: Black Women in America), 350R (Topic 17), Women's and Gender Studies 340 (Topic 9). Partially fulfills legislative requirement for American history.
Topic 18: Women in Sickness and Health. Same as Women's and Gender Studies 345 (Topic 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. Only one of the following may be counted: History 350L (Topic: Women in Sickness and Health), 350R (Topic 18), Women's and Gender Studies 345 (Topic 3). Partially fulfills legislative requirement for American history.
Topic 19: American Popular Culture, 1682-Present. Same as American Studies 370 (Topic 35: American Popular Culture, 1682Present) and Women's and Gender Studies 340 (Topic 26: 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. Partially fulfills legislative requirement for American history.
Topic 20: History of American Feminism. Same as Women's and Gender Studies 345 (Topic 49). Only one of the following may be counted: History 350R (Topic: History of American Feminism), 350 R (Topic 20), Women's and Gender Studies 345 (Topic: History of American Feminism), 345 (Topic 49). Partially fulfills legislative requirement for American history.
Topic 21: Pluralism in Early America. Only one of the following may be counted: History 350L (Topic: Pluralism in Early America), 350R (Topic: Pluralism in Early America), 350R (Topic 21).
Topic 22: The History of Islam in the United States. Same as Islamic Studies 372 (Topic 21) and Religious Studies 346 (Topic 10). 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. Only one of the following may be counted: History 350R (Topic: History of Islam in the United States), 350R (Topic 22), Islamic Studies 372 (Topic: History of Islam in the United States), 372 (Topic 21), Religious Studies 346 (Topic: History of Islam in the United States), 346 (Topic 10). Partially fulfills legislative requirement for American history.

Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic: Twentieth-Century Native American History), 350R (Topic: Twentieth-Century Native American History), 350R (Topic 23).

Topic 24: Domestic Slave Trade. Same as African and African Diaspora Studies 374D (Topic 20). 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. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Domestic Slave Trade), 374D (Topic 20), History 350R (Topic: Domestic Slave Trade), 350R (Topic 24).

Topic 25: Race and Citizenship in United States History. Same as American Studies 370 (Topic 48) and Mexican American Studies 374 (Topic 35). Uses primary and secondary sources to analyze how race and citizenship have functioned for populations of color in the United States. Only one of the following may be counted: American Studies 370 (Topic: Race and Citizenship in United States History), 370 (Topic 48), History 350R (Topic: Race and Citizenship in United States History), 350R (Topic 25), Mexican American Studies 374 (Topic: Race and Citizenship in United States History), 374 (Topic 35). Partially fulfills legislative requirement for American history.
Topic 26: United States Media, Culture, and Commerce. Examines the history of the United States media as both a successful corporate product and as an important tool for the formation of personal and community identity. Only one of the following may be counted: History 350L (Topic: United States Media, Culture, and Commerce), 350R (Topic: United States Media, Culture, and Commerce), 350R (Topic 26). Partially fulfills legislative requirement for American history.

Topic 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. History 350R (Topic: Arts and Artifacts in the Americas) and 350R (Topic 27) may not both be counted. Partially fulfills legislative requirement for American history. Topic 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. History 350R (Topic: Debating the American Revolution) and 350R (Topic 28) may not both be counted. Partially fulfills legislative requirement for American history.
Topic 29: Globalization, Transnationalism, and Internationalism. Same as African and African Diaspora Studies 374C (Topic 3). Addresses the complex role of the United States in the greater scope of international relations in politics, with an emphasis on how political events in the United States reach the African continent in a variety of ways. Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: Globalization, Internationalism, and Transnationalism), 374C (Topic 3), History 350R (Topic: Globalization, Internationalism, and Transnationalism), 350R (Topic 29). Additional prerequisite: Upper-division standing.
Topic 30: History of Teaching American History. Examination and evaluation of the role of the historian and teacher of history today and the changing ideas of how American history has been taught. Only one of the following may be counted: History 350L (Topic: History of Teaching American History), 350R (Topic: History of Teaching American History), 350R (Topic 30). Partially fulfills legislative requirement for American history.
Topic 31: Irrationality in United States Economic History. Explores new research from psychology, economics, history, and law that finds human beings have acted irrationally in numerous situations. Students will sample historical research from subjects such as marketing, discrimination, labor policies, and public policy. History 350R (Topic: Irrationality in United States Economic History) and 350R (Topic 31) may not both be counted. Partially fulfills legislative requirement for American history.
Topic 32: America at War. Investigation of major American wars from the Revolutionary War to the wars in Iraq and Afghanistan. Only one of the following may be counted: History 350L (Topic: America at

War), 350R (Topic: America at War), 350R (Topic 32). Partially fulfills legislative requirement for American history.
Topic 33: Consuming America. Explores the history of the relationship between the American consumer and the nation's social history. Only one of the following may be counted: History 350L (Topic: Consuming America), 350R (Topic: Consuming America), 350R (Topic 33). Partially fulfills legislative requirement for American history.

Topic 34: The History of the American Presidency. Examination of the presidency and the individuals who have held it, with an emphasis on discovering trends of historical and contemporary interest. History 350R (Topic: The History of the American Presidency) and 350R (Topic 34) may not both be counted. Partially fulfills legislative requirement for American history.

## HIS 351D. The Hellenistic Age: Alexander to Actium.

Same as Ancient History and Classical Civilization 325 (Topic 6: The Hellenistic Age: Alexander to Actium) and Classical Civilization 351D. 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 ). Two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## HIS 351P. History of Religion in America since 1800.

Same as Religious Studies 326. 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. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 352L. The Mexican Revolution, 1910-1920.

Same as Latin American Studies 366 (Topic 8: The Mexican Revolution, 1910-1920). An analytical examination of the initial decade of the Mexican Revolution, the first of the twentieth-century nationalist social revolutions; examines through lectures and discussion the historical antecedents and the political, economic, social, and intellectual elements of the upheaval. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 353. The French Revolution and Napoleon.

Analysis of the social, political, and economic origins and outcomes of the French Revolution and Napoleon's empire. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 354C. History of Greece to the End of the Peloponnesian War.

Same as Ancient History and Classical Civilization 325 (Topic 4: History of Greece to the End of the Peloponnesian War) and Classical Civilization 354C. Survey of Greek history from the emergence of the city-states through the end of the Peloponnesian War (ca. 700 to 404 BC). Two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## HIS 354D. History of Greece to 146 BC.

Same as Ancient History and Classical Civilization 325 (Topic 5: History of Greece to 146 BC ) and Classical Civilization 354D. Survey of Greek history from the end of the Peloponnesian War to the defeat of Greece by Rome ( 404 to 146 BC ). Two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

## HIS 354N. France in Modern Times.

The impact of revolution on French political, economic, and social development in the nineteenth and twentieth centuries. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 355F. The United States, 1877-1920.

Examines the Gilded Age and Progressive Era to depict the rise of modern America. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upperdivision standing.

## HIS 355M. The United States, 1920-1941.

Same as American Studies 358. A history of political, economic, diplomatic, military, social, and cultural developments in the United States between the two world wars. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 355N. Main Currents of American Culture to 1865.

Same as American Studies 355. 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. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 355P. 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. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 355S. 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. Three lecture hours a week for one semester. History 355S and 366N (Topic: United States Constitutional History) may not both be counted. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 356G. 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. Three lecture hours a week for one semester. History 356G and 365G (Topic: History of the United States West) may not both be counted. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 356K. Main Currents of American Culture since 1865.

Same as American Studies 356. 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. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 356P. The United States in the Civil Rights Era.

Same as African and African Diaspora Studies 374D (Topic 17), American Studies 321 (Topic 9), and Mexican American Studies 374 (Topic 36). 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. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: The United States in the Civil Rights Era), 374D (Topic 17), American Studies 321
(Topic: The United States in the Civil Rights Era), 321 (Topic 9), History 356P, Mexican American Studies 374 (Topic: The United States in the Civil Rights Era), 374 (Topic 36). Partially fulfills legislative requirement for American history.

## HIS 356R. America and the Holocaust.

Same as American Studies 321 (Topic 4: America and the Holocaust) and Jewish Studies 365 (Topic 1: America and the Holocaust). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic 4), 370 (Topic: America and the Holocaust), History 350L (Topic: America and the Holocaust), 356R, 365G (Topic: America and the Holocaust), Jewish Studies 361 (Topic: America and the Holocaust), 365 (Topic 1), Liberal Arts Honors 350 (Topic: America and the Holocaust). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 357C. African American History to 1860.

Same as African and African Diaspora Studies 357C and American Studies 321E. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357C, American Studies 321 (Topic: African American History to 1860), 321E, History 357C. Partially fulfills legislative requirement for American History. Prerequisite: Upper-division standing.

## HIS 357D. African American History since 1860.

Same as American Studies 321F, African and African Diaspora Studies 357D, and Urban Studies 353 (Topic 1: 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357D, American Studies 321 (Topic: African American History since 1860), 321F, History 357D, Urban Studies 353 (Topic 1). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

## HIS 358M. History of Britain from 1783 through World War I.

Same as European Studies 346 (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 1), History 358M. Prerequisite: Upper-division standing.

## HIS 358Q. Supervised Research.

Individual instruction. Prerequisite: Upper-division standing.

## HIS 359N. History of Africa since 1800.

Same as African and African Diaspora Studies 359N. Development of sub-Saharan Africa from the end of the slave trade to independence. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 359P. History of East Africa.

Same as African and African Diaspora Studies 345. A survey of the history of Kenya, Tanzania, and Uganda from prehistoric times to the postindependence era. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 359R. History of West Africa.

Same as African and African Diaspora Studies 345C. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 362G. Topics in European History.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 2: Vienna: Memory and the City. Same as American Studies 370 (Topic 41: Vienna: Memory and the City), European Studies 346 (Topic 5: Vienna: Memory and the City), and Urban Studies 354 (Topic 7: Vienna: Memory and the City). Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria. Only one of the following may be counted: American Studies 315 (Topic: Vienna: Memory and the City), 370 (Topic 41), 306 (Topic: Vienna: Memory and the City), 346 (Topic 5), Geography 309 (Topic: Vienna: Memory and the City), Germanic Civilization 311(Topic: Vienna: Memory and the City), History 306N (Topic: Vienna: Memory and the City), 362G (Topic 2), Urban Studies 305 (Topic: Vienna: Memory and the City), 354 (Topic 7). Additional prerequisite: Upperdivision standing.
Topic 3: Introduction to the Holocaust. Same as European Studies 346 (Topic 17), Jewish Studies 364 (Topic 6), and Russian, East European, and Eurasian Studies 335 (Topic 17). Examines the mass killing of Jews and other victims in the context of Nazi Germany's quest for race and space during World War II. Only one of the following may be counted: European Studies 346 (Topic: Introduction to the Holocaust), 346 (Topic 17), History 362G (Topic: Introduction to the Holocaust), 362G (Topic 3), Jewish Studies 364 (Topic: Introduction to the Holocaust), 364 (Topic 6), Middle Eastern Studies 325 (Topic: Introduction to the Holocaust), Russian, East European, and Eurasian Studies 335 (Topic: Introduction to the Holocaust), 335 (Topic 17). Topic 4: Modern European Food History. History 362G (Topic: Modern European Food History) and 362 (Topic 4) may not both be counted.
Topic 5: Early Western Colonialism. Same as European Studies 346 (Topic 15). 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. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Early Western Colonialism), 346 (Topic 15), History 362G (Topic: Early Western Colonialism), 362G (Topic 5).
Topic 6: The First World War. Examines the tensions and conflicts between 1914 and 1918 that set the stage for the violent twentieth century. History 362G (Topic: The First World War) and 362G (Topic 6) may not both be counted.
Topic 7: Eastern Europe in the Twentieth Century. Same as European Studies 346 (Topic 16) and Russian, East European, and Eurasian Studies 335 (Topic 16). Examines the major political, social, and cultural events that shaped Eastern European society in the twentieth century. Only one of the following may be counted: European Studies 346 (Topic: Eastern Europe in the 20th-Century), 346 (Topic 16), History 362G (Topic: Eastern Europe in the 20th-Century), 362G (Topic 7), Russian, East European, and Eurasian Studies 335 (Topic: Eastern Europe in the 20th-Century), 335 (Topic 16).
Topic 8: Jews of Eastern Europe. Same as Jewish Studies 364 (Topic 7), Religious Studies 357 (Topic 13), and Russian, East European, and Eurasian Studies 335 (Topic 23). Explores the history and culture of Jews in Eastern Europe. Only one of the following may be counted: History 362G (Topic: Jews of Eastern Europe), 362G
(Topic 8), Jewish Studies 364 (Topic: Jews of Eastern Europe), 364
(Topic 7), Religious Studies 357 (Topic: Jews of Eastern Europe), 357 (Topic 13), Russian, East European, and Eurasian Studies 335 (Topic: Jews of Eastern Europe), 335 (Topic 23).
Topic 9: Southeast Europe in the Twentieth Century. Same as European Studies 346 (Topic 18), Jewish Studies 364 (Topic 8), and Russian, East European, and Eurasian Studies 335 (Topic 18). Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century. Only one of the following may be counted: European Studies 346 (Topic: Southeast Europe in the Twentieth Century), 346 (Topic 18), History 362G (Topic: Southeast Europe in the Twentieth Century), 362G (Topic 9), Jewish Studies 364 (Topic: Southeast Europe in the Twentieth Century), 364 (Topic 8), Russian, East European, and Eurasian Studies 335 (Topic: Southeast Europe in the Twentieth Century), 335 (Topic 18).
Topic 12: Heretics and Freedom Fighters, 1350-1650. Same as Czech 324 (Topic 4), European Studies 346 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic 3), Religious Studies 357 (Topic 12), and Russian, East European, and Eurasian Studies 325 (Topic 28). Explores the theologies, politics, and personal identities that emerged and passed away in this era. Only one of the following may be counted: Czech 324 (Topic: Heretics and Freedom Fighters, 1350-1650), 324 (Topic 4), European Studies 346 (Topic: Heretics and Freedom Fighters, 1350-1650), 346 (Topic 8), Germanic Civilization 327E (Topic: Heretics and Freedom Fighters, 1350-1650), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic: Heretics and Freedom Fighters, 1350-1650), 362G (Topic 12), Religious Studies 357 (Topic: Heretics and Freedom Fighters, 1350-1650), 357 (Topic 12), Russian, East European, and Eurasian Studies 325 (Topic: Heretics and Freedom Fighters, 1350-1650), 325 (Topic 28).
Topic 13: The World of the Victorians. Introduction to the main contours of social and cultural British history, both in Britain and in its burgeoning empire. History 362 G (Topic: The World of the Victorians) and 362G (Topic 13) may not both be counted.
Topic 14: The Church and the Jews. Same as Jewish Studies 364 (Topic 10) and Religious Studies 357 (Topic 9). Examination of the complex relationship between the Western Church and Jews over two millenia. Only one of the following may be counted: History 362G (Topic: The Church and the Jews), 362G (Topic 14), Jewish Studies 364 (Topic: The Church and the Jews), 364 (Topic 10), Religious Studies 357 (Topic: The Church and the Jews), 357 (Topic 9).
Topic 15: Rebels and Revolutionaries in Russian History and Literature. Same as Comparative Literature 323 (Topic 20), Russian, East European, and Eurasian Studies 325 (Topic 24), and Russian 356 (Topic 4). Study of fictional and real rebels and revolutionaries across almost a century of Russian literature. Only one of the following may be counted: Comparative Literature 323 (Topic: Rebels and Revolutionaries in Russian History and Literature), 323 (Topic 20), History 362G (Topic: Rebels and Revolutionaries in Russian History and Literature), 362G (Topic 15), Russian 356 (Topic: Rebels and Revolutionaries in Russian History and Literature), 356 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic: Rebels and Revolutionaries in Russian History and Literature), 325 (Topic 24). Additional prerequisite: Upper-division standing.

## HIS 362K. Medieval Civilization.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Medieval Warfare. An in-depth examination of the development of warfare between the late Roman Empire and the early modern world (c. 400-1500). Also includes a brief retrospective on war
in the ancient world. History 362K (Topic: Medieval Warfare) and 362K (Topic 1) may not both be counted.

## HIS 362P. Spinoza and Modernity.

Same as Core Texts and Ideas 321F, European Studies 346 (Topic 21), Jewish Studies 364 (Topic 9), Philosophy 354 (Topic 7), and Religious Studies 357 (Topic 8). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Spinoza and Modernity), 321F, European Studies 346 (Topic: Spinoza and Modernity), 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362G (Topic: Spinoza and Modernity), 362P, Jewish Studies 364 (Topic: Spinoza and Modernity), 364 (Topic 9), Philosophy 334K (Topic: Spinoza and Modernity), 354 (Topic: Spinoza and Modernity), 354 (Topic 7), Religious Studies 357 (Topic: Spinoza and Modernity), 357 (Topic 8). Prerequisite: Upper-division standing.

## HIS 363K. Topics in Latin American History.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Cultural Citizenship in the United States and Latin
America. Same as Latin American Studies 366 (Topic 27). 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 363K (Topic: Cultural Citizenship in the United States and Latin America), 363K (Topic 1), Latin American Studies 366 (Topic: Cultural Citizenship in the United States and Latin America), 366 (Topic 27).
Topic 2: Argentina: Populism and Insurrection. Same as Latin American Studies 366 (Topic 28). An overview of principal trends and issues in Argentine history from independence to the present. Only one of the following may be counted: History 363K (Topic: Argentina: Populism and Insurrection), 363K (Topic 2), Latin American Studies 366 (Topic: Argentina: Populism and Insurrection), 366 (Topic 28).
Topic 3: Religion, Conquest, and Conversion in Colonial Latin
America. Same as Latin American Studies 366 (Topic 29) and Religious Studies 368 (Topic 4). Focuses on the histories of the Catholic Church and religious devotion in colonial Latin America between 1521 and 1821. Only one of the following may be counted: History 363K (Topic: Religion, Conquest, and Conversion in Colonial Latin America), 363K (Topic 3), Latin American Studies 366 (Topic: Religion, Conquest, and Conversion in Colonial Latin America), 366 (Topic 29), Religious Studies 368 (Topic: Religion, Conquest, and Conversion in Colonial Latin America), 368 (Topic 4).

## HIS 364G. Topics in African, Asian, and Middle Eastern History.

May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing.

Topic 1: History of Hindu Religious Traditions. Same as Anthropology 324L (Topic 23: History of Hindu Religious Traditions), Asian Studies 340 (Topic 4: History of Hindu Religious Traditions), and Religious Studies 321. 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.
Topic 2: Prophet of Islam: His Life and Times. Same as Islamic Studies 340 (Topic 1: Prophet of Islam: His Life and Times) and Religious Studies 325. A detailed study of the prophet Muhammad's
life and message, and of the means by which his life was recorded and popularized. Only one of the following may be counted: History 364G (Topic 2), Islamic Studies 340 (Topic 1), Middle Eastern Studies 321K (Topic 6: Prophet of Islam: His Life and Times), Religious Studies 325. Topic 3: The Dead Sea Scrolls. Same as Ancient History and Classical Civilization 330 (Topic 1), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Dead Sea Scrolls), 330 (Topic 1), History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 320 (Topic 13), 342 (Topic 23), Religious Studies 353D. Additional prerequisite: Upper-division standing.
Topic 4: African History in Films and Photographs. Same as African and African Diaspora Studies 372G (Topic 32). Designed to increase understanding of the social, economic, and political challenges of the past fifty years of Africa's history through an examination of several popular films. Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: African History in Films and Photographs), 372G (Topic: African History in Films and Photographs), 372G (Topic 32), History 364G (Topic: African History in Films and Photographs), 364G (Topic 4).
Topic 5: African Women's History. Same as African and African Diaspora Studies 372G (Topic 6) and Women's and Gender Studies 340 (Topic 32). Major themes include politics, economics, religion, the family, culture, technology, feminism, colonialism, nationalism, and development in relation to the lives of African women. Only one of the followed may be counted: African and African Diaspora Studies 372G (Topic 6), 374C (Topic: African Women's History), History 364G (Topic: African Women's History), 364G (Topic 5), Women's and Gender Studies 340 (Topic: African Women's History), 340 (Topic 32).
Topic 6: Apartheid: South African History. Same as African and African Diaspora Studies 374C (Topic 6) and Women's and Gender Studies 340 (Topic 42). 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. Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: Apartheid and Resistance in South Africa), 374C (Topic: Apartheid: South African History), 374C (Topic 6), History 364G (Topic: Apartheid: South African History), 364G (Topic: Apartheid and Resistance in South Africa), 364G (Topic 6), Women's and Gender Studies 340 (Topic: Apartheid: South African History), 340 (Topic 42).
Topic 7: French Empire: The West and Islam. Same as Islamic Studies 372 (Topic 22). 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. Three lecture hours for one semester. Only one of the following may be counted: History 364G (Topic: French Empire: The West and Islam), 364G (Topic 7), Islamic Studies 372 (Topic: French Empire: The West and Islam), 372 (Topic 22), Middle Eastern Studies 343 (Topic: French Empire: The West and Islam), Religious Studies 358 (Topic: French Empire: The West and Islam).
Topic 8: Modernization in East Asia. Same as Asian Studies 361 (Topic 34). Examines the different historical experiences of mainland China and Taiwan in the context of the East Asian model of development. Only one of the following may be counted: Asian Studies 361, 461 (Topic: Modernization in East Asia), 361 (Topic 34), History 364G (Topic: Modernization in East Asia), 364G (Topic 8).
Topic 9: The Histories of African Liberation. Same as African and African Diaspora Studies 372G (Topic 20). Examination of important figures, movements, strategies, and factors that contributed
to decolonization on the African continent. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Histories of African Liberation), 372G (Topic 20), History 364G (Topic: Histories of African Liberation), 364G (Topic: 9).
Topic 10: Gender and Sexuality in Japan. Same as Asian Studies 372 (Topic 30) and Women's and Gender Studies 340 (Topic 28). Examines gender and sexuality in Japan during the classical (Heian), early modern (Tokugawa or Edo), and modern periods. Considers the construction and representation of feminine and masculine gender and sexuality, both normative and otherwise. Only one of the following may be counted: Asian Studies 372 (Topic: Gender and Sexuality in Japan), 372 (Topic 30), History 364G (Topic: Gender and Sexuality in Japan), 364G (Topic 10), Women's and Gender Studies 340 (Topic: Gender and Sexuality in Japan), 340 (Topic 28).

## HIS 365G. Topics in United States History.

Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: United States Catholic History. Same as American Studies 327 (Topic 4), Mexican American Studies 374 (Topic 37), and Religious Studies 346 (Topic 5). Examines how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latinos/as. Only one of the following may be counted: American Studies 321 (Topic: United States Catholic History), 327 (Topic 4), History 365G (Topic: United States Catholic History), 365G (Topic 1), Mexican American Studies 374 (Topic: United States Catholic History), 374 (Topic 37), Religious Studies 346 (Topic: United States Catholic History), 346 (Topic 5). Partially fulfills legislative requirement for American history.
Topic 2: Popular Music in the United States. Same as American Studies 325C. 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. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Popular Music in the US), 325C, History 365G (Topic: Popular Music in the US), 365G (Topic 2). Partially fulfills legislative requirement for American history. Additional prerequisite: Upperdivision standing.
Topic 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. History 365G (Topic: United States Economic History since 1880) and 365G (Topic 3) may not both be counted.
Topic 4: The Vietnam Wars. Same as American Studies 321 (Topic 11). Introduction to the complex and controversial history of the wars fought in Vietnam from 1941 to the 1980s. Only one of the following may be counted: American Studies 321 (Topic: Vietnam Wars), 321 (Topic 11), Asian Studies 372 (Topic: Vietnam Wars), History 365G (Topic: Vietnam Wars), 365G (Topic 4).
Topic 5: Science, Ethics, and Society. Explores the ethics of scientific experimentation on humans in the nineteenth and twentieth centuries. History 365G (Topic: Science, Ethics, and Society) and 365 G (Topic 5) may not both be counted.
Topic 6: Antebellum Slavery. Same as African and African Diaspora Studies 374D (Topic 16) and Women's and Gender Studies 340 (Topic 33). Examination of slavery at its maturity during the nineteenth century. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Antebellum Slavery), 374D (Topic 16), History 365G (Topic: Antebellum Slavery), 365G (Topic 6), Women's and Gender Studies 340 (Topic: Antebellum Slavery), 340 (Topic 33).
Topic 7: Texas Black History. Same as African and African Diaspora Studies 374D (Topic 15). Surveys the history of blacks in Texas from before American settlement to the present. Only one of the following
may be counted: African and African Diaspora Studies 374D (Topic: Texas Black History), 374D (Topic 15), History 365G (Topic: Texas Black History), 365G (Topic 7).
Topic 8: Women and Social Movements in the Twentieth-Century
United States. Same as American Studies 321 (Topic 10) and Women's and Gender Studies 340 (Topic 53). Examines women's participation in well-known and lesser-known social movements during the twentieth century. Only one of the following may be counted: American Studies 321 (Topic: Women and Social Movements in the Twentieth-Century United States), 321 (Topic 10), History 365G (Topic: Women and Social Movements in the Twentieth-Century United States), 365G (Topic 8), Women's and Gender Studies 340 (Topic: Women and Social Movements in the Twentieth-Century United States), 340 (Topic 53).

## HIS 366N. Topics in History.

Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Some sections are offered on the lettergrade basis only. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 15: Anti-Semitism. Same as Jewish Studies 365 (Topic 13) and Sociology 321S. 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 366N (Topic: Anti-Semitism), 366N (Topic 15), Jewish Studies 365 (Topic: Anti-Semitism), 365 (Topic 13), Sociology 321K (Topic: Anti-Semitism), 321S. Additional prerequisite: Upper-division standing.
Topic 16: Biology, Behavior, and Injustice. Same as Core Texts and Ideas 370 (Topic 2). Explores questions about human behavior related to biological factors as compared with personal experiences and societal standards. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 370 (Topic: Biology, Behavior, and Injustice), 370 (Topic 2), History 366N (Topic: Biology, Behavior, and Injustice), 366N (Topic 16).

## HIS 372L. Proseminar in Historical Source Readings.

Individual instruction in reading history and historiography. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor; consent forms are available in the departmental advising office.

## HIS 372M. Proseminar in Historical Writing.

Individual instruction in historical research and writing. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor; consent forms are available in the departmental advising office.

## HIS 375D. Islamic Spain and North Africa to 1492.

Same as Middle Eastern Studies 343 (Topic 4: Islamic Spain and North Africa to 1492) and Religious Studies 345. An introduction to the impact of Islam on Spain and North Africa, with emphasis on social, economic, and cultural development. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Islamic Spain and North Africa to 1492), History 375D, Islamic Studies 373 (Topic: Islamic Spain and North Africa to 1492), Middle Eastern Studies 321K (Topic 4: Islamic Spain and North Africa to 1492), 343 (Topic 4), Religious Studies 345, 363 (Topic: Islamic Spain and North Africa to 1492). Prerequisite: Upper-division standing.

## HIS 375K. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 375L. Stuart England, 1603-1689.

Topical lecture course focusing on the most significant political, religious, social, economic, and cultural developments in seventeenth-century England. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 375M. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## HIS 376F. The United States and the Second World War.

Restricted to students in the Normandy Scholars Program. Three lecture hours a week for one semester, and approximately three weeks of study in France. Partially fulfills legislative requirement for American history.

## HIS 376G. Hitler, Nazism, and World War II.

Restricted to students in the Normandy Scholars Program. Three lecture hours a week for one semester, and approximately three weeks of study in France. Offered on the letter-grade basis only.

## HIS 679H. Honors Tutorial Course.

An individual instruction course to provide training in the methods and teaching of historical research and writing. The equivalent of three semester hours a week for two semesters. May not be included in the thirty semester hours of coursework required for the major. Prerequisite: For 679HA, upper-division standing and admission to the History Honors Program; for 679HB, History 679HA.

## Humanities Program

## Humanities: HMN

## Lower-Division Courses

HMN 101. Community Service.
Tutorial course, in which the student submits a report based on a community service project and appropriate supplementary reading. Conference course. Prerequisite: Consent of the humanities adviser.

## HMN 305. Freshman Seminar.

Reading, discussion, writing, and oral reporting on various humanities topics. Three lecture hours a week for one semester. Humanities 305 and Liberal Arts Honors 305 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the lettergrade basis only. Prerequisite: Advanced placement credit for Rhetoric and Writing 306 or the equivalent.

Topic 1: Epic Journeys. Offered on the pass/fail basis only.

## HMN 110, 210, 310. Internship.

Students work in a professional environment, applying analytical, communication, and other academic skills to practical work. For each semester hour of credit earned, one lecture hour and ten hours of fieldwork a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Consent of the humanities director.

HMN 116, 216, 316. Topics in the Humanities.
Intensive lecture or seminar course addressing topics in various disciplines in the humanities. For each semester hour of credit earned, one lecture hour a week for one semester. Humanities 116 and Liberal Arts Honors 103 H may not both be counted. Some topics offered on the pass/fail basis only. May be repeated for credit when the topics vary. Prerequisite: Consent of the humanities adviser.

## HMN 318Q. Supervised Research.

Individual instruction. Prerequisite: Consent of the humanities adviser.

## Upper-Division Courses

HMN 321. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

## HMN 322. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

## HMN 323. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

## HMN 125K. The Arts, Sciences, and Social Sciences.

Analysis of topics in the arts, sciences, and social sciences through reading, discussion, and lectures. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Consent of the humanities adviser

## HMN 350. Topics in the Humanities.

Study of the values underlying humanistic disciplines. Three lecture hours a week for one semester. Some sections may be offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## Topic 2: Daily Life in Northern Europe.

Topic 3: Geography and Religion. Same as Geography 358E. 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. Only one of the following may be counted: Geography 358E, Humanities 350 (Topic 3), Middle Eastern Studies 322K (Topic 15: Geography and Religion). Additional prerequisite: Upper-division standing.
Topic 4: Reading Images: Icons and Beliefs. The content (not the aesthetics or the technical, compositional features) of selected Renaissance paintings, sculptures, and prints. Additional prerequisite: Upper-division standing.
Topic 5: Great Trials in Western History. The intellectual and historical importance of a variety of significant trials in Western history. Humanities 350 (Topic 5) and Liberal Arts Honors 350 (Topic: Great

Trials in Western History) may not both be counted. Offered on the letter-grade basis only.
Topic 6: In Search of Meaning. Humanities 350 (Topic: The Quest for Meaning) and 350 (Topic 6) may not both be counted.
Topic 7: The Enlightenment. Offered on the letter-grade basis only.
Topic 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. Additional prerequisite: Upper-division standing and consent of instructor.
Topic 9: Historical Survey of Russian Music. Same as Comparative Literature 323 (Topic 7), Music 376G (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic 20), and Russian 330 (Topic 3). Focus on the role of Russian music in its social and historical context. Only one of the following may be counted: Comparative Literature 323 (Topic: Historical Survey of Russian Music), 323 (Topic 7), Humanities 350 (Topic: Historical Survey of Russian Music), 350 (Topic 9), Music 376G (Topic: Historical Survey of Russian Music), 376G (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic: Historical Survey of Russian Music), 325 (Topic 20), Russian 330 (Topic: Historical Survey of Russian Music), 330 (Topic 3). Additional prerequisite: For music majors, upper-division standing and consent of instructor; for others, upper-division standing.
Topic 10: Literature of World War I. Same as Liberal Arts Honors 350 (Topic 4). 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. Only one of the following may be counted: Humanities 350 (Topic: Literature of the Great War), 350 (Topic 10), Liberal Arts Honors 350 (Topic: Literature of the Great War), 350 (Topic 4). Offered on the letter-grade basis only.
Topic 11: Russia and Its World. Same as Comparative Literature 323 (Topic 21), Russian, East European, and Eurasian Studies 325 (Topic 21), and Russian 330 (Topic 11). Survey of the political, cultural, and social history of Russia, from its prehistoric origins to the installation of communist rule in 1917. Emphasis on the arts and on enduring themes of cultural identity, imagination, and conflict with neighboring peoples and within Russia. Only one of the following may be counted: Comparative Literature 323 (Topic: Russia and Its World), 323 (Topic 21), Humanities 350 (Topic: Russia and Its World), 350 (Topic 11), Russian 330 (Topic: Russia and Its World), 330 (Topic 11), Russian, East European, and Eurasian Studies 325 (Topic: Russia and Its World), 325 (Topic 21). Additional prerequisite: Upper-division standing.
Topic 12: Twentieth-Century Russian Culture. Same as Comparative Literature 323 (Topic 22), Russian, East European, and Eurasian Studies 325 (Topic 14), and Russian 330 (Topic 7). Survey of the political, social, and cultural history of Russia during the Soviet period, from the revolutionary events of 1917 until the dissolution of the Soviet government and political system in December 1991. Only one of the following may be counted: Comparative Literature 323 (Topic: Twentieth-Century Russian Culture), 323 (Topic 22), Humanities 350 (Topic: Twentieth-Century Russian Culture), 350 (Topic 12), Russian 330 (Topic: Twentieth-Century Russian Culture), 330 (Topic 7), Russian, East European, and Eurasian Studies 325 (Topic: TwentiethCentury Russian Culture), 325 (Topic 14). Additional prerequisite: Upper-division standing.

## HMN 358Q. Supervised Research.

Individual instruction. May be repeated for credit. Prerequisite: Consent of the humanities adviser.

## HMN 370. 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. Three lecture hours a week for one semester. Humanities 370 and 679 HB may not both be counted. Prerequisite: Consent of the humanities adviser.

## HMN 379. Conference Course.

Individual instruction in a topic approved by the instructor and the humanities adviser. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of the humanities adviser.

## HMN 679H. Honors Tutorial Course.

Directed reading and research, followed by the writing of a report or the creation of a project. Conference course for two semesters. Humanities 370 and 679 HB may not both be counted. Prerequisite: For 679HA, admission to the Humanities Honors Program and consent of the humanities adviser; for 679HB, Humanities 679HA.

## International Relations and Global Studies Program

## International Relations and Global Studies: IRG

## Lower-Division Courses

IRG 301. Introduction to International Relations and Global Studies.
Introduction to the areas related to international relations. Three lecture hours a week for one semester.

## Upper-Division Courses

## IRG 320F. Foundations of International Relations and Global Studies.

Survey of the international relations and global studies major tracks to introduce distinctive concepts and central themes. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing and International Relations and Global Studies 301.

## IRG 378. Capstone Research in International Relations and Global Studies.

Restricted to international relations and global studies majors. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and International Relations and Global Studies 301 and 320F.

## IRG 678H. Honors Tutorial Course.

Supervised individual research on an international relations and global studies topic. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 678HA, upper-division standing, International Relations and Global Studies 301 with a grade of at least B, and admission to the International Relations and Global Studies Honors Program; for 678HB, International Relations and Global Studies 678HA.

# Schusterman Center for Jewish Studies 

## Jewish Studies: J S <br> Lower-Division Courses

J S 301. Introduction to Jewish Studies.
Jewish literature and Jewish thought, comprising a general introduction to biblical, rabbinic, philosophic, and literary Jewish texts from the sixth century $B C$ to the twenty-first century CE. Emphasis on hermeneutics (interpretation). Three lecture hours a week for one semester.

## J S 304M. Jewish Civilization: Beginnings to 1492.

Same as History 306N (Topic 10: Jewish Civilization: Beginnings to 1492) and Religious Studies 313M. 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Jewish Civilization I), 306N (Topic 10), Jewish Studies 304M, 311 (Topic: Jewish Civilization I), Religious Studies 313 (Topic: Jewish Civilization I), 313M.

## J S 304N. Jewish Civilization: 1492 to the Present.

Same as History 306N (Topic 11: Jewish Civilization: 1492 to the Present) and Religious Studies 313N. 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic 11), Jewish Studies 304N, 311 (Topic: Jewish Civilization: 1492 to the Present), Religious Studies 313 (Topic: Jewish Civilization: 1492 to the Present), 313N.

## J S 311. Topics in Jewish Studies.

Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: Judaism, Christianity, and Islam: An Introduction. Same as History 304R, Islamic Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction), and Religious Studies 304. 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.
Topic 3: The Rise of Christianity. Introduction to the origins and development of Christianity.
Topic 4: Introduction to the Old Testament. Same as Core Texts and Ideas 305G, Middle Eastern Studies 310 (Topic 3), and Religious Studies 313C. 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. Only one of the following may be counted: Core Texts and Ideas 305G, 310 (Topic: Introduction to the Hebrew Bible), Jewish Studies 311 (Topic: Introduction to the Hebrew Bible), 311 (Topic 4), Middle Eastern Studies 310 (Topic: Introduction to the Hebrew Bible), 310 (Topic 3), Religious Studies 313 (Topic: Introduction to the Hebrew Bible), 313C.
Topic 5: The Roots of Religious Toleration. Same as European Studies 306 (Topic 3), History 317N (Topic 1), and Religious Studies 306 (Topic 1). Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Roots of Religious

Toleration), European Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 3), History 317N (Topic: Roots of Religious Toleration), 317 N (Topic 1), Jewish Studies 311 (Topic: Roots of Religious Toleration), 311 (Topic 5), Religious Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 1).
Topic 6: Jews in America: The Yiddish Experience. Same as American Studies 315 (Topic 4) and Religious Studies 313 (Topic 1). 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. Only one of the following may be counted: American Studies 315 (Topic: Jews in America: The Yiddish Experience), 315 (Topic 4), Jewish Studies 311 (Topic: Jews in America: The Yiddish Experience), 311 (Topic 6), Religious Studies 313 (Topic: Jews in America: The Yiddish Experience), 313 (Topic 1).
Topic 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. Only one of the following may be counted: History 306 N (Topic: History of Israel), Jewish Studies 311 (Topic: History of Israel), 311 (Topic 7), Middle Eastern Studies 310 (Topic: History of Israel).

## Upper-Division Courses

## J S 361. Topics in Jewish Studies.

Three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## J S 362. Independent Research in Jewish Studies.

Tutorially directed research in Jewish studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## J S 363. Topics in the Humanities and Arts.

Three lecture hours a week for one semester; additional hours may be required for some topics. Jewish Studies 361 and 363 may not both be counted unless the topics vary. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Anne Frank and Beyond. Prerequisite: Upper-division standing.
Topic 3: Film Adaptations of Israeli Literature. Prerequisite: Upperdivision standing.
Topic 4: Israeli and American Jewish Fiction. Prerequisite: Upperdivision standing.
Topic 6: Key Yiddish Novels. Prerequisite: Upper-division standing.
Topic 7: Love and the State in Contemporary Israeli Literature.
Same as Middle Eastern Languages and Cultures 321 (Topic 6: Love and the State in Contemporary Israeli Literature), and Middle Eastern Studies 342 (Topic 6: Love and the State in Contemporary Israeli Literature). Only one of the following may be counted: Comparative Literature 323 (Topic: Love and State in Contemporary Israeli Literature), English 322 (Topic: Love and State in Contemporary Israeli Literature), Hebrew 374 (Topic 9: Love and the State in Contemporary Israeli Literature), Jewish Studies 363 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 6), Middle Eastern Studies 322K (Topic 27: Love and the State in Contemporary Israeli Literature), 342 (Topic 6), Women's and Gender Studies 340 (Topic: Love and State in Contemporary Israeli Literature). Prerequisite: Upper-division standing. Topic 8: Mizrahi Writing in Israel. Same as Hebrew 346 (Topic 9: Mizrahi Writing in Israel) and Middle Eastern Studies 342 (Topic 9: Mizrahi Writing in Israel). Only one of the following may be counted: Hebrew 346 (Topic 9), Jewish 363 (Topic 8), Middle Eastern Studies 325 (Topic 6: Mizrahi Writing in Israel), 342 (Topic 9). Prerequisite:

Upper-division standing, and Hebrew 412L (or 312L) or 320L with a grade of at least C.
Topic 10: The Sacred and the Secular in Contemporary Jewish Literature. Same as Middle Eastern Languages and Cultures 321 (Topic 8), Middle Eastern Studies 342 (Topic 8), and Religious Studies 353 (Topic 3). Only one of the following may be counted: Comparative Literature 323 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), English 322 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), Hebrew 374 (Topic 11: The Sacred and the Secular in Contemporary Jewish Literature), Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), Middle Eastern Studies 322K (Topic 28: The Sacred and the Secular in Contemporary Jewish Literature), 342 (Topic 8), Religious Studies 353 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), 353 (Topic 3). Additional prerequisite: Upper-division standing.
Topic 11: Women and the Holocaust. Same as Comparative Literature 323 (Topic 19), European Studies 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, and Women's and Gender Studies 340 (Topic 50). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women's Narratives of the Holocaust and World War II), 323 (Topic 19), European Studies 346 (Topic: Women's Narratives of the Holocaust and World War II), 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Germanic Civilization 323E (Topic: Women's Narratives of the Holocaust and World War II), Jewish Studies 363 (Topic 11), Women's and Gender Studies 340 (Topic: Women's Narratives of the Holocaust and World War II), 340 (Topic 50). Additional prerequisite: Upper-division standing.
Topic 12: Yiddish Literature. Prerequisite: Upper-division standing. Topic 15: Jewish Voices from Latin America. Same as Latin American Studies 328 (Topic 4) and Spanish Civilization 320C (Topic 1). An introduction to Jewish writers from Brazil and Latin America, with an emphasis on those whose works portray the situation of the Jewish communities in their respective cities and countries. Only one of the following may be counted: Jewish Studies 363 (Topic: Latin American Jewish Writers), 363 (Topic 15), Latin American Studies 328 (Topic 4), 370S (Topic: Latin American Jewish Writers), 370S (Topic 32), Spanish 352 (Topic), 355 (Topic 3), Spanish Civilization 320C (Topic 1). Additional prerequisite: Upper-division standing.

Topic 17: Israel Through Its Literature. Same as Comparative Literature 323 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 5), and Middle Eastern Studies 342 (Topic 5). Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Israeli Literature), Comparative Literature 323 (Topic 15), English 322 (Topic: Introduction to Israeli Literature), Hebrew 374 (Topic 10: Introduction to Israeli Literature), Jewish Studies 363 (Topic 17), Middle Eastern Studies 325 (Topic 7), Middle Eastern Studies 342 (Topic 5). Additional prerequisite: Upper-division standing.
Topic 18: Jerusalem in Israeli Literature. Same as Hebrew 346 (Topic 8: Jerusalem in Israeli Literature). Additional prerequisite: Upper-division standing and Hebrew 412L.
Topic 19: Postmodernist Israeli Literature. Same as Middle Eastern Languages and Cultures 321 (Topic 7: Postmodernist Israeli Literature) and Middle Eastern Studies 342 (Topic 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Postmodernist Israeli Literature), English 322 (Topic: Postmodernist Israeli Literature),

Hebrew 374 (Topic 8: Postmodernist Israeli Literature), Jewish Studies 363 (Topic 19), Middle Eastern Languages and Cultures 321 (Topic 7), Middle Eastern Studies 325 (Topic: Postmodernist Israeli Literature), 342 (Topic 7). Prerequisite: Upper-division standing.
Topic 21: Introduction to the Music of the Middle East. Same as Music 342 (Topic 7). Only one of the following may be counted: Islamic Studies 373 (Topic: Introduction to Music of the Middle East), Jewish Studies 363 (Topic: Introduction to Music of the Middle East), 363 (Topic 21), Middle Eastern Languages and Cultures 321 (Topic: Introduction to Music of the Middle East), Middle Eastern Studies 328 (Topic: Introduction to Music of the Middle East), 342 (Topic: Introduction to Music of the Middle East), Music 342 (Topic: Introduction to Music of the Middle East), 342 (Topic 7).

## J S 364. Topics in History.

Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Anti-Semitism in History and Literature. Jewish Studies 361 (Topic: Anti-Semitism in History and Literature) and 364 (Topic 1) may not both be counted. Prerequisite: Upper-division standing.
Topic 2: The Jewish Experience in the Greco-Roman World. Prerequisite: Upper-division standing.
Topic 3: The Bible and History. Same as Religious Studies 354D. The critical uses of biblical and extrabiblical data in the reconstruction of the history of the biblical period. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Bible and History), History 372P, Jewish Studies 364 (Topic 3), Middle Eastern Studies 320 (Topic 3: The Bible and History), Religious Studies 354D. Prerequisite: Upper-division standing.
Topic 4: The Dead Sea Scrolls. Same as Ancient History and Classical Civilization 330 (Topic 1), History 364G (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Dead Sea Scrolls), 330 (Topic 1), History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 320 (Topic 13), 342 (Topic 23), Religious Studies 353D. Additional prerequisite: Upper-division standing.
Topic 5: The Spanish Inquisition. Same as European Studies 346 (Topic 11), History 350L (Topic 77), and Religious Studies 357 (Topic 10). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: The Spanish Inquisition), 346 (Topic 11), History 350L (Topic: The Spanish Inquisition), 350L (Topic 77), Jewish Studies 364 (Topic: The Spanish Inquisition), 364 (Topic 5), Religious Studies 357 (Topic: The Spanish Inquisition), 357 (Topic 10).
Topic 6: Introduction to the Holocaust. Same as European Studies 346 (Topic 17), History 362G (Topic 3), and Russian, East European, and Eurasian Studies 335 (Topic 17). Examines the mass killing of Jews and other victims in the context of Nazi Germany's quest for race and space during World War II. Only one of the following may be counted: European Studies 346 (Topic: Introduction to the Holocaust), 346 (Topic 17), History 362G (Topic: Introduction to the Holocaust), 362G (Topic 3), Jewish Studies 364 (Topic: Introduction to the Holocaust), 364 (Topic 6), Middle Eastern Studies 325 (Topic: Introduction to the Holocaust), Russian, East European, and Eurasian Studies 335 (Topic: Introduction to the Holocaust), 335 (Topic 17).
Topic 7: Jews of Eastern Europe. Same as History 362G (Topic 8), Religious Studies 357 (Topic 13), and Russian, East European, and Eurasian Studies 335 (Topic 23). Explores the history and culture of

Jews in Eastern Europe. Only one of the following may be counted: History 362G (Topic: Jews of Eastern Europe), 362G (Topic 8), Jewish Studies 364 (Topic: Jews of Eastern Europe), 364 (Topic 7), Religious Studies 357 (Topic: Jews of Eastern Europe), 357 (Topic 13), Russian, East European, and Eurasian Studies 335 (Topic: Jews of Eastern Europe), 335 (Topic 23).
Topic 8: Southeast Europe in the Twentieth Century. Same as European Studies 346 (Topic 18), History 362G (Topic 9), and Russian, East European, and Eurasian Studies 335 (Topic 18). Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century. Only one of the following may be counted: European Studies 346 (Topic: Southeast Europe in the Twentieth Century), 346 (Topic 18), History 362G (Topic: Southeast Europe in the Twentieth Century), 362G (Topic 9), Jewish Studies 364 (Topic: Southeast Europe in the Twentieth Century), 364 (Topic 8), Russian, East European, and Eurasian Studies 335 (Topic: Southeast Europe in the Twentieth Century), 335 (Topic 18).
Topic 9: Spinoza and Modernity. Same as Core Texts and Ideas 321 F, European Studies 346 (Topic 21), History 362P, Philosophy 354 (Topic 7), and Religious Studies 357 (Topic 8). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Spinoza and Modernity), 321F, European Studies 346 (Topic: Spinoza and Modernity), 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362G (Topic: Spinoza and Modernity), 362P, Jewish Studies 364 (Topic: Spinoza and Modernity), 364 (Topic 9), Philosophy 334K (Topic: Spinoza and Modernity), 354 (Topic: Spinoza and Modernity), 354 (Topic 7), Religious Studies 357 (Topic: Spinoza and Modernity), 357 (Topic 8). Additional prerequisite: Upper-division standing.
Topic 10: The Church and the Jews. Same as History 362G (Topic 14) and Religious Studies 357 (Topic 9). Examination of the complex relationship between the Western Church and Jews over two millenia. Only one of the following may be counted: History 362G (Topic: The Church and the Jews), 362G (Topic 14), Jewish Studies 364 (Topic: The Church and the Jews), 364 (Topic 10), Religious Studies 357 (Topic: The Church and the Jews), 357 (Topic 9).
Topic 11: World War II in Eastern Europe. Same as European Studies 346 (Topic 12), History 350L (Topic 79), and Russian, East European, and Eurasian Studies 335 (Topic 19). 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. Only one of the following may be counted: European Studies 346 (Topic: World War II in Eastern Europe), 346 (Topic 12), History 350L (Topic: World War II in Eastern Europe), History 350L (Topic 79), Jewish Studies 364 (Topic: World War II in Eastern Europe), 364 (Topic 11), Russian, East European, and Eurasian Studies 335 (Topic: World War II in Eastern Europe), 335 (Topic 19).

## J S 365. Topics in the Social Sciences.

Three lecture hours a week for one semester; additional hours may be required for some topics. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: America and the Holocaust. Same as American Studies 321 (Topic 4: America and the Holocaust) and History 356R. Only one of the following may be counted: American Studies 321 (Topic 4), 370 (Topic: America and the Holocaust), History 350L (Topic: America
and the Holocaust), 356R, 365G (Topic: America and the Holocaust), Jewish Studies 361 (Topic: America and the Holocaust), 365 (Topic 1), Liberal Arts Honors 350 (Topic: America and the Holocaust). Partially fulfills legislative requirement for American history. Prerequisite: Upperdivision standing.
Topic 4: Jewish Immigrant Culture in America. Prerequisite: Upperdivision standing.
Topic 5: Jewish Ethics. Prerequisite: Upper-division standing.
Topic 7: Rome and Jerusalem. Same as Ancient History and Classical Civilization 325 (Topic 3: Rome and Jerusalem), History 321G, Middle Eastern Studies 342 (Topic 21: Rome and Jerusalem), and Religious Studies 365 (Topic 1: Rome and Jerusalem). A study of daily life in Israel during the Roman period, focusing on Jerusalem, ancient Palestinian synagogues and churches, Jewish and Christian symbolism, agriculture, warfare, and burial practices. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 3), Classical Civilization 348 (Topic: Rome and Jerusalem), History 321G, Jewish Studies 365 (Topic 7), Middle Eastern Studies 320 (Topic 2: Rome and Jerusalem), 342 (Topic 21), Religious Studies 365 (Topic 1), Urban Studies 353 (Topic: Rome and Jerusalem). Prerequisite: Upper-division standing.
Topic 10: Israel: Society and Politics. Same as Government 365N (Topic 16). Analysis of Israeli politics and society in a comparative perspective with a major focus on the social and political cleavages in Israel. Only one of the following may be counted: Government 365N (Topic: Israel: Society and Politics), 365N (Topic 16), Jewish Studies 361 (Topic: Israel: Society and Politics), 365 (Topic: Israel: Society and Politics), 365 (Topic 10), Middle Eastern Studies 325 (Topic: Israel: Society and Politics).
Topic 11: Representation of Jews in the American Public Sphere. Same as Anthropology 325L (Topic 13) and Religious Studies 346 (Topic 8). 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. Only one of the following may be counted: Anthropology 325L (Topic: Representation of Jews in the American Public Sphere), 325L (Topic 13), Jewish Studies 365 (Topic: Representation of Jews in the American Public Sphere), 365 (Topic 11), Religious Studies 346 (Topic: Representation of Jews in the American Public Sphere), 346 (Topic 8).
Topic 12: American Jewish Material Culture. Same as Anthropology 325L (Topic 17) and Religious Studies 346 (Topic 9). Examines the interplay between material culture and Jewish identity and thought in contemporary America. Only one of the following may be counted: Anthropology 325L (Topic: American Jewish Material Culture), 325L (Topic 17), Jewish Studies 365 (Topic: American Jewish Material Culture), 365 (Topic 12), Religious Studies 346 (Topic: American Jewish Material Culture), 346 (Topic 9).
Topic 13: Anti-Semitism. Same as History 366N (Topic 15) and Sociology 321S. 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 366N (Topic: Anti-Semitism), 366N (Topic 15), Jewish Studies 365 (Topic: Anti-Semitism), 365 (Topic 13), Sociology 321K (Topic: Anti-Semitism), 321S. Additional prerequisite: Upper-division standing.

## J S 375. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and consent of the Jewish studies adviser.

## J S 679H. Honors Tutorial Course.

Restricted to Jewish studies majors. Supervised individual reading and research for one semester, followed by writing a substantial honors thesis during the second semester. Conference course for two semesters. Prerequisite: For 679HA, admission to the Jewish Studies Honors Program; for 679HB, Jewish Studies 679HA.

## Teresa Lozano Long Institute of Latin American Studies

## Indigenous Languages of Latin America: LAL Lower-Division Courses

LAL 601C. 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. The equivalent of six lecture hours a week for one semester. May be repeated for credit when the topics vary.

## LAL 611C. Intensive Indigenous Language of Latin American

 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. The equivalent of six lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Indigenous Languages of Latin America 601C with a grade of at least $C$.

## Upper-Division Courses

LAL 321. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Indigenous Languages of Latin America 611 C with a grade of at least C .

## LAL 322. Third-Year Indigenous Language II.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Indigenous Languages of Latin America 321.

## LAL 330. Topics in Language, Culture, and Linguistics.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Indigenous Languages of Latin America 611C.

## Latin American Studies: LAS <br> Lower-Division Courses

LAS 301. Key Ideas and Issues in Latin America.
Same as History 306N (Topic 3: Key Ideas and Issues in Latin America). Broad introductory course to acquaint students with the main areas of interest in Latin American studies. Three lecture hours a week for one semester.

## LAS 310. General Topics in Latin American Studies.

Topics that serve as an introduction to Latin America within the framework of different disciplines. Three lecture hours or two lecture hours and one
discussion hour a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Latin American Civilization: The Colonial Experience. Same as History 310K. 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. Only one of the following may be counted: History 310K, 346K, Latin American Studies 310 (Topic 1), 366 (Topic 2: Latin America before 1810).
Topic 2: Latin American Civilization: The National Experience. Same as History 310L. A broad survey of the political, social, and cultural aspects of the Latin American past. Only one of the following may be counted: History 310L, 346L, Latin American Studies 310 (Topic 2), 366 (Topic 3: Latin America since 1810).
Topic 5: Film and History in Latin America: Colonial Period. Same as History 310M. Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Film History in Latin America: Colonial), 310M, Latin American Studies 310 (Topic: Film History in Latin America: Colonial), Latin American Studies 310 (Topic 5).
Topic 6: Film and History in Latin America: Modern Period. Same as History 310N. Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Film History in Latin America: Modern), 310N, Latin American Studies 310 (Topic: Film History in Latin America: Modern), 310 (Topic 6).
Topic 7: Liberation in the African Diaspora. Same as African and African Diaspora Studies 317E (Topic 3). 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, PanAfricanism 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. Only one of the following may be counted: African and African Diaspora Studies 317E (Topic: Liberation in the African Diaspora), 317E (Topic 3), Latin American Studies 310 (Topic: Liberation in the African Diaspora), 310 (Topic 7).

## LAS 315. Introductory Topics in Latin American Social Sciences.

Three lecture hours or two lecture hours and one discussion hour a week for one semester. Latin American Studies 310 and 315 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Anthropology of Latin America. Same as Anthropology 310 L (Topic 3). Provides a framework for understanding contemporary concerns in Latin America. Only one of the following may be counted: Anthropology 310L (Topic 3), Latin American Studies 310 (Topic 4), 315 (Topic 1).
Topic 2: Introduction to Mesoamerican Archaeology. Same as Anthropology 314C. 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. Only one of the following may be counted: Anthropology 310L (Topic 1: Introduction to Mesoamerican Archaeology), 314C, Latin American Studies 310 (Topic 3: Introduction to Mesoamerican Archaeology), 315 (Topic 2).

## LAS 319. Geography of Latin America.

Same as Geography 319. Adaptations to population growth and spatial integration in cultural landscapes of great natural and ethnic diversity;
problems of frontiers and cities. Three lecture hours a week for one semester.

## LAS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## LAS 322. Topics in Latin American Studies.

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. Additional hours are required for some topics; these topics are identified in the Course Schedule. Latin American Studies 322 and 330 may not both be counted unless the topics vary; Latin American Studies 322 and 370P may not both be counted unless the topics vary; Latin American Studies 322 and 370 s may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Hispanic Images and Counterimages. Same as Mexican American Studies 374 (Topic 9: Hispanic Images and Counterimages) and Radio-Television-Film 359S (Topic 1: Hispanic Images and Counterimages). The critical analysis of Hispanic images in media. Three lecture hours and one two-hour film screening a week for one semester. Only one of the following may be counted: Latin American Studies 322 (Topic 1), Mexican American Studies 374 (Topic 9), Radio-Television-Film 359 (Topic 1). Additional prerequisite: For radio-television-film majors: upper-division standing, Radio-TelevisionFilm 314 or 316, and nine additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing.
Topic 2: Latino Audiences. Same as Mexican American Studies 374 (Topic 10: Latino Audiences) and Radio-Television-Film 365 (Topic 2: Latino Audiences). Prerequisite: For radio-television-film majors: upperdivision standing and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305 and nine additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 3: Mass Media and Ethnic Groups. Same as Mexican American Studies 374 (Topic 11: Mass Media and Ethnic Groups) and Radio-Television-Film 365 (Topic 3: Mass Media and Ethnic Groups). Prerequisite: For radio-television-film majors: upper-division standing and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305 and nine additional semester hours of lowerdivision coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 4: Feature Writing. Same as Mexican American Studies 374 (Topic 6: Feature Writing). Procedures in gathering material for feature stories, with stress on newspaper articles; analysis of reader appeal; study of feature story structure; development of style by practice in writing feature stories. Only one of the following may be counted: Journalism 327, Latin American Studies 322 (Topic 4), Mexican American Studies 374 (Topic 6). Prerequisite: Consent of instructor and a passing score on the College of Communication Grammar, Spelling and Punctuation Test.
Topic 7: International Communication: Third World Issues. Same as Mexican American Studies 374 (Topic 17) and Radio-TelevisionFilm 342 (Topic 3). Additional prerequisite: For radio-televisionfilm majors, upper-division standing; consent of instructor; and the following coursework, with a grade of at least C in each course: Radio-

Television-Film 305 and nine additional semester hours of lowerdivision coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 9: Business in Emerging Markets. Same as International Business 372 (Topic 2: Business in Emerging Markets) and Middle Eastern Studies 341 (Topic 2: Business in Emerging Markets). Only one of the following may be counted: International Business 372 (Topic 2), Latin American Studies 322 (Topic 9), Middle Eastern Studies 322K (Topic 4: Business in Emerging Markets), 341 (Topic 2). Prerequisite: Upper-division standing.
Topic 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. Only one of the following may be counted: Journalism 341H, Journalism 340C (Topic 1: Mass Media and Minorities), Latin American Studies 322 (Topic 10), Mexican American Studies 374 (Topic 22: Minorities and the Media), Urban Studies 354 (Topic: Mass Media and Minorities), Women's and Gender Studies 340 (Topic 21: Minorities and the Media). Prerequisite: Upper-division standing.
Topic 11: Narrative Journalism. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Journalism 335, Latin American Studies 322 (Topic 11: Latino Community Journalism), 322 (Topic 11: Narrative Journalism), Mexican American Studies 374 (Topic 4: Latino Community Journalism), 374 (Topic 4: Narrative Journalism). Prerequisite: Upper-division standing and consent of instructor.
Topic 12: Latinos and Media. Same as Mexican American Studies 374 (Topic 24: Latinos and Media) and Radio-Television-Film 365 (Topic 6: Latinos and Media). Prerequisite: For radio-television-film majors, upper-division standing and the following coursework, with a grade of at least C in each course: Radio-Television-Film 305 and nine additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 13: Latin American Theatre and Drama. Same as Theatre and Dance 357T (Topic 1: Latin American Theatre and Drama). Prerequisite: Upper-division standing and consent of instructor. Topic 14: Journalism in Latin America. Study of the practice of journalism in Latin America. Survey of the region, including historical, political, economic, cultural, ethnic, and geographical aspects. Journalism 367E and Latin American Studies 322 (Topic 14) may not both be counted. Additional prerequisite: Upper-division standing; and a major in journalism, or consent of instructor.
Topic 15: Indigenous Languages of the Americas. Same as Linguistics 350 (Topic 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.
Topic 16: Business in Brazilian Life and Culture. Same as Portuguese 367P (Topic 1). Cultural aspects of business practices in Brazil. Only one of the following may be counted: Latin American Studies 322 (Topic 16), 370P (Topic: Cultural Aspects of Doing Business in Brazil), Portuguese 367P (Topic 1), Portuguese Civilization 320E (Topic: Cultural Aspects of Doing Business in Brazil).
Topic 17: Spanish for Health Care Professions. Same as Spanish 367P (Topic 1). Designed to exercise fluency in both spoken and written language in health care situations. Focus on the complex grammatical concepts and cultural issues that affect professional activities in Spanish-speaking communities. Only one of the following may be counted: Latin American Studies 322 (Topic 17), Mexican

American Studies 374 (Topic 30), Spanish 367K (Topic 7), 367P (Topic 1).

Topic 18: Business in Hispanic Life and Culture. Same as Spanish 367P (Topic 2). Only one of the following may be counted: Latin American Studies 322 (Topic 18), 370 (Topic 19), Spanish 350 (Topic 10), Spanish 367P (Topic 2). Additional prerequisite: Spanish 327C (or 327G).
Topic 19: Afro-Caribbean Diasporas. Same as African and African Diaspora Studies 374E (Topic 6). 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. Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Afro-Caribbean Diasporas), 374E (Topic 6), Latin American Studies 322 (Topic 19), 370 (Topic: Afro-Caribbean Diasporas).

## LAS 324L. Topics in Latin American Anthropology.

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Indians of Mexico and Guatemala. Same as Anthropology 322M (Topic 5: Indians of Mexico and Guatemala). Prerequisite: Upper-division standing.
Topic 10: The Civilization of the Maya. Same as Anthropology 360K. Maya prehistory and history: the archaeological record, codices and inscriptions, and Spanish conquest writings. Prerequisite: Upperdivision standing.
Topic 11: The Civilizations of Ancient Mexico. Same as Anthropology 361 K . Mexican cultures from earliest prehistory to the European conquest. Prerequisite: Anthropology 302 and six semester hours of upper-division coursework in social science.
Topic 13: Colonial Latin American Archaeology. Same as Anthropology 327D. Focuses on the Spanish colonies in Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Colonial Latin American Archaeology), 327D, Latin American Studies 324L (Topic 13).
Topic 14: The Politics of Race and Violence in Brazil. Same as Anthropology 324L (Topic 37: The Politics of Race and Violence in Brazil) and African and African Diaspora Studies 374E (Topic 2: The Politics of Race and Violence in Brazil). Prerequisite: Upper-division standing.
Topic 15: Global Indigenous Issues. Same as Anthropology 324L (Topic 53). 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. Only one of the following may be counted: Anthropology 324L (Topic: Global Indigenous Issues), 324L (Topic 53), Latin American Studies 324L (Topic: Global Indigenous Issues) 324L (Topic 15).
Topic 16: Mexican Immigration Cultural History. Same as Anthropology 322M (Topic 12). 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. Only one of the following may be counted: Anthropology 310L (Topic: Mexican Immigration Cultural History), 322M (Topic 12), Latin American Studies 310 (Topic: Mexican Immigration Cultural History), 324L (Topic 16), Mexican American Studies 319 (Topic: Mexican Immigration Cultural History).

## LAS 325. Topics in Latin American Sociology.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Society of Modern Mexico. Same as Sociology 335 and Urban Studies 354 (Topic 2: Society of Modern Mexico). Family, community, industrialization, and urbanization in modern Mexico.
Topic 2: Social Change in Developing Nations. Overview of changing social structure in the Third World. Latin American Studies 325 (Topic 2) and Sociology 324 K may not both be counted. Prerequisite: Upper-division standing.
Topic 4: Politics and Society in Latin America. Same as Sociology 321P. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic: Politics and Society in Latin America), Latin American Studies 325 (Topic 4), Sociology 321K (Topic: Politics and Society in Latin America), Sociology 321P. Additional prerequisite: Upper-division standing.
Topic 5: Consumption in Latin America. Same as Sociology 321C. Study of the role consumption plays in social, economic, and political relations in Latin America, as well as contesting ideas about this role. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic: Consumption in Latin America), Latin American Studies 325 (Topic 5), Sociology 321C, Sociology 321 K (Topic: Consumption in Latin America). Additional prerequisite: Upper-division standing.

## LAS 326. Topics in Latin American Music.

Three lecture hours a week for one semester, with one laboratory hour a week if required. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Music of Mexico and the Caribbean. Same as Music 334 (Topic 1: Music of Mexico and the Caribbean). An 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. Only one of the following may be counted: Latin American Studies 322 (Topic: Music of Mexico and the Caribbean), 326 (Topic 1), Music 334 (Topic 1). Additional prerequisite: Upper-division standing.
Topic 2: Music of Latin America. Same as Music 334 (Topic 2: Music of Latin America). Only one of the following may be counted: Latin American Studies 322 (Topic: Music of Latin America), 326 (Topic 2), Music 334 (Topic 2). Prerequisite: Upper-division standing.
Topic 3: Music of Brazil and Argentina. Same as Music 334 (Topic 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. Only one of the following may be counted: Latin American Studies 322 (Topic: Music
of Brazil and Argentina), 326 (Topic 3), Music 334 (Topic 3). Additional prerequisite: Upper-division standing.
Topic 4: Music of the Andean Countries. Same as Music 334 (Topic 4: Music of 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. Only one of the following may be counted: Latin American Studies 322 (Topic: Music of the Andean Countries), 326 (Topic 4), Music 334 (Topic 4).
Topic 5: The Music of the African Diaspora. Same as African and African Diaspora Studies 374F (Topic 8) and Music 334 (Topic 5). 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. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Music of the African Diaspora), 374F (Topic 8), Latin American Studies 326 (Topic: Music of the African Diaspora), 326 (Topic 5), Music 334 (Topic: Music of the African Diaspora), 334 (Topic 5).

## LAS 327. Topics in Latin American Art History.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Chicano Art Histories and Futures. Same as Art History 341L. 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. Three lecture hours a week for one semester.
Topic 2: Modern Art of Mexico. Same as Art History 341K. 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."
Topic 3: Mesoamerican Art and Culture. Same as Art History 347L. 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. Three lecture hours a week for one semester.
Topic 5: Maya Art and Architecture. Same as Art History 347M. 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.
Topic 6: Art and Archaeology of Ancient Peru. Same as Art History 347 K . The growth of civilization in South America from the earliest
decorated textiles, pottery, and ceremonial buildings to the imperial Inca style. Three lecture hours a week for one semester.

## LAS 328. Topics in Latin American Arts, Literature, Film and Dance.

Three lecture hours a week for one semester; some topics may require additional hours. Latin American Studies 328 and LAS 370S may not both be counted unless the topics vary; Latin American Studies 328 and 370P may not both be counted unless the topics vary; Latin American Studies 322 and 328 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with topic.

Topic 1: Samba to Hip Hop: Brazilian Popular Music. Same as Portuguese Civilization 320E (Topic 1). Examines the role of popular music in relationships of power with subordination and the impact of music as a form of cultural expression.
Topic 2: Global Brazil: Immigration and Diaspora in Brazilian Culture. Same as Portuguese Civilization 320E (Topic 2). 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. Only one of the following may be counted: Latin American Studies 328 (Topic 2), 370P (Topic 6), Portuguese Civilization 320E (Topic 2), Portuguese 375 (Topic 7).
Topic 3: Afro-Luso-Brazilian Worlds. Same as Portuguese Civilization 320E (Topic 3). Study of the myths and realities in the Afro-Luso-Brazilian worlds and the connections and contrasts between them. Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Afro-Luso-Brazilian Worlds), Comparative Literature 323 (Topic: Afro-Luso-Brazilian Worlds), Latin American Studies 328 (Topic 3), 370P (Topic: Afro-Luso-Brazilian Worlds), Portuguese Civilization 320E (Topic: Afro-Luso-Brazilian Worlds), 320E (Topic 3).
Topic 4: Jewish Voices from Latin America. Same as Jewish Studies 363 (Topic 15) and Spanish Civilization 320C (Topic 1). An introduction to Jewish writers from Brazil and Latin America, with an emphasis on those whose works portray the situation of the Jewish communities in their respective cities and countries. Only one of the following may be counted: Jewish Studies 363 (Topic: Latin American Jewish Writers), 363 (Topic 15), Latin American Studies 328 (Topic 4), 370 (Topic: Latin American Jewish Writers), 370 (Topic 32), Spanish 352 (Topic), 355 (Topic 3), Spanish Civilization 320C (Topic 1). Additional prerequisite: Upper-division standing.

## Topic 5: Mediascapes: Literature and Media in the Caribbean.

 Same as Spanish Civilization 320C (Topic 2). Analyzes the relationship between literature and media technologies in contemporary Caribbean cultures. Only one of the following may be counted: Latin American Studies 328 (Topic 5), 370 (Topic 28), Spanish Civilization 320C (Topic 2), Spanish 350K (Topic 5).LAS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## LAS 330. Topics in Latin American Geography.

Three lecture hours a week for one semester. Latin American Studies 322 and 330 may not both be counted unless the topics vary. May be
repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Landscapes of Mexico and Caribbean America. Same as Geography 341 K . The natural regions and cultural landscapes of Mexico, Central America, and the West Indies. Prerequisite: Upperdivision standing.
Topic 3: South America: Nature, Society and Sustainability. Same as Geography 323K. 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. Additional prerequisite: Upper-division standing.

## LAS 337M. Topics in Latin American Politics.

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Parties, Elections, and Democracy in Latin America.
Same as Government 337M (Topic 2: Parties, Elections, and Democracy in Latin America). Prerequisite: Six semester hours of lower-division coursework in government.
Topic 3: Politics in South America. Same as Government 337M (Topic 3: Politics in South America). Prerequisite: Six semester hours of lower-division coursework in government.
Topic 4: United States-Mexican Border Relations. Same as Mexican American Studies 374 (Topic 14: United States-Mexican Border Relations) and Government 337M (Topic 4: United StatesMexican Border Relations). Prerequisite: Six semester hours of lowerdivision coursework in government.
Topic 5: Introduction to Latin American Government and Politics. Same as Government 328L. An introductory survey of Latin American political systems: governmental organization, political processes, and current problems. Prerequisite: Six semester hours of lower-division coursework in government.
Topic 6: Political Development in Eastern Europe and Latin
America. Same as Government 365N (Topic 4: Political Development in Eastern Europe and Latin America). Only one of the following may be counted: Government 365N (Topic 4), Latin American Studies 337M (Topic 6), Russian, East European, and Eurasian Studies 335 (Topic 7: Political Development in Eastern Europe and Latin America). Prerequisite: Six semester hours of lower-division coursework in government.
Topic 8: Latino Politics. Same as Mexican American Studies 374 (Topic 15: Latino Politics) and Government 370K (Topic 2: Latino Politics). Prerequisite: Six semester hours of lower-division coursework in government.
Topic 9: The Military in Politics. Only one of the following may be counted: Government 365N (Topic 3: The Military in Politics); Latin American Studies 337M (Topic 9); Russian, East European, and Eurasian Studies 335 (Topic 10: The Military in Politics). Prerequisite: Six semester hours of lower-division coursework in government. Topic 10: Political Transition in Europe and Latin America. Same as Government 365N (Topic 11: Political Transition in Europe and Latin America). Only one of the following may be counted: Government 365N (Topic 11), Latin American Studies 337M (Topic 10). Additional prerequisite: Six semester hours of lower-division coursework in government.
Topic 11: Politics of Mexico. Same as Government 337M (Topic 6). Survey of twentieth century politics in Mexico with an emphasis on political and economic development. Only one of the following may be counted: Government 337M (Topic: Politics of Mexico), 337M (Topic 6), Latin American Studies 337M (Topic: Politics of Mexico), 337M (Topic 11).

Topic 12: Law and Democracy in Latin America. Same as Government 337M (Topic 7). Explores many of the challenges to the rule of law across Latin America and how they affect the quality of democracy in the region. Only one of the following may be counted: Government 337M (Topic: Law and Democracy in Latin America), 337M (Topic 7), Latin American Studies 337M (Topic: Law and Democracy in Latin America), 337M (Topic 12).
Topic 13: International Politics of Latin America. Same as Government 337M (Topic 8). Analysis of Latin America's political and economic relations with respect to external actors since the late twentieth century. Only one of the following may be counted: Government 337M (Topic: International Politics of Latin America), 337M (Topic 8), Latin American Studies 337M (Topic: International Politics of Latin America), 337M (Topic 13).
Topic 14: Politics, Economy, and Society of Contemporary Brazil. Same as Government 337M (Topic 9). An introduction to Brazil with a focus on domestic politics; economic development and management; social relations and social policy issues; and foreign policy. Only one of the following may be counted: Government 337M (Topic: Politics, Economy, and Society of Contemporary Brazil), 337M (Topic 9), Latin American Studies 337M (Topic: Politics, Economy, and Society of Contemporary Brazil), 337M (Topic 14). Additional prerequisite:
Topic 15: Politics of New Democracies. Same as Government 365N (Topic 13) and Russian, East European, and Eurasian Studies 335 (Topic 22). Examination of the process of democratization and factors related to its success. Only one of the following may be counted: Government 365N (Topic 13), Latin American Studies 337M (Topic: Politics of New Democracies), 337M (Topic 15), Russian, East European, and Eurasian Studies 335 (Topic: Politics of New Democracies), 335 (Topic 22). Additional prerequisite: For government majors, six semester hours of lower-division coursework in government; for others, upper-division standing.

## LAS 337N. Afro-Caribbean Politics and Culture in Central America.

Same as African and African Diaspora Studies 326, Anthropology 324L (Topic 47), and Women's and Gender Studies 340 (Topic 38). Exploration of black identity, political systems, and community activism in Central America and the Caribbean. Only one of the following may be counted: African and African Diaspora Studies 326, 374E (Topic: Afro-Caribbean Politics and Culture in Central America), Anthropology 324L (Topic: AfroCaribbean Politics and Culture in Central America), 324L (Topic: 47), Government 365N (Topic: Afro-Caribbean Politics and Culture in Central America), Latin American Studies 337M (Topic: Afro-Caribbean Politics and Culture in Central America), 337N, Women's and Gender Studies 340 (Topic: Afro-Caribbean Politics and Culture in Central America), 340 (Topic 38). Prerequisite: Upper-division standing.

## LAS 355. Topics in Latin American Economics.

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Development Problems and Policies in Latin America. Same as Economics 355 and Urban Studies 351 (Topic 1: Development Problems and Policies in Latin America). Description of the Latin American economy; business and market organization; problem of growth (involving credit, public finance, trade, investment aspects). Prerequisite: Economics 304K and 304L with a grade of at least C - in each.

## LAS 359H. Honors Seminar.

An interdisciplinary discussion and writing seminar. Lectures and supervised individual research and writing of a substantial paper on
a special topic. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, and consent of instructor and the Latin American studies honors adviser.

## LAS 366. Topics in Latin American History.

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 2: Colonial Latin America. Same as History 346K. Basic survey course, designed as an introduction to Latin American history in the colonial period. Only one of the following may be counted: History 310K, 346K, Latin American Studies 310 (Topic 1: Latin American Civilization: The Colonial Experience), 366 (Topic 2). Prerequisite: Upper-division standing.
Topic 3: Modern Latin America. Same as African and African Diaspora Studies 374E (Topic 5) and History 346L. Continuation of History 346K and Latin American Studies 366 (Topic 2). Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Modern Latin America), 374E (Topic 5), History 310L, 346L, Latin American Studies 310 (Topic 2: Latin American Civilization: The National Experience), 366 (Topic 3). Additional prerequisite: Upper-division standing.
Topic 7: Resistance, Rebellion, and Revolution in Colonial Spanish America. Same as History 350L (Topic 19: Resistance, Rebellion, and Revolution in Colonial Spanish America). Only one of the following may be counted: History 350L (Topic 19), Latin American Studies 366 (Topic: Resistance, Rebellion, and Revolution in Colonial Spanish America), 366 (Topic 7). Prerequisite: Upper-division standing.
Topic 8: The Mexican Revolution, 1910-1920. Same as History 352L. An analytical examination of the initial decade of the Mexican Revolution, the first of the twentieth-century nationalist social revolutions; examines through lectures and discussion the historical antecedents and the political, economic, social, and intellectual elements of the upheaval. Prerequisite: Upper-division standing.
Topic 9: Revolution in Twentieth-Century Latin America. Same as History 346S. An introduction to recent Latin American history, with emphasis on phenomena that explain the apparent social unrest and political instability of the region. Only one of the following may be counted: History 346L, 366N (Topic: Revolution in Twentieth-Century Latin America), Latin American Studies 366 (Topic 9). Prerequisite: Upper-division standing.
Topic 12: Modern Brazil. Same as History 328M. The social, economic, political, and cultural forces that have shaped modern Brazil. Prerequisite: Upper-division standing.
Topic 13: Revolution in Modern Latin America. Same as History 346R. Comparison of the Mexican and Cuban revolutions and of their challenges to inter-American relations. Prerequisite: Upper-division standing.
Topic 15: History of Modern Central America. Same as History 350L (Topic 42: History of Modern Central America). Only one of the following may be counted: History 350L (Topic 42), 363K (Topic: History of Modern Central America), Latin American Studies 366 (Topic 15). Prerequisite: Upper-division standing.

Topic 16: Culture and Identity in Colonial Mexico. Same as History 350L (Topic 44: Culture and Identity in Colonial Mexico). Prerequisite: Upper-division standing.
Topic 17: The Cuban Revolution and the United States. Same as History 346T. 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. Only one of the following may be counted: History 346T, 366N (Topic: The Cuban Revolution and the US), Latin

American Studies 366 (Topic: The Cuban Revolution and the US), 366 (Topic 17). Prerequisite: Upper-division standing.
Topic 18: History of the Caribbean. Same as History 350L (Topic 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. Prerequisite: Upper-division standing.
Topic 19: Twentieth-Century Rural Latin America. Same as History 346V. 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. Only one of the following may be counted: History 346V, 363K (Topic: Twentieth-Century Rural Latin America), Latin American Studies 366 (Topic 19). Prerequisite: Upper-division standing.
Topic 20: Colonial Latin America through Objects. Same as History 346J. 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. Only one of the following may be counted: History 346J, 363K (Topic: Colonial Latin America through Objects), Latin American Studies 366 (Topic 20). Prerequisite: Upper-division standing.

Topic 21: Church and State in Latin America. Same as History 346W and Religious Studies 368 (Topic 1: 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. Only one of the following may be counted: History 346W, 363K (Topic: Church and State in Latin America), Latin American Studies 366 (Topic 21), Religious Studies 368 (Topic 1). Prerequisite: Upper-division standing.
Topic 22: Reimagining Cuba, 1868-Present. Same as African and African Diaspora Studies 374E (Topic 4) and History 347C. 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. Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Reimagining Cuba, 1868-Present), 374E (Topic 4), History 347C, 363K (Topic: Reimagining Cuba, 1868-Present), Latin American Studies 366 (Topic 22). Additional prerequisite: Upper-division standing.

Topic 23: Dictatorship, Dirty War, and Democracy in Latin
America. Same as History 350L (Topic 66). Only one of the following may be counted: History 350L (Topic: Dictator/Dirty War in Latin America), 350L (Topic 66), Latin American Studies 366 (Topic: Dictator/Dirty War in Latin America), 366 (Topic 23).
Topic 24: Rethinking the Conquest of Mexico. Same as History 350L (Topic 75). Explores the "conquest" of Mexico and the social, cultural, political, and economic processes which were set in motion by the Spanish invasion of Mexico. Only one of the following may be counted: History 350L (Topic: Rethinking Conquest of Mexico), 350L (Topic 75), Latin American Studies 366 (Topic: Rethinking Conquest of Mexico), 366 (Topic 24), Tutorial Course 357 (Topic: Rethinking Conquest of Mexico).
Topic 25: The Religious Tradition in Latin America. Same as History 350L (Topic 76) and Religious Studies 368 (Topic 3). Explores the different ways in which religion has helped to define the political, social, and philosophical structures of Latin America from colonial times to the present. Only one of the following may be counted: History 350L (Topic: The Religious Tradition in Latin America), 350L (Topic 76), Latin American Studies 366 (Topic: The Religious Tradition in Latin America), 366 (Topic 25), Religious Studies 368 (Topic: The Religious Tradition in Latin America), 368 (Topic 3).
Topic 26: Visual and Material Culture in Colonial Latin America.
Same as History 350L (Topic 78). Focuses on the visual and material
culture of colonial Spanish America. Only one of the following may be counted: History 350L (Topic: Visual and Material Culture in Colonial Latin America), 350L (Topic 78), Latin American Studies 366 (Topic: Visual and Material Culture in Colonial Latin America), 366 (Topic 26). Topic 27: Cultural Citizenship in the United States and Latin America. Same as History 363K (Topic 1). 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 363K (Topic: Cultural Citizenship in the United States and Latin America), 363K (Topic 1), Latin American Studies 366 (Topic: Cultural Citizenship in the United States and Latin America), 366 (Topic 27).
Topic 28: Argentina: Populism and Insurrection. Same as History 363K (Topic 2). An overview of principal trends and issues in Argentine history from independence to the present. Only one of the following may be counted: History 363K (Topic: Argentina: Populism and Insurrection), 363K (Topic 2), Latin American Studies 366 (Topic: Argentina: Populism and Insurrection), 366 (Topic 28).
Topic 29: Religion, Conquest, and Conversion in Colonial Latin America. Same as History 363K (Topic 3) and Religious Studies 368 (Topic 4). Focuses on the histories of the Catholic Church and religious devotion in colonial Latin America between 1521 and 1821. Only one of the following may be counted: History 363K (Topic: Religion, Conquest, and Conversion in Colonial Latin America), 363K (Topic 3), Latin American Studies 366 (Topic: Religion, Conquest, and Conversion in Colonial Latin America), 366 (Topic 29), Religious Studies 368 (Topic: Religion, Conquest, and Conversion in Colonial Latin America), 368 (Topic 4).
Topic 31: Afro-Latin America. Same as African and African Diaspora Studies 372G (Topic 10) and History 350L (Topic 68). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Afro-Latin America), 372G (Topic 10), 374E (Topic: Afro-Latin America), History 350L (Topic: Afro-Latin America), 350L (Topic 68), Latin American Studies 366 (Topic: Afro-Latin America), 366 (Topic 31). Additional prerequisite: Upper-division standing.

## LAS 370P. Topics in Luso-Brazilian Literature, Culture, Civilization, and Linguistics.

Taught in Portuguese. Three lecture hours a week for one semester. Latin American Studies 322 and 370P may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Portuguese 611D, 611S, 612, 312L, or 516; additional prerequisites vary with the topic.

Topic 1: Brazil: An Introduction. Same as Portuguese 375 (Topic 5: Brazil: An Introduction). Prerequisite: Six semester hours of upperdivision coursework in Portuguese.
Topic 2: Introduction to Literatures and Cultures. Same as Portuguese 328C. 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. Three lecture hours a week for one semester. Additional prerequisite: Portuguese 611D, 611S, 612, 312L, or 516.
Topic 3: Contemporary Brazilian Film. Same as Portuguese 350F (Topic 1). Explores recent filmmaking in Brazil as an art form and as a method of articulating important aspects and concerns of contemporary Brazilian society. Topics include cinema and development, modernization, national and regional identity, race, social exclusion, violence, and neoliberalism. Only one of the following may
be counted: Latin American Studies 370P (Topic 3), Portuguese 350F (Topic 1), 350K.
Topic 4: Brazilian Film and Culture. Same as Portuguese 350F (Topic 2). Students will be given 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. Only one of the following may be counted: Latin American Studies 370P (Topic 4), Portuguese 350F (Topic 2), Portuguese 350K.
Topic 5: Gender, Sexuality, and Labor in Brazilian Culture. Same as Portuguese 375 (Topic 6). Introduction to the vast spectrum of working women characters, including maids, prostitutes, teachers, factory workers, doctors, street vendors, and unpaid housewives, in Brazilian literature and film, in order to examine the roles of race and gender in shaping the stereotypes surrounding women's labor in modern Brazil. Latin American Studies 370P (Topic 5) and Portuguese 375 (Topic 6) may not both be counted.
Topic 6: Global Brazil: Immigration and Diaspora in Brazilian Culture. Same as Portuguese 375 (Topic 7). Examination of twentiethcentury 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. Latin American Studies 370P (Topic 6) and Portuguese 375 (Topic 7) may not both be counted. Additional prerequisite: Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320E.
Topic 7: Race and Slavery in Brazil. Same as Portuguese 348 (Topic 1). Focus on the differing meanings and values attributed by major Brazilian writers to the national "race." Topics include images of slavery and slaves in the Brazilian abolitionist literature; fictional and selfrepresentational literature by Afro-Brazilian authors; the debate around the "Black Aesthetic"; and finally, the representation of Afro-Brazilians in other media such as film, painting, television, and popular music (samba, hip-hop, funk). Only one of the following may be counted: Latin American Studies 370P (Topic: The Color of Progress: Race and Slavery in Brazil), 370P (Topic 7), Portuguese 348 (Topic 1), 375 (Topic: The Color of Progress: Race and Slavery in Brazil).
Topic 8: Afro-Brazilian Diaspora. Same as Portuguese 348 (Topic 2). Examines Afro-Brazilians in the post-abolition (1888 and after) era and the strategies deployed by cultural producers and participants in social movements to overcome the barriers to the achievement of political power and self-determination.
Topic 9: Brazilian and African Dialogues. Same as Portuguese 348 (Topic 3). A general introduction to the colonial and post-colonial experiences of Portuguese-speaking Africa. Overview of the sociopolitical and economic experiences of the lusophone African countries under colonialism. Examination of the armed struggle and the combative literary outpourings that impacted morale in the fight for independence.
Topic 10: United States Latino Literatures and Cultures in Context. Same as Portuguese 354. 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. Three lecture hours a week for one semester. Additional prerequisite: Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320E.
Topic 11: Sociolinguistics. Same as Portuguese 353. 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. Three hours a week for one semester. Latin American Studies 370P (Topic 11) and Portuguese 353 may not both be counted. Additional prerequisite: Portuguese

327C and one of the following: 328C, 330L, or Portuguese Civilization 320 E .

## LAS 370S. Topics in Hispanic Literature, Culture, Civilization, and Linguistics.

Taught in Spanish. Three lecture hours a week for one semester, or as required by the topic. Latin American Studies 322 and 370 S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Spanish 611D, 612, or 312L; additional prerequisites vary with the topic.

Topic 17: Indigenous Voices in Latin American Literature. Same as Spanish 356 (Topic 1). Only one of the following may be counted: Latin American Studies 370 S (Topic 17), Spanish 350 (Topic 4), 356 (Topic 1). Additional prerequisite: Spanish 327C (or 327G), and one of the following: Spanish 328C, 330L, or Spanish Civilization 320C.
Topic 22: The Imagined Andes. Same as Spanish 356 (Topic 2). Overview of literature and culture of the Andean regions. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: The Imagined Andes), 370 (Topic 22), Spanish 350 (Topic 12), 356 (Topic 2). Additional prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.
Topic 23: Violence in Contemporary Mexican Culture. Same as Spanish 355 (Topic 6) and Women's and Gender Studies 340 (Topic 20). 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. Only one of the following may be counted: Latin American Studies 370 (Topic 23), Spanish 350 (Topic 13), 355 (Topic 6), Women's and Gender Studies 340 (Topic 20). Additional prerequisite: Spanish 611D, 612, or 312L.
Topic 24: Gender Issues in Contemporary Latin American Cinema. Same as Spanish 350K (Topic 1: 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. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370 (Topic 24), Spanish 350 (Topic: Gender in Contemporary Latin American Cinema), 350K (Topic 1). Prerequisite: Spanish 325K, $325 \mathrm{~L}, 326 \mathrm{~K}$, or 326L.
Topic 25: Latin American Film and Culture. Same as Spanish 350K (Topic 3: Latin American Film and Culture). Overview of Latin American cinema from the silent era to present, with an emphasis on the last forty years. Subjects covered include: 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. Taught in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 25), Spanish 350 (Topic: Latin American Film and Culture), 350K (Topic 3). Prerequisite: Spanish 325K, 325L, 326K, or 326L.
Topic 26: Latin American Literature and Film. Same as Spanish 350K (Topic 4: Latin American Literature and Film). Studies, in a broad sense, the connections between Latin American cinema and literature, through extensive readings and in-class movie exhibitions. A number of renowned literary works by Latin American authors and their film versions will be analyzed with a comparative approach. Only one of the following may be counted: Latin American Studies 370S (Topic 26), Spanish 350 (Topic: Latin American Literature and Film), 350K
(Topic 4), 352 (Topic: Literature and Cinema in Spanish America). Prerequisite: Spanish 325K, 325L, 326K, or 326L.
Topic 27: Introduction to Literatures and Cultures. Same as Spanish 328C. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 27), Spanish 328, 328C. Only one of the following may be counted: Latin American Studies 370S (Topic 3), 370S (Topic 27), Spanish 322K, 328C. Additional prerequisite: Spanish 611D, 612, or 312L.
Topic 28: Mediascapes: Literature and Media in the Caribbean. Same as Spanish 350K (Topic 5). Analyzes the relationship between literature and media technologies in contemporary Caribbean cultures. Examination of the notion and uses of Caribbean mediascapes; in other words, 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. Only one of the following may be counted: Latin American Studies 328 (Topic 5), 370 (Topic 28), Spanish 350K (Topic 5), Spanish Civilization 320C (Topic 2).
Topic 29: Indigenous Voices: From Nezahualcoyotl to Radio. Same as Spanish 350K (Topic 6). Examines how Indigenous writers, intellectuals, and cultural producers have creatively established their own voices through writing and other forms of media. Only one of the following may be counted: Latin American Studies 370S (Topic: Indigenous Voices), 370 (Topic 29), Spanish 350 (Topic: Indigenous Voices), 350K (Topic 6).
Topic 30: Fantastic Fiction from Latin America. Same as Spanish 355 (Topic 1). Analysis of short stories by Latin American writers that in some way represent an alternative to realism. Latin American Studies (Topic 30) and Spanish 355 (Topic 1) may not both be counted.
Topic 31: Nonfiction Narratives from Latin America. Same as Spanish 355 (Topic 2). Study of nonfiction works written in contemporary Latin America as experimental narrative forms that offer insight about current political, social, and economic problems of the region. Examination of these realities through readings and careful analysis of the works of popular nonfiction Latin American writers.
Topic 32: Jewish Voices from Latin America. Same as Spanish 355 (Topic 3). 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. Only one of the following may be counted: Jewish Studies 363 (Topic: Latin American Jewish Writers), 363 (Topic 15), Latin American Studies 328 (Topic 4), 370 (Topic: Latin American Jewish Writers), 370 (Topic 32), Spanish 352 (Topic: Latin American Jewish Writers), 355 (Topic 3), Spanish Civilization 320C (Topic 1).
Topic 33: Sex and Sexuality in Latin America. Same as Spanish 355 (Topic 4). Examines different representations of sex, sexuality, and eroticism in the various cultures of Latin America. These concepts do not refer to explicit or provocative texts or images in books, films, or photographs alone. On the contrary, they include a vast gamut of life, love, pain, and social conflict. Only one of the following may be counted: Latin American Studies 370S (Topic: Sexo/Sexualidad en Latinoamerica), 370S (Topic 33), Spanish 352 (Topic: Sexo/Sexualidad en Latinoamerica), 355 (Topic 4).

## Topic 34: Revolutionary Imagination in Latin American Cultures.

 Same as Spanish 355 (Topic 5). Explores literary expressions in Latin America that reflect a dissident or transgressive imaginary published during the revolutionary period (1960-1990). Examination of how different sociohistorical experiences require new narrative forms, and innovative ways of exploring and codifying collective community identities. Only one of the following may be counted: Latin American Studies 370S (Topic: Revolutionary Imagination in Latin AmericanLiterature), 370S (Topic 34), Spanish 352 (Topic: Revolutionary Imagination in Latin American Literature), 355 (Topic 5).
Topic 36: East/West/New World Encounters. Same as Spanish 355 (Topic 7). Survey of 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. Only one of the following may be counted: Latin American Studies 370S (Topic: Visions of the East in Latin American Writing), 370 (Topic 36), Spanish 352 (Topic: Visions of the East in Latin American Writing), 355 (Topic 7).
Topic 37: Memory and Writing in Caribbean Culture. Same as Spanish 355 (Topic 8). Studies 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. Only one of the following may be counted: Latin American Studies 370S (Topic: Writing and Memory in Caribbean Literature), 370 (Topic 37), Spanish 355 (Topic 8), 375 (Topic: Writing and Memory in Caribbean Literature).
Topic 38: Literary Figurations in the Multimedia Age. Same as Spanish 355 (Topic 9). Focuses on the figurations of sounds and images in literary language in the context of the multimedia environment of modern and contemporary Latin America. Only one of the following may be counted: Latin American Studies 370S (Topic: Literary Figurations in the Multimedia Age), 370 (Topic 38), Spanish 352 (Topic: Literary Figurations in the Multimedia Age), 355 (Topic 9).
Topic 41: Contemporary Mesoamerican Indigenous Literatures. Same as Spanish 356 (Topic 3). Examines the early Mesoamerican mythological narrative, Popol Wuj, as well as twentieth-century Central American texts. Explores ethnicity, class, gender, and traditional cultures as main factors in regional negotiations of identity constructions. Only one of the following may be counted: Latin American Studies 370S (Topic: Contemporary Indigenous Literature), 370 (Topic 41), Spanish 352 (Topic: Contemporary Indigenous Literature), 356 (Topic 3).
Topic 42: African Diasporas. Same as Spanish 358 (Topic 1). Analysis of the sociocultural contexts of the African diaspora in the Americas with particular focus on the Caribbean and Brazil. Focuses on the contributions of the African diasporic populations and the stylistic strategies through which they constructed their social, political, and cultural agency. Only one of the following may be counted: Latin American Studies 370S (Topic: African Diaspora in Latin America and the Caribbean), 370S (Topic 42), Spanish 358 (Topic 1), 375 (Topic: African Diaspora in Latin America and the Caribbean).
Topic 43: United States Latino Literatures and Cultures in Context. Same as Spanish 359. 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. Three lecture hours a week for one semester. Latin American Studies 370S (Topic 43) and Spanish 359 may not both be counted. Additional prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.

## LAS 378. Capstone Course in Latin American Studies.

Three lecture hours a week for one semester Prerequisite: Upper-division standing.

## LAS 379. Conference Course in Latin American Studies.

Supervised individual study of selected problems in Latin American studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the undergraduate adviser in Latin American studies.

## LAS 679H. Honors Tutorial Course.

For honors candidates in Latin American studies. Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. Conference course for two semesters. Prerequisite: For Latin American Studies 679HA, Latin American Studies 359H, admission to the Latin American Studies Honors Program, and written consent of the Latin American Studies Honors Program adviser; for 679HB, Latin American Studies 679HA.

## Department of Linguistics

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## American Sign Language: ASL Lower-Division Courses

ASL 601C. 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. Six lecture hours a week for one semester. Only one of the following may be counted: American Sign Language 601C, 601D, 506. American Sign Language 601C and 507 may not both be counted. Offered on the letter-grade basis only.

## ASL 601D. 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. Six lecture hours a week for one semester. Only one of the following may be counted: American Sign Language 601C, 601D, 506. American Sign Language 601D and 507 may not both be counted. Offered on the letter-grade basis only.

## ASL 506 (TCCN: SGNL 1501). First-Year American Sign

 Language I.Introduction to American Sign Language. Five lecture hours a week for one semester. Only one of the following may be counted: American Sign Language 601C, 601D, 506. Offered on the letter-grade basis only.

## ASL 507 (TCCN: SGNL 1502). First-Year American Sign Language II.

American Sign Language vocabulary and basic sentence structure. Five lecture hours a week for one semester. Only one of the following may be counted: American Sign Language 601C, 601D, 507. Offered on the letter-grade basis only. Prerequisite: American Sign Language 506 with a grade of at least C.

## ASL 610D. 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. Six lecture hours a week for one semester. Only one of the following may be counted: American Sign Language 610D, 611C, 312K. American Sign Language 507 and 610D may not both be counted. Offered on the lettergrade basis only. Prerequisite: American Sign Language 601D or 507 with a grade of at least C .

## ASL 611C. Accelerated Second-Year American Sign Language.

Focuses on developing conversational skills in American Sign Language and introduces American Sign Language literature and folklore. Six lecture hours a week for one semester. Only one of the following may be counted: American Sign Language 611C, 311D, 312K. American Sign Language 611C and 312L may not both be counted. Offered on the lettergrade basis only. Prerequisite: American Sign Language 601C, 507, or 610 D with a grade of at least C .

## ASL 311D. 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. Three lecture hours a week for one semester. American Sign Language 311D and 312L may not both be counted. American Sign Language 611C and 311D may not both be counted. Offered on the letter-grade basis only. Prerequisite: American Sign Language 601C, 610D, or 312 K with a grade of at least C.

## ASL 312K (TCCN: SGNL 2301). Second-Year American Sign Language I.

Development of conversational skills in American Sign Language. Three lecture hours a week for one semester. American Sign Language 611C and 312K may not both be counted. American Sign Language 610D and 312 K may not both be counted. Offered on the letter-grade basis only. Prerequisite: American Sign Language 601C or 507 with a grade of at least C.

## ASL 312L (TCCN: SGNL 2302). Second-Year American Sign Language II.

Further development of conversational skills in American Sign Language; introduction to American Sign Language literature and folklore. Three lecture hours a week for one semester. American Sign Language 611C and 312L may not both be counted. American Sign Language 311D and 312 L may not both be counted Offered on the letter-grade basis only. Prerequisite: American Sign Language 312K with a grade of at least C.

## Upper-Division Courses

## ASL 320. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: American Sign Language 611 C or 312 L with a grade of at least C -.

## ASL 326. Sign Languages and Signing Communities.

Same as Linguistics 350 (Topic 3: Sign Languages and Signing Communities). Examines 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. Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upper-division standing.

## ASL 336. 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. Three lecture hours a week for one semester. Prerequisite: American Sign Language 611C, or credit or registration for American Sign Language 312L.

ASL 350. Topics in American Sign Language, Deaf Studies, and Interpreting.
Three lecture hours a week for one semester. Additional hours may be required for some topics; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: American Sign Language Literature. Examines American Sign Language literature; includes narratives, language games, and poetry. Three lecture hours a week for one semester. American Sign Language 350 (Topic: American Sign Language Literature) and 350 (Topic 1) may not both be counted. Additional prerequisite: American Sign Language 610D with a grade of at least C, or credit or registration in American Sign Language 311D or 312L.

## ASL 357. Undergraduate Research.

Supervised research experience. Individual instruction. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and American Sign Language 506 with a grade of at least C-.

## Linguistics: LIN

## Lower-Division Courses

## LIN 306. 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. Three lecture hours a week for one semester.

## LIN 312. Interdisciplinary Approaches to Language.

An interdisciplinary and multidisciplinary introduction to the manifold aspects of language. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## LIN 312C. Culture and Communication.

Same as Anthropology 307. An introduction to the study of culture through communication and the theory of signs. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Anthropology 307, Linguistics 312 (Topic: Culture and Communication), 312C.

## LIN 312D. 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? Three lecture hours a week for one semester. Linguistics 312 (Topic: Languages Around the World) and 312D may not both be counted.

## LIN 312E. 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. Three lecture hours a week for one semester. Linguistics 312 (Topic: Language in the Body) and 312E may not both be counted.

## LIN 313. Language and Computers.

Natural language processing, including spam filtering, dialogue systems, spelling and grammar correction, forensic linguistics, cryptography, and machine translation. Studies how these systems function, the difficulties in implementing them, and implications of such technologies for society. Three lecture hours a week for one semester. Linguistics 312 (Topic: Language and Computers) and 313 may not both be counted.

LIN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## LIN 321L. American English.

Same as English 321L. An overview of the historical development of English in the Americas. Attention to regional, social, and ethnic differences, and their implications for public education. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## LIN 322. Gypsy Language and Culture.

Linguistic introduction to Romani; relationship to languages of India; history from 280 BC ; modern dialects and international standard language; history and culture as reflected in the language. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 13: Gypsy Language and Culture); Linguistics 322; Russian, East European, and Eurasian Studies 325 (Topic 1: Gypsy Language and Culture).

## LIN 323L. English as a World Language.

Same as English 323L. An account of the spread of English around the world; national, social, and regional varieties. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

LIN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## LIN 344K. 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. Three lecture hours a week for one semester.

## LIN 345. Language Change and Language Variation.

Three lecture hours a week for one semester. Prerequisite: Linguistics 344K.

## LIN 350. Special Topics in the Study of Language.

Nontechnical examination of social, educational, and political problems to which current linguistic knowledge is relevant. Three lecture hours a
week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Language and the Brain. Same as Communication Sciences and Disorders 350. Prerequisite: Upper-division standing.
Topic 2: Language and Thought. Study of the relation between language and thought, using a cognitive science approach. Examines the words people use and how people think; whether language structure affects thought; and some cognitive aspects of language. Prerequisite: Upper-division standing.
Topic 3: Sign Languages and Signing Communities. Same as American Sign Language 326. Examines 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. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upper-division standing.
Topic 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. Prerequisite: Upper-division standing.
Topic 5: Bilingual Language Acquisition. Examines various aspects of bilingual first language acquisition including phonology, morphology, and syntax, as well as the child's use of his/her languages. Prerequisite: Upper-division standing.
Topic 6: Indigenous Languages of the Americas. Same as Latin American Studies 322 (Topic 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.
Topic 9: Psycholinguistics. Examines the psychological mechanisms that people use in learning, comprehending, and producing language. Prerequisite: Upper-division standing.
Topic 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. Three lecture hours a week for one semester. Linguistics 350 (Topic: How to Describe a Language) and 350 (Topic 10) may not both be counted. Additional prerequisite: Upper-division standing.
Topic 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. Three lecture hours a week for one semester. Linguistics 350 (Topic: Speech Intelligibility) and 350 (Topic 11) may not both be counted. Additional prerequisite: Linguistics $344 \mathrm{~K}, 358 \mathrm{~S}$, or consent of instructor.
Topic 12: Analyzing Text Data: A Statistics Toolkit for Linguists. Introduction to statistical concepts and analyses via language problems and linguistic data sets. Three lecture hours a week for one semester. Linguistics 350 (Topic: Words in a Haystack) and 350 (Topic 12) may not both be counted. Additional prerequisite: Upper-division standing.

## LIN 353C. Introduction to Computational Linguistics.

Introduction to key representations and algorithms used in computational linguistics and the main natural language processing applications.

Three lecture hours a week for one semester. Linguistics 350 (Topic: Introduction to Computational Linguistics) and 353C may not both be counted.

## LIN 353N. Natural Language Processing.

Introduces theoretical and applied topics relating to natural language processing, including machine translation, search, automatic summarization, and dialog systems. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 378 (Topic: Natural Language Processing), Linguistics 350 (Topic: Natural Language Processing), 353N.

## LIN 357. Undergraduate Research.

Supervised research experience. Individual instruction. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and Linguistics 306 with a grade of at least C -

## LIN 358Q. Supervised Research.

Supervised student-initiated research. Individual instruction. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and Linguistics 306 with a grade of at least C-.

## LIN 358S. Fundamentals of Speech Science.

Same as Communication Sciences and Disorders 358S.
Neurophysiological mechanisms underlying the encoding and decoding of speech. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 358S, 396N, Linguistics 358S. Prerequisite: Upper-division standing and a University grade point average of at least 2.25 ; for Communication Sciences and Disorders majors, Communication Sciences and Disorders 313 L and 358 with a grade of at least $C$ in each.

## LIN 360K. Introduction to English Grammar.

Introduction to the study of the syntactic structure of modern English from the viewpoint of generative grammar. Three lecture hours a week for one semester. English 360K and Linguistics 360K may not both be counted. Prerequisite: Upper-division standing.

## LIN 364M. History of the English Language.

Same as English 364M. Development of sounds, forms, and vocabulary of the English language from its origins to the present. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## LIN 372K. Sound Patterns: From Sound to Word.

Methods and principles of analyzing the sound systems of languages. Three lecture hours a week for one semester. Prerequisite: Linguistics 344K.

## LIN 372L. Syntax and Semantics: The Structure and Meaning of Utterances.

Methods and principles of describing the syntactic systems of languages. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Linguistics 306.

## LIN 373. Topics in Linguistics and Related Disciplines.

Introduction to the study of the areas of linguistics that involve other disciplines, such as sociolinguistics, psycholinguistics, mathematical methods in linguistics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Child Language. Examination of theory and research concerning the development of language in the child. Linguistics 373
(Topic 1) and Psychology 333P may not both be counted. Prerequisite: Upper-division standing.
Topic 2: Language and Speech in American Society. Same as American Studies 321 (Topic 2: Language and Speech in American Society), Anthropology 325N, and Sociology 352M (Topic 3: Language and Speech in American Society). Prerequisite: Upper-division standing, and Anthropology 302, 305, 307, or Linguistics 306.
Topic 3: Language in Culture and Society. Same as Anthropology 325M and Sociology 352M (Topic 4: Language in Culture and Society). Language as a cultural resource; functions of language in society; survey of language communities. Prerequisite: Anthropology 302, 305, 307 , or Linguistics 306; or consent of instructor.
Topic 7: Introduction to Cognitive Science. Same as Cognitive Science 360 (Topic 1: Introduction to Cognitive Science) and Philosophy 365 (Topic 2: Introduction to Cognitive Science). Prerequisite: Upper-division standing.
Topic 9: The German Language: Historical Perspectives. Same as Anthropology 320L (Topic 9) and German 369 (Topic 4). Only one of the following may be counted: Anthropology 320L (Topic 8: German and English: Historical Perspectives), 320L (Topic 9), Classical Civilization 348 (Topic 8: German and English: Historical Perspectives), 348 (Topic 9: The German Language: Historical Perspectives), German 369 (Topic 4), Germanic Civilization 327E (Topic 9: German and English: Historical Perspectives), Linguistics 373 (Topic 8: German and English: Historical Perspectives), 373 (Topic 9). Additional prerequisite: Three semester hours of upper-division coursework in German or Linguistics.
Topic 10: Language, Culture, and the Texas German Experience. Same as American Studies 370 (Topic 47), Anthropology 324L (Topic 55), and German, Scandinavian, and Dutch Studies 351C. The evolution of the culture and language of German immigrants to Texas from the 1840 s through the present and how they have influenced other ethnic groups in Texas. Three lectures a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Language, Culture, and the Texas German Experience), 370 (Topic 47), Anthropology 324L (Topic: Language, Culture, and the Texas German Experience), 324L (Topic 55), Germanic Civilization 327E (Topic 11) German, Scandinavian, and Dutch Studies 351C, Linguistics 350 (Topic: Language, Culture, and the Texas German Experience), 373 (Topic 10). Additional prerequisite: Upper-division standing.

## LIN 374M. Sociolinguistics.

Same as Anthropology 374M. An in-depth treatment of current interests in sociolinguistic research literature. Subjects include 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. Three lecture hours a week for one semester. Prerequisite: Anthropology 302 or Linguistics 306.

## LIN 379. Conference Course in Linguistics.

Supervised individual study of selected problems in linguistics. Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in linguistics.

## LIN 679H. Honors Tutorial Course.

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper. Conference course for two semesters. May be repeated for credit. Prerequisite: For 679HA, admission to the Linguistics Honors Program; for 679HB, Linguistics 679HA.

## Department of Middle Eastern Studies

Before enrolling for the first time in any language offered by the Department of Middle Eastern Studies, all students with knowledge of the language, however acquired, must be tested to determine the course for which they should register. Information about the tests is available from the departmental undergraduate adviser. The Department of Middle Eastern Studies considers students educated in a Middle Eastern language beyond the elementary school level to be native speakers of that language.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Arabic: ARA

## Lower-Division Courses

## ARA 601C. Intensive Arabic I.

Not open to native speakers of Arabic. First semester of intensive Arabic language instruction. Six lecture hours a week for one semester. Only one of the following may be counted: Arabic 601C, 506, 508. Arabic 601C and 106C may not both be counted.

## ARA 305. Arabic Tutorial.

The basics of the Arabic language. Individual instruction. May not be used to fulfill the foreign language requirement for any bachelor's degree. Prerequisite: Consent of the faculty coordinator.

## ARA 506 (TCCN: ARAB 1511). First-Year Arabic I.

Not open to native speakers of Arabic. First semester of Arabic language instruction. Five lecture hours a week for one semester. Only one of the following may be counted: Arabic 601C, 506, 508. Prerequisite: Credit or registration for Arabic 106C.

## ARA 106C. Conversation for First-Year Arabic I.

Not open to native speakers of Arabic. One lecture hour a week for one semester. Arabic 601C and 106C may not both be counted. Prerequisite: Credit or registration for Arabic 506.

## ARA 507 (TCCN: ARAB 1512). First-Year Arabic II.

Not open to native speakers of Arabic. Continuation of Arabic 506. Five lecture hours a week for one semester. Only one of the following may be counted: Arabic 507, 509, 611C. Prerequisite: Arabic 506 and 106C with a grade of at least C in each, and credit or registration for Arabic 107C.

## ARA 107C. Conversation for First-Year Arabic II.

Not open to native speakers of Arabic. One lecture hour a week for one semester. Arabic 107C and 611C may not both be counted. Prerequisite: Arabic 506 and 106C with a grade of at least $C$ in each, and credit or registration for Arabic 507.

## ARA 508. Modern Standard Arabic I.

Designed to provide students with basic competence in Modern Standard Arabic, targeting the skills of speaking, reading, writing, and listening. Five lecture hours a week for one semester. Only one of the following may be counted: Arabic 601C, 506, 508.

## ARA 509. Modern Standard Arabic II.

Continuation of Arabic 508. Five lecture hours a week for one semester. Only one of the following may be counted: Arabic 507, 509, 611C. Prerequisite: Arabic 508 with a grade of at least C .

## ARA 611C. Intensive Arabic II.

Not open to native speakers of Arabic. Six lecture hours a week for one semester. Arabic 611C and 512K may not both be counted. If taken in residence, only one of the following may be counted: Arabic 507, 509, 611C. If taken in residence, Arabic 107C and 611C may not both be counted. Prerequisite: Arabic 601C with a grade of at least C.

## ARA 112C. Conversation for Second-Year Arabic I.

Not open to native speakers of Arabic. One lecture hour a week for one semester. Arabic 112C and 621K may not both be counted. Prerequisite: Arabic 507 and 107C with a grade of at least $C$ in each, and credit or registration for Arabic 512K.

## ARA 112D. Conversation for Second-Year Arabic II.

Not open to native speakers of Arabic. One lecture hour a week for one semester. Arabic 112D and 621L may not both be counted. Prerequisite: Arabic 112C and 512K with a grade of at least C in each, and credit or registration for Arabic 512L.

## ARA 512K. Second-Year Arabic I.

Not open to native speakers of Arabic. Five lecture hours a week for one semester. Only one of the following may be counted: Arabic 512K, 413, 621K. Prerequisite: Arabic 507 and 107C with a grade of at least $C$ in each, and credit or registration for Arabic 112C.

## ARA 512L. Second-Year Arabic II.

Not open to native speakers of Arabic. Continuation of Arabic 512K. Five lecture hours a week for one semester. Only one of the following may be counted: Arabic 512L, 414, 621L. Prerequisite: Arabic 112C and 512K with a grade of at least $C$ in each, and credit or registration for Arabic 112D.

ARA 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

ARA 321. Introduction to Arabic Dialects.
Introduction to Arabic as spoken throughout the Arab world. Three lecture hours a week for one semester. Prerequisite: Arabic 420K (or 320K) with a grade of at least C .

## ARA 621K. Intensive Arabic III.

Not open to native speakers of Arabic. Six lecture hours a week for one semester. If taken in residence, only one of the following may be counted: Arabic $512 \mathrm{~K}, 413,621 \mathrm{~K}$. Arabic 112 C and 621 K may not both be counted. Prerequisite: Arabic 611 C with a grade of at least C .

## ARA 621L. Intensive Arabic IV.

Not open to native speakers of Arabic. Six lecture hours a week for one semester. If taken in residence, only one of the following may be counted: Arabic 512L, 414, 621L. Arabic 112D and 621L may not both be counted. Prerequisite: Arabic 621 K with a grade of at least C .

## ARA 322K. Levantine Arabic.

Not open to native speakers of Arabic. Three lecture hours a week for one semester. Prerequisite: Arabic 512L or 621L with a grade of at least C.

## ARA 325K. Egyptian Arabic.

Not open to native speakers of Arabic. Introduction to the Egyptian dialect of Arabic. Three lecture hours a week for one semester. Prerequisite: Arabic 512 L or 621 L with a grade of at least C.

## ARA 327K. 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. Three lecture hours a week for one semester. Prerequisite: Arabic 420L or 531L with a grade of at least B-

## ARA 327L. 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. Three lecture hours a week for one semester. Prerequisite: Arabic 327K with a grade of at least B-.

ARA 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## ARA 130D. Arabic across Disciplines.

Students read and discuss Arabic language materials related to the subject matter of another designated course. One lecture hour a week for one semester. No more than three semester hours may be counted toward the major in either Middle Eastern Studies or Middle Eastern Languages and Culture. May be repeated for credit. Prerequisite: Upperdivision standing and consent of instructor.

## ARA 531K. Intensive Arabic V.

Not open to native speakers of Arabic. Five lecture hours a week for one semester. Arabic $320 \mathrm{~K}, 420 \mathrm{~K}$ and 531 K may not both be counted. Arabic 120 C and 531K may not both be counted. Prerequisite: Arabic 112D and 512 L with a grade of at least $C$ in each, or Arabic 621L with a grade of at least C .

## ARA 531L. Intensive Arabic VI.

Not open to native speakers of Arabic. Sixth semester of intensive Arabic language instruction. Five lecture hours a week for one semester. Arabic $320 \mathrm{~L}, 420 \mathrm{~L}$ and 531 L may not both be counted. Arabic 120D and 531L may not both be counted. Prerequisite: Arabic 120C and 420K (or 320K) with a grade of at least C in each, or Arabic 531 K with a grade of at least C.

## ARA 360L. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Arabic 531L with a grade of at least C.

Topic 2: Arab Women Poets. Same as Islamic Studies 373 (Topic 7: Arab Women Poets) and Middle Eastern Studies 342 (Topic 26: Arab Women Poets). Only one of the following may be counted: Arabic 360L (Topic 2), Comparative Literature 323 (Topic: Arab Women Poets),

Islamic Studies 372 (Topic 14: Arab Women Poets), 373 (Topic 7), Middle Eastern Studies 323K (Topic 4: Arab Women Poets), 342 (Topic 26).
Topic 3: Politics of Court Literature. Same as Islamic Studies 373
(Topic 6: Politics of Court Literature) and Middle Eastern Studies 342
(Topic 25: Politics of Court Literature). Only one of the following may be counted: Arabic 360L (Topic 3), Comparative Literature 323 (Topic: Politics of Court Literature), Islamic Studies 372 (Topic 19: Politics of Court Literature), 373 (Topic 6), Middle Eastern Studies 321K (Topic 14: Politics of Court Literature), 342 (Topic 25).
Topic 4: Translating Arabic Texts. Only one of the following may be counted: Arabic 360L (Topic 4), 380C (Topic 8: Translating Arabic Texts), Middle Eastern Studies 381 (Topic 39: Translating Arabic Texts).
Topic 5: Egyptian Culture and Society. Arabic 360L (Topic: Egyptian Culture and Society) and 360L (Topic 5) may not both be counted.
Topic 6: Arab Political Speeches in War and Peace. Arabic 360L
(Topic: Arab Political Speeches in War and Peace) and 360L (Topic 6) may not both be counted.
Topic 7: The Arab Spring. Arabic 360L (Topic: The Arab Spring) and 360 L (Topic 7) may not both be counted. Additional prerequisite: Upper-division standing, and the following with a grade of at least C: Arabic 120D and 420L, or 531L.
Topic 8: Readings in Arabic Literature. Arabic 360L (Topic:
Readings in Arabic Literature) and 360L (Topic 8) may not both be counted. Additional prerequisite: Upper-division standing and the following with a grade of at least C: Arabic 120D and 420L, or 531L.

## ARA 679H. Honors Tutorial Course.

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper. Conference course for two semesters. Prerequisite: For 679HA, admission to the Arabic Language and Literature Honors Program; for 679HB, Arabic 679HA.

## Hebrew: HEB

## Lower-Division Courses

## HEB 601C. Intensive Hebrew I.

First semester of intensive Hebrew language instruction. Six lecture hours a week for one semester. Hebrew 601C and 506 may not both be counted. Hebrew 601C and 507 may not both be counted.

## HEB 602C. Intensive Biblical Hebrew I.

Introduction to biblical Hebrew, including basic lexicon and grammar. Emphasis on reading the Hebrew Bible; selected texts may include the Creation, the Tower of Babel, the binding of Isaac, the Joseph story, and the David and Goliath story. Six lecture hours a week for one semester. Hebrew 602C and 508 may not both be counted. Hebrew 602C and 509 may not both be counted.

## HEB 506. First-Year Hebrew I.

Not open to native speakers of Hebrew. Modern Israeli Hebrew, including the writing system, basic sentence structure, vocabulary, and simple conversation. Five lecture hours a week for one semester. Hebrew 601C and 506 may not both be counted.

## HEB 507. First-Year Hebrew II.

Not open to native speakers of Hebrew. Continuation of Hebrew 506. Five lecture hours a week for one semester. Hebrew 601C and 507 may not both be counted. Prerequisite: Hebrew 506 with a grade of at least C .

## HEB 611C. Intensive Hebrew II.

Second semester of intensive Hebrew language instruction. Six lecture hours a week for one semester. Hebrew 611C and 412K may not both be
counted. Hebrew 611C and 412L may not both be counted. Prerequisite: Hebrew 601 C or 507 with a grade of at least $C$.

## HEB 612C. Intensive Biblical Hebrew II.

Builds on material covered in HEB 602C. A thorough study of biblical Hebrew grammar, with emphasis on the verb system and the rules of sentence structure. Selected texts include biblical chapters of a 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. Six lecture hours a week for one semester. Hebrew 612C and 313K may not both be counted. Hebrew 612C and 313L may not both be counted. Prerequisite: Hebrew 602C with a grade of at least C .

## HEB 412K. Second-Year Hebrew I.

Not open to native speakers of Hebrew. Modern Israeli Hebrew. Continuation of Hebrew 507 with expanded grammar and conversation. Four lecture hours a week for one semester. Hebrew 611C and 312K, 412K may not both be counted. Prerequisite: Hebrew 507 with a grade of at least C .

## HEB 412L. Second-Year Hebrew II.

Not open to native speakers of Hebrew. Continuation of Hebrew 412K, with emphasis on conversation and composition. Four lecture hours a week for one semester. Hebrew 611C and 312L, 412L may not both be counted. Prerequisite: Hebrew 412 K (or 312 K ) with a grade of at least C.

HEB 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## HEB 320K. Hebrew via Popular Culture.

Three lecture hours a week for one semester. Hebrew 320K and 346 (Topic 7: Hebrew via Popular Culture) may not both be counted. Prerequisite: Hebrew 611C or 412 (or 312L) with a grade of at least C.

## HEB 320L. Hebrew through the Media.

Three lecture hours a week for one semester. Hebrew 346 (Topic: Hebrew through the Media) and 320L may not both be counted. Prerequisite: Hebrew 320K (or 346, Topic 7: Hebrew through Popular Culture) with a grade of at least C.

HEB 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## HEB 130D. Hebrew across Disciplines.

Students read and discuss Hebrew language materials related to the subject matter of another designated course. One lecture hour a week for one semester. No more than three semester hours may be counted toward the major in either Middle Eastern Studies or Middle Eastern

Languages and Culture. May be repeated for credit. Prerequisite: Upperdivision standing, Hebrew 611C or 412L, and consent of instructor.

## HEB 346. Topics in Hebrew Language, Literature, and

 Culture.Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and Hebrew 412L.

Topic 8: Jerusalem in Israeli Literature. Same as Jewish Studies 363 (Topic 18: Jerusalem in Israeli Literature). Additional prerequisite: Upper-division standing and Hebrew 412L.
Topic 9: Mizrahi Writing in Israel. Same as Jewish Studies 363 (Topic 8: Mizrahi Writing in Israel) and Middle Eastern Studies 342 (Topic 9: Mizrahi Writing in Israel). Only one of the following may be counted: Hebrew 346 (Topic 9), Jewish Studies 363 (Topic 8), Middle Eastern Studies 325 (Topic 6: Mizrahi Writing in Israel), 342 (Topic 9). Additional prerequisite: Hebrew 412L (or 312L) or 320L with a grade of at least C .

## HEB 679H. Honors Tutorial Course.

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper. Conference course for two semesters. Must be taken for special honors in addition to the major requirement. Prerequisite: For 679 HA , upper-division standing and admission to the Hebrew Language and Literature Honors Program; for 679 HB , Hebrew 679 HA with a grade of A.

## Islamic Studies: ISL Lower-Division Courses

## ISL 310. Introduction to Islam.

Same as Asian Studies 301M (Topic 15), History 306N (Topic 7), and Religious Studies 319. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 15), History 306N (Topic 7), Islamic Studies 310, Middle Eastern Studies 310 (Topic 1: Introduction to Islam), Religious Studies 319.

## ISL 311. Topics in Islamic Studies.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: 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.
Topic 2: Judaism, Christianity, and Islam: An Introduction. Same as History 304R, Jewish Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction), and Religious Studies 304. 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.

## Upper-Division Courses

## ISL 340. Topics in Islam.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Prophet of Islam: His Life and Times. Same as History 364G (Topic 2: Prophet of Islam: His Life and Times) and Religious Studies 325. A detailed study of the prophet Muhammad's life and
message, and of the means by which his life was recorded and popularized. Only one of the following may be counted: History 364G (Topic 2), Islamic Studies 340 (Topic 1), Middle Eastern Studies 321K (Topic 6: Prophet of Islam: His Life and Times), Religious Studies 325. Prerequisite: Upper-division standing.
Topic 2: The Qur'an. Same as Comparative Literature 323 (Topic 37), Core Texts and Ideas 375 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, and Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Arabic 372 (Topic 2: The Qur'an), Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 320 (Topic 14: The Qur'an), 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.
Topic 3: Classical Islamic Studies. Same as Middle Eastern Languages and Cultures 321 (Topic 15), Middle Eastern Studies 342 (Topic 15), and Religious Studies 358 (Topic 10). Only one of the following may be counted: Arabic 372 (Topic 1: Classical Islamic Studies), Islamic Studies 340 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 15), Middle Eastern Studies 321K (Topic 11: Classical Islamic Studies), 342 (Topic 15), Religious Studies 358 (Topic: Classical Islamic Studies), Religious Studies 358 (Topic 10). Additional prerequisite: Upper-division standing.
Topic 4: Sufism and Islamic Mysticism. Same as Asian Studies 340 (Topic 8), Middle Eastern Studies 342 (Topic 24), and Religious Studies 358 (Topic 4). Muslim debates of Sufism; the historical development of Sufi beliefs regarding theology, religious laws, expression, and popular social practices. Only one of the following may be counted: Asian Studies 340 (Topic: Sufism and Islamic Mysticism), Asian Studies 340 (Topic 8), History 364G (Topic: Sufism and Islamic Mysticism), Islamic Studies 340 (Topic 4), 372 (Topic 10: Sufism: Islamic Mysticism and Spirituality), Middle Eastern Studies 320 (Topic 16: Sufism: Islamic Mysticism and Spirituality), 321 K (Topic: Sufism and Islamic Mysticism), 342 (Topic 24), Religious Studies 341 (Topic: Sufism and Islamic Mysticism), 358 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 5: Islamic Law. Same as Middle Eastern Studies 342 (Topic 27) and Women's and Gender Studies 340 (Topic 27). 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. Only one of the following may be counted: Arabic 372 (Topic: Islamic Law), Islamic Studies 340 (Topic: Islamic Law), 340 (Topic 5), Middle Eastern Studies 321K (Topic: Islamic Law), 328 (Topic: Islamic Law), 342 (Topic 27), Religious Studies 358 (Topic: Islamic Law), Women's and Gender Studies 340 (Topic: Islamic Law), 340 (Topic 27).
Topic 6: The Religions of the Middle East. Same as Middle Eastern Languages and Cultures 321 (Topic 26), Middle Eastern Studies 342 (Topic 34), and Religious Studies 358 (Topic 15). Three lecture hours per week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic: Religions of the Middle East), 340 (Topic 6), Middle Eastern Languages and Cultures 321 (Topic 26), Middle Eastern Studies 322K (Topic: Religions of the Middle East), 342 (Topic 34), Religious Studies 358 (Topic: Religions of the Middle East), 358 (Topic 15). Additional prerequisite: Upper-division standing.
Topic 7: Islamic Theology. Same as Core Texts and Ideas 375 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 27), Middle Eastern Studies 342 (Topic 35), and Religious Studies 358 (Topic 14). Three lecture hours per week for one semester. Only one of the following may be counted: Core Texts and Ideas 375 (Topic: Islamic Theology), 375 (Topic 2), Islamic Studies 340 (Topic: Islamic

Theology), 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic: Islamic Theology), 321 (Topic: 27), Middle Eastern Studies 321 K (Topic: Islamic Theology), 342 (Topic: Islamic Theology), 342 (Topic 35), Religious Studies 358 (Topic: Islamic Theology), 358 (Topic 14). Additional prerequisite: Upper-division standing.

## ISL 369. Conference Course in Islamic Studies.

Supervised individual study of selected problems in Islamic studies. Conference course. May be repeated for credit. Prerequisite: Upperdivision standing and consent of instructor.

## ISL 372. Topics in Islamic Cultures.

Three lecture hours a week for one semester; additional hours may be required for some topics. Islamic Studies 372 and 373 may not both be counted unless the topics vary. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: Veiling in the Muslim World. Same as Asian Studies 372 (Topic 14: Veiling in the Muslim World), Religious Studies 358 (Topic 5: Veiling in the Muslim World), and Women's and Gender Studies 340 (Topic 11: Veiling in the Muslim World). Only one of the following may be counted: Asian Studies 372 (Topic 14), Islamic Studies 372 (Topic 2), Middle Eastern Studies 322K (Topic 17: Veiling in the Muslim World), Religious Studies 358 (Topic 5), Women's and Gender Studies 340 (Topic 11). Prerequisite: Upper-division standing.
Topic 11: Sacred and Ceremonial Textiles. Same as Anthropology 324L (Topic 29), Religious Studies 358 (Topic 11), and Women's and Gender Studies 340 (Topic 57). Textiles and material objects indigenous to the Islamic world, and what they reveal about the culture of various Islamic societies. Only one of the following may be counted: Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Studies 322K (Topic 24), 328 (Topic: Sacred and Ceremonial Textiles), Religious Studies 358 (Topic: Sacred and Ceremonial Textiles), 358 (Topic 11), Women's and Gender Studies 340 (Topic: Sacred and Ceremonial Textiles), 340 (Topic 57). Additional prerequisite: Upper-division standing.
Topic 12: Muslim Women: Past and Present I. Same as Religious Studies 358 (Topic 12) and Women's and Gender Studies 340 (Topic 22). Survey of the role of women in Islamic societies from the Middle Ages to the eighteenth century, with a glimpse into modern times. Only one of the following may be counted: Islamic Studies 372 (Topic 12), Middle Eastern Studies 321K (Topic 9: Muslim Women: Past and Present I), Religious Studies 358 (Topic: Muslim Women: Past and Present I), 358 (Topic 12) Women's and Gender Studies 340 (Topic 22). Additional prerequisite: Upper-division standing.

Topic 13: Muslim Women: Past and Present II. Same as Religious Studies 358 (Topic 13) and Women's and Gender Studies 340 (Topic 23). Survey of the role of women in the modern Muslim world, with a glimpse into historical developments within Islamic societies. Only one of the following may be counted: Islamic Studies 372 (Topic 13), Middle Eastern Studies 321K (Topic 10: Muslim Women: Past and Present II), Religious Studies 358 (Topic: Muslim Women: Past and Present II), 358 (Topic 13), Women's and Gender Studies 340 (Topic 23). Additional prerequisite: Upper-division standing.

Topic 20: Mughal India in History and Memory. Same as Asian Studies 361 (Topic 33) and History 350L (Topic 67). 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. Only one of the following may be counted: Asian Studies 361 (Topic: Mughal India in History and Memory), 361 (Topic 33), History 350L (Topic: Mughal India in History and Memory), 350L (Topic 67), Islamic Studies 372 (Topic: Mughal India in History and Memory), 372 (Topic 20).

Topic 21: The History of Islam in the United States. Same as History 350R (Topic 22) and Religious Studies 346 (Topic 10). 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. Only one of the following may be counted: History 350R (Topic: History of Islam in the United States), 350R (Topic 22), Islamic Studies 372 (Topic: History of Islam in the United States), 372 (Topic 21), Religious Studies 346 (Topic: History of Islam in the United States), 346 (Topic 10). Partially fulfills legislative requirement for American history.
Topic 22: French Empire: The West and Islam. Same as History 364G (Topic 7). 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. Three lecture hours for one semester. Only one of the following may be counted: History 364G (Topic: French Empire: The West and Islam), 364G (Topic 7), Islamic Studies 372 (Topic: French Empire: The West and Islam), 372 (Topic 22), Middle Eastern Studies 343 (Topic: French Empire: The West and Islam), Religious Studies 358 (Topic: French Empire: The West and Islam).
Topic 23: Muslim Women in Politics. Same as Religious Studies 358 (Topic 19) and Women's and Gender Studies 340 (Topic 56). Only one of the following may be counted: Anthropolgy 324L (Topic: Muslim Women in Politics), Islamic Studies 372 (Topic: Muslim Women in Politics), 372 (Topic 23), Religious Studies 358 (Topic: Muslim Women in Politics), 358 (Topic 19), Women's and Gender Studies 340 (Topic: Muslim Women in Politics), 340 (Topic 56).

## ISL 373. Topics in Middle Eastern Islamic Cultures.

Three lecture hours a week for one semester; additional hours may be required for some topics. Islamic Studies 372 and 373 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Introduction to Arabic Literature. Same as Comparative Literature 323 (Topic 13), Middle Eastern Languages and Cultures 321 (Topic 1), and Middle Eastern Studies 342 (Topic 1). General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era. Only one of the following may be counted: Arabic 322, Comparative Literature 323 (Topic: Introduction to Arabic Literature), 323 (Topic 13), Islamic Studies 372 (Topic 15: Introduction to Arabic Literature), 373 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 1), Middle Eastern Studies 328 (Topic: Introduction to Arabic Literature), 342 (Topic 1), Religious Studies 358 (Topic 1: Introduction to Arabic Literature). Additional prerequisite: Upper-division standing.
Topic 2: Loyalty and Rebellion in Arabic Literature. Same as Middle Eastern Languages and Cultures 321 (Topic 2: Loyalty and Rebellion in Arabic Literature) and Middle Eastern Studies 342 (Topic 2: Loyalty and Rebellion in Arabic Literature). Only one of the following may be counted: Arabic 360K (Topic 4: Loyalty and Rebellion in Arabic Literature), Islamic Studies 372 (Topic 16: Loyalty and Rebellion in Arabic Literature), 373 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 2), Middle Eastern Studies 321K (Topic 12: Loyalty and Rebellion in Arabic Literature), 342 (Topic 2). Prerequisite: Upperdivision standing.
Topic 3: Memory and Identity in Ancient Arabia. Same as Middle Eastern Languages and Cultures 321 (Topic 3: Memory and Identity in Ancient Arabia) and Middle Eastern Studies 342 (Topic 3: Memory and Identity in Ancient Arabia). Only one of the following may be counted: Arabic 360K (Topic 5: Memory and Identity in Ancient Arabia), Islamic Studies 372 (Topic 17: Memory and Identity in Ancient Arabia), Islamic Studies 373 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 3), Middle Eastern Studies 321K (Topic 13: Memory and Identity in Ancient Arabia), 342 (Topic 3). Prerequisite: Upper-division standing.

Topic 4: The Arabian Nights. Same as Middle Eastern Languages and Cultures 321 (Topic 4: The Arabian Nights) and Middle Eastern Studies 342 (Topic 4: The Arabian Nights). Only one of the following may be counted: Arabic 360K (Topic 6: The Arabian Nights), Comparative Literature 323 (Topic: The Arabian Nights), Islamic Studies 372 (Topic 18: The Arabian Nights), Islamic Studies 373 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 4), Middle Eastern Studies 323K (Topic 6: The Arabian Nights), 328 (Topic: The Arabian Nights), 342 (Topic 4), Religious Studies 358 (Topic: The Arabian Nights), Women's and Gender Studies 340 (Topic: The Arabian Nights). Prerequisite: Upper-division standing.
Topic 5: Modern Egypt: A History. Same as History 334E and Middle Eastern Studies 343 (Topic 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. Only one of the following may be counted: Arabic 372 (Topic: Modern Egypt: A History), History 334E, History 364G (Topic: Modern Egypt: A History), Islamic Studies 372 (Topic: Modern Egypt: A History), 373 (Topic 5), Middle Eastern Studies 322K (Topic: Mdern Egypt: A History), 343 (Topic 1). Prerequisite: Upper-division standing.
Topic 6: Politics of Court Literature. Same as Arabic 360 L (Topic 3: Politics of Court Literature) and Middle Eastern Studies 342 (Topic 25: Politics of Court Literature). Only one of the following may be counted: Arabic 360L (Topic 3), Comparative Literature 323 (Topic: Politics of Court Literature), Islamic Studies 372 (Topic 19: Politics of Court Literature), 373 (Topic 6), Middle Eastern Studies 321K (Topic 14: Politics of Court Literature), 342 (Topic 25). Prerequisite: Upperdivision standing; Arabic 120D and 420L with a grade of at least C in each, or Arabic 531L with a grade of at least C.
Topic 7: Arab Women Poets. Same as Arabic 360L (Topic 2: Arab Women Poets) and Middle Eastern Studies 342 (Topic 26: Arab Women Poets). Only one of the following may be counted: Arabic 360L (Topic 2), Comparative Literature 323 (Topic: Arab Women Poets), Islamic Studies 372 (Topic 14: Arab Women Poets), 373 (Topic 7), Middle Eastern Studies 323K (Topic 4: Arab Women Poets), 342 (Topic 26). Prerequisite: Upper-division standing, and Arabic 120D and 420 L with a grade of at least C in each, or Arabic 531L with a grade of at least C.
Topic 8: Gender in North and West Africa. Same as African and African Diaspora Studies 372G (Topic 5), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 342 (Topic 28), and Women's and Gender Studies 340 (Topic 34). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic 5), 374C (Topic: Gender in North and West Africa), Islamic Studies 372 (Topic: Gender in North and West Africa), 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 322K (Topic: Gender in North and West Africa), 342 (Topic 28), Women's and Gender Studies 340 (Topic: Gender in North and West Africa), 340 (Topic 34). Additional prerequisite: Upperdivision standing.
Topic 9: The Cities of the Middle East. Same as Anthropology 324L (Topic 51), Middle Eastern Studies 341 (Topic 3), and Urban Studies 354 (Topic 15). Anthropological and sociological analysis of space, with a special emphasis on urban theory and culture in the Middle East. Only one of the following may be counted: Anthropology 324L (Topic: Cities of the Middle East), 324L (Topic 51), Islamic Studies 373 (Topic: Cities of the Middle East), 373 (Topic 9), Middle Eastern Studies 322K (Topic: Cities of the Middle East), 341 (Topic 3), Urban Studies 354 (Topic: Cities of the Middle East), 354 (Topic 15).

Topic 10: Iranian Culture. Same as Middle Eastern Languages and Cultures 321 (Topic 20) and Middle Eastern Studies 342 (Topic 30). Only one of the following may be counted: Islamic Studies 373 (Topic: Iranian Culture), Islamic Studies 373 (Topic 10), Middle Eastern Languages and Culture 321 (Topic: Iranian Culture), Middle Eastern Languages and Cultures (Topic 20), Middle Eastern Studies 342 (Topic: Iranian Culture), Middle Eastern Studies 342 (Topic 30), Persian 372 (Topic: Iranian Culture). Additional prerequisite: Upperdivision standing.
Topic 11: Gender Politics in the Islamic World. Same as Middle Eastern Studies 341 (Topic 7), Religious Studies 358 (Topic 8), Sociology 336G, and Women's and Gender Studies 340 (Topic 44). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 373 (Topic: Gender Politics in the Islamic World), 373 (Topic 11), Middle Eastern Studies 322K (Topic: Gender Politics in the Islamic World), 341 (Topic: Gender Politics in the Islamic World), 341 (Topic 7), Religious Studies 358 (Topic: Gender Politics in the Islamic World), 358 (Topic 8), Sociology 321K (Topic: Gender Politics in the Islamic World), 336G, Women's and Gender Studies 340 (Topic: Gender Politics in the Islamic World), 340 (Topic 44). Additional prerequisite: Upper-division standing.
Topic 12: Rumi and the Persian Sufi Tradition. Same as Middle Eastern Languages and Cultures 321 (Topic 28) and Middle Eastern Studies 342 (Topic 36). Only one of the following may be counted: Comparative Literature 323 (Topic: Rumi \& Persian Sufi Tradition), Islamic Studies 372 (Topic: Rumi \& Persian Sufi Tradition), Islamic Studies 373 (Topic: Rumi \& Persian Sufi Tradition), Islamic Studies 373 (Topic 12), Middle Eastern Languages and Cultures 321 (Topic: Rumi \& Persian Sufi Tradition), Middle Eastern Languages and Cultures 321 (Topic 28), Middle Eastern Studies 321K (Topic: Rumi \& Persian Sufi Tradition), Middle Eastern Studies 342 (Topic: Rumi \& Persian Sufi Tradition), Middle Eastern Studies 342 (Topic 36), Persian 361 (Topic: Rumi \& Persian Sufi Tradition), Religious Studies 358 (Topic: Rumi \& Persian Sufi Tradition). Additional prerequisite: Upper-division standing.

## ISL 679H. Honors Tutorial Course.

Supervised individual reading for one semester, following by research and writing to produce a substantial paper on a specific topic in Islamic studies to be completed during the second semester. Conference course for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Islamic Studies Honors Program; for 679HB, Islamic Studies 679HA.

## Middle Eastern Languages and Cultures: MEL Lower-Division Courses

MEL 301. Gateway to the Middle East.
Three lecture hours a week for one semester.

## Upper-Division Courses

MEL 321. Topics in Middle Eastern Languages and Cultures.
Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Arabic 322, 360K, 372; Hebrew 372, 374; Islamic Studies 372; Persian 361, 372; Turkish 361, 372; Middle Eastern Languages and Cultures 321; Middle Eastern Studies 342. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Introduction to Arabic Literature. Same as Comparative Literature 323 (Topic 13), Islamic Studies 373 (Topic 1), and Middle

Eastern Studies 342 (Topic 1). General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era. Only one of the following may be counted: Arabic 322, Comparative Literature 323 (Topic: Introduction to Arabic Literature), 323 (Topic 13), Islamic Studies 372 (Topic 15: Introduction to Arabic Literature), 373 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 1), Middle Eastern Studies 328 (Topic: Introduction to Arabic Literature), 342 (Topic 1), Religious Studies 358 (Topic 1: Introduction to Arabic Literature). Additional prerequisite: Upperdivision standing.
Topic 2: Loyalty and Rebellion in Arabic Literature. Same as Islamic Studies 373 (Topic 2: Loyalty and Rebellion in Arabic Literature) and Middle Eastern Studies 342 (Topic 2: Loyalty and Rebellion in Arabic Literature). Only one of the following may be counted: Arabic 360K (Topic 4: Loyalty and Rebellion in Arabic Literature), Islamic Studies 372 (Topic 16: Loyalty and Rebellion in Arabic Literature), 373 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 2), Middle Eastern Studies 321K (Topic 12: Loyalty and Rebellion in Arabic Literature), 342 (Topic 2). Prerequisite: Upperdivision standing.
Topic 3: Memory and Identity in Ancient Arabia. Same as Islamic Studies 373 (Topic 3: Memory and Identity in Ancient Arabia) and Middle Eastern Studies 342 (Topic 3: Memory and Identity in Ancient Arabia). Only one of the following may be counted: Arabic 360K (Topic 5: Memory and Identity in Ancient Arabia), Islamic Studies 372 (Topic
17: Memory and Identity in Ancient Arabia), Islamic Studies 373 (Topic
3), Middle Eastern Languages and Cultures 321 (Topic 3), Middle Eastern Studies 321K (Topic 13: Memory and Identity in Ancient Arabia), 342 (Topic 3). Prerequisite: Upper-division standing.
Topic 4: The Arabian Nights. Same as Islamic Studies 373 (Topic 4: The Arabian Nights) and Middle Eastern Studies 342 (Topic 4: The Arabian Nights). Only one of the following may be counted: Comparative Literature 323 (Topic: The Arabian Nights), Middle Eastern Languages and Cultures 321 (Topic 4), Middle Eastern Studies 323K (Topic 6: The Arabian Nights), Religious Studies 358 (Topic: The Arabian Nights), Women's and Gender Studies 340 (Topic: The Arabian Nights). Prerequisite: Upper-division standing.
Topic 5: Israel Through Its Literature. Same as Comparative Literature 323 (Topic 15), Jewish Studies 363 (Topic 17), and Middle Eastern Studies 342 (Topic 5). Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Israeli Literature), Comparative Literature 323 (Topic 15), English 322 (Topic: Introduction to Israeli Literature), Hebrew 374 (Topic 10: Introduction to Israeli Literature), Jewish Studies 363 (Topic 17), Middle Eastern Studies 325 (Topic 7), Middle Eastern Studies 342 (Topic 5). Additional prerequisite: Upper-division standing.

## Topic 6: Love and the State in Contemporary Israeli Literature.

Same as Jewish Studies 363 (Topic 7: Love and the State in Contemporary Israeli Literature) and Middle Eastern Studies 342 (Topic 6: Love and the State in Contemporary Israeli Literature). Only one of the following may be counted: Comparative Literature 323 (Topic: Love and State in Contemporary Israeli Literature), English 322 (Topic: Love and State in Contemporary Israeli Literature), Hebrew 374 (Topic 9: Love and the State in Contemporary Israeli Literature), Jewish Studies 363 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 6), Middle Eastern Studies 322K (Topic 27: Love and the State in Contemporary Israeli Literature), 342 (Topic 6), Women's and Gender Studies 340 (Topic: Love and State in Contemporary Israeli Literature). Prerequisite: Upper-division standing.
Topic 7: Postmodernist Israeli Literature. Same as Jewish Studies 363 (Topic 19: Postmodernist Israeli Literature) and Middle Eastern Studies 342 (Topic 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.

Only one of the following may be counted: Comparative Literature 323 (Topic: Postmodernist Israeli Literature), English 322 (Topic: Postmodernist Israeli Literature), Hebrew 374 (Topic 8: Postmodernist Israeli Literature), Jewish Studies 363 (Topic 19), Middle Eastern Languages and Cultures 321 (Topic 7), Middle Eastern Studies 325 (Topic: Postmodernist Israeli Literature), 342 (Topic 7). Prerequisite: Upper-division standing.
Topic 8: The Sacred and the Secular in Contemporary Jewish Literature. Same as Jewish Studies 363 (Topic 10), Middle Eastern Studies 342 (Topic 8), and Religious Studies 353 (Topic 3). Only one of the following may be counted: Comparative Literature 323 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), English 322 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), Hebrew 374 (Topic 11: The Sacred and the Secular in Contemporary Jewish Literature), Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), Middle Eastern Studies 322K (Topic 28: The Sacred and the Secular in Contemporary Jewish Literature), 342 (Topic 8), Religious Studies 353 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), 353 (Topic 3). Additional prerequisite: Upper-division standing.

Topic 9: The Qur'an. Same as Comparative Literature 323 (Topic 37), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, and Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Arabic 372 (Topic 2: The Qur'an), Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 320 (Topic 14: The Qur'an), 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.
Topic 10: Persian Literature, Past and Present. Same as Middle Eastern Studies 342 (Topic 10: Persian Literature, Past and Present). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 10), Middle Eastern Studies 322K (Topic 9: Persian Literature, Past and Present), 342 (Topic 10), Persian 361 (Topic 2: Persian Literature, Past and Present). Prerequisite: Upperdivision standing.
Topic 11: Iranian Women Writers. Same as Middle Eastern Studies 342 (Topic 11: Iranian Women Writers) and Women's and Gender Studies 340 (Topic 10: Iranian Women Writers). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 11), Middle Eastern Studies 324K (Topic 1: Iranian Women Writers), 342 (Topic 11), Persian 361 (Topic 3: Iranian Women Writers), WGS 340 (Topic 10). Prerequisite: Upper-division standing or consent of instructor.
Topic 12: Images of the West and Westerners in Persian Fiction. Same as Middle Eastern Studies 342 (Topic 12: Images of the West and Westerners in Persian Fiction). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 12), Middle Eastern Studies 324 K (Topic 3: Images of the West and Westerners in Persian Fiction), 342 (Topic 12), Persian 361 (Topic 1: Images of the West and Westerners in Persian Fiction). Prerequisite: Upper-division standing.
Topic 13: Iranian Literature in Exile. Same as Middle Eastern Studies 342 (Topic 13: Iranian Literature in Exile). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 13), Middle Eastern Studies 324K (Topic 2: Iranian Literature in Exile), 342 (Topic 13), Persian 361 (Topic 4: Iranian Literature in Exile). Prerequisite: Upper-division standing.
Topic 14: Iranian Film and Fiction. Same as Middle Eastern Studies 342 (Topic 14: Iranian Film and Fiction). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic
14), Middle Eastern Studies 324K (Topic 4: Iranian Film and Fiction), 342 (Topic 14), Persian 361 (Topic 5: Iranian Film and Fiction). Prerequisite: Upper-division standing.
Topic 15: Classical Islamic Studies. Same as Islamic Studies 340 (Topic 3), Middle Eastern Studies 342 (Topic 15), and Religious Studies 358 (Topic 10). Only one of the following may be counted: Arabic 372 (Topic 1: Classical Islamic Studies), Islamic Studies 340 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 15), Middle Eastern Studies 321K (Topic 11: Classical Islamic Studies), 342 (Topic 15), Religious Studies 358 (Topic: Classical Islamic Studies), Religious Studies 358 (Topic 10). Additional prerequisite: Upperdivision standing.
Topic 16: Gender in North and West Africa. Same as African and African Diaspora Studies 372G (Topic 5), Islamic Studies 373 (Topic 8), Middle Eastern Studies 342 (Topic 28), and Women's and Gender Studies 340 (Topic 34). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic 5), 374C (Topic: Gender in North and West Africa), Islamic Studies 372 (Topic: Gender in North and West Africa), 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 322K (Topic: Gender in North and West Africa), 342 (Topic 28), Women's and Gender Studies 340 (Topic: Gender in North and West Africa), 340 (Topic 34). Additional prerequisite: Upper-division standing.
Topic 17: The Dead Sea Scrolls. Same as Ancient History and Classical Civilization 330 (Topic 1), History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Studies 342 (Topic 23), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Dead Sea Scrolls), 330 (Topic 1), History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 320 (Topic 13), 342 (Topic 23), Religious Studies 353D. Additional prerequisite: Upper-division standing.
Topic 20: Iranian Culture. Same as Islamic Studies 373 (Topic 10) and Middle Eastern Studies 342 (Topic 30). Only one of the following may be counted: Islamic Studies 373 (Topic: Iranian Culture), Islamic Studies 373 (Topic 10), Middle Eastern Languages and Culture 321 (Topic: Iranian Culture), Middle Eastern Languages and Cultures (Topic 20), Middle Eastern Studies 342 (Topic: Iranian Culture), Middle Eastern Studies 342 (Topic 30), Persian 372 (Topic: Iranian Culture). Additional prerequisite: Upper-division standing.
Topic 21: Palestine and the Palestinians: A Journey Through Time. Same as Middle Eastern Studies 342 (Topic 31). Three lecture hours per week for one semester. Only one of the following may be counted: Arabic 360L (Topic: Palestine and the Palestinians), Middle Eastern Languages and Cultures 321 (Topic 21), Middle Eastern Studies 342 (Topic 31). Additional prerequisite: Upper-division standing.
Topic 23: Women Filmmakers in the Middle East. Same as Middle Eastern Studies 342 (Topic 32) and Women's and Gender Studies 340 (Topic 55). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 23), Middle Eastern Studies 322K (Topic: Women Filmmakers in the Middle East), 342 (Topic 32), Turkish 372 (Topic: Women Filmmakers in the Middle East), Women's and Gender Studies 340 (Topic: Women Filmmakers in the Middle East), 340 (Topic 55). Additional prerequisite: Upper-division standing.
Topic 25: Love in the East and West. Same as Comparative Literature 323 (Topic 36), Core Texts and Ideas 345 (Topic 10), and Middle Eastern Studies 342 (Topic 33). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Love in the East and West), Comparative

Literature 323 (Topic 36), Core Texts and Ideas 345 (Topic: Love in the East and West), Core Texts and Ideas 345 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic: Love in the East and West), Middle Eastern Languages and Cultures 321 (Topic 25), Middle Eastern Studies 321K (Topic: Love in the East and West), Middle Eastern Studies 342 (Topic 33), Turkish 372 (Topic: Love in the East and West). Additional prerequisite: Upper-division standing.
Topic 26: The Religions of the Middle East. Same as Islamic Studies 340 (Topic 6), Middle Eastern Studies 342 (Topic 34), and Religious Studies 358 (Topic 15). Three lecture hours per week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic: Religions of the Middle East), 340 (Topic 6), Middle Eastern Languages and Cultures 321 (Topic 26), Middle Eastern Studies 322K (Topic: Religions of the Middle East), 342 (Topic 34), Religious Studies 358 (Topic: Religions of the Middle East), 358 (Topic 15). Additional prerequisite: Upper-division standing.

Topic 27: Islamic Theology. Same as Core Texts and Ideas 375 (Topic 2), Islamic Studies 340 (Topic 7), Middle Eastern Studies 342 (Topic 35), and Religious Studies 358 (Topic 14). Three lecture hours per week for one semester. Only one of the following may be counted: Core Texts and Ideas 375 (Topic: Islamic Theology), 375 (Topic 2), Islamic Studies 340 (Topic: Islamic Theology), 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic: Islamic Theology), 321 (Topic: 27), Middle Eastern Studies 321K (Topic: Islamic Theology), 342 (Topic: Islamic Theology), 342 (Topic 35), Religious Studies 358 (Topic: Islamic Theology), 358 (Topic 14). Additional prerequisite: Upper-division standing.
Topic 28: Rumi and the Persian Sufi Tradition. Same as Islamic Studies 373 (Topic 12) and Middle Eastern Studies 342 (Topic 36). Only one of the following may be counted: Comparative Literature 323 (Topic: Rumi \& Persian Sufi Tradition), Islamic Studies 372 (Topic: Rumi \& Persian Sufi Tradition), Islamic Studies 373 (Topic: Rumi \& Persian Sufi Tradition), Islamic Studies 373 (Topic 12), Middle Eastern Languages and Cultures 321 (Topic: Rumi \& Persian Sufi Tradition), Middle Eastern Languages and Cultures 321 (Topic 28), Middle Eastern Studies 321K (Topic: Rumi \& Persian Sufi Tradition), Middle Eastern Studies 342 (Topic: Rumi \& Persian Sufi Tradition), Middle Eastern Studies 342 (Topic 36), Persian 361 (Topic: Rumi \& Persian Sufi Tradition), Religious Studies 358 (Topic: Rumi \& Persian Sufi Tradition). Additional prerequisite: Upper-division standing.

## MEL 323. Engaging the Middle East.

Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Middle Eastern Languages and Cultures 301.

## MEL 358Q. Supervised Research.

Supervised research experience in Middle Eastern languages, literatures and cultures. Individual instruction. May be repeated for credit.
Prerequisite: Middle Eastern Languages and Cultures 301, and six hours of upper-division Arabic, Hebrew, Persian, or Turkish.

## MEL 379. Conference Course.

Supervised individual study of selected problems in Middle Eastern languages and cultures. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## MEL 679H. Honors Tutorial Course.

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper on a literary or linguistic problem. Conference course for two semesters. Prerequisite: For 679HA, admission to the Middle Eastern Languages and Cultures Honors Program; for 679HB, Middle Eastern Languages and Cultures 679HA.

## Middle Eastern Studies: MES <br> Lower-Division Courses

## MES 301K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations.

Same as History 306K and Religious Studies 314K. A survey of the history and civilization of the Middle East from the sixth to the fourteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: History 306K, Middle Eastern Studies 301K, Religious Studies 314 (Topic: Intro M East: Rel/Cul/Hist Fnd), 314K.

## MES 301L. Introduction to the Middle East: Adjustment and Change in Modern Times.

Same as Government 314 (Topic 3: Introduction to the Middle East: Adjustment and Change in Modern Times) and History 306N (Topic 5: 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. Three lecture hours a week for one semester.

## MES 310. Topics in Middle Eastern Studies.

Studies of areas and issues in the Middle East and North Africa. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 3: Introduction to the Old Testament. Same as Core Texts and Ideas 305G, Jewish Studies 311 (Topic 4), and Religious Studies 313C. 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. Only one of the following may be counted: Core Texts and Ideas 305G, 310 (Topic: Introduction to the Hebrew Bible), Jewish Studies 311 (Topic: Introduction to the Hebrew Bible), 311 (Topic 4), Middle Eastern Studies 310 (Topic: Introduction to the Hebrew Bible), 310 (Topic 3), Religious Studies 313 (Topic: Introduction to the Hebrew Bible), 313C.
Topic 4: Social Transformation of Love and Relationships. Same as Sociology 308L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Middle Eastern Studies 310 (Topic: Social Transformation of Love and Relationships), 310 (Topic 4), Sociology 308 (Topic: Social Transformation of Love and Relationships), 308L.

MES 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## MES 127. 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. One lecture hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

MES 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## MES 331C. History of the Ottoman Empire.

Same as History 331C. A survey of Ottoman society and culture and of the empire's place on the world scene. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## MES 334C. Music Cultures of the Middle East, Past and Present.

Same as History 334C. A historical and ethnomusicological survey of the Arab, Turkish, and Persian music cultures. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## MES 341. Topics in the Middle East: Social Science.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Middle Eastern Studies 320, $321 \mathrm{~K}, 322 \mathrm{~K}, 323 \mathrm{~K}, 324 \mathrm{~K}, 325,326,328,341$. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Geography of the Middle East. Same as Geography 328. Major elements of physical and social environment in the region extending from Egypt to Afghanistan. Only one of the following may be counted: Geography 328, Middle Eastern Studies 322K (Topic 3: Geography of the Middle East), 341 (Topic 1). Prerequisite: Upperdivision standing.
Topic 2: Business in Emerging Markets. Same as International Business 372 (Topic 2: Business in Emerging Markets) and Latin American Studies 322 (Topic 9: Business in Emerging Markets). Only one of the following may be counted: International Business 372 (Topic 2), Latin American Studies 322 (Topic 9), Middle Eastern Studies 322K (Topic 4: Business in Emerging Markets), 341 (Topic 2). Prerequisite: Upper-division standing.
Topic 3: The Cities of the Middle East. Same as Anthropology 324L (Topic 51), Islamic Studies 373 (Topic 9), and Urban Studies 354 (Topic 15). Anthropological and sociological analysis of space, with a special emphasis on urban theory and culture in the Middle East. Only one of the following may be counted: Anthropology 324L (Topic: Cities of the Middle East), 324L (Topic 51), Islamic Studies 373 (Topic: Cities of the Middle East), 373 (Topic 9), Middle Eastern Studies 322K (Topic: Cities of the Middle East), 341 (Topic 3), Urban Studies 354 (Topic: Cities of the Middle East), 354 (Topic 15).
Topic 4: Development Communication. Same as Radio-TelevisionFilm 342 (Topic 6: Development Communication). Only one of the following may be counted: Middle Eastern Studies 322K (Topic 14: Development Communication), 341 (Topic 4), Radio-Television-Film 342 (Topic 6). Prerequisite: For radio-television-film majors, upperdivision standing and the following coursework, with a grade of at least $C$ in each course: Radio-Television-Film 305 and nine additional
semester hours of lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.
Topic 5: Arab-Israeli Politics. Same as Government 320L. 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. Only one of the following may be counted: Government 320L, Middle Eastern Studies 322K (Topic 30: ArabIsraeli Politics), 323K (Topic 1: Arab-Israeli Politics), 341 (Topic 5). Prerequisite: Upper-division standing.
Topic 6: Negotiating Urbanization: Case Studies in Turkey. Same as Urban Studies 354 (Topic 9). 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. Only one of the following may be counted: Middle Eastern Studies 326 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), 341 (Topic 6), Turkish 372 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), Urban Studies 354 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), 354 (Topic 9).
Topic 7: Gender Politics in the Islamic World. Same as Islamic Studies 373 (Topic 11), Religious Studies 358 (Topic 8), Sociology 336G, and Women's and Gender Studies 340 (Topic 44). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 373 (Topic: Gender Politics in the Islamic World), 373 (Topic 11), Middle Eastern Studies 322K (Topic: Gender Politics in the Islamic World), 341 (Topic: Gender Politics in the Islamic World), 341 (Topic 7), Religious Studies 358 (Topic: Gender Politics in the Islamic World), 358 (Topic 8), Sociology 321K (Topic: Gender Politics in the Islamic World), 336G, Women's and Gender Studies 340 (Topic: Gender Politics in the Islamic World), 340 (Topic 44). Additional prerequisite: Upper-division standing.

## MES 342. Topics in the Middle East: Arts and Humanities.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Middle Eastern Studies 320, $321 \mathrm{~K}, 322 \mathrm{~K}, 323 \mathrm{~K}, 324 \mathrm{~K}, 325,326,328,342$. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Introduction to Arabic Literature. Same as Comparative Literature 323 (Topic 13), Islamic Studies 373 (Topic 1), and Middle Eastern Languages and Cultures 321 (Topic 1). General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era. Only one of the following may be counted: Arabic 322, Comparative Literature 323 (Topic: Introduction to Arabic Literature), 323 (Topic 13), Islamic Studies 372 (Topic 15: Introduction to Arabic Literature), 373 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 1), Middle Eastern Studies 328 (Topic: Introduction to Arabic Literature), 342 (Topic 1), Religious Studies 358 (Topic 1: Introduction to Arabic Literature). Additional prerequisite: Upper-division standing.
Topic 2: Loyalty and Rebellion in Arabic Literature. Same as Islamic Studies 373 (Topic 2: Loyalty and Rebellion in Arabic Literature) and Middle Eastern Languages and Cultures 321 (Topic 2: Loyalty and Rebellion in Arabic Literature). Only one of the following may be counted: Arabic 360K (Topic 4: Loyalty and Rebellion in Arabic Literature), Islamic Studies 372 (Topic 16: Loyalty and Rebellion in Arabic Literature), Middle Eastern Studies 342 (Topic 2). Prerequisite: Upper-division standing.

Topic 3: Memory and Identity in Ancient Arabia. Same as Islamic Studies 373 (Topic 3: Memory and Identity in Ancient Arabia) and Middle Eastern Languages and Cultures 321 (Topic 3: Memory and Identity in Ancient Arabia). Only one of the following may be counted: Arabic 360K (Topic 5: Memory and Identity in Ancient Arabia), Islamic Studies 372 (Topic 17: Memory and Identity in Ancient Arabia), Islamic Studies 373 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 3), Middle Eastern Studies 321K (Topic 13: Memory and Identity in Ancient Arabia), 342 (Topic 3). Prerequisite: Upper-division standing.
Topic 4: The Arabian Nights. Same as Islamic Studies 373 (Topic 4: The Arabian Nights) and Middle Eastern Languages and Cultures 321 (Topic 4: The Arabian Nights). Only one of the following may be counted: Arabic 360K (Topic 6: The Arabian Nights), Comparative Literature 323 (Topic: The Arabian Nights), Islamic Studies 372 (Topic 18: The Arabian Nights), Middle Eastern Studies 342 (Topic 4), Religious Studies 358 (Topic: The Arabian Nights), Women's and Gender Studies 340 (Topic: The Arabian Nights). Prerequisite: Upperdivision standing.
Topic 5: Israel Through Its Literature. Same as Comparative Literature 323 (Topic 15), Jewish Studies 363 (Topic 17), and Middle Eastern Languages and Cultures 321 (Topic 5). Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Israeli Literature), Comparative Literature 323 (Topic 15), English 322 (Topic: Introduction to Israeli Literature), Hebrew 374 (Topic 10: Introduction to Israeli Literature), Jewish Studies 363 (Topic 17), Middle Eastern Studies 325 (Topic 7), Middle Eastern Studies 342 (Topic 5). Additional prerequisite: Upper-division standing.
Topic 6: Love and the State in Contemporary Israeli Literature. Same as Jewish Studies 363 (Topic 7: Love and the State in Contemporary Israeli Literature) and Middle Eastern Languages and Cultures 321 (Topic 6: Love and the State in Contemporary Israeli Literature). Only one of the following may be counted: Comparative Literature Only one of the following may be counted: Comparative Literature Only one of the following may be counted: Comparative Literature Only one of the following may be counted: Comparative Literature 323 (Topic: Love and State in Contemporary Israeli Literature), English 322 (Topic: Love and State in Contemporary Israeli Literature), Hebrew 374 (Topic 9: Love and the State in Contemporary Israeli Literature), Jewish Studies 363 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 6), Middle Eastern Studies 322K (Topic 27: Love and the State in Contemporary Israeli Literature), 342 (Topic 6), Women's and Gender Studies 340 (Topic: Love and State in Contemporary Israeli Literature). Prerequisite: Upper-division standing. Topic 7: Postmodernist Israeli Literature. Same as Jewish Studies 363 (Topic 19: Postmodernist Israeli Literature) and Middle Eastern Languages and Cultures 321 (Topic 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Postmodernist Israeli Literature), English 322 (Topic: Postmodernist Israeli Literature), Hebrew 374 (Topic 8: Postmodernist Israeli Literature), Jewish Studies 363 (Topic 19), Middle Eastern Languages and Cultures 321 (Topic 7), Middle Eastern Studies 325 (Topic: Postmodernist Israeli Literature), 342 (Topic 7). Prerequisite: Upper-division standing.

## Topic 8: The Sacred and the Secular in Contemporary Jewish

 Literature. Same as Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), and Religious Studies 353 (Topic 3). Only one of the following may be counted: Comparative Literature 323 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), English 322 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), Hebrew 374 (Topic 11: The Sacred and the Secular in Contemporary Jewish Literature), Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8),Middle Eastern Studies 322K (Topic 28: The Sacred and the Secular in Contemporary Jewish Literature), 342 (Topic 8), Religious Studies 353 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), 353 (Topic 3). Additional prerequisite: Upper-division standing.
Topic 9: Mizrahi Writing in Israel. Same as Hebrew 346 (Topic 9:Mizrahi Writing in Israel) and Jewish Studies 363 (Topic 8: Mizrahi Writing in Israel). Only one of the following may be counted: Hebrew 346 (Topic 9), Jewish 363 (Topic 8), Middle Eastern Studies 325 (Topic 6: Mizrahi Writing in Israel), 342 (Topic 9). Prerequisite: Upper-division standing, and Hebrew 412L (or 312L) or 320L with a grade of at least C.

Topic 10: Persian Literature, Past and Present. Same as Middle Eastern Languages and Cultures 321 (Topic 10: Persian Literature, Past and Present). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 10), Middle Eastern Studies 322K (Topic 9: Persian Literature, Past and Present), 342 (Topic 10), Persian 361 (Topic 2: Persian Literature, Past and Present). Prerequisite: Upper-division standing.
Topic 11: Iranian Women Writers. Same as Middle Eastern Languages and Cultures 321 (Topic 11: Iranian Women Writers) and Women's and Gender Studies 340 (Topic 10: Iranian Women Writers). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 11), Middle Eastern Studies 324K (Topic 1: Iranian Women Writers), 342 (Topic 11), Persian 361 (Topic 3: Iranian Women Writers), WGS 340 (Topic 10). Prerequisite: Upper-division standing.
Topic 12: Images of the West and Westerners in Persian Fiction. Same as Middle Eastern Languages and Cultures 321 (Topic 12: Images of the West and Westerners in Persian Fiction). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 12), Middle Eastern Studies 324K (Topic 3: Images of the West and Westerners in Persian Fiction), 342 (Topic 12), Persian 361 (Topic 1: Images of the West and Westerners in Persian Fiction). Prerequisite: Upper-division standing.
Topic 13: Iranian Literature in Exile. Same as Middle Eastern Languages and Cultures 321 (Topic 13: Iranian Literature in Exile). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 13), Middle Eastern Studies 324K (Topic 2: Iranian Literature in Exile), 342 (Topic 13), Persian 361 (Topic 4: Iranian Literature in Exile). Prerequisite: Upper-division standing.
Topic 14: Iranian Film and Fiction. Middle Eastern Languages and Cultures 321 (Topic 14: Iranian Film and Fiction). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 14), Middle Eastern Studies 324K (Topic 4: Iranian Film and Fiction), 342 (Topic 14), Persian 361 (Topic 5: Iranian Film and Fiction). Prerequisite: Upper-division standing.
Topic 15: Classical Islamic Studies. Same as Islamic Studies 340 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 15), and Religious Studies 358 (Topic 10). Only one of the following may be counted: Arabic 372 (Topic 1: Classical Islamic Studies), Islamic Studies 340 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 15), Middle Eastern Studies 321K (Topic 11: Classical Islamic Studies), 342 (Topic 15), Religious Studies 358 (Topic: Classical Islamic Studies), Religious Studies 358 (Topic 10). Additional prerequisite: Upper-division standing.
Topic 16: The Qur'an. Same as Comparative Literature 323 (Topic 37), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Religious Studies 325G, and Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Arabic 372 (Topic 2: The Qur'an), Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages
and Cultures 321 (Topic 9), Middle Eastern Studies 320 (Topic 14: The Qur'an), 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.

## Topic 17: Envisioning Muslims: The Middle Ages and Today.

Same as English 360S (Topic 3: Envisioning Muslims: The Middle Ages and Today). Covers the representation of Muslims in the dominant cultural media of the European Middle Ages and in the contemporary world of the twentieth and twenty-first centuries. Modern cultural media includes film and digital visual media. Readings are selected to show how Europeans envisioned Muslims, and how Muslims envisioned themselves. Only one of the following may be counted: English 360S (Topic 3), 379N (Topic: Envisioning Muslims), Islamic Studies 372 (Topic: Envisioning Muslims), Middle Eastern Studies 321K (Topic: Envisioning Muslims), 342 (Topic 17). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 18: Saracens in Medieval Literature. Same as English 350E (Topic 2: Saracens in Medieval Literature). Muslims, Arabs, Turks, Persians, Berbers, and Moors were often identified in literature and historical texts under the invented group name Saracens. Course explores who, and what, a Saracen is. Includes selected readings of literature, historical documents, and critical scholarship on Saracens in European medieval romances and epics, crusade literature, travel narratives, maps, and polemical treatises. For critical contrast, readings also include Islamic texts on, or by some of the most famous (or infamous) Saracens known to medieval Europe. Only one of the following may be counted: English 350E (Topic 2), 379N (Topic: Saracens in Medieval Literature), Middle Eastern Studies 321K (Topic: Saracens in Medieval Literature), Middle Eastern Studies 342 (Topic 18). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 19: Self-Revelation in Women's Writing. Same as African and African Diaspora Studies 372E (Topic 8), Comparative Literature 323 (Topic 4), and Women's and Gender Studies 340 (Topic 14). Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 8), 374 (Topic 26), Comparative Literature 323 (Topic 4), English 322 (Topic: Self-Revelation in Women's Writing), Middle Eastern Studies 322K (Topic 26), 342 (Topic 19), Persian 361 (Topic: Self-Revelation in Women's Writing), Women's and Gender Studies 340 (Topic 14).
Topic 20: Autobiography: A Modern Literary Species. Same as Comparative Literature 323 (Topic 3). Only one of the following may be counted: African and African Diaspora Studies 374 (Topic 25), Comparative Literature 323 (Topic 3), English 379N (Topic 5), Middle Eastern Studies 322K (Topic 25), 342 (Topic 20), Women's and Gender Studies 340 (Topic: Autobiography: A Modern Literary Species). Additional prerequisite: Upper-division standing.
Topic 21: Rome and Jerusalem. Same as Ancient History and Classical Civilization 325 (Topic 3: Rome and Jerusalem), History 321G, Jewish Studies 365 (Topic 7: Rome and Jerusalem), and Religious Studies 365 (Topic 1: Rome and Jerusalem). A study of daily life in Israel during the Roman period, focusing on Jerusalem, ancient Palestinian synagogues and churches, Jewish and Christian symbolism, agriculture, warfare, and burial practices. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 3), Classical Civilization 348 (Topic: Rome and Jerusalem), History 321G, Jewish Studies 365 (Topic 7), Middle Eastern Studies 320 (Topic 2: Rome and Jerusalem), 342 (Topic 21), Religious Studies 365 (Topic 1), Urban Studies 353 (Topic: Rome and Jerusalem). Prerequisite: Upper-division standing.
Topic 22: Biblical Archaeology. Only one of the following may be counted: Anthropology 324L (Topic: Biblical Archaeology), History 364G (Topic: Biblical Archaeology), Jewish Studies 361 (Topic: Biblical Archaeology), Middle Eastern Studies 342 (Topic 22), Religious

Studies 353 (Topic: Biblical Archaeology). Prerequisite: Upper-division standing.
Topic 23: The Dead Sea Scrolls. Same as Ancient History and Classical Civilization 330 (Topic 1), History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Dead Sea Scrolls), 330 (Topic 1), History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 320 (Topic 13), 342 (Topic 23), Religious Studies 353D. Additional prerequisite: Upper-division standing.
Topic 24: Sufism and Islamic Mysticism. Same as Asian Studies 340 (Topic 8), Islamic Studies 340 (Topic 4), and Religious Studies 358 (Topic 4). Muslim debates of Sufism; the historical development of Sufi beliefs regarding theology, religious laws, expression, and popular social practices. Only one of the following may be counted: Asian Studies 340 (Topic: Sufism and Islamic Mysticism), Asian Studies 340 (Topic 8), History 364G (Topic: Sufism and Islamic Mysticism), Islamic Studies 340 (Topic 4), 372 (Topic 10: Sufism: Islamic Mysticism and Spirituality), Middle Eastern Studies 320 (Topic 16: Sufism: Islamic Mysticism and Spirituality), 321 K (Topic: Sufism and Islamic Mysticism), 342 (Topic 24), Religious Studies 341 (Topic: Sufism and Islamic Mysticism), 358 (Topic 4). Additional prerequisite: Upperdivision standing.
Topic 25: Politics of Court Literature. Same as Arabic 360L (Topic 3: Politics of Court Literature) and Islamic Studies 373 (Topic 6: Politics of Court Literature). Only one of the following may be counted: Arabic 360 L (Topic 3), Comparative Literature 323 (Topic: Politics of Court Literature), Islamic Studies 372 (Topic 19: Politics of Court Literature), 373 (Topic 6), Middle Eastern Studies 321K (Topic 14: Politics of Court Literature), 342 (Topic 25). Prerequisite: Upper-division standing; Arabic 120D and 420L with a grade of at least C in each, or Arabic 531 L with a grade of at least C.
Topic 26: Arab Women Poets. Same as Arabic 360L (Topic 2: Arab Women Poets) and Islamic Studies 373 (Topic 7: Arab Women Poets). Only one of the following may be counted: Arabic 360L (Topic 2), Comparative Literature 323 (Topic: Arab Women Poets), Islamic Studies 372 (Topic 14: Arab Women Poets), 373 (Topic 7), Middle Eastern Studies 323K (Topic 4: Arab Women Poets), 342 (Topic 26). Prerequisite: Upper-division standing; Arabic 120D and 420L with a grade of at least $C$ in each, or Arabic 531L with a grade of at least C. Topic 27: Islamic Law. Same as Islamic Studies 340 (Topic 5) and Women's and Gender Studies 340 (Topic 27). 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. Only one of the following may be counted: Arabic 372 (Topic: Islamic Law), Islamic Studies 340 (Topic: Islamic Law), 340 (Topic 5), Middle Eastern Studies 321K (Topic: Islamic Law), 328 (Topic: Islamic Law), 342 (Topic 27), Religious Studies 358 (Topic: Islamic Law), Women's and Gender Studies 340 (Topic: Islamic Law), 340 (Topic 27).
Topic 28: Gender in North and West Africa. Same as African and African Diaspora Studies 372G (Topic 5), Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), and Women's and Gender Studies 340 (Topic 34). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic 5), 374C (Topic: Gender in North and West Africa), Islamic Studies 372 (Topic: Gender in North and West Africa), 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 322K (Topic: Gender in North and West Africa),

342 (Topic 28), Women's and Gender Studies 340 (Topic: Gender in North and West Africa), 340 (Topic 34). Additional prerequisite: Upperdivision standing.
Topic 30: Iranian Culture. Same as Islamic Studies 373 (Topic 10) and Middle Eastern Languages and Cultures 321 (Topic 20). Only one of the following may be counted: Islamic Studies 373 (Topic: Iranian Culture), Islamic Studies 373 (Topic 10), Middle Eastern Languages and Culture 321 (Topic: Iranian Culture), Middle Eastern Languages and Cultures (Topic 20), Middle Eastern Studies 342 (Topic: Iranian Culture), Middle Eastern Studies 342 (Topic 30), Persian 372 (Topic: Iranian Culture). Additional prerequisite: Upper-division standing.
Topic 31: Palestine and the Palestinians: A Journey Through Time. Same as Middle Eastern Languages and Cultures 321 (Topic 21). Three lecture hours per week for one semester. Only one of the following may be counted: Arabic 360L (Topic: Palestine and the Palestinians), Middle Eastern Languages and Cultures 321 (Topic 21), Middle Eastern Studies 342 (Topic 31). Additional prerequisite: Upperdivision standing.
Topic 32: Women Filmmakers in the Middle East. Same as Middle Eastern Languages and Cultures 321 (Topic 23) and Women's and Gender Studies 340 (Topic 55). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 23), Middle Eastern Studies 322K (Topic: Women Filmmakers in the Middle East), 342 (Topic 32), Turkish 372 (Topic: Women Filmmakers in the Middle East), Women's and Gender Studies 340 (Topic: Women Filmmakers in the Middle East), 340 (Topic 55). Additional prerequisite: Upper-division standing.
Topic 33: Love in the East and West. Same as Comparative Literature 323 (Topic 36), Core Texts and Ideas 345 (Topic 10), and Middle Eastern Languages and Cultures 321 (Topic 25). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Love in the East and West), Comparative Literature 323 (Topic 36), Core Texts and Ideas 345 (Topic: Love in the East and West), Core Texts and Ideas 345 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic: Love in the East and West), Middle Eastern Languages and Cultures 321 (Topic 25), Middle Eastern Studies 321K (Topic: Love in the East and West), Middle Eastern Studies 342 (Topic 33), Turkish 372 (Topic: Love in the East and West). Additional prerequisite: Upper-division standing.
Topic 34: The Religions of the Middle East. Same as Islamic Studies 340 (Topic 6), Middle Eastern Languages and Cultures 321 (Topic 26), and Religious Studies 358 (Topic 15). Three lecture hours per week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic: Religions of the Middle East), 340 (Topic 6), Middle Eastern Languages and Cultures 321 (Topic 26), Middle Eastern Studies 322K (Topic: Religions of the Middle East), 342 (Topic 34), Religious Studies 358 (Topic: Religions of the Middle East), 358 (Topic 15). Additional prerequisite: Upper-division standing.
Topic 35: Islamic Theology. Same as Core Texts and Ideas 375 (Topic 2), Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), and Religious Studies 358 (Topic 14). Three lecture hours per week for one semester. Only one of the following may be counted: Core Texts and Ideas 375 (Topic: Islamic Theology), 375 (Topic 2), Islamic Studies 340 (Topic: Islamic Theology), 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic: Islamic Theology), 321 (Topic: 27), Middle Eastern Studies 321K (Topic: Islamic Theology), 342 (Topic: Islamic Theology), 342 (Topic 35), Religious Studies 358 (Topic: Islamic Theology), 358 (Topic 14). Additional prerequisite: Upper-division standing.

Topic 36: Rumi and the Persian Sufi Tradition. Same as Islamic Studies 373 (Topic 12) and Middle Eastern Languages and Cultures 321 (Topic 28). Only one of the following may be counted: Comparative Literature 323 (Topic: Rumi \& Persian Sufi Tradition), Islamic Studies 372 (Topic: Rumi \& Persian Sufi Tradition), Islamic Studies 373 (Topic:

Rumi \& Persian Sufi Tradition), Islamic Studies 373 (Topic 12), Middle Eastern Languages and Cultures 321 (Topic: Rumi \& Persian Sufi Tradition), Middle Eastern Languages and Cultures 321 (Topic 28), Middle Eastern Studies 321K (Topic: Rumi \& Persian Sufi Tradition), Middle Eastern Studies 342 (Topic: Rumi \& Persian Sufi Tradition), Middle Eastern Studies 342 (Topic 36), Persian 361 (Topic: Rumi \& Persian Sufi Tradition), Religious Studies 358 (Topic: Rumi \& Persian Sufi Tradition). Additional prerequisite: Upper-division standing.

## MES 343. Topics in the Middle East: History.

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Middle Eastern Studies 320, $321 \mathrm{~K}, 322 \mathrm{~K}, 323 \mathrm{~K}, 324 \mathrm{~K}, 325,326,328,343$. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Modern Egypt: A History. Same as History 334E and Islamic Studies 373 (Topic 5: 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. Only one of the following may be counted: Arabic 372 (Topic: Modern Egypt: A History), History 334E, History 364G (Topic: Modern Egypt: A History), Islamic Studies 372 (Topic: Modern Egypt: A History), 373 (Topic 5), Middle Eastern Studies 322K (Topic: Mdern Egypt: A History), 343 (Topic 1). Prerequisite: Upper-division standing.
Topic 2: Re-forming the Arab East, 1914-Present. Same as History 331R. 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. Only one of the following may be counted: History 331R, History 364G (Topic: Re-forming the Arab East), Middle Eastern Studies 322K (Topic: Re-forming the Arab East), 343 (Topic 2). Prerequisite: Upper-division standing.
Topic 3: History of Iran to $\mathbf{1 8 0 0}$. Same as History 331G. 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. Only one of the following may be counted: History 331G, Middle Eastern Studies 321K (Topic 3 History of Iran to 1800), 343 (Topic 3). Prerequisite: Upperdivision standing.
Topic 4: Islamic Spain and North Africa to 1492. Same as History 375D and Religious Studies 345. An introduction to the impact of Islam on Spain and North Africa, with emphasis on social, economic, and cultural development. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Islamic Spain and North Africa to 1492), History 375D, Islamic Studies 373 (Topic: Islamic Spain and North Africa to 1492), Middle Eastern Studies 321K (Topic 4: Islamic Spainand North Africa to 1492), 343 (Topic 4), Religious Studies 345, 363 (Topic: Islamic Spain and North Africa to 1492). Prerequisite: Upper-division standing.
Topic 5: Medieval Islam: Faith and History. Same as History 350L (Topic 34: Medieval Islam: Faith and History) and Religious Studies 358 (Topic 2: Medieval Islam: Faith and History). Only one of the following may be counted: History 350L (Topic 34), Middle Eastern Studies 321K (Topic 7: Medieval Islam: faith and History), 343 (Topic 5), Religious Studies 358 (Topic 2). Prerequisite: Upper-division standing.
Topic 6: Modern Iran. Same as History 331L. 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. Only one of the following may be counted: History 331L, Middle Eastern Studies 324K (Topic 5: Modern Iran), 343 (Topic 6). Additional prerequisite: Upper-division standing.

MES 351. 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. Three lecture hours a week for one semester. Offered in the spring semester only. Middle Eastern Studies 322K (Topic: Mediterranean Crossroads Seminar) and 351 may not both be counted. Prerequisite: Upper-division standing and consent of instructor.

MES 352. Mediterranean Crossroads Study Abroad Seminar.
Students study and conduct research in the Middle East. The equivalent of three lecture hours a week for one semester. Offered in the summer session only. Middle Eastern Studies 322K (Topic: Mediterranean Crossroads Study Abroad Seminar) and 352 may not both be counted. Prerequisite: Middle Eastern Studies 351.

## MES 353. Mediterranean Crossroads Conference Course.

Under supervision of a faculty member, students complete their research projects following participation in Middle Eastern Studies 352. Conference course. Offered in the fall semester only. Prerequisite: Middle Eastern Studies 352.

## MES 360. Conference Course.

Supervised individual research, discussion, and writing of papers about various general and specialized Middle Eastern subjects. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

MES 370. Practicum: Internships in Applied Middle Eastern Studies.

Research and staff experience working in an appropriate agency or business. At least six but no more than nine hours of work a week for one semester. May not be repeated for credit. Prerequisite: Completion of at least seventy semester hours of coursework, including twelve hours of Middle Eastern studies, and consent of the undergraduate adviser.

## MES 679H. 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. Conference course for two semesters. Prerequisite: For 679HA, admission to the Middle Eastern Studies Honors Program; for 679HB, Middle Eastern Studies 679HA.

## Persian: PRS

## Lower-Division Courses

PRS 601C. Intensive Persian I.
First semester of intensive Persian language instruction. Six lecture hours a week for one semester. Persian 601C and 506 may not both be counted. Persian 601C and 507 may not both be counted.

## PRS 506. First-Year Persian I.

Elementary colloquial Persian. Five lecture hours a week for one semester. Persian 601C and 506 may not both be counted.

## PRS 507. First-Year Persian II.

Continuation of Persian 506. Elementary literary Persian. Five lecture hours a week for one semester. Persian 601C and 507 may not both be counted. Prerequisite: Persian 506 with a grade of at least $C$.

## PRS 611C. Intensive Persian II.

Second semester of intensive Persian language instruction. Six lecture hours a week for one semester. Only one of the following may be
counted: Persian 611C, 612C,512K. Only one of the following may be counted: Persian 611C, 612C, 512L. Prerequisite: Persian 601C or 507 with a grade of at least $C$.

## PRS 612C. Intensive Persian for Heritage Speakers.

Designed for heritage Persian language speakers who have had little or no formal instruction in the language. Six lecture hours a week for one semester. Only one of the following may be counted: Persian 611C, 612C, 512K. Only one of the following may be counted: Persian 611C, 612C, 512L.

## PRS 512K. Second-Year Persian I.

Not open to native speakers of Persian. Five lecture hours a week for one semester. Only one of the following may be counted: Persian 611C, 612C, $312 \mathrm{~K}, 512 \mathrm{~K}$. Prerequisite: Persian 507 with a grade of at least $C$.

## PRS 512L. Second-Year Persian II.

Not open to native speakers of Persian. Continuation of Persian 512K. Five lecture hours a week for one semester. Only one of the following may be counted: Persian 611C, 612C, 512L. Prerequisite: Persian 512K with a grade of at least $C$.

## PRS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

PRS 322K. Intermediate Persian I.
Not open to native speakers of Persian. First semester of intermediate Persian language instruction. Three lecture hours a week for one semester. Prerequisite: Persian 611C, 612C, or 512L with a grade of at least C.

## PRS 322L. Intermediate Persian II.

Not open to native speakers of Persian. Second semester of intermediate Persian language instruction. Three lecture hours a week for one semester. Prerequisite: Persian 322 K with a grade of at least C .

## PRS 329. Topics in Persian Language, Literature, and

 Culture.Study of various aspects of Persian linguistics, literature, and culture. Conducted in Persian. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Ferdowsi's Shahnameh.
Topic 2: Sa'di's Golestan. Additional prerequisite: Persian 512L.
Topic 3: Hafez's Ghazals.
Topic 4: Sadeq Hedayat and Twentieth-Century Persian Fiction.
Topic 5: Forugh Farrokhzad and Modernist Persian Poetry.
Topic 6: Persian Prose Nonfiction.
PRS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## PRS 130D. Persian across Disciplines.

Students read and discuss Persian language materials related to the subject matter of another designated course. One lecture hour a week for one semester. No more than three semester hours may be counted toward the major in either Middle Eastern Studies or Middle Eastern Languages and Culture. May be repeated for credit. Prerequisite: Upperdivision standing, Persian 322L, and consent of instructor.

## PRS 679H. Honors Tutorial Course.

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper. Conference course for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Persian Language and Literature Honors Program; for 679HB, Persian 679HA.

## Turkish: TUR

## Lower-Division Courses

TUR 601C. Intensive Turkish I.
First semester of intensive Turkish language instruction. Six lecture hours a week for one semester. Turkish 601C and 506 may not both be counted. Turkish 601C and 507 may not both be counted.

## TUR 506. First-Year Turkish I.

Modern Standard Turkish. Five lecture hours a week for one semester. Turkish 601C and 506 may not both be counted.

## TUR 507. First-Year Turkish II.

Modern Standard Turkish. Continuation of Turkish 506. Five lecture hours a week for one semester. Turkish 601C and 507 may not both be counted. Prerequisite: Turkish 506 with a grade of at least C.

## TUR 611C. Intensive Turkish II.

Second semester of intensive Turkish language instruction. Six lecture hours a week for one semester. Turkish 611C and 412K may not both be counted. Turkish 611C and 412L may not both be counted. Prerequisite: Turkish 601C or 507 with a grade of at least C.

## TUR 412K. 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. Four lecture hours a week for one semester. Turkish 611C and 412K may not both be counted. Prerequisite: Turkish 601C or 507 with a grade of at least C.

## TUR 412L. Second-Year Turkish II.

Continuation of Turkish 412K. Four lecture hours a week for one semester. Turkish 611C and 412L may not both be counted. Prerequisite: Turkish 412 K with a grade of at least C.

TUR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## TUR 320K. Intermediate Turkish I.

Not open to native speakers of Turkish. Intermediate to high-level Turkish in four basic language skills: speaking, listening, reading, and writing. Turkish culture. Three lecture hours a week for one semester. Prerequisite: Turkish 611C or 412L with a grade of at least C.

## TUR 320L. Intermediate Turkish II.

Not open to native speakers of Turkish. Continuation of Turkish 320K. Three lecture hours a week for one semester. Prerequisite: Turkish 320K with a grade of at least C .

## TUR 325K. Advanced Turkish I.

Restricted to nonnative speakers of Turkish. Three lecture hours a week for one semester. Turkish 325K and 329 (Topic: Advanced Turkish I) may not both be counted. Prerequisite: Turkish 320L with a grade of at least C.

## TUR 325L. Advanced Turkish II.

Restricted to nonnative speakers of Turkish. Advanced Turkish language instruction. Three lecture hours a week for one semester. Turkish 325 L and 329 (Topic: Advanced Turkish II) may not both be counted. Prerequisite: Turkish 325 K or the equivalent.

## TUR 329. Topics in Turkish Language, Literature, and Culture.

Conducted in Turkish. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and Turkish 611C or 412L with a grade of at least C.

TUR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## TUR 130D. Turkish across Disciplines.

Students read and discuss Turkish language materials related to the subject matter of another designated course. One lecture hour a week for one semester. No more than three semester hours may be counted toward the major in either Middle Eastern Studies or Middle Eastern Languages and Culture. May be repeated for credit. Prerequisite: Upperdivision standing, Turkish 320L, and consent of instructor.

## TUR 679H. Honors Tutorial Course.

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper. Conference course for two semesters. Prerequisite: For 679HA, admission to the Turkish Language and Literature Honors Program; for 679HB, Turkish 679HA.

## Department of Philosophy

There are several courses offered each year in philosophy that should be of interest to undergraduates who have strong interests outside philosophy. In addition to the introductory courses (Philosophy 301, 304,305 , and 310 ) and the basic sequence in the history of philosophy (Philosophy 329K and 329L), the courses listed below are of particular relevance to students who are interested in the indicated areas.

- Business: Philosophy 312, 322, and 325L
- Communications: Philosophy 311, 312, 313, and 332
- Computer science: Philosophy 313K, 344K, 358, 363, and 363L
- Law: Philosophy 311, 312, 313, 318, 325K, 342, and 347
- Linguistics: Philosophy 313K, 332, 344K, and 358
- Literature: Philosophy 346, 348, 349, 356, 361K, and 366K
- Mathematics:Philosophy 313K, 344K, 344M, and 358
- Natural sciences: Philosophy 322, 363, and 363
- Premedicine and predentistry: Philosophy 312, 318, 322, 325M, and 363
- Social sciences: Philosophy 322, 363, and 363L

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Philosophy: PHL

## Lower-Division Courses

## PHL 301 (TCCN: PHIL 1301). Introduction to Philosophy

Primarily for lower-division students. A survey of principal topics and problems in areas such as ethics, theory of knowledge, and philosophy of religion. Three lecture hours or two lecture hours and one laboratory/ discussion hour a week for one semester. Philosophy 301 and 610QA may not both be counted.

## PHL 301K (TCCN: PHIL 2316). Ancient Philosophy.

Same as Classical Civilization 304C (Topic 6). Primarily for lower-division students. An introduction to the philosophical achievements of the ancient world, concentrating on Plato and Aristotle. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Classical Civilization 304C (Topic: Ancient Philosophy), 304C (Topic 6), Philosophy 301K.

## PHL 301L. Early Modern Philosophy.

Primarily for lower-division students. An introduction to the philosophical achievements of the seventeenth and eighteenth centuries, concentrating on such figures as Descartes, Hume, and Kant. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 302. World Philosophy.

Primarily for lower-division students. 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. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Asian Studies 301M (Topic 7: World Philosophy) and Philosophy 302 may not both be counted.

## PHL 302C. Ethics and Enlightenment.

Primarily for lower-division students. A study of non-Western ethics, especially in Hindu and Buddhist traditions. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 303. Human Nature.

Primarily for lower-division students. 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. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 303M. Mind and Body.

Primarily for lower-division students. 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? Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 304. Contemporary Moral Problems.

Primarily for lower-division students. Philosophical examination of selected moral problems arising out of contemporary society and culture. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 305 (TCCN: PHIL 2321). Introduction to the Philosophy of Religion.

Same as Religious Studies 305. Primarily for lower-division students. A critical examination of various conceptions of God and of the relationship of the human and the divine. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 306. Philosophical Thinkers.

Primarily for lower-division students. An introduction to major areas of philosophy through the study of selected philosophical thinkers. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary.

## PHL 310. Knowledge and Reality.

An introduction to basic issues in epistemology and metaphysics. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Philosophy 310 and 610QA may not both be counted. Prerequisite: Some sections are restricted to philosophy majors, some to students with a University grade point average of at least 3.00 or consent of instructor; these sections are identified in the Course Schedule.

## PHL 610Q. Problems of Knowledge and Valuation.

Restricted to students in the Plan II Honors Program. Methods and aims of selected sciences, arts, and philosophy in the attainment of knowledge and in providing the basis for valuation. Three lecture hours and one discussion hour a week for two semesters. Philosophy 301 and 610QA may not both be counted; Philosophy 310 and 610QA may not both be counted; Philosophy 610QB and 318 may not both be counted. Prerequisite: For 610QA, admission to the Plan II Honors Program; for 610QB, Philosophy 610QA.

## PHL 311. Argument.

Argument as a kind of discourse: deductive and inductive arguments; principles of reasoning; fallacies; practical applications. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 312 (TCCN: PHIL 2303). Introduction to Logic.

Logical structure of sentences and arguments; elementary symbolic methods; applications. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May not be counted by students with prior credit for Philosophy 313, 313K, 313Q, or 344K.

## PHL 313. Introductory Symbolic Logic.

Introduction to symbolic logic (through first-order predicate logic); interpretations; formal proofs, consistency; some practical applications. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Computer Science 313H, 313K, Philosophy 313, 313K, 313Q.

## PHL 313K. Logic, Sets, and Functions.

Sets, relations, functions, sentential and predicate logic, proof techniques, algorithms, and elementary metatheory. Mathematically oriented. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Computer Science $313 \mathrm{H}, 313 \mathrm{~K}$, Philosophy 313, 313K, 313Q. Prerequisite: Three years of high school mathematics.

## PHL 313Q. Logic and Scientific Reasoning.

Introduction to formal proofs, semantics, quantifiers, inductive methods, decision theory, and scientific reasoning. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Computer Science 313H, 313K, Philosophy 313, 313K, 313Q. Philosophy 313Q and Tutorial Course 310 may not both be counted. Prerequisite: Admission to the Plan II Honors Program.

## PHL 316K. Science and Philosophy.

Introduction to scientific method, including discussion of the nature and goals of science. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May not be counted by students with credit for Philosophy 363.

## PHL 317K. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

## PHL 318 (TCCN: PHIL 2306). 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. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Philosophy 610QB and 318 may not both be counted.

## PHL 318K (TCCN: PHIL 2307). Introduction to Political Philosophy.

Views of major political philosophers on humanity, nature, and society; discussions of contemporary political ideologies. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

PHL 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## PHL 321K. 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. Three lecture hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

## PHL 322. Science and the Modern World.

The historical development and impact of scientific ideas through the modern period to the present. Three lecture hours a week for one semester.

## PHL 322K. History of Ethics.

Survey of ethical theories from ancient times through the nineteenth century. Three lecture hours a week for one semester.

## PHL 323K. Metaphysics.

Problems of substance, change, categories of being, mind, body, space and time, approached either systematically or historically. Three lecture hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

## PHL 323M. 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. Three lecture hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

## PHL 325C. Environmental Ethics.

Moral issues concerning the relation of human beings to the environment, including biodiversity, resource depletion, and animal rights. Three lecture hours and one discussion hour a week for one semester.

## PHL 325K. Ethical Theories.

Major traditional and contemporary ethical theories discussed and critically examined. Three lecture hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

## PHL 325L. 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. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 325M. Medicine, Ethics, and Society.

Moral, legal, religious, and political implications of developments in medicine; topics include abortion, euthanasia, sterilization, psychosurgery, genetic engineering; concepts of health, cure, insanity, and death. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 327. Contemporary Philosophy.

Currents of contemporary thought; past topics include feminism, philosophy, and science; ideas of the twentieth century; twentieth-century philosophy of mind. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 4: Interpretation and Meaning. Only one of the following may be counted: Philosophy 327 (Topic: Interpretation and Meaning), 327 (Topic 4), 375M (Topic: Interpretation and Meaning). Additional prerequisite: Upper-division standing.

## PHL 328. Nineteenth-Century Philosophy.

Major figures in nineteenth-century European philosophy, including Hegel, Schopenhauer, Kierkegaard, Nietzsche, and Mill. Three lecture hours a week for one semester. Prerequisite: Three semester hours of coursework in philosophy.

## PHL 329K. History of Ancient Philosophy.

Same as Classical Civilization 348 (Topic 4: History of Ancient Philosophy). Development of Western philosophy from the pre-Socratics to the early Christian era; emphasis on Plato and Aristotle. Three lecture hours and one discussion hour a week for one semester. Only one of the
following may be counted: Classical Civilization 342 (Topic: History of Ancient Philosophy), 348 (Topic 4), Philosophy 329K. Prerequisite: Six semester hours of coursework in philosophy.

## PHL 329L. Early Modern Philosophy: Descartes to Kant.

Three lecture hours and one discussion hour a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

## PHL 329M. Philosophical Classics.

Intensive study of one or two important philosophers or philosophical works from the eighteenth century or earlier. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Three semester hours of coursework in philosophy.

Topic 1: 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 129S, 229S, 429S, 529S, 629S, 729S, 829S, 929S. 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. May be repeated for credit when the topics vary.

## PHL 329U. 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 329U, 366N (Topic: Perspectives on Science and Mathematics), Philosophy 329 U. Prerequisite: Upper-division standing and consent of instructor.

## PHL 330K. Ancient Philosophy after Aristotle.

Same as Classical Civilization 330K. Epicureans, Stoics, Skeptics, Plotinus and the Neoplatonist tradition. No knowledge of Greek is required. Three class hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

## PHL 332. Philosophy of Language.

Contemporary theories of meaning and linguistic structure, and their relationships to epistemology, metaphysics, and ethics. Three lecture hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

## PHL 334K. Modern Thinkers.

Critical study of the philosophical implications of the works of selected modern thinkers; for example, Nietzsche, Sartre, Camus, and Freud. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Three semester hours of coursework in philosophy.

Topic 1: Modernity and Postmodernity. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 342. Political Philosophy.

Critical examination of leading theories of the state, including analysis of such concepts as sovereignty, obligation, rights, and freedom. Three
lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary.

## PHL 344K. Intermediate Symbolic Logic.

Same as Mathematics 344K. 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. Three lecture hours a week for one semester. Prerequisite: Philosophy 313, 313K, or 313Q.

## PHL 344M. Philosophy of Mathematics.

Philosophical issues concerning mathematics and its foundations, such as the correlation of mathematics to logic, mathematical truth, and mathematical knowledge. Three lecture hours a week for one semester.

## PHL 346. Aesthetics.

Study of selected topics in the philosophy of art; may be restricted to one or several specific art forms or media: literature, painting, music, film, television, or theatre. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## PHL 346K. Aesthetics.

The nature and purpose of art and the aesthetic experience. Key theories of aesthetics, both in the history of Western aesthetics and in Eastern traditions. Three lecture hours a week for one semester. Philosophy 346 and 346 K may not both be counted.

## PHL 347. 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. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## PHL 348. Asian Philosophy.

Comparative and historical studies in the philosophical and religious traditions of the East, with emphasis on India and China. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Argumentation East and West. Traces parallel developments in the theory of argumentation through major figures and texts in both ancient Greek and Indian traditions, probing differences as well as convergences. Philosophy 348 (Topic: Argumentation East and West) and 348 (Topic 1) may not both be counted. Additional prerequisite: Upper-division standing.
Topic 2: Indian Philosophies. Same as Asian Studies 372 (Topic 2: Indian Philosophies) and Religious Studies 341 (Topic 1: Indian Philosophies).

## PHL 349. History of Medieval and Renaissance Philosophy.

Philosophical thought from Augustine through Cusanus and Vico, with emphasis on its cultural bearing. Three lecture hours a week for one semester. Prerequisite: Three semester hours of coursework in philosophy.

## PHL 354. Philosophy in Context.

Philosophical texts and arguments in a broad intellectual and cultural context, or other texts studied for their philosophical content. Typical topics include Locke and the Glorious Revolution; materialism and modern science; Thucydides on power and justice. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 2: History of Christian Philosophy. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: History of Christian Philosophy), Philosophy 354 (Topic: History of Christian Philosophy), 354 (Topic 2).
Topic 5: Origins of Liberalism. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Origins of Liberalism), European Studies 346 (Topic: Origins of Liberalism), Philosophy 354 (Topic: Origins of Liberalism), Philosophy 354 (Topic 5).
Topic 7: Spinoza and Modernity. Same as Core Texts and Ideas 321F, European Studies 346 (Topic 21), History 362P, Jewish Studies 364 (Topic 9), and Religious Studies 357 (Topic 8). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Spinoza and Modernity), 321F, European Studies 346 (Topic: Spinoza and Modernity), 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362G (Topic: Spinoza and Modernity), 362P, Jewish Studies 364 (Topic: Spinoza and Modernity), 364 (Topic 9), Philosophy 334K (Topic: Spinoza and Modernity), 354 (Topic: Spinoza and Modernity), 354 (Topic 7), Religious Studies 357 (Topic: Spinoza and Modernity), 357 (Topic 8). Additional prerequisite: Upper-division standing.

## PHL 356. Philosophy of Religion.

Meaning and function of religion; religious belief and its validity; religious values in the modern world. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary.

Topic 2: Yoga as Philosophy and Practice. Same as Religious Studies 341G. Three lecture hours a week for one semester. Only one of the following may be counted: Philosophy 356 (Topic: Yoga as Philosophy and Practice), 356 (Topic 2), Religious Studies 341G (Topic: Yoga as Philosophy and Practice), 341G. Prerequisite: Upperdivision standing.

## PHL 358. 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. Three lecture hours a week for one semester. Prerequisite: Philosophy 313, 313K, or 313Q.

## PHL 361K. Philosophy in Literature.

Formulation, analysis, and criticism of philosophical ideas in selected literary works. Three lecture hours a week for one semester.

## PHL 363. Scientific Method.

History, exposition, and analysis of such fundamental concepts in the natural and social sciences as explanation, prediction, discovery, confirmation, laws, hypotheses, theories. Three lecture hours a week for one semester.

## PHL 363L. Topics in Philosophy of Science.

Past topics include philosophy of biology; scientific hypotheses and evidence; philosophical consequences of quantum mechanics. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Additional hours may be required for some topics. May be repeated for credit when the topics vary.

Topic 1: The Philosophy of Biology. Philosophy 363L (Topic 1) and 363 L (Topic: Philosophy of Biology) may not both be counted.

Topic 4: The Philosophy of Geometry. Philosophy 363L (Topic: Philosophy of Geometry) and 363L (Topic 4) may not both be counted. Prerequisite: Upper-division standing.

## PHL 365. Selected Problems in Philosophy.

Past topics include Jewish ethics; change, truth, and justice. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Introduction to Cognitive Science. Same as Cognitive Science 360 (Topic 1: Introduction to Cognitive Science) and Linguistics 373 (Topic 7: Introduction to Cognitive Science).
Topic 5: Contemporary American Social Theory. Same as Government 335M (Topic 9). Only one of the following may be counted: Government 335M (Topic: Social Theory), 335M (Topic 9), Philosophy 365 (Topic 5), Sociology 352M (Topic 8). Additional prerequisite: Upper-division standing and six semester hours of lowerdivision coursework in government.

## PHL 366K. Existentialism.

Existentialism and its relationship to literature, psychoanalysis, and Marxism. Three lecture hours or two lecture hours and one laboratory/ discussion hour a week for one semester. Philosophy 366K and Religious Studies 356E may not both be counted.

## PHL 371H. Philosophy Honors.

Close study of major works of philosophy. Three lecture hours and one discussion hour a week for one semester. May be repeated for credit. Prerequisite: Six semester hours of coursework in philosophy and a University grade point average of at least 3.50 .

## PHL 375M. Major Seminar.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in philosophy.

## PHL 679H. 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. Conference course for two semesters. Prerequisite: For 679HA, admission to the Philosophy Honors Program; for 679HB, Philosophy 679HA.

## PHL 379K. Conference Course.

Intensive tutorial study of selected problems in philosophy. Conference course. May be repeated for credit. Prerequisite: Nine semester hours of upper-division coursework in philosophy and consent of instructor and the undergraduate adviser in philosophy.

## Plan II Honors Program

## Social Science: S S

Lower-Division Courses

## S S 301. Honors Social Science.

An introduction to the study of the individual, society, or culture using the methods of one of the social sciences. Three lecture hours a week for one semester. With consent of the director of Plan II, may be repeated once for elective credit. Prerequisite: Admission to the Plan II Honors Program.

## Upper-Division Courses

## Tutorial Course: T C

## Lower-Division Courses

## T C 302. First-Year Signature Course: Plan II.

Restricted to first-year Plan II students. 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. Three lecture hours a week for one semester. Some sections may require additional meeting times; these are identified in the Course Schedule. Only one of the following may be counted: Tutorial Course 302, Undergraduate Studies 302, 303.

## T C 603. Composition and Reading in World Literature.

Reading of masterpieces of world literature and intensive training in writing and in critical analysis of literature. Three lecture hours a week for two semesters. Only one of the following may be counted: English 603A, Rhetoric and Writing 306, 306Q, Tutorial Course 603A; only one of the following may be counted: Comparative Literature 315, English 603B, Tutorial Course 603B. Prerequisite: For 603A, admission to the Plan II Honors Program; for 603B, Tutorial Course 603A.

## TC 310. Modes of Reasoning.

Introduction to forms of quantitative reasoning: computer science, game theory, operations research, or statistics and probability. Three lecture hours a week for one semester. Philosophy 313Q and Tutorial Course 310 may not both be counted. Prerequisite: Admission to the Plan II Honors Program.

## Upper-Division Courses

## TC 325. Topics in the Arts and Sciences.

Analysis of various topics within the arts and sciences through reading, research, written reports, and discussion. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing in the Plan II Honors Program or consent of instructor; additional prerequisites vary with the topic.

## T C 125K. Topics in the Arts and Sciences.

Analysis of topics in the arts, sciences, and social sciences through reading, discussion, and lectures. The equivalent of one lecture hour a week for one semester. Some topics are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit. Prerequisite: Upper-division standing in the Plan II Honors Program or consent of instructor.

## T C 126. Plan II/Knowledge Is Power Program Charter Schools Partnership.

Restricted to students in the Plan II Honors Program. 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. The equivalent of one lecture hour and two hours of service a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

## T C 330. Special Topics in Plan II.

Restricted to Plan II majors. Three lecture hours a week for one semester, with additional hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## T C 357. The 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. Three lecture hours a week for one semester. Students must take this course twice with different topics to fulfill degree requirements; with consent of the director of Plan II, a third topic may be taken as an elective. Prerequisite: Upper-division standing in Plan II.

## T C 359T. Essay Course.

Directed reading followed by the writing of an essay. Conference course, with additional hours to be arranged. Prerequisite: Two semesters of Tutorial Course 357 and consent of the director.

## T C 660H. Thesis Course: Honors.

Directed reading followed by the writing of a substantial essay. Conference course for two semesters, with additional hours to be arranged. Prerequisite: For 660HA, two semesters of Tutorial Course 357 and consent of the director; for 660HB, Tutorial Course 660HA.

## Department of Psychology

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Psychology: PSY

## Lower-Division Courses

PSY 301 (TCCN: PSYC 2301). Introduction to Psychology.
Basic problems and principles of human experience and behavior. Three lecture hours a week for one semester, or the equivalent in independent study.

## PSY 304 (TCCN: PSYC 2308). Introduction to Child Psychology.

General introduction to physical, social, and cognitive development from conception onward. Three lecture hours a week for one semester. Psychology 304 and 333D may not both be counted. Prerequisite: Psychology 301 with a grade of at least C .

## PSY 305. Introduction to Cognitive Psychology.

Introduction to the study of how people perceive, act, communicate, and reason. Three lecture hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C.

## PSY 308. 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. Three lecture hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C.

## PSY 309 (TCCN: PSYC 2316). Personality.

Research and theory concerning personality structure, dynamics, development, and assessment. Three lecture hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C.

## PSY 317 (TCCN: PSYC 2317). Statistical Methods in Psychology.

Recommended for majors who plan to do graduate work in psychology or related fields. Measures of central tendency and variability; statistical inference; correlation and regression. Three lecture hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C.

## PSY 418. Statistics and Research Design.

Students may not enroll in Psychology 418 more than twice. Survey of statistics, including central tendency, variability and inference, and scientific methodology used in psychological research. Three lecture hours and two discussion hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C and credit for one of the following: Mathematics 302, 303D, 403K, 305G, 408C, 408K, 316; or Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 319K (TCCN: PSYC 2319). Social Psychology.

Theory and research on the analysis of human conduct in social settings. Three lecture hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C .

## PSY 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses <br> <br> PSY 323. Perception.

 <br> <br> PSY 323. Perception.}Theory and research in the ways we extract information from the environment. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upperdivision standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 323P. Perceptual Systems: Neurons, Behavior, and Evolution.

An introduction to perceptual systems, with an emphasis on perception in human and nonhuman primates. Topics 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. Three lecture hours a week for one semester. Psychology 323P and 341K (Topic: Perceptual Systems: Neurons/Behavior/Evolution) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K,

Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 323S. Sex Differences in Cognition and Perception.

Examination of facts, theories, and implications of sex differences in human cognition and perception. Topics 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. Three lecture hours a week for one semester. Psychology 323S and 341K (Topic: Sex Differences in Cognition and Perception) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 323V. Seeing and Acting in a Virtual World.

Methods of experimentation and discovery for examining one's own perceptions and actions in ordinary life. Three lecture hours a week for one semester. Psychology 323V and 341K (Topic: Seeing/Acting in Virtual World) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 325K. Advanced Statistics.

Advanced statistical theory and methods for analysis of behavioral sciences data; topics include analysis of variance and covariance, regression, and nonparametric techniques. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 326K. Principles of Conditioning and Learning.

Laws of animal and human learning, and the underlying mechanisms. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering

335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

PSY 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## PSY 332. 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. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 332C. 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. Three lecture hours a week for one semester. Psychology 332C and 341 K (Topic: Hormones and Behavior) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 332D. Human Brain Imaging in Psychology.

Study of human brain imaging technologies such as fMRI and electrophysiology. Three lecture hours a week for one semester. Psychology 332D and 341K (Topic: Human Brain Imaging in Psychology) may not both be counted. Prerequisite: For psychology majors, upperdivision standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 332M. The Neuroscience of Motivation and Reward.

Examination of mechanisms of the brain that control behaviors such as incentive motivation, reward, aversion, and addiction. Three lecture
hours a week for one semester. Psychology 332M and 341K (Topic: Neuroscience of Motivation and Reward) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 333C. Controversial Issues in Development.

An exploration of questions in developmental psychology that are currently in dispute. Topics may include stem cell research, treatment of juveniles in the legal system, physician-assisted suicide, and methods of sex education. Three lecture hours a week for one semester. Psychology 333C and 341K (Topic: Controversial Issues in Development) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 333D. Introduction to Developmental Psychology.

Physical, social, and cognitive development in humans. Three lecture hours a week for one semester. Psychology 304 and 333D may not both be counted. Psychology 333D and Women's and Gender Studies 345 (Topic 6: Introduction to Developmental Psychology) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318 M , Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 333E. 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. Three lecture hours a week for one semester. Psychology 333E and 341K (Topic: Identity Formation) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318 M , Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 333F. Fantasy and Reality.

Examination of how children and adults decide what is real and what is not. Topics include the fantasy-reality distinction, magical thinking, and religious cognition. Three lecture hours a week for one semester. Psychology 333F and 341K (Topic: Fantasy and Reality) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 333M. Infant Development.

Examination of genetic and environmental determinants of social, perceptual, and cognitive development in infants from theoretical and research perspectives. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 333N. Cognitive Development.

Overview of the development of thinking from infancy through childhood. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least $C$, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 333P. Child Language.

Examination of theory and research concerning the development of language in the child. Three lecture hours a week for one semester. Only one of the following may be counted: Linguistics 373 (Topic 1: Child Language), 373 (Topic: Language Acquisition), Psychology 333P. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 333R. Social Development in Children.

Development of social behavior (for example, sex typing and aggression) and social relationships. Three lecture hours a week for one semester. Psychology 333R and Women's and Gender Studies 345 (Topic 19: Social Development in Children) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upperdivision standing, Psychology 301 with a grade of at least $C$, and one of the following with a grade of at least C: Biology 318M, Civil

Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 333T. Adolescent Development.

Physical, cognitive, social, and personality development during adolescence. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upperdivision standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 333W. Moral Development.

An introduction to theory and research on morality. Topics 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. Three lecture hours a week for one semester. Psychology 333W and 341K (Topic: Moral Development) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 334D. 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. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 334E. Evolutionary Psychology.

Fundamentals of evolutionary psychology, including issues of natural and sexual selection, adaptation, and domain-specific psychological mechanisms. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upperdivision standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 337. Psychology of Language.

Consideration of approaches to the study of language, its development in children, and its functioning; important research from psychology and
linguistics. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 338K. Psychology of Reading.

Theory and research on the reading process and its acquisition. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 339. Behavior Problems of Children.

Adjustment difficulties during childhood and adolescence; causation and treatment. Three lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 339, 342, Psychology 339. Prerequisite: For psychology majors, upperdivision standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K,
Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 341K. Selected Topics in Psychology.

Topics of contemporary interest that may vary from semester to semester. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## Topic 4: Health Psychology. <br> Topic 7: Epidemiology.

Topic 8: Learning and the Brain.
Topic 12: Personality Assessment. Theoretical and methodological issues involved in trying to understand and measure personality.
Topic 14: Robot Cognition.
Topic 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. Psychology 341 K (Topic 15) and 341 K (Topic: History and Systems of Psychology) may not both be counted.
Topic 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.
Topic 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.
Topic 18: Language and Thought.

## PSY 343K. Substance Abuse.

Causes of substance abuse: the evolutionary perspective, sex differences, predisposition, biological and cognitive theories; emphasis on food and alcohol. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318 M , Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 345. 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. Three lecture hours a week for one semester. Psychology 341K (Topic: Individual Differences) and 345 may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upperdivision standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 346K. Psychology of Sex.

Development of sex from genes to human behavior. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upperdivision standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 350. Motivation.

Theory and research on motivation; biological and social determinants. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 352. Abnormal Psychology.

Biological and social factors in the development and treatment of psychopathology. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 353K. Psychopharmacology.

The pharmacology and the neurochemical, neurophysiological, and psychological effects of psychoactive drugs, with regard to their use as therapeutic and behavioral research tools. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318 M , Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 355. Cognition.

Theoretical and critical analysis of the development, nature, and function of the thought process. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 355C. Development of Categories and Concepts.

Study of the historical and contemporary knowledge about the ways that people learn about concepts. Three lecture hours a week for one semester. Psychology 341K (Topic: Categories and Concepts) and 355C may not both be counted. Prerequisite: For psychology majors, upperdivision standing and Psychology 301 and 418 with a grade of at least $C$ in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 355D. 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. Three lecture hours a week for one semester. Psychology 341K (Topic: Animal Cognition) and 355D may not both be counted. Prerequisite: For
psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 355M. 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. Three lecture hours a week for one semester. Psychology 341K (Topic: Cognitive Psychology of Music) and 355M may not both be counted. Prerequisite: For psychology majors, upperdivision standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C : Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 355N. Cognitive Neuroscience.

Exploration of the link between the brain, mind, and behavior and cognitive neuroscience techniques. Three lecture hours a week for one semester. Psychology 341K (Topic: Cognitive Neuroscience) and 355N may not both be counted. Prerequisite: For psychology majors, upperdivision standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 355R. Reasoning and Decision Making.

Survey of psychological research on how people reason and make decisions. Topics include mental models, causality, analogy, heuristics, emotion, motivation, culture, and decision making. Three lecture hours a week for one semester. Psychology 341K (Topic: Reasoning and Decision Making) and 355R may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 357. Undergraduate Research.

Supervised research experience. Individual instruction. May not be counted toward a major in psychology. May be repeated for credit.

Offered on the pass/fail basis only. Prerequisite: At least thirty semester hours of college coursework, Psychology 301 with a grade of at least C, and consent of instructor.

## PSY 458. Experimental Psychology.

Techniques of psychological research illustrated in a series of laboratory experiments. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Upper-division standing, Psychology 301 and 418 with a grade of at least $C$ in each, and a University grade point average of at least 3.25 .

## PSY 158H. Honors Research Tutorial.

Enrollment restricted to students in the Psychology Honors Program. Individual instruction. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, Psychology 301 and 418 with a grade of at least C in each, and consent of the honors adviser.

## PSY 359. 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. Individual instruction. May not be counted toward a major in psychology. May be repeated for credit. Offered on the pass/fail basis only.
Prerequisite: Upper-division standing, Psychology 301 with a grade of at least C , and consent of instructor.

## PSY 359H. Honors Research I.

Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Psychology 301 and 418 with a grade of at least $C$ in each, six semester hours of upper-division coursework in psychology, a grade point average of at least 3.50 in psychology courses taken at the University, a University grade point average of at least 3.25 , and consent of the honors adviser.

## PSY 364. Introduction to Clinical Psychology.

Introduction to techniques of assessment and treatment of psychopathology. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 364M. 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. Three lecture hours a week for one semester. Psychology 341 K (Topic: Mental Illness and the Brain) and 364 M may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics
and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 364P. Positive Psychology and the Good Life.

A survey of 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. Three lecture hours a week for one semester. Psychology 341K (Topic: Positive Psychology and the Good Life) and 364P may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least $C$ in each; for others, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 364S. Human Sexuality.

Human sexuality from a clinical and evolutionary perspective with a focus on the assessment, diagnoses, and treatment of sexual dysfunctions. Three lecture hours a week for one semester. Psychology 341K (Topic: Human Sexuality) and 364S may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 364T. Multicultural Psychotherapy.

Introduction to multicultural approaches to personality assessment and counseling psychotherapy. Three lecture hours a week for one semester. Psychology 341K (Topic: Multicultural Psychotherapy) and 364T may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 365E. The Psychology of Human Emotion.

Examination of the scientific literature on the psychology of human emotion. Three lecture hours a week for one semester. Psychology 341K (Topic: Emotion) and 365E may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K,

Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 365G. 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. Three lecture hours a week for one semester. Psychology 341K (Topic: Gender and Racial Attitudes) and 365G may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 365L. Advanced Social Psychology.

Experimental research in social psychology, social influence, decision making, affiliation, risk taking, stress, and other topics. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 371. Learning and Memory.

Analysis of theory and research in learning. Three lecture hours a week for one semester. Psychology 341K (Topic: Brain Mechanisms of Learning and Memory) and 371 may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, upperdivision standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Scientific Computation 302, 303, 304, 305, 306, 318.

## PSY 371R. Brain Mechanisms and Learning Theory.

Focus on the application of learning and memory theory and mechanisms to real world scenarios. Three lecture hours a week for one semester. Psychology 341K (Topic: Brain Mechanisms of Learning and Memory) and 371R may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C , and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific

Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 373N. The Neurobiology of Attention.

Examination of behavioral and brain mechanisms of attention in humans and other animals. Three lecture hours a week for one semester. Psychology 341K (Topic: Neurobiology of Attention) and 373N may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), or 318 (or Statistics and Scientific Computation 318).

## PSY 377P, 677P. Undergraduate Practicum.

Field experience in applied psychology. Students are supervised by faculty members and by practitioners in community agencies. One lecture hour and ten or twenty hours of fieldwork a week for one semester. May not be counted toward a major in psychology. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and consent of the practicum supervisor.

## PSY 379H. Honors Research II.

Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Psychology 301 and 418 with a grade of at least $C$ in each, Psychology 458 and 359H, and consent of the honors adviser.

## Department of Religious Studies

## Religious Studies: R S Lower-Division Courses

## R S 302. History of the Religions of Asia.

Same as Asian Studies 301R. Eastern religions: an introduction to the basic forms and the historical development of the religious traditions of India, China, and Japan. Three lecture hours a week for one semester.

## R S 304. Judaism, Christianity, and Islam: An Introduction.

Same as History 304R, Islamic Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction), and Jewish Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction). Examines the intertwined historical development of the religions of Judaism, Christianity, and Islam, and explores the principal beliefs and practices of Jews, Christians, and Muslims. Three lecture hours a week for one semester.

## R S 305. Introduction to the Philosophy of Religion.

Same as Philosophy 305. Primarily for lower-division students. A critical examination of various conceptions of God and of the relationship of the human and the divine. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

## R S 306. Topics in Comparative Religion.

Three lecture hours a week for one semester. Additional hours are required for some topics; these topics are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: The Roots of Religious Toleration. Same as European Studies 306 (Topic 3), History 317N (Topic 1), and Jewish Studies 311 (Topic 5). Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Roots of Religious Toleration), European Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 3), History 317N (Topic: Roots of Religious Toleration), 317 N (Topic 1), Jewish Studies 311 (Topic: Roots of Religious Toleration), 311 (Topic 5), Religious Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 1).
Topic 2: Literature and Religion. Same as English 314J (Topic 2). Only one of the following may be counted: English 314J (Topic: Literature and Religion), 314J (Topic 2), Religious Studies 306 (Topic: Literature and Religion), 306 (Topic 2).

## R S 306C. Comparative Religious Ethics.

Religious Studies 306 (Topic: Comparative Religious Ethics) and 306C may not both be counted.

## R S 310. Introduction to the Study of Religion.

Introduction to scholarly methods in the study of religion. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 5: Introduction to the Study of Religion), Religious Studies 310, Sociology 313K.

## R S 312. Topics in the Religions of Asia.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## R S 312C. Introduction to Buddhism.

Same as Asian Studies 301M (Topic 11: Introduction to Buddhism). A structural and historical overview of Buddhism through the examination of various schools, doctrines, biographical narratives, and contemporary ethical issues. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 11), Religious Studies 312 (Topic: Introduction to Buddhism), 312C.

## R S 313. Topics in Judaism.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Jews in America: The Yiddish Experience. Same as American Studies 315 (Topic 4) and Jewish Studies 311 (Topic 6). 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. Only one of the following may be counted: American Studies 315 (Topic: Jews in America: The Yiddish Experience), 315 (Topic 4), Jewish Studies 311 (Topic: Jews in America: The Yiddish Experience), 311 (Topic 6), Religious Studies 313 (Topic: Jews in America: The Yiddish Experience), 313 (Topic 1).

## R S 313C. Introduction to the Old Testament.

Same as Core Texts and Ideas 305G, Jewish Studies 311 (Topic 4), and Middle Eastern Studies 310 (Topic 3). 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. Only one of the following may be counted: Core Texts and Ideas 305G, 310 (Topic: Introduction to the Hebrew Bible), Jewish Studies 311 (Topic: Introduction to the Hebrew Bible), 311 (Topic 4), Middle Eastern Studies 310 (Topic: Introduction to the Hebrew Bible), 310 (Topic 3), Religious Studies 313 (Topic: Introduction to the Hebrew Bible), 313C.

## R S 313M. Jewish Civilization: Beginnings to 1492.

Same as History 306N (Topic 10: Jewish Civilization: Beginnings to 1492) and Jewish Studies 304M. 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Jewish Civilization I), 306N (Topic 10), Jewish Studies 304M, 311 (Topic: Jewish Civilization I), Religious Studies 313 (Topic: Jewish Civilization I), 313M.

## R S 313N. Jewish Civilization: 1492 to the Present.

Same as History 306N (Topic 11: Jewish Civilization: 1492 to the Present) and Jewish Studies 304N. 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 306 N (Topic 11), Jewish Studies 304N, 311 (Topic: Jewish Civilization: 1492 to the Present), Religious Studies 313 (Topic: Jewish Civilization: 1492 to the Present), 313N.

## R S 314. Topics in Islam.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## R S 314K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations.

Same as History 306K and Middle Eastern Studies 301K. A survey of the history and civilization of the Middle East from the sixth to the fourteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: History 306K, Middle Eastern Studies 301K, Religious Studies 314 (Topic: Intro M East: Rel/Cul/Hist Fnd), 314K.

## R S 315. Topics in Christian History.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: The Bible and Its Interpreters. Same as Core Texts and Ideas 304 (Topic 1). 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. Only one of the following may be counted: Core Texts and Ideas 304 (Topic 1), Religious Studies 315 (Topic: The Bible and Its Interpreters), Religious Studies 315 (Topic 1).

## R S 315N. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 304C (Topic: Introduction to the New Testament), Religious Studies 315 (Topic: Introduction to the New Testament), 315N.

## R S 316K. Topics in Religions of the Americas.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## R S 316U. Topics in Religions of the United States.

Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## R S 317. Topics in the Religions of Africa.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## R S 318. The Rise of Christianity.

Same as Classical Civilization 318. Introduction to the origins and development of Christianity. Three lecture hours a week for one semester.

## R S 319. Introduction to Islam.

Same as Asian Studies 301M (Topic 15), History 306N (Topic 7), and Islamic Studies 310. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 15), History 306N (Topic 7), Islamic Studies 310, Middle Eastern Studies 310 (Topic 1: Introduction to Islam), Religious Studies 319.

R S 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, $919 S$. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## R S 321. History of Hindu Religious Traditions.

Same as Anthropology 324L (Topic 23: History of Hindu Religious Traditions), Asian Studies 340 (Topic 4: History of Hindu Religious Traditions), and History 364G (Topic 1: 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## R S 322. History of Indian Buddhism.

Same as Asian Studies 340 (Topic 5: History of Indian Buddhism). The institutional, social, economic, and doctrinal history of Buddhism in India. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

## R S 325. Prophet of Islam: His Life and Times.

Same as History 364G (Topic 2: Prophet of Islam: His Life and Times) and Islamic Studies 340 (Topic 1: 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic 2), Islamic Studies 340 (Topic 1), Middle Eastern Studies 321K (Topic 6: Prophet of Islam: His Life and Times), Religious Studies 325. Prerequisite: Upper-division standing.

## R S 325G. The Qur'an.

Same as Comparative Literature 323 (Topic 37), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), and

Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Arabic 372 (Topic 2: The Qur'an), Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 320 (Topic 14: The Qur'an), 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Prerequisite: Upper-division standing.

## R S 326. History of Religion in America since 1800.

Same as History 351P. 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. Three lecture hours a week for one semester. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

R S 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## R S 335. Jesus in History and Tradition.

Same as Classical Civilization 348 (Topic 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. Three lecture hours a week for one semester. Prerequisite: Upperdivision standing.

## R S 341. Topics in Religions of South Asia.

Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Indian Philosophies. Same as Asian Studies 372
(Topic 2: Indian Philosophies) and Philosophy 348 (Topic 2: Indian Philosophies).
Topic 2: Diversity of Indian Traditions. Same as Asian Studies 372 (Topic 19: Diversity of Indian Traditions). Art and architecture of South Asia from 1200 to 1900 CE, within the context of Indian culture. Three lecture hours a week for one semester. Prerequisite: For art history and visual art studies majors, Art History 302 and 303; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

Topic 3: Gender, Sexuality, and the Family in Indian Religions and Cultures. Same as Anthropology 324L (Topic 40: Gender, Sexuality, and the Family in Indian Religions and Cultures), Asian Studies 372 (Topic 25: Gender, Sexuality, and the Family in Indian Religions and Cultures), and Women's and Gender Studies 340 (Topic 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.
Topic 5: Gandhi and Gandhism. Same as Asian Studies 361 (Topic 6: Gandhi and Gandhism) and History 350L (Topic 5: Gandhi and Gandhism). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

Topic 8: Buddhist Art. Same as Asian Studies 372 (Topic 24) and Art History 348N. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 348N, 372 (Topic: Buddhist Art), Asian Studies 372 (Topic 24), Religious Studies 341 (Topic 8).
Topic 9: The Taj Mahal and the Diversity of Indian Art. Same as Art History 348M. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 348M, 372 (Topic: The Taj Mahal and the Diversity of Indian Art), Asian Studies 372 (Topic: The Taj Mahal and the Diversity of Indian Art), Religious Studies 341 (Topic 9). Additional prerequisite: Upper-division standing.

Topic 11: Indian Poetry and Religions. Same as Asian Studies 379
(Topic 4). 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. Only one of the following may be counted: Asian Studies 340 (Topic: Indian Poetry and Religions), 379 (Topic 4), Religious Studies 341 (Topic: Indian Poetry and Religions), 341 (Topic 11).
Topic 12: South Asian Saints and Yogis. Same as Asian Studies 379 (Topic 2). Life stories, teachings, and cultic practices of various holy figures and sainthood practices in South Asia, with an emphasis on the intersection between classical and modern history, religion, literature, and philosophy in relation to these practices and the making of modern South Asia. Only one of the following may be counted: Anthropology 324L (Topic: South Asian Saints and Yogis), Asian Studies 340 (Topic: South Asian Saints and Yogis), 379 (Topic 2), Religious Studies 341 (Topic: South Asian Saints and Yogis), 341 (Topic 12).
Topic 13: Devotion in South India. Same as Asian Studies 372 (Topic 31). Examines aspects of devotion in everyday life and how religions, such as Islam, Buddhism, and Christianity, are translated into a predominantly Hindu South India. Only one of the following may be counted: Asian Studies 372 (Topic: Devotion in South India), 372 (Topic 31), Comparative Literature 323 (Topic: Devotion in South India), Religious Studies 341 (Topic: Devotion in South India), 341 (Topic 13). Additional prerequisite: Upper-division standing.
Topic 14: Living Epics of India. Same as Asian Studies 372 (Topic 38 ) and Comparative Literature 323 (Topic 26). Exploration of Indian epics in the Sanskritic textual heritage, performative arts, and regional language versions, and their impact in the formation of the values of the people of India. Only one of the following may be counted: Asian Studies 372 (Topic: Living Epics of India), 372 (Topic 38), Comparative Literature 323 (Topic: Living Epics of India), 323 (Topic 26), Theatre and Dance 357T (Topic: Living Epics of India), Religious Studies 341 (Topic: Living Epics of India), 341 (Topic 14).

## R S 341G. Yoga as Philosophy and Practice.

Same as Philosophy 356 (Topic 2). Three lecture hours a week for one semester. Only one of the following may be counted: Philosophy 356 (Topic: Yoga as Philosophy and Practice), 356 (Topic 2), Religious Studies 341G (Topic: Yoga as Philosophy and Practice), 341G. Prerequisite: Upper-division standing.

## R S 342. Topics in Religions of Central Asia.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## R S 344. The Age of Reformation.

Same as History 343. Examines late medieval religion, the rise of Protestant movements, and the Catholic response in their cultural, political, and social contexts. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## R S 345. Islamic Spain and North Africa to 1492.

Same as History 375D and Middle Eastern Studies 343 (Topic 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. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Islamic Spain and North Africa to 1492), History 375D, Islamic Studies 373 (Topic: Islamic Spain and North Africa to 1492), Middle Eastern Studies 321K (Topic 4: Islamic Spain and North Africa to 1492), 343 (Topic 4), Religious Studies 345, 363 (Topic: Islamic Spain and North Africa to 1492). Prerequisite: Upper-division standing.

## R S 346. Topics in the Religions of the United States.

Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Religion in American Political Thought. Same as Government 335M (Topic 5: Religion in American Political Thought). Prerequisite: Upper-division standing and six semester hours of lowerdivision coursework in government.
Topic 5: United States Catholic History. Same as American Studies 327 (Topic 4), History 365G (Topic 1), and Mexican American Studies 374 (Topic 37). Examines how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latinos/as. Only one of the following may be counted: American Studies 321 (Topic: United States Catholic History), 327 (Topic 4), History 365G (Topic: United States Catholic History), 365G (Topic 1), Mexican American Studies 374 (Topic: United States Catholic History), 374 (Topic 37), Religious Studies 346 (Topic: United States Catholic History), 346 (Topic 5). Partially fulfills legislative requirement for American history.
Topic 7: The Black Church in African American Politics. Same as African and African Diaspora Studies 374D (Topic 14) and Government 370 K (Topic 4). Examination of the political role of the black church and its leaders in the development of African American political behavior. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Black Church in African American Politics), 374D (Topic 14), Government 370K (Topic 4), Religious Studies 346 (Topic: Black Church in African American Politics), 346 (Topic 7).
Topic 8: Representation of Jews in the American Public Sphere. Same as Anthropology 325L (Topic 13) and Jewish Studies 365 (Topic 11). 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. Only one of the following may be counted: Anthropology 325L (Topic: Representation of Jews in the American Public Sphere), 325L (Topic 13), Jewish Studies 365 (Topic: Representation of Jews in the American Public Sphere), 365 (Topic 11), Religious Studies 346 (Topic: Representation of Jews in the American Public Sphere), 346 (Topic 8).
Topic 9: American Jewish Material Culture. Same as Anthropology 325 L (Topic 17) and Jewish Studies 365 (Topic 12). Examines the interplay between material culture and Jewish identity and thought in contemporary America. Only one of the following may be counted: Anthropology 325L (Topic: American Jewish Material Culture), 325L (Topic 17), Jewish Studies 365 (Topic: American Jewish Material

Culture), 365 (Topic 12), Religious Studies 346 (Topic: American Jewish Material Culture), 346 (Topic 9).
Topic 10: The History of Islam in the United States. Same as History 350R (Topic 22) and Islamic Studies 372 (Topic 21). 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. Only one of the following may be counted: History 350R (Topic: History of Islam in the United States), 350R (Topic 22), Islamic Studies 372 (Topic: History of Islam in the United States), 372 (Topic 21), Religious Studies 346 (Topic: History of Islam in the United States), 346 (Topic 10). Partially fulfills legislative requirement for American history.

## R S 346C. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: American Studies 325 (Topic: Religion and Visual Culture in the United States), Religious Studies 346 (Topic: Religion and Visual Culture in the United States), 346C.

## R S 346D. Native American Religion.

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. Only one of the following may be counted: American Studies 327 (Topic: Native American Religion), Religious Studies 346 (Topic: Native American Religion), 346D. Prerequisite: Upper-division standing.

## R S 346E. 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. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Religion and Film), Religious Studies 346 (Topic: Religion and Film), 346E. Prerequisite: Upper-division standing.

## R S 352. Topics in Religions of East Asia.

Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Religion and Rebellion in Modern East Asia. Same as Asian Studies 340 (Topic 6). Examines how nineteenth- and twentiethcentury new religious movements in Japan, China, Korea, and Tibet have expressed dissatisfaction with society and/or the state through rebellious and sometimes violent activity. Only one of the following may be counted: Asian Studies 340 (Topic 6), History 364G (Topic: Religion/Rebellion in Modern East Asia), Religious Studies 352 (Topic $3)$.
Topic 4: Ritual and Religion in Korea. Same as Asian Studies 340 (Topic 10: Ritual and Religion in Korea). Examination of 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. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Ritual and Religion in Korea), Asian Studies 340 (Topic 10), Religious Studies 352 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 6: The Asian Perspective on Death and Dying. Only one of the following may be counted: Anthropology 324L (Topic: The Asian Perspective on Death and Dying), Asian Studies 361 (Topic: The Asian

Perspective on Death and Dying), Religious Studies 352 (Topic 6). Prerequisite: Upper-division standing.
Topic 7: Religion in Japanese History. Same as Asian Studies 340 (Topic 9: Religion in Japanese History). Examines religious concepts and practices in wider contexts of modern Japanese culture and society. Focuses on the critical understanding of the individual and collective aspects of Japanese spiritual life. Three lecture hours a week for one semester.
Topic 8: Japanese Concepts of Body and Self. Same as Asian Studies 372 (Topic 41). 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. Only one of the following may be counted: Anthropology 324L (Topic: Japanese Concepts of Body and Self), Asian Studies 372 (Topic: Japanese Concepts of Body and Self), 372 (Topic 41), Religious Studies 352 (Topic: Japanese Concepts of Body and Self), 352 (Topic 8).
Topic 9: 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. Only one of the following may be counted: Anthropology 324L (Topic: Religion and Family in Japanese Society), Asian Studies 372 (Topic: Religion and Family in Japanese Society), Religious Studies 352 (Topic: Religion and Family in Japanese Society), 352 (Topic 9).
Topic 10: Confucianism. Same as Asian Studies 372 (Topic 32). Philosophical and historical context of Confuciansim from its origins in ancient China through the early empire and beyond. Only one of the following may be counted: Asian Studies 372 (Topic: World of Confucians), 372 (Topic 32), Core Text and Ideas 375 (Topic: World of Confucians), Religious Studies 352 (Topic: World of Confucians), 352 (Topic 10).
Topic 11: Self-Cultivation in Traditional China. Same as Asian Studies 372 (Topic 33). Ideas and practices of self-cultivation as represented in diverse philosophical, religious, and occult traditions in premodern China. Only one of the following may be counted: Asian Studies 372 (Topic: Self-Cultivation in Traditional China), 372 (Topic 33), Core Texts and Ideas 375 (Topic: Self-Cultivation in Traditional China), Religious Studies 352 (Topic: Self-Cultivation in Traditional China), 352 (Topic 11).

## R S 353. Topics in Religion and Culture of the Biblical World.

Three lecture hours a week for one semester; additional hours may be required by some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Revelation and Apocalyptic Literature. Examines the Book of Revelation in the context of early Christian and Jewish literature. Study of other apocalyptic texts, methods of textual analysis, and the ongoing effects of Revelation in modern American culture. Only one of the following may be counted: Classical Civilization 348 (Topic: Revelation and Apocalyptic Literature), Religious Studies 353 (Topic: Revelation and Apocalyptic Literature), 353 (Topic 1). Additional prerequisite: Upper-division standing.
Topic 3: The Sacred and the Secular in Contemporary Jewish
Literature. Same as Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), and Middle Eastern Studies 342 (Topic 8). Only one of the following may be counted: Comparative Literature 323 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), English 322 (Topic: The Sacred and the Secular in Contemporary Jewish Literature), Hebrew 374 (Topic 11: The Sacred and the Secular in Contemporary Jewish Literature), Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), Middle Eastern Studies 322K (Topic 28: The Sacred and the Secular in Contemporary Jewish Literature), 342 (Topic 8), Religious Studies 353 (Topic: The Sacred and the Secular in Contemporary Jewish

Literature), 353 (Topic 3). Additional prerequisite: Upper-division standing.

## R S 353D. The Dead Sea Scrolls.

Same as Ancient History and Classical Civilization 330 (Topic 1), History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), and Middle Eastern Studies 342 (Topic 23). Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Dead Sea Scrolls), 330 (Topic 1), History 364G (Topic 3), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 320 (Topic 13), 342 (Topic 23), Religious Studies 353D. Prerequisite: Upper-division standing.

## R S 353E. 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. Only one of the following may be counted: Classical Civilization 348 (Topic: Beyond the New Testament), Religious Studies 353 (Topic: Beyond the New Testament), 353E. Prerequisite: Upper-division standing.

## R S 354D. The Bible and History.

Same as Jewish Studies 364 (Topic 3: The Bible and History). The critical uses of biblical and extrabiblical data in the reconstruction of the history of the biblical period. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Bible and History), History 372P, Jewish Studies 364 (Topic 3), Middle Eastern Studies 320 (Topic 3: The Bible and History), Religious Studies 354D. Prerequisite: Upper-division standing.

## R S 355. The Bible as Literature.

Same as English 358J. In-depth literary study of the Bible, with emphasis on the formal features of narrative, hymn, prophecy, apocalypse, gospel, and epistle. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. Prerequisite: Comparative Literature 315, English 603B, 316L (or 316K), 316M (or 316K), 316N (or 316 K ), or 316P (or 316K), or Tutorial Course 603B.

## R S 355K. The Bible in British and American Literature.

Same as English 358K. The reading of biblical masterpieces as literature; consideration of different versions of the Bible and their influence on British and American literature. Three lecture hours a week for one semester. English 358 K and Religious Studies 355 K may not both be counted. Some sections are offered on the letter-grade basis only. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

## R S 357. Topics in the Religions of Europe.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Heresy and the Inquisition. Same as History 350L (Topic 33: Heresy and the Inquisition). Prerequisite: Upper-division standing.
Topic 2: Byzantine Art. Same as Art History 329J. Examination of the medieval art and architecture of the eastern Roman empire, including related traditions (Coptic, Armenian, Georgian, Crusader, Norman). Three lecture hours a week for one semester.
Topic 6: Northern Renaissance Art, 1500-1600. Same as Art History 332L. Art and cultural development in the sixteenth century; artists include Duerer, Gruenewald, Holbein, and Brueghel. Three lecture hours a week for one semester. Only one of the following may be
counted: Art History 332L, European Studies 347 (Topic: Northern Renaissance Art, 1500-1600), Religious Studies 357 (Topic: Northern Renaissance Art, 1500-1600), 357 (Topic 6).
Topic 7: Northern Renaissance Art, 1350-1500. Same as Art History 332K. Northern European art from the International Style to van Eyck and Hieronymus Bosch. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 332K, European Studies 347 (Topic: Northern Renaissance Art, 1350-1500), Religious Studies 357 (Topic: Northern Renaissance Art, 1350-1500), 357 (Topic 7).

Topic 8: Spinoza and Modernity. Same as Core Texts and Ideas 321F, European Studies 346 (Topic 21), History 362P, Jewish Studies 364 (Topic 9), and Philosophy 354 (Topic 7). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Spinoza and Modernity), 321F, European Studies 346 (Topic: Spinoza and Modernity), 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362G (Topic: Spinoza and Modernity), 362P, Jewish Studies 364 (Topic: Spinoza and Modernity), 364 (Topic 9), Philosophy 334K (Topic: Spinoza and Modernity), 354 (Topic: Spinoza and Modernity), 354 (Topic 7), Religious Studies 357 (Topic: Spinoza and Modernity), 357 (Topic 8). Additional prerequisite: Upper-division standing.
Topic 9: The Church and the Jews. Same as History 362G (Topic 14) and Jewish Studies 364 (Topic 10). Examination of the complex relationship between the Western Church and Jews over two millenia. Only one of the following may be counted: History 362G (Topic: The Church and the Jews), 362G (Topic 14), Jewish Studies 364 (Topic: The Church and the Jews), 364 (Topic 10), Religious Studies 357 (Topic: The Church and the Jews), 357 (Topic 9).
Topic 10: The Spanish Inquisition. Same as European Studies 346 (Topic 11), History 350L (Topic 77), and Jewish Studies 364 (Topic 5). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: The Spanish Inquisition), 346 (Topic 11), History 350L (Topic: The Spanish Inquisition), 350L (Topic 77), Jewish Studies 364 (Topic: The Spanish Inquisition), 364 (Topic 5), Religious Studies 357 (Topic: The Spanish Inquisition), 357 (Topic 10).
Topic 11: The Age of Rembrandt and Rubens: Northern Baroque Art. Same as Art History 333L. Northern European art in the seventeenth century, stressing the Netherlands and Flanders. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 333L, European Studies 347 (Topic: The Age of Rembrandt and Rubens: Northern Baroque Art), Religious Studies 357 (Topic: The Age of Rembrandt and Rubens: Northern Baroque Art), 357 (Topic 11).
Topic 12: Heretics and Freedom Fighters, 1350-1650. Same as Czech 324 (Topic 4), European Studies 346 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic 12), and Russian, East European, and Eurasian Studies 325 (Topic 28). Explores the theologies, politics, and personal identities that emerged and passed away in this era. Only one of the following may be counted: Czech 324 (Topic: Heretics and Freedom Fighters, 1350-1650), 324 (Topic 4), European Studies 346 (Topic: Heretics and Freedom Fighters, 1350-1650), 346 (Topic 8), Germanic Civilization 327E (Topic: Heretics and Freedom Fighters, 1350-1650), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic: Heretics and Freedom Fighters, 1350-1650), 362G (Topic 12), Religious Studies 357 (Topic: Heretics and Freedom Fighters, 1350-1650), 357 (Topic 12), Russian, East European, and Eurasian Studies 325 (Topic: Heretics and Freedom Fighters, 1350-1650), 325 (Topic 28).

Topic 13: Jews of Eastern Europe. Same as History 362G (Topic 8), Jewish Studies 364 (Topic 7), and Russian, East European, and Eurasian Studies 335 (Topic 23). Explores the history and culture of Jews in Eastern Europe. Only one of the following may be counted: History 362G (Topic: Jews of Eastern Europe), 362G (Topic 8), Jewish Studies 364 (Topic: Jews of Eastern Europe), 364 (Topic 7), Religious Studies 357 (Topic: Jews of Eastern Europe), 357 (Topic 13), Russian, East European, and Eurasian Studies 335 (Topic: Jews of Eastern Europe), 335 (Topic 23).
Topic 14: Gothic Cathedral: Amiens. Same as Art History 330J. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 330J, 374 (Topic: Gothic Cathedral: Amiens), European Studies 347 (Topic: Gothic Cathedral: Amiens), Religious Studies 357 (Topic: Gothic Cathedral: Amiens), 357 (Topic 14).
Topic 15: Birgitta, Hildegard, and Margery. Same as European Studies 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, and Women's and Gender Studies 340 (Topic 51). 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 visionary women will be explored in depth. Only one of the following may be counted: English 322 (Topic: Birgitta, Hildegard, and Margery), European Studies 347 (Topic: Birgitta, Hildegard, and Margery), 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, Germanic Civilization 327E (Topic 10), Religious Studies 357 (Topic: Birgitta, Hildegard, and Margery), 357 (Topic 15), Scandinavian 373 (Topic 8), Women's and Gender Studies 340 (Topic: Birgitta, Hildegard, and Margery), 340 (Topic 51). Additional prerequisite: Upper-division standing.
Topic 16: Northern Gods, Northern Faiths: The Conversion of Scandinavians, Finns, Northern Slavs and Shamans. Same as German, Scandinavian, and Dutch Studies 361G and Russian, East European, and Eurasian Studies 345 (Topic 7). An introduction to the basic source texts for several pre-Christian belief systems evolving in geographic proximity and their influence on one another including preChristian Slavic; pre-Christian Scandinavian; pre-Christian Sami and Finnish; and ancient and modern Siberian shamanism, Only one of the following may be counted: German, Scandinavian, and Dutch Studies 361G, Religious Studies 357 (Topic 16), Russian, East European, and Eurasian Studies 345 (Topic 7). Additional prerequisite: Upper-division standing.
Topic 17: Introduction to Germanic Religion and Myth. Same as European Studies 347 (Topic 3) and German, Scandinavian, and Dutch Studies 361C. 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. Three lecture hours a week for one semester. Only one of the following may be counted: English 322 (Topic 2), European Studies 347 (Topic 3), German, Scandinavian, and Dutch Studies 361C, Germanic Civilization 340E (Topic 1), Religious Studies 365 (Topic 2), Religious Studies 357 (Topic 17). Additional prerequisite: Upper-division standing.

## R S 358. Topics in the Religions of the Middle East.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Medieval Islam: Faith and History. Same as History 350L (Topic 34: Medieval Islam: Faith and History) and Middle Eastern Studies 343 (Topic 5: Medieval Islam: Faith and History). Only one of the following may be counted: History 350L (Topic 34), Middle Eastern Studies 321K (Topic 7: Medieval Islam: faith and History), 343 (Topic 5), Religious Studies 358 (Topic 2). Prerequisite: Upper-division standing.
Topic 4: Sufism and Islamic Mysticism. Same as Asian Studies 340 (Topic 8), Islamic Studies 340 (Topic 4), and Middle Eastern Studies 342 (Topic 24). Muslim debates of Sufism; the historical development of Sufi beliefs regarding theology, religious laws, expression, and popular social practices. Only one of the following may be counted: Asian Studies 340 (Topic: Sufism and Islamic Mysticism), Asian Studies 340 (Topic 8), History 364G (Topic: Sufism and Islamic Mysticism), Islamic Studies 340 (Topic 4), 372 (Topic 10: Sufism: Islamic Mysticism and Spirituality), Middle Eastern Studies 320 (Topic 16: Sufism: Islamic Mysticism and Spirituality), 321K (Topic: Sufism and Islamic Mysticism), 342 (Topic 24), Religious Studies 341 (Topic: Sufism and Islamic Mysticism), 358 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 5: Veiling in the Muslim World. Same as Asian Studies 372 (Topic 14: Veiling in the Muslim World), Islamic Studies 372 (Topic 2: Veiling in the Muslim World), and Women's and Gender Studies 340 (Topic 11: Veiling in the Muslim World). Only one of the following may be counted: Asian Studies 372 (Topic 14), Islamic Studies 372 (Topic 2), Middle Eastern Studies 322K (Topic 17: Veiling in the Muslim World), Religious Studies 358 (Topic 5), Women's and Gender Studies 340 (Topic 11). Prerequisite: Upper-division standing.
Topic 8: Gender Politics in the Islamic World. Same as Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Sociology 336G, and Women's and Gender Studies 340 (Topic 44). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 373 (Topic: Gender Politics in the Islamic World), 373 (Topic 11), Middle Eastern Studies 322K (Topic: Gender Politics in the Islamic World), 341 (Topic: Gender Politics in the Islamic World), 341 (Topic 7), Religious Studies 358 (Topic: Gender Politics in the Islamic World), 358 (Topic 8), Sociology 321 K (Topic: Gender Politics in the Islamic World), 336G, Women's and Gender Studies 340 (Topic: Gender Politics in the Islamic World), 340 (Topic 44). Additional prerequisite: Upper-division standing.
Topic 10: Classical Islamic Studies. Same as Islamic Studies 340 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 15), and Middle Eastern Studies 342 (Topic 15). Only one of the following may be counted: Arabic 372 (Topic 1: Classical Islamic Studies), Islamic Studies 340 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 15), Middle Eastern Studies 321K (Topic 11: Classical Islamic Studies), 342 (Topic 15), Religious Studies 358 (Topic: Classical Islamic Studies), Religious Studies 358 (Topic 10). Additional prerequisite: Upper-division standing.
Topic 11: Sacred and Ceremonial Textiles. Same as Anthropology 324 L (Topic 29), Islamic Studies 372 (Topic 11), and Women's and Gender Studies 340 (Topic 57). Textiles and material objects indigenous to the Islamic world, and what they reveal about the culture of various Islamic societies. Only one of the following may be counted: Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Studies 322K (Topic 24), 328 (Topic: Sacred and Ceremonial Textiles), Religious Studies 358 (Topic: Sacred and Ceremonial Textiles), 358 (Topic 11), Women's and Gender Studies 340 (Topic: Sacred and Ceremonial Textiles), 340 (Topic 57). Additional prerequisite: Upper-division standing.

Topic 12: Muslim Women: Past and Present I. Same as Islamic Studies 372 (Topic 12) and Women's and Gender Studies 340 (Topic 22). Survey of the role of women in Islamic societies from the Middle Ages to the eighteenth century, with a glimpse into modern times. Only one of the following may be counted: Islamic Studies 372 (Topic 12), Middle Eastern Studies 321K (Topic 9: Muslim Women: Past and Present I), Religious Studies 358 (Topic: Muslim Women: Past and Present I), 358 (Topic 12) Women's and Gender Studies 340 (Topic 22). Additional prerequisite: Upper-division standing.

Topic 13: Muslim Women: Past and Present II. Same as Islamic Studies 372 (Topic 13) and Women's and Gender Studies 340 (Topic 23). Survey of the role of women in the modern Muslim world, with a glimpse into historical developments within Islamic societies. Only one of the following may be counted: Islamic Studies 372 (Topic 13), Middle Eastern Studies 321K (Topic 10: Muslim Women: Past and Present II), Religious Studies 358 (Topic: Muslim Women: Past and Present II), 358 (Topic 13), Women's and Gender Studies 340 (Topic 23). Additional prerequisite: Upper-division standing.

Topic 14: Islamic Theology. Same as Core Texts and Ideas 375 (Topic 2), Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), and Middle Eastern Studies 342 (Topic 35). Three lecture hours per week for one semester. Only one of the following may be counted: Core Texts and Ideas 375 (Topic: Islamic Theology), 375 (Topic 2), Islamic Studies 340 (Topic: Islamic Theology), 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic: Islamic Theology), 321 (Topic: 27), Middle Eastern Studies 321 K (Topic: Islamic Theology), 342 (Topic: Islamic Theology), 342 (Topic 35), Religious Studies 358 (Topic: Islamic Theology), 358 (Topic 14). Additional prerequisite: Upper-division standing.

Topic 15: The Religions of the Middle East. Same as Islamic Studies 340 (Topic 6), Middle Eastern Languages and Cultures 321 (Topic 26), and Middle Eastern Studies 342 (Topic 34). Three lecture hours per week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic: Religions of the Middle East), 340 (Topic 6), Middle Eastern Languages and Cultures 321 (Topic 26), Middle Eastern Studies 322K (Topic: Religions of the Middle East), 342 (Topic 34), Religious Studies 358 (Topic: Religions of the Middle East), 358 (Topic 15). Additional prerequisite: Upper-division standing.
Topic 17: Arts of Islam, 650-1500. Same as Art History 328J. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328J, 363 (Topic: Arts of Islam: Caliphs-Sultans), Islamic Studies 372 (Topic: Arts of Islam: CaliphsSultans), Middle Eastern Languages and Cultures 321 (Topic: Arts of Islam: Caliphs-Sultans), Middle Eastern Studies 321K (Topic: Arts of Islam: Caliphs-Sultans), 328 (Topic: Arts of Islam: Caliphs-Sultans), 342 (Topic: Arts of Islam: Caliphs-Sultans), Religious Studies 358 (Topic: Arts of Islam: Caliphs-Sultans), 358 (Topic 17).
Topic 18: Arts of Islam 1500-Present. Same as Art History 328K. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328K, 363 (Topic: Arts of Islam, 1500-1800), 363 (Topic: Arts of Islam: 1500-Present), Islamic Studies 372 (Topic: Arts of Islam, 1500-1800), 373 (Topic: Arts of Islam: 1500-Present), Middle Eastern Languages and Cultures 321 (Arts of Islam: 1500-Present), Middle Eastern Studies 321K (Topic: Arts of Islam, 1500-1800), 342 (Topic: Arts of Islam: 1500-Present), Religious Studies 358 (Topic 18).

Topic 19: Muslim Women in Politics. Same as Islamic Studies 372 (Topic 23) and Women's and Gender Studies 340 (Topic 56). Only one of the following may be counted: Anthropolgy 324L (Topic: Muslim Women in Politics), Islamic Studies 372 (Topic: Muslim Women in Politics), 372 (Topic 23), Religious Studies 358 (Topic: Muslim Women in Politics), 358 (Topic 19), Women's and Gender Studies 340 (Topic: Muslim Women in Politics), 340 (Topic 56).

## R S 358Q. Supervised Research.

Individual instruction. Prerequisite: Upper-division standing.

## R S 360. Topics in Religions of Sub-Saharan Africa.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 1: Jesus, Africa, and History. Same as African and African Diaspora Studies 372G (Topic 34). Exploration of the history of Christianity in Africa, from antiquity to the present, including the ways in which African interpretations and religious expressions of Christianity are presented in this history. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Jesus, Africa, and History), 372G (Topic 34), Religious Studies 360 (Topic: Jesus, Africa, and History), 360 (Topic 1).

## R S 362. Independent Research in Religious Studies.

Faculty-directed research. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## R S 365. Topics in Ancient Religion.

Three lecture hours a week for one semester; additional hours may be required by some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Rome and Jerusalem. Same as Ancient History and Classical Civilization 325 (Topic 3: Rome and Jerusalem), History 321G, Jewish Studies 365 (Topic 7: Rome and Jerusalem), and Middle Eastern Studies 342 (Topic 21: Rome and Jerusalem). A study of daily life in Israel during the Roman period, focusing on Jerusalem, ancient Palestinian synagogues and churches, Jewish and Christian symbolism, agriculture, warfare, and burial practices. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 3), Classical Civilization 348 (Topic: Rome and Jerusalem), History 321G, Jewish Studies 365 (Topic 7), Middle Eastern Studies 320 (Topic 2: Rome and Jerusalem), 342 (Topic 21), Religious Studies 365 (Topic 1), Urban Studies 353 (Topic: Rome and Jerusalem). Prerequisite: Upper-division standing.

## R S 366. Topics in Religions of the Americas.

Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## R S 368. Topics in Religions of Latin America.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Church and State in Latin America. Same as History 346W and Latin American Studies 366 (Topic 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. Only one of the following may be counted: History 346W, 363K (Topic Church and State in Latin America), Latin American Studies 366 (Topic 21), Religious Studies 368 (Topic 1). Prerequisite: Upper-division standing.

Topic 3: The Religious Tradition in Latin America. Same as History 350L (Topic 76) and Latin American Studies 366 (Topic 25). Explores the different ways in which religion has helped to define the political, social, and philosophical structures of Latin America from colonial times to the present. Only one of the following may be counted: History 350 L (Topic: The Religious Tradition in Latin America), 350L (Topic 76), Latin American Studies 366 (Topic: The Religious Tradition in Latin America), 366 (Topic 25), Religious Studies 368 (Topic: The Religious Tradition in Latin America), 368 (Topic 3).
Topic 4: Religion, Conquest, and Conversion in Colonial Latin America. Same as History 363K (Topic 3) and Latin American Studies 366 (Topic 29). Focuses on the histories of the Catholic Church and religious devotion in colonial Latin America between 1521 and 1821. Only one of the following may be counted: History 363K (Topic: Religion, Conquest, and Conversion in Colonial Latin America), 363K (Topic 3), Latin American Studies 366 (Topic: Religion, Conquest, and Conversion in Colonial Latin America), 366 (Topic 29), Religious Studies 368 (Topic: Religion, Conquest, and Conversion in Colonial Latin America), 368 (Topic 4).

## R S 373. Topics in Comparative Religion.

Three lecture hours a week for one semester. Religious Studies 373 and 375 s may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Goddesses in World Religions and Cultures. Same as Asian Studies 340 (Topic 7) and Women's and Gender Studies 340 (Topic 30). 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. Only one of the following may be counted: Anthropology 324L (Topic: Goddesses in World Religions and Cultures), Asian Studies 340 (Topic 7), Religious Studies 373 (Topic: Goddesses in World Religions and Cultures), 373 (Topic 3), Women's and Gender Studies 340 (Topic: Goddesses in World Religions and Cultures), 340 (Topic 30). Additional prerequisite: Upper-division standing.
Topic 4: Sport, Religion, and Society. Considers sport as it relates to ritual and religious practice and explores the meaning and nature of sport in cross-cultural perspectives. Only one of the following may be counted: Anthropology 324L (Topic: Sport, Religion, and Society), Religious Studies 373 (Topic: Sport, Religion, and Society), 373 (Topic 4).

Topic 5: Creation. Same as European Studies 346 (Topic 13) and History 350L (Topic 80). Explores the writings of premodern authors as related to creation and early developments in western theology, science, and philosophy. Only one of the following may be counted: European Studies 346 (Topic: Creation), 346 (Topic 13), History 350L (Topic: Creation), 350L (Topic 80), Religious Studies 373 (Topic: Creation), 373 (Topic 5), Women's and Gender Studies 345 (Topic: Creation).

## R S 373M. Biomedicine, Ethics, and Culture.

Same as Asian Studies 361 (Topic 29: Biomedicine, Ethics, and Culture). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Biomedicine, Ethics, and Culture), Asian Studies 361 (Topic: Biomedicine, Ethics, and Culture), 361 (Topic 29), Religious Studies 373 (Topic: Biomedicine, Ethics, and Culture), 373M. Prerequisite: Upper-division standing.

## R S 375S. Advanced Seminars in Religious Studies.

Discussion and research-based study of topics in religious studies. Includes theoretical approaches to the study of religion. Three lecture hours a week for one semester. Religious Studies 373 and 375S may
not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and at least six semester hours of coursework in religious studies.

Topic 1: What is Religion?. Only one of the following may be counted: Religious Studies 373 (Topic: What is Religion?), 373R, 375S (Topic 1).

## Topic 2: Introduction to Comparative Religion.

Topic 3: Mystics, Visionaries, and Heretics in Medieval Europe. Same as Ancient History and Classical Civilization 330 (Topic 3) and History 350L (Topic 74). Examines particular mystical and visionary experiences within the context of medieval European Christianity. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 330 (Topic 3), History 350L (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 350L (Topic 74), Religious Studies 375S (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 375 S (Topic 3).
Topic 4: Radical Religion: Ascetics and Holy Persons. Same as Asian Studies 379 (Topic 8). 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. Only one of the following may be counted: Asian Studies 379 (Topic: Radical Religion: Ascetics), 379 (Topic 8), Religious Studies 375S (Topic: Radical Religion: Ascetics), 375S (Topic 4).

## R S 679H. 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. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Religious Studies Honors Program; for 679HB, Religious Studies 679HA.

## Department of Rhetoric and Writing

The Department of Rhetoric and Writing offers the required core course, Rhetoric and Writing 306, as well as lower-division and upper-division courses in rhetoric and writing, and a number of courses with a writing flag. The department also administers the Undergraduate Writing Center, which supports writing instruction in all undergraduate courses and the Digital Writing and Research Lab, which offers innovative approaches to writing in digital environments.

If a student has received either a passing or a failing grade or the symbol $Q$ in Rhetoric and Writing 306, he or she may not earn credit by examination for the course.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Rhetoric and Writing: RHE

## Lower-Division Courses

RHE 306 (TCCN: ENGL 1301). Rhetoric and Writing.
An introductory writing course that includes instruction in practical reasoning and the principles of rhetoric. Three lecture hours a week for one semester. Only one of the following may be counted: English 603A, Rhetoric and Writing 306, 306Q, Tutorial Course 603A. Prerequisite:

A passing score on the writing section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

## RHE 306Q. Rhetoric and Writing for Nonnative Speakers of English.

Enrollment limited to 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. Five lecture hours a week for one semester. Only one of the following may be counted: English 603A, Rhetoric and Writing 306, 306Q, Tutorial Course 603A. Prerequisite: Students must present their scores on the Test of English as a Foreign Language (TOEFL) to the Rhetoric and Writing Office prior to registering.

## RHE 309K, 409K. Topics in Writing.

A writing course focused on studying and practicing methods of rhetorical analysis within the contexts of disputed issues of academic, political, or cultural significance. Three or four lecture hours a week for one semester. May be repeated once for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 or 306Q.

## RHE 309S. Critical Reading and Persuasive Writing.

A writing course designed to teach advanced rhetorical analysis and advocacy on public issues. Three lecture hours a week for one semester. Prerequisite: Rhetoric and Writing 306 or 306Q.

## RHE 310. Intermediate Expository Writing.

An intensive writing workshop, focusing on style and readability. Three lecture hours a week for one semester. Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## RHE 312. Writing in Digital Environments.

A writing course focused on using, interpreting, and analyzing traditional and emerging technologies. Taught using networked computers. Three lecture hours a week for one semester. Prerequisite: Rhetoric and Writing 306.

## RHE 315. Introduction to Visual Rhetoric.

A writing course designed to teach students to analyze and produce visual and nonverbal forms of rhetoric. Three lecture hours a week for one semester. Prerequisite: Rhetoric and Writing 306.

## RHE 317 (TCCN: ENGL 2311). Technical Writing.

Reading and writing in professional and technological environments. Three lecture hours a week for one semester. Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

RHE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## RHE 321. Principles of Rhetoric.

Examines major terms, issues, and approaches in the theory and practice of rhetoric and writing. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## RHE 325M. Advanced Writing.

An advanced course designed to improve and refine writing. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## RHE 328. Topics in Professional and Technical Writing for Liberal Arts Majors.

Restricted to liberal arts majors. A professional and technical writing course exploring topics such as writing for nonprofit organizations, writing for government, and writing for industry. Designed for students in nontechnical fields. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

Topic 1: Magazine Writing and Publishing. Introduction to magazine writing, editing, and publishing, with an emphasis on the nonfiction article.
Topic 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.
Topic 3: Principles of Technical Writing. Writing practical documents that help readers follow procedures, make informed choices, and understand complex information.

RHE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## RHE 330C. Advanced Studies in Digital Rhetoric.

An advanced course that examines the role of information technologies in communication. Taught using networked computers. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

Topic 1: Rhetorics of Cyberculture. Examines the ways cyberspace is represented, critiqued, and employed in writing and film. Explores the social, ethical, and political implications of networked culture.
Topic 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.
Topic 3: Knowledge Ecologies. Explores systems of people, technologies, social structures, and their environments where energy, information, and resources are transformed into knowledge that can be used to further shape our lives and our worlds. Rhetoric and Writing 330C (Topic: Knowledge Ecologies) and 330C (Topic 3) may not both be counted.
Topic 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. Rhetoric and Writing 330C (Topic: Writing and Photography) and 330 C (Topic 4) may not both be counted.
Topic 5: Ethics and New Media. Exploration of contemporary ethical dilemmas and principles arising with emergent technologies, and their impact on rhetoric and writing. Rhetoric and Writing 330C (Topic: Ethics and New Media) and 330C (Topic 5) may not both be counted.

## RHE 330D. History of Rhetoric.

An advanced survey of figures and movements in the history of rhetoric, from classical to contemporary. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

Topic 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.
Topic 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.
Topic 3: Deliberating War. Studies the recurrent means of making arguments for and against war, and the role of rhetoric in public deliberation. Rhetoric and Writing 330D (Topic: Pro- and Anti-War Rhetoric) and 330D (Topic 3) may not both be counted.
Topic 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.
Topic 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.
Topic 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.
Topic 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. Rhetoric 330D (Topic: Rhetoric Invented/Revised/ Retold) and 330D (Topic 7).
Topic 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. Rhetoric and Writing 330D (Topic: Philosophy vs Rhetoric) and 330D (Topic 8) may not both be counted.
Topic 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. Rhetoric and Writing 330D (Topic: Rhetoric in the English Renaissance) and 330D (Topic 9) may not both be counted.

## RHE 330E. Rhetorical Theory and Analysis.

An advanced examination of rhetorical theories and their applications. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

Topic 1: Rhetoric of Science in Popular Media. Rhetorical analysis of scientific discourse and how it is represented in popular media, including news reports, magazines, and popular nonfiction.
Topic 2: Demagoguery. Examines material produced by rhetors commonly considered demagogues and assesses the scholarly discussions of these individuals.
Topic 3: Democracy and the Media. Rhetorical analysis, with particular attention to the effects of technologies and journalistic institutions on public deliberation.
Topic 4: Modern Rhetorical Criticism. Use of contemporary critical methods to investigate, interpret, and explain rhetorical acts and
artifacts. Rhetoric and Writing 330E (Topic: Modern Rhetorical Criticism) and 330E (Topic 4) may not both be counted.
Topic 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. Rhetoric and Writing 330E (Topic: Comparative Rhetoric) and 330E (Topic 5) may not both be counted.
Topic 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. Rhetoric and Writing 330E (Topic: Nonargumentative Rhetoric in Zen) and 330E (Topic 6) may not both be counted.
Topic 7: Psychology of Writing and Persuasion.

## RHE 360M. Rhetoric and Writing for Teachers of English.

Designed for students seeking a secondary school teaching certificate or those in the UTeach-Liberal Arts program. An advanced course that examines theories of writing and writing pedagogy. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## RHE 366. Internship in Rhetoric and Writing.

Research and staff experience working in an appropriate nonprofit, public-, or private-sector entity. Ten to twelve hours a week for one semester. May be repeated once for credit when the internships vary. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, twelve semester hours of coursework in rhetoric and writing, and consent of instructor.

## RHE 367R. Conference Course in Rhetoric and Writing.

Supervised work on specific projects in rhetoric and writing. Three conference hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing; one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A; and approval of written application by the supervising instructor.

## RHE 368C. 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 Undergraduate Writing Center. Two lecture hours and two apprenticeship hours a week for one semester. Prerequisite: Upper-division standing; one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A; and approval of written application by instructor.

## RHE 368E. Editing for Publication.

Advanced instruction in revising and editing for publication. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

Topic 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.
Topic 2: Grammar for Writers, Editors, and Teachers. Examines the grammar of written English by assessing grammatical issues, handbooks, and controversies. Additional prerequisite: Upper-division standing and one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## RHE 375. Capstone Seminars in Rhetoric.

Allows the student to integrate the knowledge gained in rhetoric and writing through a major independent project. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and Rhetoric and Writing 321, 330C, 330D, and 330E.

## RHE 379C. Advanced Topics in Rhetoric and Writing.

An advanced course focused on specific theories or practices of rhetoric and writing. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

## RHE 679H. 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. The equivalent of three lectures hours a week for two semesters. Prerequisite: For 679HA, upper-division standing, completion of at least six hours of upper-division rhetoric and writing courses, admission to the Rhetoric and Writing Honors Program, and consent of the honors adviser; for 679 HB , credit for 679 HA .

## Department of Air Force Science

The Air Force Reserve Officer Training Corps (AFROTC) was activated at the University of Texas in September, 1947. The program is designed to commission career-oriented officers who meet specific Air Force requirements. The AFROTC objective is to place on active duty lieutenants who demonstrate dedication to their assignments, willing acceptance of responsibility, critical and creative thinking, and the ability to speak and write effectively.

AFROTC courses are taught by Air Force officers and are approved for college credit toward the cadet's degree program in amounts determined by the college concerned.

AFROTC scholarships are available to selected cadets. Scholarships are awarded on the basis of overall merit, with particular attention paid to academic achievement. Recipients must maintain academic standards in order to retain the scholarships. Other scholarships are also available for upper-division cadets. Additional information is available from the chair of the department.

Extracurricular activities available through AFROTC include; intramural athletics, parades, ceremonies, formal military functions, field trips to Air Force installations, and membership in national military societies.

Air force science courses are designed to prepare selected students for a commission in the United States Air Force through the AFROTC program. Students who do not hold AFROTC scholarships may take lower-division courses with no military obligation. Scholarship students and selected students who elect to take upper-division courses are on contract. Upon graduation and commissioning he/she will enter active duty in the United States Air Force.

## Air Force Science: AFS

## Lower-Division Courses

## AFS 100. Leadership Laboratory.

Various leadership techniques, including drill and ceremonies, customs and courtesies, and uniform standards. Two laboratory hours a week for one semester. Offered on the pass/fail basis only.

## AFS 102K. The Foundations of the United States Air Force I.

Introductory course exploring the overall roles and missions of the United States Air Force and career fields available in the Air Force. Emphasis on military customs and courtesies, appearance standards, Air Force core values, and written communication. One lecture hour a week for one semester. Offered in the fall semester only. Prerequisite: Concurrent enrollment in Air Force Science 100.

## AFS 102L. The Foundations of the United States Air Force II.

Continuation of Air Force Science 102K, with an introduction to American military history and emphasis on personal communication. One lecture hour a week for one semester. Offered in the spring semester only. Prerequisite: Concurrent enrollment in Air Force Science 100.

## AFS 111K. The Evolution of USAF Air and Space Power I.

Key historical events and milestones in the development of air power as a primary instrument of United States national security. One lecture hour a week for one semester. Offered in the fall semester only. Prerequisite: Concurrent enrollment in Air Force Science 100.

## AFS 111L. The Evolution of USAF Air and Space Power II.

Continuation of Air Force Science 111K. One lecture hour a week for one semester. Offered in the spring semester only. Prerequisite: Concurrent enrollment in Air Force Science 100.

## Upper-Division Courses

AFS 120L. 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. Two laboratory hours a week for one semester. Offered on the pass/fail basis only.

## AFS 321. Air Force Leadership Studies I.

Study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. Three lecture hours a week for one semester. Offered in the fall semester only. Prerequisite: Air Force Science 102K, 102L, 111K, and 111L; concurrent enrollment in Air Force Science 120L; and a four- or five-week field training course or equivalent ROTC or military training.

## AFS 322. Air Force Leadership Studies II.

Continuation of Air Force Science 321. Three lecture hours a week for one semester. Offered in the spring semester only. Prerequisite: Air Force Science 321 and concurrent enrollment in Air Force Science 120L.

## AFS 331. National Security Affairs.

Evolution of the role of national security in a democratic society, with emphasis on policy formulation, competing values, and organizations. Area studies and the impact of developing nations on United States national security. Three lecture hours a week for one semester. Offered in the fall semester only. Prerequisite: Air Force Science 322 and concurrent enrollment in Air Force Science 120L.
AFS 332. Current Issues and Preparation for Active Duty.
Acculturation to active duty. Includes study of the evolution and jurisdiction of military law, officership, and current Air Force issues. Three lecture hours a week for one semester. Offered in the spring semester only. Prerequisite: Air Force Science 331, and concurrent enrollment in Air Force Science 120L or consent of the department chair.

## Department of Military Science

The Army Reserve Officers' Training Corps (ROTC) was established at the University of Texas in September, 1947. As a senior division unit, it is designed to provide a course of military instruction that will permit qualified students to prepare themselves for commissions as second lieutenants while they pursue other academic courses leading to baccalaureate or advanced degrees from the University.

Upon being commissioned a second lieutenant, each student has the opportunity to serve in the active Army, Army Reserve, or National Guard.

The Army ROTC program, in addition to providing a basic foundation in military subjects, is designed to develop the highest qualities of leadership, character, and citizenship through the wide variety of extracurricular activities it sponsors. Such activities include parades, ceremonies, social events, a Ranger detachment, and intramural athletic teams.

The Army ROTC program is normally a four-year program divided into a basic course and an advanced course. The basic course is conducted during the first two years and the advanced course during the last two years. Certain students may qualify for advanced placement in the program based on previous military training in Junior ROTC, a service academy, active duty in a military service, credit for other college courses, or completion of a special four-week summer camp, normally between the sophomore and junior year.

The Department of the Army has determined that a need exists for all Army ROTC cadets to have a demonstrated proficiency in selected disciplines. These courses are called Professional Military Education (PME) and must be completed prior to graduation. A list of courses that fulfill PME requirements is available from the chair of the Department of Military Science.

Two-, three-, and four-year scholarship programs are offered to selected cadets. The four-year scholarship program is administered by the Department of the Army, but selection is based on the Professor of Military Science Order of Merit List (OML). Applicants must apply while in high school. The remaining programs are administered directly through the Department of Military Science.

Scholarship students receive $\$ 300$ to $\$ 500$ a month for up to ten months for each year of their scholarship. The scholarship pays for required tuition and mandatory fees, laboratory expenses, and books. Nonscholarship students receive $\$ 450$ to $\$ 500$ a month during the advanced course. For additional information, contact the scholarship and enrollment officer at arotc@uts.cc.utexas.edu or http://www.utexas.edu/cola/depts/arotc.

## Military Science: M S <br> Lower-Division Courses

## M S 000. Leadership Laboratory.

Open only to students in associated military science courses. 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. One and one-half laboratory hours a week for one semester. Required of all military science students. Prerequisite: Concurrent enrollment in another military science course.

## M S 101. Basic Military Science I-A.

Designed to increase self-confidence through team study and activities in basic drill, physical fitness, rappelling, leadership reaction course, first aid, making presentations, and basic marksmanship. Fundamental concepts of leadership in a profession. One one-hour lecture/practice session a
week for one semester. Prerequisite: Concurrent enrollment in Military Science 000.

## M S 103. Basic Military Science I-B.

Principles of effective leading. Designed to reinforce self-confidence through participation in physically and mentally challenging exercises with upper-division ROTC students. Communication skills that improve individual performance and group interaction. Relationship of organizational ethical values to the effectiveness of a leader. One onehour lecture/practice session a week for one semester. Prerequisite: Concurrent enrollment in Military Science 000.

## M S 210. Basic Military Science II-A.

Ethics-based leadership skills designed to develop individual abilities and contribute to effective team-building. Focus on oral presentations, writing concisely, planning of events, coordination of group efforts, advanced first aid, land navigation, and basic military tactics. Fundamentals of ROTC's Leadership Assessment Program. Two lecture/practice hours a week for one semester, and a weekend field training exercise. Prerequisite: Concurrent enrollment in Military Science 000.

## M S 212. Basic Military Science II-B.

Introduction to individual and team aspects of military tactics in smallunit operations. Includes use of radio communications, making safety assessments, movement techniques, planning for team safety/security, and methods of pre-execution checks. Practical exercises with upperdivision ROTC students. Techniques for training others as an aspect of continued leadership development. Two lecture/practice hours a week for one semester, and a weekend field training exercise. Prerequisite: Concurrent enrollment in Military Science 000.

## Upper-Division Courses

## M S 320. Advanced Military Science III-A.

Series of practical opportunities to lead small groups, receive personal assessments and encouragement, and lead again in situations of increasing complexity. Use of small-unit defensive tactics and opportunities to plan and conduct training for lower-division students. Three lecture hours a week for one semester. Prerequisite: Concurrent enrollment in Military Science 000 and approval of departmental representative.

## M S 320K. Advanced Military Science III-B.

Continued study of methods covered in Military Science 320. Students analyze tasks; prepare written or oral guidance for team members to accomplish tasks; delegate tasks and supervise; plan for and adapt to the unexpected in organizations under stress; examine and apply lessons from leadership case studies; examine the importance of ethical decision making in enhancing team performance. Three lecture/practice hours a week for one semester. Prerequisite: Concurrent enrollment in Military Science 000 and approval of departmental representative.

## M S 375. Leadership and Ethics (IV-A).

Military leadership and professional ethics; post and installation support system; introduction to the military justice system. Three lecture hours a week for one semester. Prerequisite: Concurrent enrollment in Military Science 000 and approval of departmental representative.

## M S 375K. Transition to Lieutenant (IV-B).

Fundamentals of the military justice system; training and logistical management systems; military social functions; role of the second lieutenant. Three lecture hours a week for one semester. Prerequisite: Concurrent enrollment in Military Science 000 and approval of departmental representative.

## M S 379. Advanced Military Science V-A.

Advanced study and research on historic and contemporary military subjects and events. Three lecture hours a week for one semester. Prerequisite: Concurrent enrollment in Military Science 000.

## M S 379K. Advanced Military Science V-B.

Advanced study and research on historic and contemporary military subjects and events. Three lecture hours a week for one semester. Prerequisite: Concurrent enrollment in Military Science 000.

## Department of Naval Science

The Naval Reserve Officers Training Corps (NROTC) was established at the University of Texas in September, 1940, to offer the naval science courses necessary to qualify University students for commissions in the United States Navy or Marine Corps.

Qualified students may apply for the four-year or two-year Navy-Marine Scholarship Program or college program (nonscholarship) and earn a commission in the Navy or Marine Corps.

NROTC scholarship students are appointed midshipmen, United States Naval Reserve, by the Secretary of the Navy, and granted the compensation and benefits authorized by law. While students attend the University, the Navy pays tuition, the cost of textbooks, fees of an instructional nature, and a subsistence allowance of $\$ 250$ to $\$ 450$ a month during the academic year. During drill periods and summer training periods, midshipmen wear government-furnished uniforms. Students should submit scholarship applications to a naval recruiting station before December 1 of each year or to the Department of Naval Science after the first semester of enrollment in the college program. Additional information is available from the chair of the department.

## Naval Science: N S <br> Lower-Division Courses

N S 000. Drill.
Three laboratory hours a week for one semester.

## N S 302. Introduction to Naval Science.

A general introduction to sea power and the naval service, including the mission, organization, regulations, warfare components, and personnel programs. Three lecture hours a week for one semester.

## N S 603. Naval Ships Systems I and II.

Introduction to types, structures, and purposes of naval ships and weapons systems. Three lecture hours a week for two semesters.

## N S 312. Sea Power and Maritime Affairs.

A consideration of the influence of sea power, naval history, and maritime affairs on current events and national policy. Three lecture hours a week for one semester. Prerequisite: Consent of instructor.

## Upper-Division Courses

## N S 326. Evolution of Warfare.

Explores the forms of warfare employed by great leaders in history as they relate to the evolution of warfare. Three lecture hours a week for one semester. Prerequisite: Consent of instructor.

## N S 329. Navigation and Naval Operations I.

An introduction to piloting, a survey of navigational aids, and a study of the Rules of the Nautical Road. Three lecture hours a week for one semester.

## N S 330. 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. Three lecture hours a week for one semester. Prerequisite: Naval Science 335 and consent of instructor.

## N S 335. 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. Three lecture hours a week for one semester. Prerequisite: Consent of instructor.

## N S 362. 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. Three lecture hours a week for one semester.

## N S 369. 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. Three lecture hours a week for one semester.

# Center for Russian, East European, and Eurasian Studies 

## Russian, East European, and Eurasian Studies: REE

## Lower-Division Courses

REE 301. Introduction to Russian, East European, and Eurasian Studies.
Same as Slavic 301 (Topic 2). 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic 4), Russian, East European, and Eurasian Studies 301, Slavic 301 (Topic 2). Only one of the following may be counted: Government 314 (Topic 4), Russian, East European, and Eurasian Studies 301, Slavic
301 (Topic 2). Only one of the following may be counted: Russian, East European, and Eurasian Studies 301, Slavic 301 (Topic: Introduction to Russian, East European, and Eurasian Studies), 301 (Topic 2).

## REE 302. Topics in Russian, East European, and Eurasian

 Studies.Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: The Vampire in Slavic Cultures. Same as Comparative Literature 305 (Topic 2), European Studies 307 (Topic 1), and Slavic 301 (Topic 1). 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. Only one of the following may be counted: Comparative Literature 305 (Topic: The Vampire in Slavic Cultures), 305 (Topic 2), European Studies 307 (Topic: The Vampire in Slavic Cultures), 307 (Topic 1), Russian, East European, and Eurasian Studies 302 (Topic: The Vampire in Slavic Cultures), 302 (Topic 1), Slavic 301 (Topic: The Vampire in Slavic Cultures), 301 (Topic 1).
Topic 2: Prague, Magic, and the Struggle for Power. Same as Czech 301K (Topic 2) and History 306N (Topic 14). 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. Only one of the following may be counted: Czech 301K (Topic: Magic and Power in Prague: The Struggle for Power), 301K (Topic 2), History 306N (Topic: Magic and Power in Prague: The Struggle for Power), 306N (Topic 14), Religious Studies 306 (Topic: Magic and Power in Prague: The Struggle for Power), Russian, East European, and Eurasian Studies 302 (Topic: Magic and Power in Prague: The Struggle of Power), 302 (Topic 2).
Topic 3: Introduction To Czech History and Culture: Puppets, Pubs And Polyglots. Same as Czech 301K (Topic 3) and European Studies 307 (Topic 2). 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. Only one of the following may be counted: Czech 301K (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 301K (Topic 3), European Studies 307 (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 307 (Topic 2), Russian, East European, and Eurasian Studies 302 (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 302 (Topic 3).

## REE 318Q. Supervised Research.

Individual instruction.
REE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## REE 320. Introduction to an East European Language.

An overview of the structure and vocabulary of an East European language necessary for a reading knowledge of the language. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any degree. May be repeated for credit when the topics vary.

## REE 325. Topics in Language, Literature, and Culture.

Three lecture hours a week for one semester. Fulfills the basic Russian, East European, and Eurasian studies requirement in language, literature, and culture. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Gypsy Language and Culture. Linguistic introduction to Romani; relationship to languages of India; history from 280 BC; modern dialects and international standard language; history and culture as reflected in the language. Only one of the following may be counted: Asian Studies 372 (Topic 13: Gypsy Language and Culture); Linguistics 322; Russian, East European, and Eurasian Studies 325 (Topic 1).
Topic 9: The Russian Novel. Same as Comparative Literature 323 (Topic 29), Core Texts and Ideas 345 (Topic 6), European Studies 347 (Topic 22), and Russian 356 (Topic 1). A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century. Only one of the following may be counted: Comparative Literature 323 (Topic: The Russian Novel), 323 (Topic 29), Core Texts and Ideas 345 (Topic: The Russian Novel), 345 (Topic
6), English 322 (Topic 37), European Studies 347 (Topic 22), Russian 356 (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic 9). Additional prerequisite: Upper-division standing.
Topic 10: The Major Works of Dostoevsky. Same as Comparative Literature 323 (Topic 30), Core Texts and Ideas 345 (Topic 5), European Studies 347 (Topic 10), and Russian 360 (Topic 1). Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky. Only one of the following may be counted: Comparative Literature 323 (Topic: The Major Works of Dostoevsky), 323 (Topic 30), Core Texts and Ideas 345 (Topic: Major Works of Dostoevsky), 345 (Topic 5), European Studies 347 (Topic: Major Works of Dostoevsky), 347 (Topic 10), Russian 360 (Topic: Major Works of Dostoevsky), 360 (Topic 1), Russian, East European and Eurasian Studies 325 (Topic: Major Works of Dostoevsky), 325 (Topic 10). Additional prerequisite: Upper-division standing.
Topic 11: Contemporary Russian Cinema. Same as Russian 330 (Topic 4: 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. Only one of the following may be counted: Russian 330 (Topic: Contemporary Russian Cinema), 330 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic 11). Prerequisite: Upper-division standing. Topic 12: Visions of The Apocalypse in Russian Literature and Culture. Same as Comparative Literature 323 (Topic 25) and Russian 330 (Topic 5). Explores and analyzes apocalyptic consciousness in Russian literature and culture from the Middle Ages to the present. Emphasis will be on such themes as the expectation of the end of the world, identification of the Antichrist, messianic prophecy, and visions of an afterlife. Only one of the following may be counted: Comparative Literature 323 (Topic: The Apocalypse in Russian Literature and Culture), 323 (Topic 25), 330 (Topic 5), Russian, East European and Eurasian Studies 325 (Topic: The Apocalypse in Russian Literature and Culture), 325 (Topic 12). Additional prerequisite: Upper-division standing.
Topic 13: Introduction to Old Russian Literature and Culture. Same as Russian 330 (Topic 6: Introduction to Old Russian Literature and Culture). Medieval and early modern Russian literature and culture, including literary texts from Kievan and Muscovite Rus. Only one of the following may be counted: Russian, East European, and Eurasian Studies 325 (Topic: The Icon and the Sword: An Introduction to Old Russian Literature and Culture), 325 (Topic 13), Russian 330 (Topic: The Icon and the Sword: An Introduction to Old Russian Literature and Culture), 330 (Topic 6). Prerequisite: Upper-division standing.
Topic 14: Twentieth-Century Russian Culture. Same as Comparative Literature 323 (Topic 22), Humanities 350 (Topic 12), and Russian 330 (Topic 7). Survey of the political, social, and cultural history of Russia during the Soviet period, from the revolutionary events of 1917 until the dissolution of the Soviet government and political system in December 1991. Only one of the following may be counted: Comparative Literature 323 (Topic: Twentieth-Century Russian Culture), 323 (Topic 22), Humanities 350 (Topic: TwentiethCentury Russian Culture), 350 (Topic 12), Russian 330 (Topic: Twentieth-Century Russian Culture), 330 (Topic 7), Russian, East European, and Eurasian Studies 325 (Topic: Twentieth-Century Russian Culture), 325 (Topic 14). Additional prerequisite: Upperdivision standing.
Topic 15: Slavs in the Western Imagination. Same as Comparative Literature 323 (Topic 28), European Studies 347 (Topic 11), and Slavic 324 (Topic 4). Examines representations of Eastern, Western, and Southern Slavs in Western Europe and North America. Only one of the following may be counted: Comparative Literature 323 (Topic: Slavs in the Western Imagination), 323 (Topic 28), European Studies 347 (Topic: Slavs in the Western Imagination), 347 (Topic 11), Russian,

East European, and Eurasian Studies 325 (Topic: Slavs in the Western Imagination), 325 (Topic 15), Slavic 324 (Topic: Slavs in the Western Imagination), 324 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 16: The Major Works of Tolstoy. Same as Comparative Literature 323 (Topic 27) and Russian 360 (Topic 2). Explores Russian writer Lev Nikolaevich Tolstoy, particularly his progression from idealizing family life and the Russian state to renouncing sexual love and national allegiances. Only one of the following may be counted: Comparative Literature 323 (Topic: The Major Works of Tolstoy), 323 (Topic 27), Russian 360 (Topic: Majors Works of Tolstoy), 360 (Topic 2), Russian, East European, and Eurasian Studies 325 (Topic: The Major Works of Tolstoy), 325 (Topic 16). Additional prerequisite: Upper-division standing.
Topic 17: Political Terror in Russian Literature. Same as Russian 356 (Topic 2: Political Terror in Russian Literature). Explores works dealing with political terror and oppression by Dostoevsky, Bely, Babel, Akhmatova, and Solzhenitsyn. Only one of the following may be counted: Russian, East European, and Eurasian Studies 325 (Topic: Terror in Russia: Method, Madness, Murder), 325 (Topic 17), Russian 356 (Topic: Terror in Russia: Method, Madness, Murder), 356 (Topic 2). Prerequisite: Upper-division standing.

Topic 18: War and Revolution in Russian Literature and Culture. Same as Comparative Literature 323 (Topic 31), Core Texts and Ideas 345 (Topic 8), and Russian 356 (Topic 3). Examines Russian narratives of war and revolution as represented in fiction, cinema, and journalism. Only one of the following may be counted: Comparative Literature 323 (Topic: War and Peace in Russian Literature and Culture), 323 (Topic 31), Core Texts and Ideas 345 (Topic: War and Peace in Russian Literature and Culture), 345 (Topic 8), Russian 356 (Topic: War and Peace in Russian Literature and Culture), 356 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic: War and Peace in Russian Literature and Culture), 325 (Topic 18). Additional prerequisite: Upper-division standing.
Topic 19: Russian Youth Culture, Late Soviet to Present. Same as Russian 330 (Topic 8: 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. Only one of the following may be counted: Russian, East European, and Eurasian Studies 325 (Topic: Russian Youth Culture, Gorbachev to Present), 325 (Topic 19), Russian 330 (Topic: Russian Youth Culture, Gorbachev to Present), 330 (Topic 8). Prerequisite: Upperdivision standing.
Topic 20: Historical Survey of Russian Music. Same as Comparative Literature 323 (Topic 7), Humanities 350 (Topic 9), Music 376G (Topic 1), and Russian 330 (Topic 3). Focus on the role of Russian music in its social and historical context. Only one of the following may be counted: Comparative Literature 323 (Topic: Historical Survey of Russian Music), 323 (Topic 7), Humanities 350 (Topic: Historical Survey of Russian Music), 350 (Topic 9), Music 376G (Topic: Historical Survey of Russian Music), 376G (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic: Historical Survey of Russian Music), 325 (Topic 20), Russian 330 (Topic: Historical Survey of Russian Music), 330 (Topic 3). Additional prerequisite: For music majors, upper-division standing and consent of instructor; for others, upper-division standing.
Topic 21: Russia and Its World. Same as Comparative Literature 323 (Topic 21), Humanities 350 (Topic 11), and Russian 330 (Topic 11). Survey of the political, cultural, and social history of Russia, from its prehistoric origins to the installation of communist rule in 1917. Emphasis on the arts and on enduring themes of cultural identity, imagination, and conflict with neighboring peoples and within Russia. Only one of the following may be counted: Comparative Literature 323 (Topic: Russia and lts World), 323 (Topic 21), Humanities 350 (Topic: Russia and Its World), 350 (Topic 11), Russian 330 (Topic: Russia
and Its World), 330 (Topic 11), Russian, East European, and Eurasian Studies 325 (Topic: Russia and Its World), 325 (Topic 21). Additional prerequisite: Upper-division standing.
Topic 22: Russian Myths and Folktales. Same as Anthropology 325L (Topic 12), Comparative Literature 323 (Topic 34), and Russian 330 (Topic 9). 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. Only one of the following may be counted: Anthropology 325L (Topic: Russian Myths and Folk Tales), 325L (Topic 12), Comparative Literature 323 (Topic: Russian Myths and Folk Tales), 323 (Topic 34), Russian 330 (Topic: Russian Myths and Folk Tales), 330 (Topic 9), Russian, East European and Eurasian Studies 325 (Topic: Russian Myths and Folk Tales), 325 (Topic 22). Additional prerequisite: Upper-division standing.
Topic 23: Leo Tolstoy's Early Works. Same as Comparative Literature 323 (Topic 35), Core Texts and Ideas 345 (Topic 7), and Russian 360 (Topic 4). A survey of Tolstoy's early works, including his pedagogical essays. Study of his evolution as a writer and the birth and formation of his literary genius. Only one of the following may be counted: Comparative Literature 323 (Topic: Leo Tolstoy's Early Works), 323 (Topic 35), Core Texts and Ideas 345 (Topic: Leo Tolstoy's Early Works), 345 (Topic 7), Russian 360 (Topic: Leo Tolstoy's Early Works), 360 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic: Leo Tolstoy's Early Works), 325 (Topic 23). Additional prerequisite: Upper-division standing.

Topic 24: Rebels and Revolutionaries in Russian History and Literature. Same as Comparative Literature 323 (Topic 20), History 362G (Topic 15), and Russian 356 (Topic 4). Study of fictional and real rebels and revolutionaries across almost a century of Russian literature. Only one of the following may be counted: Comparative Literature 323 (Topic: Rebels and Revolutionaries in Russian History and Literature), 323 (Topic 20), History 362G (Topic: Rebels and Revolutionaries in Russian History and Literature), 362G (Topic 15), Russian 356 (Topic: Rebels and Revolutionaries in Russian History and Literature), 356 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic: Rebels and Revolutionaries in Russian History and Literature), 325 (Topic 24). Additional prerequisite: Upper-division standing.
Topic 25: Literature and Art of Russian Modernism and AvantGarde. Same as Russian 330 (Topic 10). 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. Only one of the following may be counted: Russian 330 (Topic: Literature and Art of Russian Modernism and Avant-Garde), 330 (Topic 10), Russian, East European and Eurasian Studies 325 (Topic: Literature and Art of Russian Modernism and Avant-Garde), 325 (Topic 25). Additional prerequisite: Upper-division standing.

## Topic 26: Paranoid Fictions: Conspiracy in Contemporary

American and Russian Culture. Same as Russian 356 (Topic 5). Examination of the growing body of conspiracist expression, from historical texts such as "The Protocols of the Elders of Zion" to the fictional worlds of Phillip K. Dick, Thomas Pynchon, Viktor Pelevin, and others. Only one of the following may be counted: Russian 356 (Topic: Conspiracy in Contemporary American/Russian Culture), 356 (Topic 5), Russian, East European, and Eurasian Studies 325 (Topic: Conspiracy in Contemporary American/Russian Culture), 325 (Topic 26). Additional prerequisite: Upper-division standing.

Topic 27: Polish Literature and Culture in Film: Nineteenth
Century to Contemporary. Same as Comparative Literature 323
(Topic 32), European Studies 347 (Topic 8), and Polish 324 (Topic 2). Study of the cultural and intellectual history represented in the major works of Polish literature in the nineteenth and twentieth centuries. Only one of the following may be counted: Comparative Literature 323 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 323 (Topic 32), European Studies 347 (Topic: 19th-CenturyContemporary Polish Literature and Culture in Film), 347 (Topic 8), Polish 324 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 324 (Topic 2), Russian, East European, and Eurasian Studies 325 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 325 (Topic 27). Additional prerequisite: Upper-division standing.
Topic 28: Heretics and Freedom Fighters, 1350-1650. Same as Czech 324 (Topic 4), European Studies 346 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic 12), and Religious Studies 357 (Topic 12). Explores the theologies, politics, and personal identities that emerged and passed away in this era. Only one of the following may be counted: Czech 324 (Topic: Heretics and Freedom Fighters, 1350-1650), 324 (Topic 4), European Studies 346 (Topic: Heretics and Freedom Fighters, 1350-1650), 346 (Topic 8), Germanic Civilization 327E (Topic: Heretics and Freedom Fighters, 1350-1650), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic: Heretics and Freedom Fighters, 1350-1650), 362G (Topic 12), Religious Studies 357 (Topic: Heretics and Freedom Fighters, 1350-1650), 357 (Topic 12), Russian, East European, and Eurasian Studies 325 (Topic: Heretics and Freedom Fighters, 1350-1650), 325 (Topic 28).
Topic 29: Bulgakov's Master and Margarita. Same as Comparative Literature 323 (Topic 8) and Russian 360 (Topic 3). Explores the novel in the context of other literary works by Bulgakov and its varied sources in world literature, music, and the visual arts. Only one of the following may be counted: Comparative Literature 323 (Topic: Bulgakov's Master and Margarita), 323 (Topic 8), Russian 360 (Topic: Bulgakov's Master and Margarita), 360 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic: Bulgakov's Master and Margarita), 325 (Topic 29). Additional prerequisite: Upper-division standing.
Topic 30: Modern Czech Literature. Same as Comparative Literature 323 (Topic 9), Czech 330, and European Studies 347 (Topic 9). A study of Czech literature from the 1860s to the present; course is conducted in English. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Modern Czech Literature), 323 (Topic 9), Czech 330, European Studies 347 (Topic: Modern Czech Literature), 347 (Topic 9), Russian, East European, and Eurasian Studies 325 (Topic: Modern Czech Literature), 325 (Topic 30). Additional prerequisite: Upper-division standing.

REE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## REE 335. Topics in History, Economics, and Government.

Three lecture hours a week for one semester. Fulfills the basic Russian, East European, and Eurasian studies requirement in history, economics, and government. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Marxist Economics. An introduction to the Marxian economic theory of capitalism through the study of Karl Marx's Capital, volume I, and of its contemporary relevance. Economics 357 K and Russian, East European, and Eurasian Studies 335 (Topic 1) may not both be counted. Prerequisite: Upper-division standing, and Economics 304 K and 304 L with a grade of at least C in each; or consent of instructor.
Topic 2: Governments and Politics of Eastern Europe. Same as Government 324J and European Studies 348 (Topic 1: Governments and Politics of Eastern Europe). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic 1), Government 324J, Russian, East European, and Eurasian Studies 335 (Topic 2). Additional prerequisite: Six semester hours of lower-division coursework in government.
Topic 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. Government 336M and Russian, East European, and Eurasian Studies 335 (Topic 3) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.
Topic 5: History of Russia to 1917. Same as History 343L. Survey of Russian history from seventeenth-century Muscovy to the fall of the Romanovs in 1917. Prerequisite: Upper-division standing.
Topic 6: History of Russia since 1917. Same as History 343M. A survey of Russian history from the revolution of 1917 to the collapse of the Soviet Union. Prerequisite: Upper-division standing.
Topic 10: The Military in Politics. Only one of the following may be counted: Government 365N (Topic 3: The Military in Politics); Latin American Studies 337M (Topic 9: The Military in Politics); Russian, East European, and Eurasian Studies 335 (Topic 10). Prerequisite: Six semester hours of lower-division coursework in government.
Topic 11: Germany in the Twentieth Century. Same as History 337N. Survey of German political and military institutions, economic development, culture, and society. Some sections offered on the lettergrade basis only. Additional prerequisite: Upper-division standing.
Topic 12: Stalinist Russia. Same as History 350L (Topic 41: Stalinist Russia). Prerequisite: Upper-division standing.
Topic 13: Russian Economic Development since 1917. The growth of the planned economy in industry, agriculture, and labor. Economics 346K and Russian, East European, and Eurasian Studies 335 (Topic 13) may not both be counted. Prerequisite: Economics 304 K and 304 L with a grade of at least $C$ in each, and six additional semester hours of coursework in social science; or consent of instructor.
Topic 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. Economics 357L and Russian, East European, and Eurasian Studies 335 (Topic 14) may not both be counted. Prerequisite: Economics 304K and 304L with a grade of at least C in each, and six additional semester hours of coursework in social science.
Topic 15: Understanding the Cold War. Same as Government 360N (Topic 4: Understanding the Cold War). Prerequisite: Upperdivision standing and six semester hours of lower-division coursework in government.
Topic 16: Eastern Europe in the Twentieth Century. Same as European Studies 346 (Topic 16) and History 362G (Topic 7).
Examines the major political, social, and cultural events that shaped Eastern European society in the twentieth century. Only one of the following may be counted: European Studies 346 (Topic: Eastern Europe in the 20th-Century), 346 (Topic 16), History 362G (Topic: Eastern Europe in the 20th-Century), 362G (Topic 7), Russian, East European, and Eurasian Studies 335 (Topic: Eastern Europe in the 20th-Century), 335 (Topic 16).

Topic 17: Introduction to the Holocaust. Same as European Studies 346 (Topic 17), History 362G (Topic 3), and Jewish Studies 364 (Topic 6). Examines the mass killing of Jews and other victims in the context of Nazi Germany's quest for race and space during World War II. Only one of the following may be counted: European Studies 346 (Topic: Introduction to the Holocaust), 346 (Topic 17), History 362G (Topic: Introduction to the Holocaust), 362G (Topic 3), Jewish Studies 364 (Topic: Introduction to the Holocaust), 364 (Topic 6), Middle Eastern Studies 325 (Topic: Introduction to the Holocaust), Russian, East European, and Eurasian Studies 335 (Topic: Introduction to the Holocaust), 335 (Topic 17).
Topic 18: Southeast Europe in the Twentieth Century. Same as European Studies 346 (Topic 18), History 362G (Topic 9), and Jewish Studies 364 (Topic 8). Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century. Only one of the following may be counted: European Studies 346 (Topic: Southeast Europe in the Twentieth Century), 346 (Topic 18), History 362G (Topic: Southeast Europe in the Twentieth Century), 362G (Topic 9), Jewish Studies 364 (Topic: Southeast Europe in the Twentieth Century), 364 (Topic 8), Russian, East European, and Eurasian Studies 335 (Topic: Southeast Europe in the Twentieth Century), 335 (Topic 18).
Topic 19: World War II in Eastern Europe. Same as European Studies 346 (Topic 12), History 350L (Topic 79), and Jewish Studies 364 (Topic 11). 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. Only one of the following may be counted: European Studies 346 (Topic: World War II in Eastern Europe), 346 (Topic 12), History 350L (Topic: World War II in Eastern Europe), History 350L (Topic 79), Jewish Studies 364 (Topic: World War II in Eastern Europe), 364 (Topic 11), Russian, East European, and Eurasian Studies 335 (Topic: World War II in Eastern Europe), 335 (Topic 19).
Topic 21: Causes of War. Same as Government 360N (Topic 2). Only one of the following may be counted: Government 360N (Topic 2), Russian, East European, and Eurasian Studies 335 (Topic: Causes of War), 335 (Topic 21).
Topic 22: Politics of New Democracies. Same as Government 365N (Topic 13) and Latin American Studies 337M (Topic 15). Examination of the process of democratization and factors related to its success. Only one of the following may be counted: Government 365N (Topic 13), Latin American Studies 337M (Topic: Politics of New Democracies), 337M (Topic 15), Russian, East European, and Eurasian Studies 335 (Topic: Politics of New Democracies), 335 (Topic 22). Additional prerequisite: For government majors, six semester hours of lower-division coursework in government; for others, upperdivision standing.
Topic 23: Jews of Eastern Europe. Same as History 362G (Topic 8), Jewish Studies 364 (Topic 7), and Religious Studies 357 (Topic 13). Explores the history and culture of Jews in Eastern Europe. Only one of the following may be counted: History 362G (Topic: Jews of Eastern Europe), 362G (Topic 8), Jewish Studies 364 (Topic: Jews of Eastern Europe), 364 (Topic 7), Religious Studies 357 (Topic: Jews of Eastern Europe), 357 (Topic 13), Russian, East European, and Eurasian Studies 335 (Topic: Jews of Eastern Europe), 335 (Topic 23).

## REE 345. Topics in Sociology, Geography, and Anthropology.

Three lecture hours a week for one semester. Fulfills the basic Russian, East European, and Eurasian studies requirement in sociology, geography, and anthropology. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Regions and Cultures of Europe. Same as European Studies 346 (Topic 19) and Geography 326. Spatial patterns in Europe, with emphasis on cultural, historical, and political geography. Only one of the following may be counted: European Studies 346 (Topic: Regions and Cultures of Europe), 346 (Topic 19), Geography 326, Russian, East European, and Eurasian Studies 345 (Topic 2). Additional prerequisite: Upper-division standing.
Topic 4: Geography of the Former Soviet Union. Same as Geography 327. 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. Prerequisite: Upper-division standing.
Topic 5: Chechnya: the Politics, Power, and People. Same as Slavic 324 (Topic 3: Chechnya: the Politics, Power, and the People). Considers the history, culture, religions and recent upheaval of the region of the northern Caucasus called Chechnya. Only one of the following may be counted: Russian, East European, and Eurasian Studies 345 (Topic: Chechnya: the Politics, Power, and People), 345 (Topic 5: Chechnya: the Politics, Power, and the People), Slavic 324 (Topic: Chechnya: the Politics, Power, and People), 324 (Topic 3). Prerequisite: Upper-division standing.
Topic 6: Northern Lands and Cultures. Same as European Studies 346 (Topic 9) and Geography 356T (Topic 4). Develops geographical understanding of the Circumpolar region of the North, an ancient human habitat, home to distinct millennia-old civilizations. Only one of the following may be counted: European Studies 346 (Topic: Northern Lands and Cultures), 346 (Topic 9), Geography 356T (Topic: Northern Lands and Cultures), 356T (Topic 4), Russian, East European, and Eurasian Studies 345 (Topic: Northern Lands and Cultures), 345 (Topic 6). Additional prerequisite: Upper-division standing.

Topic 7: Northern Gods, Northern Faiths: The Conversion of Scandinavians, Finns, Northern Slavs and Shamans. Same as German, Scandinavian, and Dutch Studies 361G and Religious Studies 357 (Topic 16). 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; preChristian Scandinavian; pre-Christian Sami and Finnish; and ancient and modern Siberian shamanism, Only one of the following may be counted: German, Scandinavian, and Dutch Studies 361G, Religious Studies 357 (Topic 16), Russian, East European, and Eurasian Studies 345 (Topic 7). Additional prerequisite: Upper-division standing.

## REE 358Q. Supervised Research.

Individual instruction. Prerequisite: Upper-division standing.

## REE 379C. Conference Course.

Conference course. May be repeated for credit. Prerequisite: Consent of the undergraduate adviser in Russian, East European, and Eurasian studies.

## REE 679H. Honors Tutorial Course.

Intensive reading and research planned with and approved by the honors adviser, followed by completion of a thesis. Conference course for two semesters. Required of Russian, East European, and Eurasian studies majors who plan to seek special honors in Russian, East European, and Eurasian studies. Prerequisite: For 679HA, upper-division standing, admission to the Russian, East European, and Eurasian Studies Honors Program, and consent of the honors adviser; for 679HB, Russian, East European, and Eurasian Studies 679HA.

## Department of Slavic and Eurasian Studies

Before enrolling for the first time in any language offered by the Department of Slavic and Eurasian Studies, all students with any knowledge of the language, however acquired, must take a placement test to determine the course for which they should register. Information on placement tests for Polish and Russian is available from the Center for Teaching and Learning, 512-471-3032. Information about testing in other languages is available from the Department of Slavic and Eurasian Studies office, Calhoun Hall 415, 512-471-3607.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Czech: CZ

## Lower-Division Courses

## CZ 601C. Intensive Czech I.

Not open to native or heritage speakers of Czech. Emphasis on developing oral proficiency in Czech using intensive methods of instruction. Six lecture hours a week for one semester. Czech 601C and 506 may not both be counted. Czech 601C and 507 may not both be counted.

## CZ 301K. Introduction to Czech Civilization.

Introduction to selected topics in the culture of the Czech and Slavic people. Conducted in English. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any bachelor's degree. May be repeated for credit when the topics vary.

## Topic 2: Prague, Magic, and the Struggle for Power. Same as

 History 306N (Topic 14) and Russian, East European, and Eurasian Studies 302 (Topic 2). 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. Only one of the following may be counted: Czech 301K (Topic: Magic and Power in Prague: The Struggle for Power), 301K (Topic 2), History 306N (Topic: Magic and Power in Prague: The Struggle for Power), 306N (Topic 14), Religious Studies 306 (Topic: Magic and Power in Prague: The Struggle for Power), Russian, East European, and Eurasian Studies 302 (Topic: Magic and Power in Prague: The Struggle of Power), 302 (Topic 2).Topic 3: Introduction To Czech History and Culture: Puppets, Pubs And Polyglots. Same as European Studies 307 (Topic 2) and Russian, East European, and Eurasian Studies 302 (Topic 3). 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. Only one of the following may be counted: Czech 301K (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 301K (Topic 3), European Studies 307 (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 307 (Topic 2), Russian, East European, and Eurasian Studies 302 (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 302 (Topic 3).

## CZ 506 (TCCN: CZEC 1511). First-Year Czech I.

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Czech 601C and 506 may not both be counted.

CZ 507 (TCCN: CZEC 1512). First-Year Czech II.
Emphasis on four-skills proficiency: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Czech 601C and 507 may not both be counted. Prerequisite: Czech 506.

## CZ 611C. Intensive Czech II.

Not open to native or heritage speakers of Czech. Continuing intensive development of proficiency in Czech, with a focus on speaking and the reading of authentic texts. Six lecture hours a week for one semester. Czech 611C and 312K, 412K may not both be counted. Czech 611C and $312 \mathrm{~L}, 412 \mathrm{~L}$ may not both be counted. Prerequisite: Czech 601C or 507.

## CZ 312K, 412K. Second-Year Czech I.

Listening, speaking, reading, and writing at the second-year level. For each semester hour of credit earned, one lecture hour a week for one semester. Czech 611 C and $312 \mathrm{~K}, 412 \mathrm{~K}$ may not both be counted. Prerequisite: Czech 601C or 507.

## CZ 312L, 412L. Second-Year Czech II.

Listening, speaking, reading, and writing at the advanced, second-year level. For each semester hour of credit earned, one lecture hour a week for one semester. Czech 611C and 312L, 412L may not both be counted. Prerequisite: Czech 312K or 412K.

CZ 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## CZ 324. Topics in Czech Studies.

Study of a selected aspect or aspects of Czech culture: literature, theatre, film, visual arts, folklore. Readings and lectures in English. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any degree. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Twentieth-Century Czech Fiction. A survey of twentiethcentury Czech prose fiction.
Topic 4: Heretics and Freedom Fighters, 1350-1650. Same as European Studies 346 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic 12), Religious Studies 357 (Topic 12), and Russian, East European, and Eurasian Studies 325 (Topic 28). Explores the theologies, politics, and personal identities that emerged and passed away in this era. Only one of the following may be counted: Czech 324 (Topic: Heretics and Freedom Fighters, 1350-1650), 324 (Topic 4), European Studies 346 (Topic: Heretics and Freedom Fighters, 1350-1650), 346 (Topic 8), Germanic Civilization 327E (Topic: Heretics and Freedom Fighters, 1350-1650), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic: Heretics and Freedom Fighters, 1350-1650), 362G (Topic 12), Religious Studies 357 (Topic: Heretics and Freedom Fighters, 1350-1650), 357 (Topic 12), Russian, East European, and Eurasian Studies 325 (Topic: Heretics and Freedom Fighters, 1350-1650), 325 (Topic 28).

CZ 325. Third-Year Czech I.
Oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Czech 611C or 312L.

## CZ 326. Third-Year Czech II.

Continuation of Czech 325: Oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Czech 325.

## CZ 328. Topics in Advanced Czech.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Czech 312L or 412L. Additional prerequisites may vary with the topic and are given in the Course Schedule.

CZ 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, $929 S$. 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. May be repeated for credit when the topics vary.

## CZ 330. Modern Czech Literature.

Same as Comparative Literature 323 (Topic 9), European Studies 347 (Topic 9), and Russian, East European, and Eurasian Studies 325 (Topic 30). A study of Czech literature from the 1860s to the present; course is conducted in English. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Modern Czech Literature), 323 (Topic 9), Czech 330, European Studies 347 (Topic: Modern Czech Literature), 347 (Topic 9), Russian, East European, and Eurasian Studies 325 (Topic: Modern Czech Literature), 325 (Topic 30). Prerequisite: Upper-division standing.

## CZ 379. Conference Course in Czech Language or Literature.

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in Czech, or upper-division standing and consent of instructor.

## CZ 679H. Honors Tutorial Course.

Supervised individual research on a literary honors paper of some length. Conference course for two semesters. Must be taken for special honors in addition to the major requirement. Prerequisite: For 679HA, upper-division standing, a University grade point average of at least 3.00 , and a grade point average in Czech of at least 3.50 ; for 679 HB , Czech 679HA.

## Polish: POL

## Lower-Division Courses

POL 601C. Intensive Polish I.
Not open to native or heritage speakers of Polish. Emphasis on developing oral proficiency in Polish using intensive methods of instruction. Six lecture hours a week for one semester. Polish 601C and 506 may not both be counted. Polish 601C and 507 may not both be counted.

## POL 506. First-Year Polish I.

Emphasis on four-skills proficiency. Five lecture hours a week for one semester. Polish 601C and 506 may not both be counted.

## POL 507. First-Year Polish II.

Emphasis on four-skills proficiency. Five lecture hours a week for one semester. Polish 601C and 507 may not both be counted. Prerequisite: Polish 506.

## POL 611C. Intensive Polish II.

Not open to native or heritage speakers of Polish. Continuing intensive development of proficiency in Polish, with a focus on speaking and the reading of authentic texts. Six lecture hours a week for one semester. Polish 611C and 312K may not both be counted. Polish 611C and 312L may not both be counted. Prerequisite: Polish 601C or 507.

## POL 312K. Second-Year Polish I.

Emphasis on four-skills proficiency. Three lecture hours a week for one semester. Polish 611C and 312K may not both be counted. Prerequisite: Polish 601C or 507.

## POL 312L. Second-Year Polish II.

Emphasis on four-skills proficiency. Three lecture hours a week for one semester. Polish 611C and 312L may not both be counted. Prerequisite: Polish 312K.

## Upper-Division Courses

## POL 321. Introduction to the Polish Language I.

Designed to give students a rapid introduction to fundamentals of the language. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any bachelor's degree.

## POL 322. Introduction to the Polish Language II.

Continuation of Polish 321. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any bachelor's degree. Prerequisite: Polish 321 or consent of instructor.

## POL 324. Topics in Polish Studies.

Selected aspects of Polish history or culture. Readings and lectures in English. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any degree. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: Polish Literature and Culture in Film: Nineteenth Century to Contemporary. Same as Comparative Literature 323 (Topic 32), European Studies 347 (Topic 8), and Russian, East European, and Eurasian Studies 325 (Topic 27). Study of the cultural and intellectual history represented in the major works of Polish literature in the nineteenth and twentieth centuries. Only one of the following may be counted: Comparative Literature 323 (Topic: 19th-CenturyContemporary Polish Literature and Culture in Film), 323 (Topic 32), European Studies 347 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 347 (Topic 8), Polish 324 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 324 (Topic 2), Russian, East European, and Eurasian Studies 325 (Topic: 19th-Century-Contemporary Polish Literature and Culture in Film), 325 (Topic 27). Additional prerequisite: Upper-division standing.

## POL 325. Third-Year Polish I.

Oral expression, reading, and composition. Three lecture hours a week for one semester. Polish 325 and Russian, East European, and Eurasian Studies 325 (Topic: Third-Year Polish I) may not both be counted. Prerequisite: Polish 611C or 312L.

## POL 326. Third-Year Polish II.

Continuation of Polish 325: Oral expression, reading, and composition. Three lecture hours a week for one semester. Polish 326 and Russian,

East European, and Eurasian Studies 325 (Topic: Third-Year Polish II) may not both be counted. Prerequisite: Polish 325 .

## POL 379. Conference Course in Polish Language or Literature.

Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in Polish or consent of instructor.

## Russian: RUS

## Lower-Division Courses

## RUS 601C. Intensive Russian I.

Not open to native or heritage speakers of Russian. Emphasis on developing oral proficiency in Russian using intensive methods of instruction. Six lecture hours a week for one semester. May not be counted by students with credit for Russian 804, 506, 506T, 507, or 507 T .

## RUS 506 (TCCN: RUSS 1511). First-Year Russian I.

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Russian 601C and 506 may not both be counted.

## RUS 507 (TCCN: RUSS 1512). First-Year Russian II.

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Russian 601C and 507 may not both be counted. Prerequisite: Russian 506.

## RUS 611C. Intensive Russian II.

Not open to native or heritage speakers of Russian. Continuing intensive development of proficiency in Russian, with a focus on speaking and the reading of authentic texts. Six lecture hours a week for one semester. Only one of the following may be counted: Russian 611C, 612, 312K, $412 \mathrm{~K}, 312 \mathrm{M}, 515 \mathrm{~S}$. Only one of the following may be counted: Russian 611C, 612, 312L, 412L. Prerequisite: Russian 601C, 804, 507, or 507T.

## RUS 412K. Second-Year Russian I.

Listening, speaking, reading, and writing at the second-year level. Four lecture hours a week for one semester. Russian 611C and 412K may not both be counted. Prerequisite: Russian 601C or 507.

## RUS 412L. Second-Year Russian II.

Listening, speaking, reading, and writing at the advanced, second-year level. Four lecture hours a week for one semester. Russian 611C and 412L may not both be counted. Prerequisite: Russian 412K.

RUS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## RUS 324. Third-Year Russian I.

Oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Russian 611C or 412L.

## RUS 325. Third-Year Russian II.

Oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Russian 324 or appropriate score on Russian placement examination.

## RUS 326. Topics in Fourth-Year Russian I.

A fourth-year course 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 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. Russian 326 (Topic: Vysotsky: His Life and Works) and 326 (Topic 1) may not both be counted. Additional prerequisite: Upper-division standing and Russian 325.
Topic 2: Russia at the Movies. 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 Soviet and post-Soviet cinema. Russian 326 (Topic: Russia at the Movies) and 326 (Topic 2) may not both be counted. Additional prerequisite: Upper-division standing and Russian 325.
Topic 3: Advanced Russian Composition and Conversation I. 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. Russian 326 (Advanced Russian Composition and Conversation I) and 326 (Topic 3) may not both be counted. Additional prerequisite: Upper-division standing and Russian 325.

## RUS 327. Fourth-Year Russian II.

Continuation of Russian 326. Three lecture hours a week for one semester. Prerequisite: Russian 326.

## RUS 328C. Russian for Heritage Speakers I.

Designed for heritage Russian language speakers who have had little or no formal training in the language. Focuses on reading, writing, grammar, and communication skills for formal and professional situations. Three lecture hours a week for one semester. Russian 326 (Topic: Russian for Russians) and 328C may not both be counted. Prerequisite: Russian 412 L , or an appropriate score on the Russian Placement Test and consent of instructor.

## RUS 328D. Russian for Heritage Speakers II.

Continuation of Russian 328C. Three lecture hours a week for one semester. Russian 326 (Topic: Russian for Russians) and 328D may not both be counted. Prerequisite: Russian 328C.

## RUS 329. Survey of Original Texts in Russian Literature.

Introduction to the reading and analysis of original literary texts representing prose, poetry, and drama, with emphasis on each work's cultural and historical background. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Two years of coursework in Russian, or the equivalent.

Topic 1: The Russian Short Story. Introduction to great 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. Russian 329 (Topic: The Russian Short Story) and Russian 329 (Topic 1) may not both be counted.

## RUS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S.

 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. May be repeated for credit when the topics vary.

## RUS 330. Topics in Russian Culture.

Study of a selected aspect or aspects of Russian culture, including theatre, film, visual arts, folklore. Readings and lectures in English. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any bachelor's degree. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 3: Historical Survey of Russian Music. Same as Comparative Literature 323 (Topic 7), Humanities 350 (Topic 9), Music 376G (Topic 1), and Russian, East European, and Eurasian Studies 325 (Topic 20). Focus on the role of Russian music in its social and historical context. Only one of the following may be counted: Comparative Literature 323 (Topic: Historical Survey of Russian Music), 323 (Topic 7), Humanities 350 (Topic: Historical Survey of Russian Music), 350 (Topic 9), Music 376G (Topic: Historical Survey of Russian Music), 376G (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic: Historical Survey of Russian Music), 325 (Topic 20), Russian 330 (Topic: Historical Survey of Russian Music), 330 (Topic 3). Additional prerequisite: For music majors, upper-division standing and consent of instructor; for others, upper-division standing.
Topic 4: Contemporary Russian Cinema. Same as Russian, East European and Eurasian Studies 325 (Topic 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. Only one of the following may be counted: Russian 330 (Topic: Contemporary Russian Cinema), 330 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic 11). Prerequisite: Upper-division standing.

Topic 5: Visions of The Apocalypse in Russian Literature and Culture. Same as Comparative Literature 323 (Topic 25) and Russian, East European, and Eurasian Studies 325 (Topic 12). Explores and analyzes apocalyptic consciousness in Russian literature and culture from the Middle Ages to the present. Emphasis will be on such themes as the expectation of the end of the world, identification of the Antichrist, messianic prophecy, and visions of an afterlife. Only one of the following may be counted: Comparative Literature 323 (Topic: The Apocalypse in Russian Literature and Culture), 323 (Topic 25), 330 (Topic 5), Russian, East European and Eurasian Studies 325 (Topic: The Apocalypse in Russian Literature and Culture), 325 (Topic 12). Additional prerequisite: Upper-division standing.
Topic 6: Introduction to Old Russian Literature and Culture. Same as Russian, East European and Eurasian Studies 325 (Topic 13 : Introduction to Old Russian Literature and Culture). Medieval and early modern Russian literature and culture, including literary texts from Kievan and Muscovite Rus. Only one of the following may be counted: Russian, East European, and Eurasian Studies 325 (Topic: The Icon and the Sword: An Introduction to Old Russian Literature and Culture), 325 (Topic 13), Russian 330 (Topic: The Icon and the Sword:

An Introduction to Old Russian Literature and Culture), 330 (Topic 6). Prerequisite: Upper-division standing.
Topic 7: Twentieth-Century Russian Culture. Same as Comparative Literature 323 (Topic 22), Humanities 350 (Topic 12), and Russian, East European, and Eurasian Studies 325 (Topic 14). Survey of the political, social, and cultural history of Russia during the Soviet period, from the revolutionary events of 1917 until the dissolution of the Soviet government and political system in December 1991. Only one of the following may be counted: Comparative Literature 323 (Topic: Twentieth-Century Russian Culture), 323 (Topic 22), Humanities 350 (Topic: Twentieth-Century Russian Culture), 350 (Topic 12), Russian 330 (Topic: Twentieth-Century Russian Culture), 330 (Topic 7), Russian, East European, and Eurasian Studies 325 (Topic: TwentiethCentury Russian Culture), 325 (Topic 14). Additional prerequisite: Upper-division standing.
Topic 8: Russian Youth Culture, Late Soviet to Present. Same as Russian, East European, and Eurasian Studies 325 (Topic 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. Only one of the following may be counted: Russian, East European, and Eurasian Studies 325 (Topic: Russian Youth Culture, Gorbachev to Present), 325 (Topic 19), Russian 330 (Topic: Russian Youth Culture, Gorbachev to Present), 330 (Topic 8). Prerequisite: Upper-division standing.
Topic 9: Russian Myths and Folktales. Same as Anthropology 325L (Topic 12), Comparative Literature 323 (Topic 34), and Russian, East European, and Eurasian Studies 325 (Topic 22). 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. Only one of the following may be counted: Anthropology 325L (Topic: Russian Myths and Folk Tales), 325L (Topic 12), Comparative Literature 323 (Topic: Russian Myths and Folk Tales), 323 (Topic 34), Russian 330 (Topic: Russian Myths and Folk Tales), 330 (Topic 9), Russian, East European and Eurasian Studies 325 (Topic: Russian Myths and Folk Tales), 325 (Topic 22). Additional prerequisite: Upper-division standing.
Topic 10: Literature and Art of Russian Modernism and AvantGarde. Same as Russian, East European, and Eurasian Studies 325 (Topic 25). 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. Only one of the following may be counted: Russian 330 (Topic: Literature and Art of Russian Modernism and Avant-Garde), 330 (Topic 10), Russian, East European and Eurasian Studies 325 (Topic: Literature and Art of Russian Modernism and Avant-Garde), 325 (Topic 25). Additional prerequisite: Upper-division standing.
Topic 11: Russia and Its World. Same as Comparative Literature 323 (Topic 21), Humanities 350 (Topic 11), and Russian, East European, and Eurasian Studies 325 (Topic 21). Survey of the political, cultural, and social history of Russia, from its prehistoric origins to the installation of communist rule in 1917. Emphasis on the arts and on enduring themes of cultural identity, imagination, and conflict with neighboring peoples and within Russia. Only one of the following may be counted: Comparative Literature 323 (Topic: Russia and Its World), 323 (Topic 21), Humanities 350 (Topic: Russia and Its World), 350 (Topic 11), Russian 330 (Topic: Russia and Its World), 330 (Topic 11), Russian, East European, and Eurasian Studies 325 (Topic: Russia and Its World), 325 (Topic 21). Additional prerequisite: Upper-division standing.

## RUS 356. Russian Literature in Translation.

A survey of nineteenth- and/or twentieth-century Russian literature. Lectures and readings in English. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any bachelor's degree. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: The Russian Novel. Same as Comparative Literature 323 (Topic 29), Core Texts and Ideas 345 (Topic 6), European Studies 347 (Topic 22), and Russian, East European, and Eurasian Studies 325 (Topic 9). A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century. Only one of the following may be counted: Comparative Literature 323 (Topic: The Russian Novel), 323 (Topic 29), Core Texts and Ideas 345 (Topic: The Russian Novel), 345 (Topic 6), English 322 (Topic 37), European Studies 347 (Topic 22), Russian 356 (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic 9). Additional prerequisite: Upper-division standing.
Topic 2: Political Terror in Russian Literature. Same as Russian, East European, and Eurasian Studies 325 (Topic 17: Political Terror in Russian Literature). Explores works dealing with political terror and oppression by Dostoevsky, Bely, Babel, Akhmatova, and Solzhenitsyn. Only one of the following may be counted: Russian, East European, and Eurasian Studies 325 (Topic: Terror in Russia: Method, Madness, Murder), 325 (Topic 17), Russian 356 (Topic: Terror in Russia: Method, Madness, Murder), 356 (Topic 2). Prerequisite: Upper-division standing.
Topic 3: War and Revolution in Russian Literature and Culture. Same as Comparative Literature 323 (Topic 31), Core Texts and Ideas 345 (Topic 8), and Russian, East European, and Eurasian Studies 325 (Topic 18). Examines Russian narratives of war and revolution as represented in fiction, cinema, and journalism. Only one of the following may be counted: Comparative Literature 323 (Topic: War and Peace in Russian Literature and Culture), 323 (Topic 31), Core Texts and Ideas 345 (Topic: War and Peace in Russian Literature and Culture), 345 (Topic 8), Russian 356 (Topic: War and Peace in Russian Literature and Culture), 356 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic: War and Peace in Russian Literature and Culture), 325 (Topic 18). Additional prerequisite: Upper-division standing.
Topic 4: Rebels and Revolutionaries in Russian History and Literature. Same as Comparative Literature 323 (Topic 20), History 362G (Topic 15), and Russian, East European, and Eurasian Studies 325 (Topic 24). Study of fictional and real rebels and revolutionaries across almost a century of Russian literature. Only one of the following may be counted: Comparative Literature 323 (Topic: Rebels and Revolutionaries in Russian History and Literature), 323 (Topic 20), History 362G (Topic: Rebels and Revolutionaries in Russian History and Literature), 362G (Topic 15), Russian 356 (Topic: Rebels and Revolutionaries in Russian History and Literature), 356 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic: Rebels and Revolutionaries in Russian History and Literature), 325 (Topic 24). Additional prerequisite: Upper-division standing.
Topic 5: Paranoid Fictions: Conspiracy in Contemporary American and Russian Culture. Same as Russian, East European, and Eurasian Studies 325 (Topic 26). Examination of the growing body of conspiracist expression, from historical texts such as "The Protocols of the Elders of Zion" to the fictional worlds of Phillip K. Dick, Thomas Pynchon, Viktor Pelevin, and others. Only one of the following may be counted: Russian 356 (Topic: Conspiracy in Contemporary American/Russian Culture), 356 (Topic 5), Russian, East European, and Eurasian Studies 325 (Topic: Conspiracy in Contemporary

American/Russian Culture), 325 (Topic 26). Additional prerequisite: Upper-division standing.

## RUS 360. Study of an Individual Writer.

Readings in translation of selected works of one major Russian writer. Conducted in English. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any bachelor's degree. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: The Major Works of Dostoevsky. Same as Comparative Literature 323 (Topic 30), Core Texts and Ideas 345 (Topic 5), European Studies 347 (Topic 10), and Russian, East European, and Eurasian Studies 325 (Topic 10). Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky. Only one of the following may be counted: Comparative Literature 323 (Topic: The Major Works of Dostoevsky), 323 (Topic 30), Core Texts and Ideas 345 (Topic: Major Works of Dostoevsky), 345 (Topic 5), European Studies 347 (Topic: Major Works of Dostoevsky), 347 (Topic 10), Russian 360 (Topic: Major Works of Dostoevsky), 360 (Topic 1), Russian, East European and Eurasian Studies 325 (Topic: Major Works of Dostoevsky), 325 (Topic 10). Additional prerequisite: Upperdivision standing.
Topic 2: The Major Works of Tolstoy. Same as Comparative Literature 323 (Topic 27) and Russian, East European, and Eurasian Studies 325 (Topic 16). Explores Russian writer Lev Nikolaevich Tolstoy, particularly his progression from idealizing family life and the Russian state to renouncing sexual love and national allegiances. Only one of the following may be counted: Comparative Literature 323 (Topic: The Major Works of Tolstoy), 323 (Topic 27), Russian 360 (Topic: Majors Works of Tolstoy), 360 (Topic 2), Russian, East European, and Eurasian Studies 325 (Topic: The Major Works of Tolstoy), 325 (Topic 16). Additional prerequisite: Upper-division standing.
Topic 3: Bulgakov's Master and Margarita. Same as Comparative Literature 323 (Topic 8) and Russian, East European, and Eurasian Studies 325 (Topic 29). Explores the novel in the context of other literary works by Bulgakov and its varied sources in world literature, music, and the visual arts. Only one of the following may be counted: Comparative Literature 323 (Topic: Bulgakov's Master and Margarita), 323 (Topic 8), Russian 360 (Topic: Bulgakov's Master and Margarita), 360 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic: Bulgakov’s Master and Margarita), 325 (Topic 29). Additional prerequisite: Upper-division standing.
Topic 4: Leo Tolstoy's Early Works. Same as Comparative Literature 323 (Topic 35), Core Texts and Ideas 345 (Topic 7), and Russian, East European, and Eurasian Studies 325 (Topic 23). A survey of Tolstoy's early works, including his pedagogical essays. Study of his evolution as a writer and the birth and formation of his literary genius. Only one of the following may be counted: Comparative Literature 323 (Topic: Leo Tolstoy's Early Works), 323 (Topic 35), Core Texts and Ideas 345 (Topic: Leo Tolstoy’s Early Works), 345 (Topic 7), Russian 360 (Topic: Leo Tolstoy's Early Works), 360 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic: Leo Tolstoy's Early Works), 325 (Topic 23). Additional prerequisite: Upper-division standing.

## RUS 369. Topics in Russian Linguistics.

Introduction to selected topics in the structure or history of Russian. Conducted in English. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any bachelor's degree. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 1: Structure of Russian. Structure of contemporary Russian: phonology (sound structure), morphology (word structure), and syntax (sentence structure). Prerequisite: Credit or registration for Russian 325.

## RUS 379. Conference Course in Russian Language or

 Literature.Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in Russian or consent of instructor and the chair of the department.

## RUS 679H. Honors Tutorial Course.

Supervised individual research on a literary or linguistic problem, which culminates in an honors paper of some length. Conference course for two semesters. Must be taken for special honors in addition to the major requirement. Prerequisite: For 679HA, upper-division standing, a University grade point average of at least 3.00, and a grade point average in Russian of at least 3.50 ; for 679 HB , Russian 679HA.

## Serbian/Croatian: S C

## Lower-Division Courses

## S C 601C. Intensive Serbian/Croatian I.

Not open to native or heritage speakers of Serbian/Croatian. Emphasis on developing oral proficiency in Serbian/Croatian using intensive methods of instruction. Six lecture hours a week for one semester. Serbian/Croatian 601C and 506 may not both be counted. Serbian/Croatian 601C and 507 may not both be counted.

## S C 506. First-Year Serbian/Croatian I.

Emphasis on proficiency in four skills: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Serbian/Croatian 601C and 506 may not both be counted.

## S C 507. First-Year Serbian/Croatian II.

Emphasis on proficiency in four skills: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Serbian/Croatian 601C and 507 may not both be counted. Prerequisite: Serbian/Croatian 506.

## S C 611C. Intensive Serbian/Croatian II.

Not open to native or heritage speakers of Serbian/Croatian. Continuing intensive development of proficiency in Serbian/Croatian, with a focus on speaking and the reading of authentic texts. Six lecture hours a week for one semester. Serbian/Croatian 611C and 312K may not both be counted. Serbian/Croatian 611C and 312L may not both be counted. Prerequisite: Serbian/Croatian 601C or 507.

## S C 312K. Second-Year Serbian/Croatian I.

Listening, speaking, reading, and writing at the second-year level. Three lecture hours a week for one semester. Serbian/Croatian 611C and 312K may not both be counted. Prerequisite: Serbian/Croatian 601C or 507.

## S C 312L. Second-Year Serbian/Croatian II.

Listening, speaking, reading, and writing at the advanced, second-year level. Three lecture hours a week for one semester. Serbian/Croatian 611C and 312L may not both be counted. Prerequisite: Serbian/Croatian 312K.

## Upper-Division Courses

## S C 324. Topics in Serbian/Croatian Studies.

Selected aspects of Serbian/Croatian history and culture. Conducted in English. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## S C 325. Third-Year Serbian/Croatian I.

Oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Serbian/Croatian 611C or 312L.

## S C 326. Third-Year Serbian/Croatian II.

Oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Serbian/Croatian 325.

## S C 379. Conference Course in Serbian/Croatian.

Conference course. May be repeated for credit. Prerequisite: Serbian/ Croatian 312K and 312L and consent of instructor.

## Slavic: SLA

## Lower-Division Courses

## SLA 301. Introduction to Slavic Civilization.

Introduction to selected topics in the cultures of the Slavic peoples. Conducted in English. Three lecture hours a week for one semester. May not be used to fulfill the foreign language requirement for any bachelor's degree. May be repeated for credit when the topics vary.

Topic 1: The Vampire in Slavic Cultures. Same as Comparative Literature 305 (Topic 2), European Studies 307 (Topic 1), and Russian, East European, and Eurasian Studies 302 (Topic 1). 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. Only one of the following may be counted: Comparative Literature 305 (Topic: The Vampire in Slavic Cultures), 305 (Topic 2), European Studies 307 (Topic: The Vampire in Slavic Cultures), 307 (Topic 1), Russian, East European, and Eurasian Studies 302 (Topic: The Vampire in Slavic Cultures), 302 (Topic 1), Slavic 301 (Topic: The Vampire in Slavic Cultures), 301 (Topic 1).
Topic 2: Introduction to Russian, East European, and Eurasian
Studies. Same as Russian, East European, and Eurasian Studies 301. 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic 4), Russian, East European, and Eurasian Studies 301, Slavic 301 (Topic 2). Only one of the following may be counted: Government 314 (Topic 4), Russian, East European, and Eurasian Studies 301, Slavic 301 (Topic 2). Only one of the following may be counted: Russian, East European, and Eurasian Studies 301, Slavic 301 (Topic: Introduction to Russian, East European, and Eurasian Studies), 301 (Topic 2).

## SLA 318Q. Supervised Research.

Individual instruction.
SLA 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. Topics in Slavic.
This course is used to record credit the student earns while enrolled at another institution in 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

SLA 324. Seminar on Slavic and East European Studies.
Examination of selected topics in the cultures and societies of Central and Eastern Europe. Conducted in English. Three lecture hours a week
for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Some sections offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 3: Chechnya: the Politics, Power, and People. Same as Russian, East European, and Eurasian Studies 345 (Topic 5: Chechnya: the Politics, Power, and People). Considers the history, culture, religions and recent upheaval of the region of the northern Caucasus called Chechnya. Only one of the following may be counted: Russian, East European, and Eurasian Studies 345 (Topic: Chechnya: the Politics, Power, and People), 345 (Topic 5: Chechnya: the Politics, Power, and the People), Slavic 324 (Topic: Chechnya: the Politics, Power, and People), 324 (Topic 3). Prerequisite: Upper-division standing.
Topic 4: Slavs in the Western Imagination. Same as Comparative Literature 323 (Topic 28), European Studies 347 (Topic 11), and Russian, East European, and Eurasian Studies 325 (Topic 15). Examines representations of Eastern, Western, and Southern Slavs in Western Europe and North America. Only one of the following may be counted: Comparative Literature 323 (Topic: Slavs in the Western Imagination), 323 (Topic 28), European Studies 347 (Topic: Slavs in the Western Imagination), 347 (Topic 11), Russian, East European, and Eurasian Studies 325 (Topic: Slavs in the Western Imagination), 325 (Topic 15), Slavic 324 (Topic: Slavs in the Western Imagination), 324 (Topic 4). Additional prerequisite: Upper-division standing.
Topic 6: Russian Fairy Tales. Explores Russia's folk and fairy tales, from the early collections of short morality tales, to the complex productions of fairy tales in classical and contemporary ballet and opera. Prerequisite: Upper-division standing.

## SLA 325. Topics in Jewish Life and Culture in Eastern Europe.

Study of a selected aspect or aspects of Jewish life in Eastern Europe-literature, theatre, visual arts, folklore, religious movements--with emphasis on relationships with Slavic and other East European cultures. Readings and lectures in English. Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

SLA 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. Topics in Slavic.

This course is used to record credit the student earns while enrolled at another institution in 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. May be repeated for credit when the topics vary.

## SLA 358Q. Supervised Research.

Individual instruction. Prerequisite: Upper-division standing.

## SLA 379. Conference Course in Slavic and East European Languages and Literatures.

Conference course. May be repeated for credit. Prerequisite: Upperdivision standing and consent of instructor.

## Slavic and Eurasian Languages: SEL Lower-Division Courses

## SEL 601C. 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. Six lecture hours a week for one semester. Slavic and Eurasian Languages 601C and 506 may not both be counted unless the languages vary. Slavic and Eurasian Languages 601 C and 507 may not both be counted unless the languages vary. May be repeated for credit when the topics vary.

## SEL 506. First-Year Slavic and Eurasian Languages I.

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Slavic and Eurasian Studies 601C and 506 may not both be counted unless the languages vary. May be repeated for credit when the topics vary.

## SEL 507. First-Year Slavic and Eurasian Languages II.

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Slavic and Eurasian Languages 601 C and 507 may not both be counted unless the languages vary. May be repeated for credit when the topics vary. Prerequisite: Slavic and Eurasian Languages 506 in the same language.

## SEL 611C. 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. Six lecture hours a week for one semester. Slavic and Eurasian Languages 611 C and 312 K may not both be counted unless the languages vary. Slavic and Eurasian Languages 611C and 312L may not both be counted unless the languages vary. May be repeated for credit when the topics vary. Prerequisite: Slavic and Eurasian Languages 601C or 507 in the same language.

## SEL 312K. Second-Year Slavic and Eurasian Languages I.

Listening, speaking, reading, and writing at the second-year level. Three lecture hours a week for one semester. Slavic and Eurasian Studies 611C and 312 K may not both be counted unless the languages vary. May be repeated for credit when the topics vary. Prerequisite: Slavic and Eurasian Languages 601C or 507 in the same language.

## SEL 312L. Second-Year Slavic and Eurasian Languages II.

Listening, speaking, reading, and writing at the advanced, secondyear level. Three lecture hours a week for one semester. Slavic and Eurasian Languages 611C and 312L may not both be counted unless the languages vary. May be repeated for credit when the topics vary. Prerequisite: Slavic and Eurasian Languages 312K in the same language.

## Upper-Division Courses Department of Sociology

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p.675).

## Sociology: SOC <br> Lower-Division Courses <br> SOC 302 (TCCN: SOCI 1301). Introduction to the Study of Society.

The nature of human societies, social processes, social interaction, and the sociological approach. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

## SOC 307C. 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. Three lecture hours a week for one semester. Sociology 307C and 308 (Topic: American Families Past and Present) may not both be counted.

## SOC 307D. 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. Three lecture hours a week for one semester. Sociology 307D and 308 (Topic: Capital Punishment in America) may not both be counted.

## SOC 307E. 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. Three lecture hours a week for one semester. Sociology 307E and 308 (Topic: Contemporary United States Social Problems) may not both be counted.

## SOC 307F. Diversity in American Families.

Same as Women's and Gender Studies 301 (Topic 19). 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. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Diversity in American Families), Sociology 307F, 308 (Topic: Diversity in American Families), Women's and Gender Studies 301 (Topic: Diversity in American Families), 301 (Topic 19).

## SOC 307G. 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. Three lecture hours a week for one semester. Sociology 307G and 308 (Topic: Culture and Society in the United States) may not both be counted.

## SOC 307J. 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. Three lecture hours a week for one semester. Sociology 307J and 308 (Topic: Education and Society) may not both be counted.

## SOC 307K. Fertility and Reproduction.

Same as Women's and Gender Studies 301 (Topic 20). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 307K, 308 (Topic: Fertility and Reproduction), Women's and Gender Studies 301 (Topic: Fertility and Reproduction), 301 (Topic 20).

## SOC 307L. Gender, Race, and Class in American Society.

Same as Women's and Gender Studies 301 (Topic 21). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 307L, 308 (Topic: Gender, Race, and Class in American Society), Women's and Gender Studies 301 (Topic: Gender, Race, and Class in American Society), 301 (Topic 21).

## SOC 307M. Global Inequalities and Health.

Overview of the global link between health and inequality, paying particular attention to development and health care delivery systems around the world. Examination of the effect of social inequalities and economic development on health and health care systems. Three lecture hours a week for one semester. Sociology 307M and 308 (Topic: Global Inequalities and Health) may not both be counted.

## SOC 307N. Introduction to the Sociology of Development.

Introduction to major concepts and theories in the sociology of development, with a focus on problems of inequality in wealth and wellbeing from a global, comparative, and historical perspective. Three lecture hours a week for one semester. Sociology 307N and 308 (Topic: Introduction to the Sociology of Development) may not both be counted.

## SOC 307P. Introduction to the Sociology of Health and WellBeing.

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. Three lecture hours a week for one semester. Sociology 307P and 308 (Topic: Introduction to the Sociology of Health and Well-Being) may not both be counted.

## SOC 307S. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 304 (Topic: Judaism and Christianity in Sociological Perspective), Sociology 307S, 308 (Topic: Judaism and Christianity in Sociological Perspective), Western Civilization 303 (Topic: Judaism and Christianity in Sociological Perspective).

## SOC 307T. 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. Three lecture hours a week for one semester. Sociology 307T and 308 (Topic: Punishment and Society) may not both be counted.

## SOC 308 (TCCN: SOCI 1306). Topics in Introductory Sociology.

A review of contemporary social topics from a sociological perspective, with the instructor selecting one topic for emphasis. Three lecture hours a week for one semester. Sociology 308 (Topic: Ethnicity and Gender: La Chicana) and 308D may not both be counted. May be repeated for credit when the topics vary.

## SOC 308D. Ethnicity and Gender: La Chicana.

Same as Mexican American Studies 319 (Topic 1: Ethnicity and Gender: La Chicana) and Women's and Gender Studies 301 (Topic 6: Ethnicity and Gender: La Chicana). Three lecture hours a week for one semester.

## SOC 308E. Race, Ethnicity, and Gender in Demography.

Same as Women's and Gender Studies 301 (Topic 22). Introduction to the patterns, trends and debates on race, ethnicity, and gender in demography. Study of the social aspect of demography and the relationship of demographic phenomena relative to racial, ethnic, and gender populations. Specific areas will include the following: conceptual/ measurement issues; migration and population dynamics; health and morality; and family and fertility. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Race, Ethnicity, and Gender in Demography), 308E, Women's and Gender Studies 301 (Topic 22).

## SOC 308F. Religion and Gender in America.

Same as Women's and Gender Studies 301 (Topic 18). Examines the complex relationship between religious involvement and gender and sexuality in American society with a focus on the historic relationship between religious engagement and women's movements as well as more contemporary issues. Exploration of several major religious traditions in the United States today, including Evangelical Christianity, Catholicism, and Judaism. Examination of smaller religious groups and their attempt to confront the complex and contradictory relationship between gender roles and belief. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Religion and Gender in America), 308F, Women's and Gender Studies 301 (Topic 18).

## SOC 308G. 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. Three lecture hours a week for one semester.

Sociology 308 (Topic: Rich and Poor in America) and 308G may not both be counted.

## SOC 308J. Romantic Relationships and Family Formation.

Same as Women's and Gender Studies 301 (Topic 23). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Romantic Relationships and Family Formation), 308J, Women's and Gender Studies 301 (Topic 23).

## SOC 308K. 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. Three lecture hours a week for one semester. Sociology 308 (Topic: Social Change and the Future) and 308 K may not both be counted.

## SOC 308L. Social Transformation of Love and Relationships.

Same as Middle Eastern Studies 310 (Topic 4). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Middle Eastern Studies 310 (Topic: Social Transformation of Love and Relationships), 310 (Topic 4), Sociology 308 (Topic: Social Transformation of Love and Relationships), 308L.

## SOC 308M. 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. Three lecture hours a week for one semester. Sociology 308 (Topic: Sociology of Identity) and 308M may not both be counted.

## SOC 308N. 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. Three lecture hours a week for one semester. Sociology 308 (Topic: Comparative Religion, Politics, and Culture) and 308 N may not both be counted.

## SOC 308S. Introduction to Health and Society.

Same as Health and Society 301. A broad, multidisciplinary overview that introduces students to the study of health and society. Three lecture hours a week for one semester. Only one of the following may be counted: Health and Society 301, Sociology 308 (Topic: Introduction to Health and Society), 308S.

## SOC 309. Chicanos in American Society.

Same as Mexican American Studies 310. Introduction to the study of American character and its bearing on the Chicano experience. Three lecture hours a week for one semester.

## SOC 310S. Women's Reproductive Health for Nonscience Majors.

Same as Nursing 307 (Topic 1) and Women's and Gender Studies 301 (Topic 7). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Nursing 307 (Topic 1), Sociology 308 (Topic 2), 310S, Women's and Gender Studies 301 (Topic 7). Prerequisite: One year of high school biology, or Biology 301L or 309D.

## SOC 313K. Introduction to the Sociology of Religion.

Introduction to sociological methods in the study of religion. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 5: Introduction to the Study of Religion), Religious Studies 310, Sociology 313K.

## SOC 317L. Introduction to Social Statistics.

Restricted to sociology majors. Measures of central tendency and dispersion, the binomial and chi-square distributions, tests of hypotheses and parameter estimation, and simple correlation and regression. Three lecture hours and one laboratory hour a week for one semester. Required of all sociology majors.

## SOC 317M. Introduction to Social Research.

Students may not enroll in Sociology 317M more than twice. To enroll for the second time, students must receive consent of the undergraduate adviser. The logic of scientific research, general methods of data collection and analysis, and computer applications. Two lecture hours and two laboratory hours a week for one semester. Required of all sociology majors. Prerequisite: One of the following courses with a grade of at least C: Mathematics 316, Statistics and Scientific Computation 303, 304, 305, or 306; or Sociology 317L.

## SOC 318 (TCCN: SOCI 2339). Juvenile Delinquency.

Environments in which juvenile delinquency develops; delinquent subcultures and peer groups; societal reactions in schools, courts, and other agencies. Three lecture hours a week for one semester.

## SOC 319. Introduction to Social Demography.

Social consequences of changes in fertility, mortality, migration, population growth and composition. Three lecture hours a week for one semester.

SOC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

SOC 320K. Political Sociology.
Same as Government 355P. A survey of approaches to the study of the state as a social structure; political power and power systems; ideology;
political parties and elites. Three lecture hours a week for one semester. Only one of the following may be counted: Government 355M (Topic: Political Sociology), 355P, Sociology 320K. Prerequisite: Upper-division standing.

## SOC 321C. Consumption in Latin America.

Same as Latin American Studies 325 (Topic 5). Study of the role consumption plays in social, economic, and political relations in Latin America, as well as contesting ideas about this role. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic: Consumption in Latin America), Latin American Studies 325 (Topic 5), Sociology 321C, Sociology 321K (Topic: Consumption in Latin America). Prerequisite: Upper-division standing.

## SOC 321D. 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. Three lecture hours a week for one semester. Sociology 321D and 321K (Topic: Demography of Crime and Punishment) may not both be counted. Prerequisite: Upperdivision standing.

## SOC 321E. 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. Three lecture hours a week for one semester. Sociology 321 E and 321 K (Topic: Economy, Culture, and Society) may not both be counted. Prerequisite: Upper-division standing.

## SOC 321G. 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. Three lecture hours a week for one semester. Sociology 321G and 321K (Topic: Global Health Issues and Health Systems) may not both be counted. Prerequisite: Upper-division standing.

## SOC 321K. Contemporary Issues in Sociology: Special Topics.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 10: Gender, Work, and the Labor Force. Critical issues pertaining to workplaces and labor markets in industrial societies. Includes gender inequality in the labor market, social organization of work, types of work and employment, and changes in the labor force in industrial societies. Uses examples from East Asian countries to illustrate how the institutional context shapes women's employment behavior and economic conditions. Only one of the following may be counted: Asian Studies 361 (Topic: Work and Labor Markets), Sociology 321K (Topic 10), 321K (Topic: Work and Labor Markets), Women's and Gender Studies 322 (Topic: Work and Labor Markets). Prerequisite: Upper-division standing.

## SOC 321L. Sociology of Education.

Same as African and African Diaspora Studies 321L and Women's and Gender Studies 345 (Topic 23: 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## SOC 321P. Politics and Society in Latin America.

Same as Latin American Studies 325 (Topic 4). Introduction to presentday 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. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic: Politics and Society in Latin America), Latin American Studies 325 (Topic 4), Sociology 321K (Topic: Politics and Society in Latin America), Sociology 321P. Prerequisite: Upper-division standing.

## SOC 321Q. 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. Three lecture hours a week for one semester. Sociology 321 K (Topic: Social Inequality) and 321Q may not both be counted. Prerequisite: Upper-division standing.

## SOC 321R. The Sociology of Race and Work.

Same as Asian American Studies 330 (Topic 4) and Women's and Gender Studies 322 (Topic 6). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic: Sociology of Race and Work), 330 (Topic 4), Sociology 321 K (Topic: Sociology of Race and Work), 321R, Women's and Gender Studies 322 (Topic: Sociology of Race and Work), 322 (Topic 6). Prerequisite: Upperdivision standing.

## SOC 321S. Anti-Semitism.

Same as History 366N (Topic 15) and Jewish Studies 365 (Topic 13). 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. Three lecture hours a week for one semester. Only one of the following may be counted: History 366N (Topic: Anti-Semitism), 366N (Topic 15), Jewish Studies 365 (Topic: AntiSemitism), 365 (Topic 13), Sociology 321K (Topic: Anti-Semitism), 321S. Prerequisite: Upper-division standing.

## SOC 321T. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: Sociology of Africa), Sociology 321K (Topic: Sociology of Africa), 321T. Prerequisite: Upper-division standing.

## SOC 321U. Urban Sociology.

Same as Urban Studies 354 (Topic 11). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321 K (Topic: Urban Sociology), 321U, Urban Studies 354 (Topic: Urban Sociology), 354 (Topic 11). Prerequisite: Upper-division standing.

## SOC 321V. 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. Three lecture hours a week for one semester. Sociology 321 K (Topic: Environmental Sociology) and 321V may not both be counted. Prerequisite: Upper-division standing.

## SOC 322C. 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. Three lecture hours a week for one semester. Sociology 321K (Topic: Sociology of Creativity) and 322C may not both be counted. Prerequisite: Upper-division standing.

## SOC 322D. Race and the Digital.

Same as African and African Diaspora Studies 322D and Women's and Gender Studies 322 (Topic 7). 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. Only one of the following may be counted: African and African Diaspora Studies 322D, 374E (Topic: Race, Culture, and Migration), Sociology 321K (Topic: Race, Culture, and Migration), 322D, Women's and Gender Studies 322 (Topic: Race, Culture, and Migration), 322 (Topic 7). Prerequisite: Upper-division standing.

## SOC 322E. Entrepreneurship and Innovation.

Overview of entrepreneurship, with a special emphasis on technology transfer and wealth creation. Examination of "how" and "why" entrepreneurship takes place, focusing on the entrepreneurial process, the history (elements from the ancient world), and theoretical aspects of new venture developments. Three lecture hours a week for one semester. Only on of the following may be counted: Management 337 (Topic: Entrepreneurship and Innovation), Sociology 321K (Topic:

Entrepreneurship and Innovation), 322E. Prerequisite: Upper-division standing.

## SOC 322M. Sociology of Masculinities.

Same as Women's and Gender Studies 322 (Topic 3). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Sociology of Masculinities), 322M, Women's and Gender Studies 322 (Topic: Sociology of Masculinities), 322 (Topic 3). Prerequisite: Upper-division standing, three hours of coursework in sociology, and three hours of coursework in women's and gender studies.

## SOC 322P. Sex and Violence in Popular Culture.

Same as Women's and Gender Studies 322 (Topic 10). Overview of the cultural framing of sex and violence through realistic and hyperrealistic 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Sex and Violence in Popular Culture), 322P, Women's and Gender Studies 322 (Topic 10), 345 (Topic: Sex and Violence in Popular Culture). Prerequisite: Upper-division standing.

## SOC 322R. Race, Sport, and Identity.

Same as African and African Diaspora Studies 374D (Topic 5: Race, Sport, and Identity). Explores the sociological significance of sport in relation to the construction of racialized identities. Focuses primarily but not exclusively on the black experience in sport, and examines the changing meanings given to sport throughout the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374 (Topic: Race, Sport, and Identity), 374D (Topic 5), Sociology 321K (Topic 8: Race, Sport, and Identity), 322R. Prerequisite: Upper-division standing and Sociology 302.

## SOC 322S. The Sociology of Sport.

Examines the place of sport within social theory, with particular emphasis on the understanding of sport and society found in functionalist, Weberian, Marxist, figurational, feminist, and postmodernist accounts. This theoretical framework is used to explore key social issues in sport, including gender and representation, violence and deviancy, commercialization and college sport, race and inequality, and nationalism and identity. Three lecture hours a week for one semester. Sociology 321 K (Topic 7: The Sociology of Sport) and 322S and may not both be counted. Prerequisite: Upper-division standing and Sociology 302.

## SOC 322V. Race, Gender, and Surveillance.

Same as African and African Diaspora Studies 372C (Topic 12) and Women's and Gender Studies 322 (Topic 8). 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic 12), 374E (Topic: Surveillance and Social Control), Sociology 321K (Topic: Surveillance and Social Control), 322V, Women's
and Gender Studies 322 (Topic: Surveillance and Social Control), 322 (Topic 8). Prerequisite: Upper-division standing.

## SOC 323. The Family.

Same as Women's and Gender Studies 345 (Topic 2). 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. Three lecture hours a week for one semester. Sociology 323 and Women's and Gender Studies 345 (Topic 2) may not both be counted. Prerequisite: Upper-division standing.

## SOC 323M. Sport and English Society.

Same as European Studies 346 (Topic 6). Restricted to students in the Maymester Abroad Program; contact the University's Study Abroad Office for permission to register for this class. Uses the context of sport to explore the internal divisions around class and region that are central to understanding English identity, particularly the tensions between "the north" and "the south," as well as to discover the origins of American sports such as football and baseball. The equivalent of three lecture hours a week for one semester. Taught in Leeds, England. Only one of the following may be counted: European Studies 346 (Topic: Sport and English Society), 346 (Topic 6), Kinesiology 350, Sociology 321K (Topic: Sport and English Society), 323M. Prerequisite: Upper-division standing.

## SOC 324K. Social Change in Developing Nations.

Overview of changing social structure in the Third World. Three lecture hours a week for one semester. Latin American Studies 325 (Topic 2: Social Change in Developing Nations) and Sociology 324K may not both be counted. Prerequisite: Upper-division standing.

## SOC 325K. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and completion of six semester hours of coursework in sociology.

## SOC 325L. Sociology of Criminal Justice.

Same as Urban Studies 354 (Topic 12). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 325L, Urban Studies 354 (Topic: Sociology of Criminal Justice), 354 (Topic 12). Prerequisite: Upper-division standing.

## SOC 329. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing. Completion of Sociology 317 L or another statistics course is recommended, but not required.

SOC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May
be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## SOC 330C. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## SOC 330P. Sociology and Social Psychology.

Examines how individuals perceive, interact with, and affect other individuals from the perspectives of both psychology and sociology. Three lecture hours a week for one semester. Sociology 321K (Topic: Sociology and Social Psychology) and 330P may not both be counted. Prerequisite: Upper-division standing.

## SOC 333K. Sociology of Gender.

Same as Women's and Gender Studies 322 (Topic 1: Sociology of Gender). Inequality between the sexes; men's and women's changing roles in society. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## SOC 335. Society of Modern Mexico.

Same as Latin American Studies 325 (Topic 1: Society of Modern Mexico) and Urban Studies 354 (Topic 2: Society of Modern Mexico). Family, community, industrialization, and urbanization in modern Mexico. Three lecture hours a week for one semester.

## SOC 336C. American Dilemmas.

Same as Urban Studies 354 (Topic 13) and Women's and Gender Studies 345 (Topic 26). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 336C, Urban Studies 354 (Topic: American Dilemmas), 354 (Topic 13), Women's and Gender Studies 345 (Topic 26). Prerequisite: Upper-division standing.

## SOC 336D. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374 (Topic: Race, Class, and Health), Sociology 321K (Topic: Race, Class, and Health), 336D. Prerequisite: Upper-division standing.

## SOC 336G. Gender Politics in the Islamic World.

Same as Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Religious Studies 358 (Topic 8), and Women's and Gender Studies 340 (Topic 44). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 373 (Topic: Gender Politics in the Islamic World), 373 (Topic 11), Middle Eastern Studies 322K (Topic: Gender Politics in the Islamic World), 341 (Topic: Gender Politics in the Islamic World), 341 (Topic 7), Religious Studies 358 (Topic: Gender Politics in the Islamic World), 358 (Topic 8), Sociology 321K (Topic: Gender Politics in the Islamic World), 336G, Women's and Gender

Studies 340 (Topic: Gender Politics in the Islamic World), 340 (Topic 44). Prerequisite: Upper-division standing.

## SOC 336P. 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. Three lecture hours a week for one semester. Sociology 321K (Topic: Social Psychology and the Law) and 336P may not both be counted. Prerequisite: Upper-division standing.

## SOC 340C. Globalization.

Same as European Studies 346 (Topic 7). 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. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Globalization), 346 (Topic 7), Sociology 321K (Topic: Globalization), 340C. Prerequisite: Upper-division standing.

## SOC 340D. 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. Three lecture hours a week for one semester. Sociology 321K (Topic: Violence) and 340D may not both be counted. Prerequisite: Upper-division standing.

## SOC 340G. Sociology of Sexualities.

Same as Women's and Gender Studies 322 (Topic 5). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321 K (Topic: Sociology of Sexuality), 340G, Women's and Gender Studies 322 (Topic: Sociology of Sexuality), 322 (Topic 5). Prerequisite: Upper-division standing; Sociology 302; and Sociology 333K or three semester hours of coursework in women's and gender studies.

## SOC 340L. 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. Three lecture hours a week for one semester. Sociology 321 K (Topic: Aging and the Life Course) and 340L may not both be counted. Prerequisite: Upperdivision standing.

## SOC 344. Racial and Ethnic Relations.

Contemporary racial and ethnic problems; emphasis on minority groups in the United States. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## SOC 350M. Sociology Internship Seminar.

Restricted to students in the College of Liberal Arts. Students serve as supervised, unpaid interns in an agency, organization, or business. Provides an opportunity for students to apply the knowledge and skills acquired in sociology and other liberal arts courses. Three lecture hours and at least nine hours of fieldwork a week for one semester. Prerequisite:

Upper-division standing and credit or registration for six semester hours of coursework in sociology.

## SOC 350N. Research Internship.

Fieldwork in research and analysis on sociological problems and institutions. About ten hours of fieldwork a week for one semester. Additional lecture hours may be required. May be repeated for credit. Prerequisite: Nine semester hours of coursework in sociology, a University grade point average of at least 3.00, upper-division standing, and consent of the faculty undergraduate adviser.

## SOC 352. Social Movements.

Same as American Studies 321 (Topic 7). Characteristics of crowds, publics, and social movements; their role in social organization and social change. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Social Movements), American Studies 321 (Topic 7), Sociology 352. Prerequisite: Upper-division standing.

## SOC 352D. Boundaries and Dilemmas.

Designed to explore policy issues linked to universal moral imperatives, violations of these imperatives, and how violations are justified. The objective is to clarify how students think about matters of life and death and help students develop research skills in a subject of significant policy importance. Three lecture hours a week for one semester. Only one of the following may be counted: Liberal Arts Honors 350 (Topic: Boundaries and Dilemmas), Sociology 352M (Topic: Boundaries and Dilemmas), 352D. Prerequisite: Upper-division standing.

## SOC 352E. Media Industries and Entrepreneurship.

Same as Radio-Television-Film 365 (Topic 9). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Radio-Television-Film 365 (Topic: Media Industries and Entrepreneurship), 365 (Topic 9), Sociology 352E, 352M (Topic: Media Industries and Entrepreneurship). Prerequisite: For radio-television-film majors, upper-division standing and twelve semester hours of lower-division coursework in radio-television-film; for others, consent of instructor.

## SOC 352M. Topics in Interdisciplinary Social Science.

An interdisciplinary analysis of significant social, economic, and political issues. Three lecture hours a week for one semester. Some topics are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Language and Speech in American Society. Same as American Studies 321 (Topic 2: Language and Speech in American Society), Anthropology 325N, and Linguistics 373 (Topic 2: Language and Speech in American Society). Prerequisite: Upper-division standing, and Anthropology 302, 305, 307, or Linguistics 306.
Topic 4: Language in Culture and Society. Same as Anthropology 325M and Linguistics 373 (Topic 3: Language in Culture and Society). Language as a cultural resource; functions of language in society; survey of language communities. Prerequisite: Anthropology 302, 305, 307, or Linguistics 306; or consent of instructor.
Topic 5: Family Policy Issues. Same as Women's and Gender Studies 345 (Topic 12: Family Policy Issues). Consideration of liberal, conservative, and centrist views concerning the major family policy issues facing the United States and other advanced industrial societies.

## SOC 352S. Globalization and Social Media.

Same as Radio-Television-Film 365 (Topic 10). Issues surrounding the hype, myth, paradox, and reality of social media in a global context. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Globalization and Social Media), Journalism 349T (Topic: Globalization and Social Media), Radio-Television-Film 331M (Topic: Globalization and Social Media), 365 (Topic 10), Sociology 321K (Topic: Globalization and Social Media), 352S. Prerequisite: For radio-television-film majors, upper-division standing and twelve semester hours of lower-division coursework in radio-televisionfilm; for others, consent of instructor.

## SOC 354K. Sociology of Health and IIIness.

Application of sociological concepts and principles to the study of health professions, medical institutions, community medical organization, and the distribution of illness. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## SOC 358D. Health Policy and Health Systems.

Covers the essentials of health policy and law, including the ways that policy and legal issues impact health care and public health systems. Three lecture hours a week for one semester. Public Health 358D and Sociology 358D may not both be counted. Prerequisite: Upper-division standing.

## SOC 359. Labor and Labor Movements.

Overview of work organizations in the United States, with emphasis on globalization, inequality, and labor movements. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

SOC 366. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## SOC 368D. Social Context of Public Health.

An introduction to the social and behavioral theories that inform the discipline of public health, including practical examples of the ways that these theories are used to understand health-related behaviors and health promotion. Includes data on population distributions of mortality and morbidity, health inequalities, and how underlying social structures impact the health of individuals and communities. Three lecture hours a week for one semester. Public Health 368D and Sociology 368D may not both be counted. Prerequisite: Upper-division standing.

## SOC 369K. Population and Society.

Same as Women's and Gender Studies 322 (Topic 2). The study of populations, including their growth, age structure, and patterns of fertility, mortality, and migration; the social causes and consequences of these phenomena. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 369K, Women's and Gender Studies 322 (Topic: Population and Society), 322 (Topic 2). Prerequisite: Upper-division standing.

## SOC 369L. Analytical Demography.

Formal demography; stable population theory; life tables and techniques of mortality estimation; estimates and projections. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and college algebra or the equivalent.

## SOC 679H. Honors Tutorial Course.

Research into and development of a thesis topic and proposal followed by the writing and defense of a thesis. The equivalent of three lecture
hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Sociology Honors Program; for 679HB, Sociology 679HA.

## SOC 379M. Sociological Theory.

Restricted to sociology majors. Critical examination of major sociological theories and their relevance to current research and social conditions. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and six semester hours of coursework in sociology or consent of instructor.

## SOC 379N. Conference Course.

Supervised individual study of selected problems in sociology. Conference course. May be repeated for credit. Prerequisite: Upper-division standing, Sociology 302 or the equivalent, nine semester hours of upper-division coursework in sociology or related fields, a University grade point average of at least 3.00 , and consent of the faculty undergraduate adviser.

SOC 379P. Undergraduate Research Opportunity.
Restricted to sociology majors. Students participate in research-related activities with faculty members in the Department of Sociology. Activities may include collecting interview or survey data, analyzing statistics, synthesizing research literature, and coding qualitative data. Five to seven hours a week for one semester. May be repeated for credit but may only be taken once on the letter-grade basis. Prerequisite: Upperdivision standing, Sociology 302 or the equivalent, nine semester hours of upper-division coursework in sociology or related fields, a University grade point average of at least 3.00 , and consent of the faculty undergraduate adviser.

## Department of Spanish and Portuguese

Unless otherwise noted below or in the Course Schedule (http:// registrar.utexas.edu/schedules), all upper-division Portuguese courses are conducted in Portuguese, and all upper-division Spanish courses are conducted in Spanish.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p.675).

## Portuguese Civilization: PRC

## Lower-Division Courses

PRC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## PRC 320E. Topics in Brazilian Studies.

Focuses on significant issues in Brazilian society and culture. Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree.

May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing.

Topic 1: Samba to Hip Hop: Brazilian Popular Music. Same as Latin American Studies 328 (Topic 1). Examines the role of popular music in relationships of power with subordination and the impact of music as a form of cultural expression.
Topic 2: Global Brazil: Immigration and Diaspora in Brazilian Culture. Same as Latin American Studies 328 (Topic 2). 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. Only one of the following may be counted: Latin American Studies 328 (Topic 2), 370P (Topic 6), Portuguese Civilization 320E (Topic 2), Portuguese 375 (Topic 7).
Topic 3: Afro-Luso-Brazilian Worlds. Same as Latin American Studies 328 (Topic 3). Study of the myths and realities in the Afro-Luso-Brazilian worlds and the connections and contrasts between them. Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Afro-Luso-Brazilian Worlds), Comparative Literature 323 (Topic: Afro-Luso-Brazilian Worlds), Latin American Studies 328 (Topic 3), 370P (Topic: Afro-Luso-Brazilian Worlds), Portuguese Civilization 320E (Topic: Afro-Luso-Brazilian Worlds), 320E (Topic 3).

PRC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## Portuguese: POR

## Lower-Division Courses

## POR 601D. Introductory Portuguese.

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. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 601D and 610D; 604; 406 and 407; 508; 610S.

## POR 303S. Portuguese for Professional Purposes.

Designed for students in a variety of disciplines who require basic Portuguese language skills while studying abroad. Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May not be counted toward a major in Portuguese.

## POR 604. Accelerated First-Year Portuguese.

Designed primarily for language majors and students who demonstrate exceptional language ability or scholarship. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 601D and 610D; 604; 406 and 407; 508; 610S. Prerequisite: Consent of the lower-division coordinator for Portuguese.

## POR 406 (TCCN: PORT 1411). First-Year Portuguese I.

Four lecture hours a week for one semester. Only one of the following may be counted: Portuguese 601D and 610D; 604; 406 and 407; 508; 610S.

## POR 407 (TCCN: PORT 1412). First-Year Portuguese II.

Four lecture hours a week for one semester. Only one of the following may be counted: Portuguese 601D and 610D; 604; 406 and 407; 508; 610S. Prerequisite: Portuguese 406 with a grade of at least $C$.

## POR 508. Alternate First-Year Portuguese for Spanish Students.

Designed to provide qualified Spanish students a rapid introduction to the Portuguese language; emphasis on grammar, vocabulary, and translation in the context of Brazilian culture. Five lecture hours a week for one semester. Only one of the following may be counted: Portuguese 601D and 610D; 604; 406 and 407; 508; 610S. Prerequisite: Spanish 312L with a grade of at least $B$.

## POR 610D. Intermediate 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. Six lecture hours a week for one semester. Only one of the following may be counted: 604, 610D, 610S. Only one of the following may by counted: Portuguese 610D, $612,312 \mathrm{~K}, 516$. Prerequisite: Portuguese 601D or 407 with a grade of at least $C$.

## POR 610S. 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. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 601D and 610D; 604; 406 and 407; 508; 610S. Prerequisite: Spanish 611D or 312 L with a grade of at least $B$.

## POR 611D. Intermediate Portuguese II.

Continuation of Portuguese 610D, with an introduction to more complex grammatical structures. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 611D; 611S; 612; 312K and 312L; 516. Prerequisite: Portuguese 508, 610D, 610 S, or 312 K with a grade of at least C .

## POR 611S. Portuguese for Spanish Speakers II.

Continuation of Portuguese 610S. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 611S, 612 , 312K and 312L, 516. Portuguese 610D and 611S may not both be counted. Portuguese 611D and 611S may not both be counted. Prerequisite: Portuguese 604,508 , or 610 S with a grade of at least C.

## POR 612. Accelerated Second-Year Portuguese: Oral Expression, Reading, and Composition.

Covers the same material as Portuguese 312 K and 312 L , but in one semester. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 610D and 611D; 611S; 612; 312K and 312L; 516. Prerequisite: Portuguese 604 or 508 with a grade of at least $B$, or Portuguese 407 with a grade of $A$; and consent of the lowerdivision coordinator for Portuguese.

POR 312K (TCCN: PORT 2311). Second-Year Portuguese I: Oral Expression, Reading, and Composition.
Three lecture hours a week for one semester. Only one of the following may be counted: Portuguese 610D and 611D; 611S; 612; 312K and 312L; 516. Prerequisite: Portuguese 604,407 , or 508 with a grade of at least $C$.

## POR 312L (TCCN: PORT 2312). Second-Year Portuguese II: Oral Expression, Reading, and Composition.

Three lecture hours a week for one semester. Only one of the following may be counted: Portuguese 610D and 611D; 611S; 612; 312K and 312L; 516. Prerequisite: Portuguese 312 K with a grade of at least $C$.

## POR 516. Alternate Second-Year Portuguese for Spanish Speakers.

For qualified Spanish-speaking students, continued practice in the Portuguese language; emphasis on oral expression, vocabulary expansion, writing, and review of grammar in the context of cultural and literary readings. Five class hours a week for one semester. Only one of the following may be counted: Portuguese 610D and 611D; 611S; 612; 312 K and 312L; 516. Prerequisite: Portuguese 508 with a grade of at least B.

POR 318. Conversation and Composition.
Intensive practice in oral expression, based on cultural readings, with some writing. Three lecture hours a week for one semester. Prerequisite: Portuguese 312L. With consent of the lower-division coordinator for Portuguese, Portuguese 312L may be taken concurrently.

## POR 319C. Culture and Conversation.

Designed to improve oral skills and speaking strategies in different discourse genres including informal, formal, academic, and travel. Analysis and discussion of videos, films, short stories, and news articles highlighting Portuguese-speaking culture, with a focus on Brazil. Three lecture hours a week for one semester. Prerequisite: Portuguese 611D, $611 \mathrm{~S}, 612,312 \mathrm{~L}$, or 516.

POR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

POR 321. Sounds and Intonation.
Introduction to the study of Portuguese phonetics and phonology, focusing on four aspects: mechanisms of sound production, representation of sounds and intonation, dialect variation, and comparison with English. Three lecture hours a week for one semester. Prerequisite: Portuguese 327C and one of the following: Portuguese 328C, 330L, or Portuguese Civilization 320E.

## POR 322C. Conference Course in Luso-Brazilian Civilization.

Conference course. Prerequisite: Portuguese 611D, 611S, 612, or 312L, and written consent of the department chair.

## POR 322L. Conference Course in Luso-Brazilian Literature.

Conference course. Portuguese 611D, 611S, 612 or 312L, and written consent of the department chair.

## POR 327C. 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. Three lecture hours a week for one semester. Portuguese 327C and 362 may not both be counted. Prerequisite: Portuguese 611D, 611S, 612, 312L, or 516.

## POR 328C. Introduction to Literatures and Cultures.

Same as Latin American Studies 370P (Topic 2). Overview of LusoBrazilian 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. Three lecture hours a week for one semester. Prerequisite: Portuguese 611D, 611S, $612,312 \mathrm{~L}$, or 516.

POR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## POR 130D. Portuguese across Disciplines.

Students read and discuss Portuguese language materials related to the subject matter of another designated course. One lecture hour a week for one semester May not be counted towards fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: One upperdivision Portuguese course or consent of instructor.

## POR 330L. 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. Three lecture hours a week for one semester. Prerequisite: Portuguese 611D, 611S, 612, 312 L , or 516.

## POR 341. Luso-Brazilian Civilization and Culture.

Analysis of social, political, and cultural aspects of Portugal and/or Brazil. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Portuguese 611D, 611S, 612, 312L, or 516.

## POR 343. Topics in Indigenous Cultures in the Americas.

Examines how indigenous writers, artists, and cultural producers have established their own voices and languages through writing and other forms of media. Analyzes the indigenous artistic and intellectual production in concrete political and cultural contexts. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320E.

## POR 344. Topics in Iberian Literatures and Cultures.

Themes and issues in the cultural production of the Iberian world. Examination of various cultural expressions as they apply to specific political and historical contexts. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite:

Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320E.

Topic 1: Lusophone African Literatures and Cultures. Overview of the lusophone African literatures and cultures, especially in Angola, Mozambique, and Cape Verde. Portuguese 329 and 344 (Topic 1) may not both be counted.

## POR 348. Studies of African Cultures in Dialogue.

Studies the cultural production of African and Afro-descendant people in the Iberian and Latin American worlds. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320E.

Topic 1: Race and Slavery in Brazil. Same as Latin American Studies 370P (Topic 7). Focus on the differing meanings and values attributed by major Brazilian writers to the national "race." Topics include images of slavery and slaves in the Brazilian abolitionist literature; fictional and self-representational literature by Afro-Brazilian authors; the debate around the "Black Aesthetic"; and finally, the representation of Afro-Brazilians in other media such as film, painting, television, and popular music (samba, hip-hop, funk). Only one of the following may be counted: Latin American Studies 370P (Topic: The Color of Progress: Race and Slavery in Brazil), 370P (Topic 7), Portuguese 348 (Topic 1), 375 (Topic: The Color of Progress: Race and Slavery in Brazil).
Topic 2: Afro-Brazilian Diaspora. Same as Latin American Studies 370P (Topic 8). Examines Afro-Brazilians in the post-abolition (1888 and after) era and the strategies deployed by cultural producers and participants in social movements to overcome the barriers to the achievement of political power and self-determination.
Topic 3: Brazilian and African Dialogues. Same as Latin American Studies 370P (Topic 9). A general introduction to the colonial and postcolonial experiences of Portuguese-speaking Africa. Overview of the socio-political and economic experiences of the lusophone African countries under colonialism. Examination of the armed struggle and the combative literary outpourings that impacted morale in the fight for independence.

## POR 350F. Topics in Film and Media Cultures.

Audiovisual and media production treatment examined through themes in contemporary Iberian, Latin American, or African societies. Subjects include the analysis of the language, audiovisual, and media cultures and their implications. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320E.

Topic 1: Contemporary Brazilian Film. Same as Latin American Studies 370P (Topic 3). Explores recent filmmaking in Brazil as an art form and as a method of articulating important aspects and concerns of contemporary Brazilian society. Topics include cinema and development, modernization, national and regional identity, race, social exclusion, violence, and neoliberalism. Only one of the following may be counted: Latin American Studies 370P (Topic 3), Portuguese 350F (Topic 1), 350K.
Topic 2: Brazilian Film and Culture. Same as Latin American Studies 370P (Topic 4). Students will be given 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. Only one of the following may be counted: Latin American Studies 370P (Topic 4), Portuguese 350F (Topic 2), Portuguese 350K.

## POR 352. Brazilian and Spanish American Literature.

Brazilian and Latin American literature and culture from the twentieth century and later. Studies the literary trends and social roles in the region
while comparing and contrasting the culture and history from both Spanish America and Brazil. Three lecture hours a week for one semester. Prerequisite: Portuguese 611D, 611S, 612, 312L, or 516.

## POR 353. Sociolinguistics.

Same as Latin American Studies 370P (Topic 11). 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. Three hours a week for one semester. Latin American Studies 370P (Topic 11) and Portuguese 353 may not both be counted. Prerequisite: Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320E.

## POR 354. United States Latino Literatures and Cultures in Context.

Same as Latin American Studies 370P (Topic 10). 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. Three lecture hours a week for one semester. Prerequisite: Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320E.

## POR 362. Advanced Composition.

Translation of English texts into Portuguese and free composition; special attention to idiomatic expressions and to grammatical and syntactical features. Three lecture hours a week for one semester. Prerequisite: Portuguese 611D, 611S, 612, 312L, or 516.

## POR 364L. Applied Linguistics.

Introduction to the linguistic structure of Portuguese; application of linguistic principles to the teaching of Portuguese. Three lecture hours a week for one semester. Prerequisite: Portuguese 611D, 611S, 612, 312L, or 516 .

## POR 367P. Portuguese for the Professions.

Develop vocabulary, grammar, expressions, and interactional skills for professional purposes. Topics include cultural issues that influence professional activities in Portuguese-speaking communities. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Portuguese 327C.

Topic 1: Business in Brazilian Life and Culture. Same as Latin American Studies 322 (Topic 16). Cultural aspects of business practices in Brazil. Only one of the following may be counted: Latin American Studies 322 (Topic 16), 370P (Topic: Cultural Aspects of Doing Business in Brazil), Portuguese 367P (Topic 1), Portuguese Civilization 320E (Topic: Cultural Aspects of Doing Business in Brazil).

## POR 368C. Topics in Languages in Contact.

Examination of Portuguese in contact with other languages among different regional varieties in historical and contemporary settings. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320C.

## POR 368S. Topics in Language Structure and Use.

Examines the major structural components of Portuguese and how these are used in context to fulfill a variety of communicative functions. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320E.

## POR 375. Topics in Brazilian Literature and Culture.

Important themes or issues in the Brazilian culture production. Designed to explore various cultural expressions and to understand them in specific political and historical contexts. Also may explore the cultural dialogues Brazil has established with other nations or regions. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Portuguese 327C and one of the following: 328C, 330L, or Portuguese Civilization 320E.

Topic 5: Brazil: An Introduction. Same as Latin American Studies 370P (Topic 1: Brazil: An Introduction).
Topic 6: Gender, Sexuality, and Labor in Brazilian Culture. Same as Latin American Studies 370P (Topic 5). Introduction to the vast spectrum of working women characters, including maids, prostitutes, teachers, factory workers, doctors, street vendors, and unpaid housewives, in Brazilian literature and film, in order to examine the roles of race and gender in shaping the stereotypes surrounding women's labor in modern Brazil. Latin American Studies 370P (Topic 5) and Portuguese 375 (Topic 6) may not both be counted.

Topic 7: Global Brazil: Immigration and Diaspora in Brazilian Culture. Same as Latin American Studies 370P (Topic 6). 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. Latin American Studies 370P (Topic 6) and Portuguese 375 (Topic 7) may not both be counted. Additional prerequisite: Portuguese 327 C and one of the following: 328C, 330L, or Portuguese Civilization 320E.

## POR 378H. Honors Seminar.

Honors seminar on a special topic in literature, linguistics, or civilization. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, admission to the Portuguese Honors Program, and consent of the honors adviser.

## POR 379C. 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. Three semester hours a week for one semester. Prerequisite: Portuguese 327C, 328C, and twelve hours of upper-division coursework in Portuguese.

## POR 379H. Honors Tutorial Course.

Supervised individual research on a literary, linguistic, or cultural problem, culminating in a written thesis. The equivalent of three lecture hours a week for one semester. Prerequisite: Credit or registration for Portuguese 379C or 379L, upper-division standing, admission to the Iberian and Latin American Languages and Cultures Honors Program, and consent of the honors adviser.

## POR 379L. 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. Three lecture hours a week for one semester. Prerequisite: Portuguese 327C, 330L, and twelve hours of upper-division coursework in Portuguese.

## Spanish Civilization: SPC

## Lower-Division Courses

SPC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## SPC 320C. Topics in Iberian or Latin American Studies.

Significant issues in Iberian or Latin American societies and cultures. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

> Topic 1: Jewish Voices from Latin America. Same as Jewish Studies 363 (Topic 15) and Latin American Studies 328 (Topic 4). An introduction to Jewish writers from Brazil and Latin America, with an emphasis on those whose works portray the situation of the Jewish communities in their respective cities and countries. Only one of the following may be counted: Jewish Studies 363 (Topic: Latin American Jewish Writers), 363 (Topic 15), Latin American Studies 328 (Topic 4), 370 (Topic: Latin American Jewish Writers), 370 (Topic 32), Spanish 352 (Topic), 355 (Topic 3), Spanish Civilization 320C (Topic 1). Prerequisite: Upper-division standing.

> Topic 2: Mediascapes: Literature and Media in the Caribbean. Same as Latin American Studies 328 (Topic 5). Analyzes the relationship between literature and media technologies in contemporary Caribbean cultures. Only one of the following may be counted: Latin American Studies 328 (Topic 5), 370 S (Topic 28), Spanish Civilization 320C (Topic 2), Spanish 350K (Topic 5).

SPC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## Spanish: SPN <br> Lower-Division Courses

## SPN 301. Spanish for Graduate Students in Other Departments.

For graduate students in other departments seeking to fulfill degree language requirements. No auditors. 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. Three class hours a week for one semester. Offered every fall semester. May not be used to fulfill the undergraduate foreign language requirement. Offered on the lettergrade basis only. Prerequisite: Graduate standing.

## SPN 601D. Introductory Spanish.

Six-hour course focused on the development of multilingual literacy through the analysis and use of Spanish to achieve linguistic competence
(basic verb tenses, pronouns, adjectives, conditional statements), communication and interactional competence (complimenting, thanking, requesting, giving opinions), and metalinguistic competence (parts of speech, sociolinguistic cues). Six lecture hours a week for one semester. Only one of the following may be counted: Spanish 601D, 604, 506. Only one of the following may be counted: Spanish 601D, 604, 507, 508K.

## SPN 303S. Spanish for Professional Purposes.

Designed for students in a variety of disciplines who require basic Spanish language skills while studying abroad. Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May not be counted toward a major in Spanish.

## SPN 604. Accelerated Introductory Spanish for Heritage Learners.

Designed primarily for students who have a cultural and linguistic connection to Spanish. Six lecture hours a week for one semester. Only one of the following may be counted: Spanish 601D, 604, 506. Only one of the following may be counted: Spanish 601D, 604, 507, 508K. Spanish 604 and 610D may not both be counted.

## SPN 305. Spanish for Graduate Students in Other Departments.

No auditors. Continuation of Spanish 301. Vocabulary and grammar expansion through intense practice in reading texts according to class interests; increased emphasis on the audio-aural aspect. Three lecture hours a week for one semester. Offered every spring semester. May not be used to fulfill the undergraduate foreign language requirement. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and Spanish 301 or consent of instructor.

SPN 506 (TCCN: SPAN 1511). First-Year Spanish I.
Designed for students who have not previously studied any Spanish. Five lecture hours a week for one semester. Only one of the following may be counted: Spanish 601D, 604, 506.

## SPN 507 (TCCN: SPAN 1512). First-Year Spanish II.

Five lecture hours a week for one semester. Only one of the following may be counted: Spanish 601D, 604, 507, 508K. Prerequisite: Spanish 506 with a grade of at least $C$.

## SPN 508K. Alternate First-Year Spanish II.

An accelerated review of grammatical structures covered in Spanish 506 , followed by study of the new material covered in Spanish 507. Five lecture hours a week for one semester. Only one of the following may be counted: Spanish 601D, 604, 507, 508K. Prerequisite: Transfer credit or credit by examination for Spanish 506, or high school coursework in Spanish, or credit for Spanish 506 earned at the University of Texas at Austin more than one calendar year ago, with a grade of at least C .

## SPN 610D. Intermediate Spanish I.

Six-hour course focused on the development of multilingual literacy through the analysis and use of Spanish to achieve linguistic competence (aspect, subjunctive, hypotheticals, passive voice), communication and interactional competence (apologizing, requesting, circumlocution), and metalinguistic competence (critical analysis of oral and written texts). Six lecture hours a week for one semester. Only one of the following may be counted: Spanish 610D, 612, 312K. Prerequisite: Spanish 601D, 604, 507 , or 508 K with a grade of at least C .

## SPN 611D. Intermediate Spanish II.

Six-hour course focused on the development of multilingual literacy through the analysis and use of Spanish to achieve linguistic competence (aspect, subjunctive, passive voice), communication and interactional
competence (pragmatics, cultural perspectives), and metalinguistic competence (dialectal differences). Six lecture hours a week for one semester. Only one of the following may be counted: Spanish 611D, 612, 312L. Prerequisite: Spanish 610D or 312K with a grade of at least C.

## SPN 612. Accelerated Intermediate Spanish for Heritage Learners.

Designed primarily for students who have a cultural and advanced linguistic connection to Spanish. Six lecture hours a week for one semester. Spanish 612 and 312 K may not both be counted. Only one of the following may be counted: Spanish 611D, 612, 312L. Prerequisite: Spanish 604 with a grade of at least $B$, or 610D with a grade of at least $C$.

## SPN 312K (TCCN: SPAN 2311). Second-Year Spanish I.

Three lecture hours a week for one semester. Only one of the following may be counted: Spanish 610D, 612, 312K. Prerequisite: Spanish 604, 507 , or 508 K with a grade of at least C.

## SPN 312L (TCCN: SPAN 2312). Second-Year Spanish II.

Three lecture hours a week for one semester. Only one of the following may be counted: Spanish 611D, 612, 312L. Prerequisite: Spanish 312K with a grade of at least C.

## SPN 318. Conversation and Composition.

Designed to give intensive practice in oral expression, based on cultural readings, with some writing. Three lecture hours a week for one semester. Spanish 315 N and 318 may not both be counted. May not be counted toward a major in Spanish. This course or the equivalent is recommended but not required for all majors in Spanish. Prerequisite: Spanish 612 or 312L.

## SPN 319. Advanced Oral Expression.

Designed to develop listening comprehension and oral skill to an advanced level. Three lecture hours a week for one semester. May not be counted toward a major in Spanish. Recommended for all Spanish majors. Prerequisite: Consent of instructor.

SPN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, $919 S$. 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. May not be counted toward a major in Spanish. May be repeated for credit when the topics vary.

## Upper-Division Courses

## SPN 327C. 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. Three lecture hours a week for one semester. Spanish 327C and 327G may not both be counted. Prerequisite: Spanish 611D, 612, or 312L.

## SPN 327W. Advanced Grammar and Composition II.

Develops writing skills needed for upper-division coursework in Spanish. Emphasizes grammar in Spanish language, literature, and culture, exploring different compositional styles. Three lecture hours a week for one semester; some sections may require additional hours. Prerequisite: Spanish 327G with a grade of at least C.

## SPN 328. Spanish Civilization.

A survey of the social, political, and cultural history of Spain. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Spanish 611D, 612, or 312L.

## SPN 328C. Introduction to Literatures and Cultures.

Same as Latin American Studies 370S (Topic 27). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370 (Topic 27), Spanish 328, 328C. Only one of the following may be counted: Latin American Studies 370S (Topic 3), 370 (Topic 27), Spanish 322K, 328C. Prerequisite: Spanish 611D, 612, or 312L.

SPN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May not be counted toward a major in Spanish. May be repeated for credit when the topics vary.

## SPN 130D. Spanish across Disciplines.

Students read and discuss Spanish language materials related to the subject matter of another designated course. One lecture hour a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: One upperdivision Spanish course or consent of instructor.

## SPN 330L. 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. Spanish 330L and 345L may not both be counted. Prerequisite: Spanish 611D, 612, or 312L.

## SPN 346. Sounds and Intonation.

Introduction to the study of Spanish phonetics and phonology, focusing on four aspects: mechanisms of sound production, representation of sounds and intonation, dialect variation, and comparison with English. Three lecture hours a week for one semester. Prerequisite: Spanish 327 and one of the following: 328C, 330L, or Spanish Civilization 320C.

## SPN 350K. Topics in Film and Media Cultures.

Examines important themes in Iberian, Latin American, or African societies and examines their treatment in audiovisual and media production. Three lecture hours a week for one semester. Spanish 350 and 350 K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Spanish 327 and either: 328C, 330L, or Spanish Civilization 320C.

Topic 1: Gender Issues in Contemporary Latin American Cinema. Same as Latin American Studies 370S (Topic 24: Gender Issues in 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. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370 (Topic 24), Spanish 350 (Topic: Gender in Contemporary Latin American Cinema), 350K (Topic 1).
Topic 2: Violence in Spanish Film. Focus on representations of violence in film from and about Spain since the 1920s to present. Includes the Spanish Civil War, torture, and other state-sanctioned violence; children and violence; violence against women; homophobic violence; terrorism; and ethnic and racist violence.
Topic 3: Latin American Film and Culture. Same as Latin American Studies 370 (Topic 25: Latin American Film and Culture). Overview of Latin American cinema from the silent era to present, with an emphasis on the last forty years. Subjects covered include: 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. Taught in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 25), Spanish 350 (Topic: Latin American Film and Culture), 350K (Topic 3).
Topic 4: Latin American Literature and Film. Same as Latin American Studies 370S (Topic 26: Latin American Literature and Film). Studies, in a broad sense, the connections between Latin American cinema and literature, through extensive readings and inclass movie exhibitions. A number of renowned literary works by Latin American authors and their film versions will be analyzed with a comparative approach. Only one of the following may be counted: Latin American Studies 370S (Topic 26), Spanish 350 (Topic: Latin American Literature and Film), 350K (Topic 4), 352 (Topic: Literature and Cinema in Spanish America).
Topic 5: Mediascapes: Literature and Media in the Caribbean. Same as Latin American Studies 370 (Topic 28). Analyzes the relationship between literature and media technologies in contemporary Caribbean cultures. Examination of the notion and uses of Caribbean mediascapes; in other words, 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. Only one of the following may be counted: Latin American Studies 328 (Topic 5), 370S (Topic 28), Spanish 350K (Topic 5), Spanish Civilization 320C (Topic 2).
Topic 6: Indigenous Voices: From Nezahualcoyotl to Radio. Same as Latin American Studies 370 (Topic 29). Examines how Indigenous writers, intellectuals, and cultural producers have creatively established their own voices through writing and other forms of media. Only one of the following may be counted: Latin American Studies 370S (Topic: Indigenous Voices), 370 (Topic 29), Spanish 350 (Topic: Indigenous Voices), 350K (Topic 6).

## SPN 351. 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. Three lecture hours a week for one semester. Prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L or Spanish Civilization 320C.

## SPN 352. Topics in Spanish and Spanish American Literature.

Major writers and works of Spanish and Spanish American literature. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Spain in 1492. Spanish 350 (Topic: Spain in 1492) and 352 (Topic 1) may not both be counted. Prerequisite: Spanish 325K, 325L, 326 K , or 326L.
Topic 2: Literature of the Spanish Civil War. Prerequisite: Spanish 325K, 325L, 326K, or 326L.
Topic 3: The Latin American Short Story. Examination of the most representative Latin American authors as a course of study in the art of storytelling, literary history, individual poetics, and narrative theories. Prerequisite: Spanish 325K, 325L, 326K, or 326L.

## SPN 353. 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. Three lecture hours a week for one semester. Prerequisite: Spanish 327C (or 327G), and one of the following: Spanish 328C, 330L, or Spanish Civilization 320C.

## SPN 355. Topics in Latin American Literatures and Cultures.

Study of important themes or issues in the cultural production of the Latin American world. Among the regions studied are Spain; North, Central, and South America; the Caribbean; and related areas in Africa. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.

Topic 1: Fantastic Fiction from Latin America. Same as Latin American Studies 370S (Topic 30). Analysis of short stories by Latin American writers that in some way represent an alternative to realism. Latin American Studies (Topic 30) and Spanish 355 (Topic 1) may not both be counted.
Topic 2: Nonfiction Narratives from Latin America. Same as Latin American Studies 370S (Topic 31). Study of nonfiction works written in contemporary Latin America as experimental narrative forms that offer insight about current political, social, and economic problems of the region. Examination of these realities through readings and careful analysis of the works of popular nonfiction Latin American writers.
Topic 3: Jewish Voices from Latin America. Same as Latin American Studies 370S (Topic 32). 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. Only one of the following may be counted: Jewish Studies 363 (Topic: Latin American Jewish Writers), 363 (Topic 15), Latin American Studies 328 (Topic 4), 370S (Topic: Latin American Jewish Writers), 370 (Topic 32), Spanish 352 (Topic: Latin American Jewish Writers), 355 (Topic 3), Spanish Civilization 320C (Topic 1).
Topic 4: Sex and Sexuality in Latin America. Same as Latin American Studies 370S (Topic 33). Examines different representations of sex, sexuality, and eroticism in the various cultures of Latin America. These concepts do not refer to explicit or provocative texts or images in books, films, or photographs alone. On the contrary, they include a vast gamut of life, love, pain, and social conflict. Only one of the following may be counted: Latin American Studies 370S (Topic: Sexo/ Sexualidad en Latinoamerica), 370S (Topic 33), Spanish 352 (Topic: Sexo/Sexualidad en Latinoamerica), 355 (Topic 4).
Topic 5: Revolutionary Imagination in Latin American Cultures. Same as Latin American Studies 370S (Topic 34). Explores literary expressions in Latin America that reflect a dissident or transgressive imaginary published during the revolutionary period (1960-1990). Examination of how different sociohistorical experiences require new narrative forms, and innovative ways of exploring and codifying collective community identities. Only one of the following may be counted: Latin American Studies 370S (Topic: Revolutionary Imagination in Latin American Literature), 370S (Topic 34), Spanish

352 (Topic: Revolutionary Imagination in Latin American Literature), 355 (Topic 5).
Topic 6: Violence in Contemporary Mexican Culture. Same as Latin American Studies 370S (Topic 23) and Women's and Gender Studies 340 (Topic 20). 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. Only one of the following may be counted: Latin American Studies 370S (Topic 23), Spanish 350 (Topic 13), 355 (Topic 6), Women's and Gender Studies 340 (Topic 20). Additional prerequisite: Spanish 611D, 612, or 312L.
Topic 7: East/West/New World Encounters. Same as Latin American Studies 370 (Topic 36). Survey of 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. Only one of the following may be counted: Latin American Studies 370S (Topic: Visions of the East in Latin American Writing), 370 (Topic 36), Spanish 352 (Topic: Visions of the East in Latin American Writing), 355 (Topic 7).
Topic 8: Memory and Writing in Caribbean Culture. Same as Latin American Studies 370S (Topic 37). Studies 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. Only one of the following may be counted: Latin American Studies 370S (Topic: Writing and Memory in Caribbean Literature), 370 (Topic 37), Spanish 355 (Topic 8), 375 (Topic: Writing and Memory in Caribbean Literature).
Topic 9: Literary Figurations in the Multimedia Age. Same as Latin American Studies 370S (Topic 38). Focuses on the figurations of sounds and images in literary language in the context of the multimedia environment of modern and contemporary Latin America. Only one of the following may be counted: Latin American Studies 370S (Topic: Literary Figurations in the Multimedia Age), 370S (Topic 38), Spanish 352 (Topic: Literary Figurations in the Multimedia Age), 355 (Topic 9).

## SPN 356. Topics in Indigenous Cultures in the Americas.

Examines how indigenous writers, artists, and cultural producers have established their own voices and languages through writing and other forms of media. Analysis of the indigenous artistic and intellectual production in concrete political and cultural contexts. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.

Topic 1: Indigenous Voices in Latin American Literature. Same as Latin American Studies 370S (Topic 17). Only one of the following may be counted: Latin American Studies 370S (Topic 17), Spanish 350 (Topic 4), 356 (Topic 1). Additional prerequisite: Spanish 327C (or 327G), and one of the following: Spanish 328C, 330L, or Spanish Civilization 320C.
Topic 2: The Imagined Andes. Same as Latin American Studies 370 (Topic 22). Overview of literature and culture of the Andean regions. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: The Imagined Andes), 370 (Topic 22), Spanish 350 (Topic 12), 356 (Topic 2). Additional prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.

## Topic 3: Contemporary Mesoamerican Indigenous Literatures.

Same as Latin American Studies 370S (Topic 41). Examines the early Mesoamerican mythological narrative, Popol Wuj, as well as twentiethcentury Central American texts. Explores ethnicity, class, gender, and traditional cultures as main factors in regional negotiations of identity constructions. Only one of the following may be counted: Latin American Studies 370S (Topic: Contemporary Indigenous Literature),

370 (Topic 41), Spanish 352 (Topic: Contemporary Indigenous Literature), 356 (Topic 3).

## SPN 357. Topics in Iberian Literatures and Cultures.

Study of important themes or issues in the cultural production of the Iberian world. Subjects include various cultural expressions and their relevance in specific political and historical contexts. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.

Topic 1: Hispanic Chivalry. Study of the origins of chivalry with mounted warriors in feudal and crusading warfare. Emphasis on how knights became either the goons and enforcers, robbers of barons, or heroes and protectors of the people with the end of the crusading and Reconquest eras. Only one of the following may be counted: Latin American Studies 370 (Topic: Hispanic Chivalry), Spanish 350 (Topic: Hispanic Chivalry), 357 (Topic 1).
Topic 2: Cultures in Contact in Medieval Spain. Focus on the works of literature that reflect the three cultures which coexisted and flourished for almost eight centuries in medieval Spain: the Islamic, the Jewish, and the Christian. Only one of the following may be counted: Spanish 350 (Topic 8), 352 (Topic: Literature of Spain of Three Cultures), 357 (Topic 2).
Topic 3: Space in Contemporary Iberian Literatures and Cultures. Studies the representation of space in contemporary Spanish literature, with an emphasis on questions of gender, sexuality, memory, class, and artistic imagination. Spanish 357 (Topic 3) and 372 (Topic: Space in Contemporary Spanish Literature) may not both be counted.

## SPN 358. Studies of African Cultures in Dialogue.

Study of the cultural production of African and Afro-descendant people of the Iberian and Latin American worlds. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.

Topic 1: African Diasporas. Same as Latin American Studies 370 (Topic 42). Analysis of the sociocultural contexts of the African diaspora in the Americas with particular focus on the Caribbean and Brazil. Focuses on the contributions of the African diasporic populations and the stylistic strategies through which they constructed their social, political, and cultural agency. Only one of the following may be counted: Latin American Studies 370S (Topic: African Diaspora in Latin America and the Caribbean), 370 (Topic 42), Spanish 358 (Topic 1), 375 (Topic: African Diaspora in Latin America and the Caribbean).

## SPN 359. United States Latino Literatures and Cultures in Context.

Same as Latin American Studies 370S (Topic 43). 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. Three lecture hours a week for one semester. Latin American Studies 370S (Topic 43) and Spanish 359 may not both be counted. Prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.

## SPN 364L. 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. Three lecture hours a week
for one semester. Prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.

## SPN 365C. Conference Course in Hispanic Civilization.

Conference course. Prerequisite: Spanish 612 or 312L; and written consent of the department chair.

## SPN 365G. Conference Course in Hispanic Linguistics.

Conference course. Prerequisite: Spanish 612 or 312L; and written consent of the department chair.

## SPN 365L. Conference Course in Hispanic Literature.

Conference course. Prerequisite: Spanish 612 or 312L; and written consent of the department chair.

## SPN 367P. Spanish for the Professions.

Develops vocabulary, grammar, expressions, and interactional skills that are related to foreign language for professional purposes. Also covers cultural issues that affect professional activities in Spanish-speaking communities. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Spanish 327C (or 327G).

Topic 1: Spanish for Health Care Professions. Same as Latin American Studies 322 (Topic 17). Designed to exercise fluency in both spoken and written language in health care situations. Focus on the complex grammatical concepts and cultural issues that affect professional activities in Spanish-speaking communities. Only one of the following may be counted: Latin American Studies 322 (Topic 17), Mexican American Studies 374 (Topic 30), Spanish 367K (Topic 7), 367P (Topic 1).
Topic 2: Business in Hispanic Life and Culture. Same as Latin American Studies 322 (Topic 18). Only one of the following may be counted: Latin American Studies 322 (Topic 18), 370 S (Topic 19), Spanish 350 (Topic 10), Spanish 367P (Topic 2). Additional prerequisite: Spanish 327C (or 327G).

## SPN 367T. 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. Three lecture hours a week for one semester. Spanish 367K (Topic 1) and Spanish 367T may not both be counted. Prerequisite: Spanish 327C (or 327G), and one of the following: Spanish 328C, 330L, or Spanish Civilization 320C.

## SPN 368C. Topics in Languages in Contact.

Investigates Spanish in contact with other languages and among different regional varieties in historical and contemporary settings. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.

## SPN 368S. Topics in Language Structure and Use.

Examination of the major structural components of the language and how these are used in context to fulfill a variety of communicative functions. Three lecture hours a week for one semester. Spanish 367K and 368S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Spanish 327C (or 327G), and one of the following: 328C, 330L, or Spanish Civilization 320C.

## SPN 377H. Honors Tutorial Course.

Supervised individual research on a literary, linguistic, or cultural problem, culminating in a written thesis. The equivalent of three lecture hours a
week for one semester. Prerequisite: Upper-division standing, credit or registration for Spanish 379C or 379L, admission to the Iberian and Latin American Languages and Cultures Honors Program, and consent of the Honors adviser.

## SPN 379C. 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. Three lecture hours a week for one semester. Prerequisite: Spanish 327C (or 327G), 328C, and twelve hours of upperdivision coursework in Spanish.

## SPN 679H. Honors Tutorial Course.

Supervised individual research on a literary, linguistic, or cultural problem, culminating in a written thesis of fifty to eighty typewritten pages. Conference course for two semesters. Prerequisite: For 679HA, upperdivision standing, admission to the Spanish Honors Program, and consent of the honors adviser; for 679HB, Spanish 679HA.

## SPN 379L. 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. Three lecture hours a week for one semester. Prerequisite: Spanish 327C (or 327G), 330L, and twelve hours of upperdivision coursework in Spanish.

## UTeach-Liberal Arts

## UTeach-Liberal Arts: UTL <br> Lower-Division Courses

## UTL 101. 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. One class hour a week for one semester; at least ten hours of fieldwork a semester are also required. Offered on the letter-grade basis only. Prerequisite: Successful admission into the UTeach-Liberal Arts program and consent of the UTeach adviser in the College of Liberal Arts.

## UTL 202. 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. Two class hours a week for one semester; at least twenty hours of fieldwork a semester are also required. Offered on the letter-grade basis only. Prerequisite: UTeach-Liberal Arts 101 with a grade of at least B, and consent of the UTeach adviser in the College of Liberal Arts.

## UTL 303E. 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. Three lecture hours a week for one semester; at
least forty-five hours of fieldwork a semester are also required. Offered on the letter-grade basis only. Prerequisite: UTeach-Liberal Arts 101 and 202 with a grade of at least $B$ in each; concurrent enrollment in Curriculum and Instruction 370S (Topic 1: Advanced Methods in English, Language Arts, and Reading); and consent of the UTeach adviser in the College of Liberal Arts.

## UTL 303L. 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. Three lecture hours a week for one semester; at least forty-five hours of fieldwork a semester are also required. Offered on the letter-grade basis only. Prerequisite: UTeachLiberal Arts 101 and 202 with a grade of at least B in each; concurrent enrollment in Curriculum and Instruction 370S (Topic 5: Advanced Methods in Foreign Language); and consent of the UTeach adviser in the College of Liberal Arts.

## UTL 303S. 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. Three lecture hours a week for one semester; at least forty-five hours of fieldwork a semester are also required. Offered on the letter-grade basis only. Prerequisite: UTeachLiberal Arts 101 and 202 with a grade of at least B in each; concurrent enrollment in Curriculum and Instruction 370S (Topic 3: Advanced Methods in Social Studies); and consent of the UTeach adviser in the College of Liberal Arts.

## UTL 304. 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. Three lecture hours and two hours of fieldwork a week for one semester. May not be counted toward any degree.
Prerequisite: Consent of the UTeach adviser in the College of Liberal Arts.

## Upper-Division Courses

## UTL 320. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of the UTeach adviser in the College of Liberal Arts.

## UTL 640. Teaching in Secondary Schools.

Restricted to students entering the professional development sequence of the UTeach-Liberal Arts program. 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. The equivalent of six lecture hours and four
fieldwork hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: UTeach-Liberal Arts 101 and 202 with a grade of at least B in each, and consent of the UTeach adviser in the College of Liberal Arts.

## UTL 341R. Overcoming Reading Difficulties.

Restricted to UTeach-Liberal Arts students. 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. Three lecture hours a week for one semester. Rhetoric and Writing 379C (Topic: Overcoming Reading Difficulties) and UTeach-Liberal Arts 341R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Applied Learning and Development 322 and consent of instructor.

## UTL 360. Problems and Principles of Secondary Education.

Restricted to students in the final student teaching semester of the UTeach-Liberal Arts program. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in UTeach-Liberal Arts 670, and consent of the UTeach adviser in the College of Liberal Arts.

## UTL 670. Directed Teaching in Secondary Schools.

Restricted to students in the final student teaching semester of the UTeach-Liberal Arts program. 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. The equivalent of two lecture hours and forty fieldwork hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in UTeach-Liberal Arts 360, and consent of the UTeach adviser in the College of Liberal Arts.

## Center for Women's and Gender Studies

## Women's and Gender Studies: WGS Lower-Division Courses

WGS 301. Introductory Topics in Women's and Gender Studies.
Three lecture hours a week for one semester, or as required for the topic. Some topics partially fulfill legislative requirement for American history. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

Topic 2: Introduction to Child Psychology. General introduction to physical, social, and cognitive development from conception onward. Prerequisite: Psychology 301 with a grade of at least C.
Topic 4: Family Relationships. Same as Human Development and Family Sciences 304. The process of family interaction over the life cycle. Application of research findings to the understanding of relationships. Only one of the following may be counted: Human Development and Family Sciences 304, 304H, Women's and Gender Studies 301 (Topic 4).
Topic 6: Ethnicity and Gender: La Chicana. Same as Mexican American Studies 319 (Topic 1: Ethnicity and Gender: La Chicana) and Sociology 308D.
Topic 7: Women's Reproductive Health for Nonscience Majors. Same as Nursing 307 (Topic 1) and Sociology 310S. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Nursing 307 (Topic 1), Sociology 308 (Topic 2), 310S, Women's and Gender Studies 301 (Topic 7). Additional prerequisite: One year of high school biology, or Biology 301L or 309D.
Topic 11: United States Women, Sexuality, and Gender to 1865. Same as History 317L (Topic 5: United States Women, Sexuality, and Gender to 1865). History 317L (Topic 5) and Women's and Gender Studies 301 (Topic 11) may not both be counted. Partially fulfills legislative requirement for American history.
Topic 12: Gay and Lesbian Literature and Culture. Same as English 314 V (Topic 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. English 314 V (Topic 4) and Women's and Gender Studies 301 (Topic 12) may not both be counted.
Topic 13: Mexican American Women, 1910-Present. Same as History 317L (Topic 12) and Mexican American Studies 319 (Topic 4). Examines the history of Mexican and Mexican American women in the United States from the twentieth century to the present. Only one of the following may be counted: History 317L (Topic: Mexican American Women, 1910-Present), 317L (Topic 12), Mexican American Studies 319 (Topic: Mexican American Women, 1910-Present), 319 (Topic 4), Women's and Gender Studies 301 (Topic: Mexican American Women, 1910-Present), 301 (Topic 13).
Topic 14: Performance, Feminism, and Social Change. Same as African and African Diaspora Studies 311C. 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. Only one of the following may be counted: African and African Diaspora Studies 311C, 317F (Topic: Performance, Feminism, and Social Change), Women's and Gender Studies 301 (Topic: Performance, Feminism, and Social Change), 301 (Topic 14).
Topic 15: Yoruba Women. Same as African and African Diaspora Studies 317C (Topic 2). Examination of gender construction in Yorubaland, including an exploration of the difference between Western gender construction and African notions of gender through analyses of the religious, linguistic, cultural, and sociopolitical aspects of Yoruba life. Only one of the following may be counted: African and African Diaspora Studies 317C (Topic: Yoruba Women), 317C (Topic 2), Women's and Gender Studies 301 (Topic: Yoruba Women), 301 (Topic 15).
Topic 16: Introduction to Black Women's Studies. Same as African and African Diaspora Studies 317D (Topic 5). 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. Only one of the following can be counted: African and African Diaspora Studies 317D (Topic: Introduction to Black Women's Studies), 317D (Topic 5), Women's and Gender Studies 301 (Topic: Introduction to Black Women's Studies), 301 (Topic 16).
Topic 17: Black Queer Diaspora Aesthetics. Same as African and African Diaspora Studies 317E (Topic 1) and Anthropology 310L (Topic 6). 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. Only one of the following may be counted: African and African Diaspora Studies 317E (Topic: Black Queer Diaspora Aesthetics), 317E (Topic 1), Anthropology 310L
(Topic: Black Queer Diaspora Aesthetics), 310L (Topic 6), Women's and Gender Studies 301 (Topic: Black Queer Diaspora Aesthetics), 301 (Topic 17).
Topic 18: Religion and Gender in America. Same as Sociology 308F. Examines the complex relationship between religious involvement and gender and sexuality in American society with a focus on the historic relationship between religious engagement and women's movements as well as more contemporary issues. Exploration of several major religious traditions in the United States today, including Evangelical Christianity, Catholicism, and Judaism. Examination of smaller religious groups and their attempt to confront the complex and contradictory relationship between gender roles and belief. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Religion and Gender in America), 308F, Women's and Gender Studies 301 (Topic 18).
Topic 19: Diversity in American Families. Same as Sociology 307F. 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. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Diversity in American Families), Sociology 307F, 308 (Topic: Diversity in American Families), Women's and Gender Studies 301 (Topic: Diversity in American Families), 301 (Topic 19).
Topic 20: Fertility and Reproduction. Same as Sociology 307K. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 307K, 308 (Topic: Fertility and Reproduction), Women's and Gender Studies 301 (Topic: Fertility and Reproduction), 301 (Topic 20).
Topic 21: Gender, Race, and Class in American Society. Same as Sociology 307L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 307L, 308 (Topic: Gender, Race, and Class in American Society), Women's and Gender Studies 301 (Topic: Gender, Race, and Class in American Society), 301 (Topic 21).
Topic 22: Race, Ethnicity, and Gender in Demography. Same as Sociology 308E. Introduction to the patterns, trends and debates on race, ethnicity, and gender in demography. Study of the social aspect of demography and the relationship of demographic phenomena relative to racial, ethnic, and gender populations. Specific areas will include the following: conceptual/measurement issues; migration and population dynamics; health and morality; and family and fertility. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Race, Ethnicity, and Gender in Demography), 308E, Women's and Gender Studies 301 (Topic 22).

Topic 23: Romantic Relationships and Family Formation. Same as Sociology 308J. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Romantic Relationships and Family Formation), 308J, Women's and Gender Studies 301 (Topic 23).
Topic 24: Race, Immigration, and Family. Same as Asian American Studies 310 (Topic 5) and American Studies 315 (Topic 3). 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. Only one of the following may be counted: American Studies 315 (Topic: Alternative Family Systems), 315 (Topic 3), Asian American Studies 310 (Topic: Alternative Family Systems), 310 (Topic 5), Women's and Gender Studies 301 (Topic: Alternative Family Systems), 301 (Topic 24).

## WGS 303. Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies.

Explores concepts of gender and sexuality, race, class, religion, and nation; as well as skills in theory, history, and research methods relevant to LGBTQ studies. The course will also 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. Three lecture hours a week for one semester. Women's and Gender Studies 301 (Topic: Introduction to LGBTQ Studies) and 303 may not both be counted. Prerequisite: Consent of instructor.

## WGS 305. 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. Three lecture hours a week for one semester. Women's and Gender Studies 301 (Topic: Introduction to Women's and Gender Studies) and 305 may not both be counted.

## WGS 313. Child Development.

Same as Human Development and Family Sciences 313. Motor, language, cognitive, social, and emotional development in the family context. Three lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 313, 313H, Women's and Gender Studies 301 (Topic 5), 313. Prerequisite: Credit or registration for Human Development and Family Sciences 113L, and Psychology 301 with grade of at least C-.

WGS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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 Center for Women's and Gender 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## WGS 321. Introduction to Women's and Gender Studies in the Humanities.

Multidisciplinary course examining the creative work of women and the image of women in history and art. Topics in addition to the following may be offered; these are listed in the Course Schedule. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## WGS 322. Introduction to Women's and Gender Studies in the Social Sciences.

Multidisciplinary topics using approaches from the social sciences to examine gender constructs and male/female roles. Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

Topic 1: Sociology of Gender. Same as Sociology 333K. Inequality between the sexes; men's and women's changing roles in society. Prerequisite: Upper-division standing.
Topic 2: Population and Society. Same as Sociology 369K. The study of populations, including their growth, age structure, and patterns of fertility, mortality, and migration; the social causes and consequences of these phenomena. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 369K, Women's and Gender Studies 322 (Topic: Population and Society), 322 (Topic 2). Additional prerequisite: Upper-division standing.
Topic 3: Sociology of Masculinities. Same as Sociology 322M. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321 K (Topic: Sociology of Masculinities), 322M, Women's and Gender Studies 322 (Topic: Sociology of Masculinities), 322 (Topic 3). Additional prerequisite: Upper-division standing, three hours of coursework in sociology, and three hours of coursework in women's and gender studies.
Topic 5: Sociology of Sexualities. Same as Sociology 340G. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Sociology of Sexuality), 340G, Women's and Gender Studies 322 (Topic: Sociology of Sexuality), 322 (Topic 5). Additional prerequisite: Upper-division standing; Sociology 302; and Sociology 333 K or three semester hours of coursework in women's and gender studies.
Topic 6: The Sociology of Race and Work. Same as Asian American Studies 330 (Topic 4) and Sociology 321R. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic: Sociology of Race and Work), 330 (Topic 4), Sociology 321K (Topic: Sociology of Race and Work), 321R, Women's and Gender Studies 322 (Topic: Sociology of

Race and Work), 322 (Topic 6). Additional prerequisite: Upper-division standing.
Topic 7: Race and the Digital. Same as African and African Diaspora Studies 322D and Sociology 322D. 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. Only one of the following may be counted: African and African Diaspora Studies 322D, 374E (Topic: Race, Culture, and Migration), Sociology 321K (Topic: Race, Culture, and Migration), 322D, Women's and Gender Studies 322 (Topic: Race, Culture, and Migration), 322 (Topic 7). Additional prerequisite: Upperdivision standing.
Topic 8: Race, Gender, and Surveillance. Same as African and African Diaspora Studies 372C (Topic 12) and Sociology 322V. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic 12), 374E (Topic: Surveillance and Social Control), Sociology 321K (Topic: Surveillance and Social Control), 322V, Women's and Gender Studies 322 (Topic: Surveillance and Social Control), 322 (Topic 8). Additional prerequisite: Upper-division standing.
Topic 10: Sex and Violence in Popular Culture. Same as Sociology 322P. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Sex and Violence in Popular Culture), 322P, Women's and Gender Studies 322 (Topic 10), 345 (Topic: Sex and Violence in Popular Culture). Additional prerequisite: Upper-division standing.

## WGS 323. 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. Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## Topic 2: Human Physical Growth and Development.

## WGS 324. Introduction to Women's and Gender Studies in Communication.

Multidisciplinary course examining issues of women, gender, and sexuality in media industries, texts, and audiences. Three lecture hours a week for one semester, or as required for the topic. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Gender and Communication. Prerequisite: Upper-division standing.
Topic 2: Women and Media Culture. Introduction to the study of women's relations to media culture. Three lecture hours and two and
one-half screening hours a week for one semester. Prerequisite: For radio-television-film majors: upper-division standing and the following coursework, with a grade of at least C in each course: Radio-Television-Film 305, either 314 or 316, and six additional semester hours of lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.

## WGS 125. Special Topics in Women's and Gender Studies.

Analysis of special topics in women's and gender studies through reading, discussion, and lectures. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## WGS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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 Center for Women's and Gender 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. May be repeated for credit when the topics vary.

## WGS 335. 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. Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary by topic.

## WGS 340. Cross-Cultural Topics in Women's and Gender Studies.

Women's experiences in different cultures. Three lecture hours a week for one semester. Some topics partially fulfill legislative requirement for American history. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

Topic 3: African American Family. Same as African and African Diaspora Studies 321K and Social Work 360K (Topic 2). Overview of historical and contemporary issues facing African American families and children. Social service delivery to African American families and communities is emphasized. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies $321 \mathrm{~K}, 374$ (Topic 1: African American Family), Social Work 360K (Topic 2), Women's and Gender Studies 340 (Topic 3).
Topic 9: Black Women in America. Women's and Gender Studies 340 (Topic 9) is same as African and African Diaspora Studies 374D (Topic 9: Black Women in America) and History 350R (Topic 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. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic 9) History 350L (Topic: Black Women in America), 350R (Topic 17), Women's and Gender Studies 340 (Topic 9). Partially fulfills legislative requirement for American History. Prerequisite: Upper-division standing and six semester hours of coursework in history.

Topic 10: Iranian Women Writers. Women's and Gender Studies 340 (Topic 10) is same as Middle Eastern Languages and Cultures 321 (Topic 11: Iranian Women Writers) and Middle Eastern Studies 342 (Topic 11: Iranian Women Writers). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 11), Middle Eastern Studies 324K (Topic 1: Iranian Women Writers), 342 (Topic 11), Persian 361 (Topic 3: Iranian Women Writers), WGS 340 (Topic 10). Prerequisite: Upper-division standing.
Topic 11: Veiling in the Muslim World. Women's and Gender Studies 340 (Topic 11) is same as Asian Studies 372 (Topic 14: Veiling in the Muslim World), Islamic Studies 372 (Topic 2: Veiling in the Muslim World), and Religious Studies 358 (Topic 5: Veiling in the Muslim World). Only one of the following may be counted: Asian Studies 372 (Topic 14), Islamic Studies 372 (Topic 2), Middle Eastern Studies 322K (Topic 17: Veiling in the Muslim World), Religious Studies 358 (Topic 5), Women's and Gender Studies 340 (Topic 11). Prerequisite: Upper-division standing.
Topic 12: Women in Modern Japanese Fiction. Women's and Gender Studies 340 (Topic 12) is same as Asian Studies 372 (Topic 17: Women in Modern Japanese Fiction). Prerequisite: Upper-division standing or consent of instructor.
Topic 13: Law and Society in Early Modern Europe. Women's and Gender Studies 340 (Topic 13) is same as European Studies 346 (Topic 4: Law and Society in Early Modern Europe) and History 350L (Topic 57: 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. Only one of the following may be counted: European Studies 346 (Topic 4), History 350L (Topic 57), Women's and Gender Studies 340 (Topic 13).
Topic 14: Self-Revelation in Women's Writing. Same as African and African Diaspora Studies 372E (Topic 8), Comparative Literature 323 (Topic 4), and Middle Eastern Studies 342 (Topic 19). Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 8), 374 (Topic 26), Comparative Literature 323 (Topic 4), English 322 (Topic: Self-Revelation in Women's Writing), Middle Eastern Studies 322K (Topic 26), 342 (Topic 19), Persian 361 (Topic: Self-Revelation in Women's Writing), Women's and Gender Studies 340 (Topic 14).
Topic 17: Italian Women Writers. Women's and Gender Studies 340 (Topic 17) is same as Italian Civilization 349 (Topic 5: Italian Women Writers). Only one of the following may be counted: English 322 (Topic 38: Italian Women Writers), Italian Civilization 349 (Topic 5), Women's and Gender Studies 340 (Topic 17). Prerequisite: Upper-division standing.
Topic 18: Women and Gender in China. Women's and Gender Studies 340 (Topic 18) is same as Asian Studies 372 (Topic 21: Women and Gender in China) and History 350L (Topic 46: Women and Gender in China). Prerequisite: Upper-division standing.
Topic 19: Contemporary India. Exploration of urban and rural inequality through classic and contemporary novels, ethnographies, and films that highlight gender relations. Prerequisite: Upper-division standing.
Topic 20: Violence in Contemporary Mexican Culture. Same as Latin American Studies 370 (Topic 23) and Spanish 355 (Topic 6). 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. Only one of the following may be counted: Latin American Studies 370 (Topic 23), Spanish 350 (Topic 13), 355 (Topic 6), Women's and Gender Studies 340 (Topic 20). Additional prerequisite: Spanish 611D, 612, or 312L.
Topic 21: Minorities and the Media. Discussion of issues concerning minority or nondominant groups in the United States. Survey of
minority communication problems, including alienation; fragmentation; media and Internet access; and criticism and feedback for minority groups based on racial/ethnic background, age, sex, disability, social or economic class, and sexual orientation. Only one of the following may be counted: Journalism 340C (Topic 1: Mass Media and Minorities), 341 H , Latin American Studies 322 (Topic 10: Minorities and the Media), Mexican American Studies 374 (Topic 22: Minorities and the Media), Urban Studies 354 (Topic: Minorities and the Media), Women's and Gender Studies 340 (Topic 21). Prerequisite: Upper-division standing.
Topic 22: Muslim Women: Past and Present I. Same as Islamic Studies 372 (Topic 12) and Religious Studies 358 (Topic 12). Survey of the role of women in Islamic societies from the Middle Ages to the eighteenth century, with a glimpse into modern times. Only one of the following may be counted: Islamic Studies 372 (Topic 12), Middle Eastern Studies 321K (Topic 9: Muslim Women: Past and Present I), Religious Studies 358 (Topic: Muslim Women: Past and Present I), 358 (Topic 12) Women's and Gender Studies 340 (Topic 22). Additional prerequisite: Upper-division standing.
Topic 23: Muslim Women: Past and Present II. Same as Islamic Studies 372 (Topic 13) and Religious Studies 358 (Topic 13). Survey of the role of women in the modern Muslim world, with a glimpse into historical developments within Islamic societies. Only one of the following may be counted: Islamic Studies 372 (Topic 13), Middle Eastern Studies 321K (Topic 10: Muslim Women: Past and Present II), Religious Studies 358 (Topic: Muslim Women: Past and Present II), 358 (Topic 13), Women's and Gender Studies 340 (Topic 23). Additional prerequisite: Upper-division standing.
Topic 24: Nationalism and Gender in South Asia. Women's and Gender Studies 340 (Topic 24) is same as Anthropology 324L (Topic 36: Nationalism and Gender in South Asia) and Asian Studies 361 (Topic 26: Nationalism and Gender in South Asia). Explores why nationalist movements often make the reform of women's roles central to their political projects.
Topic 25: Gender, Sexuality, and the Family in Indian Religions and Cultures. Women's and Gender Studies 340 (Topic 25) is same as Anthropology 324L (Topic 40: Gender, Sexuality, and the Family in Indian Religions and Cultures), Asian Studies 372 (Topic 25: Gender, Sexuality, and the Family in Indian Religions and Cultures), and Religious Studies 341 (Topic 3: Gender, Sexuality, and the Family in Indian Religions and A comprehensive historical overview of gender issues as they are represented in the textual traditions of South Asia. Topic 26: American Popular Culture, 1682-Present. Women's and Gender Studies 340 (Topic 26) is same as American Studies 370 (Topic 35: American Popular Culture, 1682-Present) and History 350R (Topic 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. Partially fulfills legislative requirement for American history. Prerequisite: Upperdivision standing and six semester hours of coursework in history.
Topic 27: Islamic Law. Same as Islamic Studies 340 (Topic 5) and Middle Eastern Studies 342 (Topic 27). 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. Only one of the following may be counted: Arabic 372 (Topic: Islamic Law), Islamic Studies 340 (Topic: Islamic Law), 340 (Topic 5), Middle Eastern Studies 321 K (Topic: Islamic Law), 328 (Topic: Islamic Law), 342 (Topic 27), Religious Studies 358 (Topic: Islamic Law), Women’s and Gender Studies 340 (Topic: Islamic Law), 340 (Topic 27).
Topic 28: Gender and Sexuality in Japan. Same as Asian Studies 372 (Topic 30) and History 364G (Topic 10). Examines gender and sexuality in Japan during the classical (Heian), early modern (Tokugawa or Edo), and modern periods. Considers the construction and representation of feminine and masculine gender and sexuality, both normative and otherwise. Only one of the following may be
counted: Asian Studies 372 (Topic: Gender and Sexuality in Japan), 372 (Topic 30), History 364G (Topic: Gender and Sexuality in Japan), 364G (Topic 10), Women's and Gender Studies 340 (Topic: Gender and Sexuality in Japan), 340 (Topic 28).
Topic 29: Contemporary African American Women's Fiction. Same as Afrian and Afrian Diaspora Studies 372E (Topic 15) and English 376M (Topic 7). Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Contemporary African American Women's Fiction), 372E (Topic 15), English 376M (Topic: Contemporary African American Women's Fiction), 376M (Topic 7), Women's and Gender Studies 340 (Topic: Contemporary African American Women's Fiction), 340 (Topic 29). Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 30: Goddesses in World Religions and Cultures. Same as Asian Studies 340 (Topic 7) and Religious Studies 373 (Topic 3). 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. Only one of the following may be counted: Anthropology 324L (Topic: Goddesses in World Religions and Cultures), Asian Studies 340 (Topic 7), Religious Studies 373 (Topic: Goddesses in World Religions and Cultures), 373 (Topic 3), Women's and Gender Studies 340 (Topic: Goddesses in World Religions and Cultures), 340 (Topic 30). Additional prerequisite: Upper-division standing.

Topic 31: Writing Slavery. Same as African and African Diaspora Studies 374F (Topic 6) and English 376M (Topic 3). 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. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Writing Slavery), 374F (Topic 6), English 376M (Topic: Writing Slavery), 376M (Topic 3), Women's and Gender 340 (Topic: Writing Slavery), 340 (Topic 31). Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 32: African Women's History. Same as African and African Diaspora Studies 372G (Topic 6) and History 364G (Topic 5). Major themes include politics, economics, religion, the family, culture, technology, feminism, colonialism, nationalism, and development in relation to the lives of African women. Only one of the followed may be counted: African and African Diaspora Studies 372G (Topic 6), 374C (Topic: African Women's History), History 364G (Topic: African Women's History), 364G (Topic 5), Women's and Gender Studies 340 (Topic: African Women's History), 340 (Topic 32).
Topic 33: Antebellum Slavery. Same as African and African Diaspora Studies 374D (Topic 16) and History 365G (Topic 6). Examination of slavery at its maturity during the nineteenth century. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Antebellum Slavery), 374D (Topic 16), History 365G (Topic: Antebellum Slavery), 365G (Topic 6), Women's and Gender Studies 340 (Topic: Antebellum Slavery), 340 (Topic 33).
Topic 34: Gender in North and West Africa. Same as African and African Diaspora Studies 372G (Topic 5), Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), and Middle Eastern Studies 342 (Topic 28). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic 5), 374C (Topic: Gender in North and West Africa), Islamic Studies 372 (Topic: Gender in North and West Africa), 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 322K (Topic: Gender in North and West Africa), 342 (Topic 28), Women's and Gender Studies 340 (Topic: Gender in North
and West Africa), 340 (Topic 34). Additional prerequisite: Upperdivision standing.
Topic 37: Tolerance in Dutch Culture. Same as European Studies 347 (Topic 19) and German, Scandinavian, and Dutch Studies 361E. 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. Only one of the following may be counted: European Studies 347 (Topic: Dutch Culture: Too tolerant?), 347 (Topic 19), German, Scandinavian, and Dutch Studies 361E, Germanic Civilization 327E (Topic: Dutch Culture: Too tolerant?), Women's and Gender Studies 340 (Topic: Dutch Culture: Too tolerant?), 340 (Topic 37). Additional prerequisite: Upperdivision standing.
Topic 38: Afro-Caribbean Politics and Culture in Central America.
Same as African and African Diaspora Studies 326, Anthropology 324 L (Topic 47), and Latin American Studies 337N. Exploration of black identity, political systems, and community activism in Central America and the Caribbean. Only one of the following may be counted: African and African Diaspora Studies 326, 374E (Topic: Afro-Caribbean Politics and Culture in Central America), Anthropology 324L (Topic: Afro-Caribbean Politics and Culture in Central America), 324L (Topic: 47), Government 365 N (Topic: Afro-Caribbean Politics and Culture in Central America), Latin American Studies 337M (Topic: Afro-Caribbean Politics and Culture in Central America), 337N, Women's and Gender Studies 340 (Topic: Afro-Caribbean Politics and Culture in Central America), 340 (Topic 38). Additional prerequisite: Upper-division standing.
Topic 39: History of Southern Africa. Same as African and African Diaspora Studies 374C (Topic 4) and History 350L (Topic 72). Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: History of Southern Africa), 374C (Topic 4), History 350L (Topic: History of Southern Africa), 350L (Topic 72), Women's and Gender Studies 340 (Topic: History of Southern Africa), 340 (Topic 39).
Topic 40: Historical Imagining of Africa in Films. Same as African and African Diaspora Studies 374F (Topic 18) and History 350L (Topic 70). Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Historical Imagining of Africa in Film), 374F (Topic 18), History 350L (Topic: Historical Imagining of Africa in Film), 350L (Topic 70), Women's and Gender Studies 340 (Topic: Historical Imagining of Africa in Film), 340 (Topic 40).
Topic 41: Life Span Development of Black Women. Same as African and African Diaspora Studies 321 N and Educational Psychology 363M (Topic 5). The psychological and social issues that affect the life span development of Black women. Discusses issues such as socioeconomic status, political climate, social norms, gender and ethnic identity, mental health, family dynamics, academic achievement, and social adjustment. Only one of the following may be counted: African and African Diaspora Studies 321N, 372D (Topic: Life Span Development of Black Women), 374D (Topic: Life Span Development of Black Women), Educational Psychology 363M (Topic 5), Women's and Gender Studies 340 (Topic: Life Span Development of Black Women), 340 (Topic 41). Additional prerequisite: Psychology 301 or another introductory behavioral science course.
Topic 42: Apartheid: South African History. Same as African and African Diaspora Studies 374C (Topic 6: Apartheid: South African History) and History 364G (Topic 6: 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. Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: Apartheid and Resistance in South Africa), 374C
(Topic: Apartheid: South African History), 374C (Topic 6), History 364G (Topic: Apartheid: South African History), 364G (Topic: Apartheid and Resistance in South Africa), 364G (Topic 6), Women's and Gender Studies 340 (Topic: Apartheid: South African History), 340 (Topic 42).
Topic 43: Black Women and Dance. Same as African and African Diaspora Studies 356E. Exploration of how black women express creativity in response to the violence of racism and sexism, and to envision new ways of being and moving in the world. Women's participation in ritual, concert, and social dance in North America, Haiti, Cuba, and Brazil will be studied through readings, viewings, and stagings. Only one of the following may be counted: African and African Diaspora Studies 356E, 372E (Topic: Black Women and Dance), Theatre and Dance 357T (Topic: Black Women and Dance), Women's and Gender Studies 340 (Topic: Black Women and Dance), 340 (Topic 43). Additional prerequisite: Upper-division standing.
Topic 44: Gender Politics in the Islamic World. Same as Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Religious Studies 358 (Topic 8), and Sociology 336G. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 373 (Topic: Gender Politics in the Islamic World), 373 (Topic 11), Middle Eastern Studies 322K (Topic: Gender Politics in the Islamic World), 341 (Topic: Gender Politics in the Islamic World), 341 (Topic 7), Religious Studies 358 (Topic: Gender Politics in the Islamic World), 358 (Topic 8), Sociology 321 K (Topic: Gender Politics in the Islamic World), 336G, Women's and Gender Studies 340 (Topic: Gender Politics in the Islamic World), 340 (Topic 44). Additional prerequisite: Upper-division standing.
Topic 45: Feminist Interventions in Borderlands History. Same as American Studies 370 (Topic 45) and Mexican American Studies 374 (Topic 38). 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. Only one of the following may be counted: American Studies 370 (Topic: Feminist Interventions in Borderlands History), 370 (Topic 45), Mexican American Studies 374 (Topic: Feminist Interventions in Borderlands History), 374 (Topic 38), Women's and Gender Studies 340 (Topic: Feminist Interventions in Borderlands History), 340 (Topic 45).
Topic 46: Africana Women's Art. Same as African and African Diaspora Studies 374F (Topic 9) and Art History 346L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Africana Women's Art), 374F (Topic 9), Art History 346L, 373C (Topic: Africana Women's Art), Women's and Gender Studies 340 (Topic: Africana Women's Art), 340 (Topic 46). Additional prerequisite: Upper-division standing.
Topic 47: Black Queer Literature and Film. Same as African and African Diaspora Studies 372E (Topic 13) and English 376M Topic 8). 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. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic: Black Queer Literature and Film), 372E (Topic 13), 374F (Topic: Black Queer Literature and Film), English 376M (Topic: Black Queer Literature and Film), 376M (Topic 8), Women's and Gender Studies 340 (Topic: Black Queer Literature and Film), 340 (Topic 47).

Topic 48: Diaspora Visions. Same as African and African Diaspora Studies 374F (Topic 13) and Art History 345L. 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. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374F (Topic: Diaspora Vision), 374F (Topic 13), Art History 345L, 373D (Topic: Diaspora Visions), 374 (Topic: Diaspora Vision), Women's and Gender Studies 340 (Topic: Diaspora Vision), 340 (Topic 48).
Topic 50: Women and the Holocaust. Same as Comparative Literature 323 (Topic 19), European Studies 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, and Jewish Studies 363 (Topic 11). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women's Narratives of the Holocaust and World War II), 323 (Topic 19), European Studies 346 (Topic: Women's Narratives of the Holocaust and World War II), 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Germanic Civilization 323E (Topic: Women's Narratives of the Holocaust and World War II), Jewish Studies 363 (Topic 11), Women's and Gender Studies 340 (Topic: Women's Narratives of the Holocaust and World War II), 340 (Topic 50). Additional prerequisite: Upperdivision standing.
Topic 51: Birgitta, Hildegard, and Margery. Same as European Studies 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, and Religious Studies 357 (Topic 15). 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 visionary women will be explored in depth. Only one of the following may be counted: English 322 (Topic: Birgitta, Hildegard, and Margery), European Studies 347 (Topic: Birgitta, Hildegard, and Margery), 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, Germanic Civilization 327E (Topic 10), Religious Studies 357 (Topic: Birgitta, Hildegard, and Margery), 357 (Topic 15), Scandinavian 373 (Topic 8), Women's and Gender Studies 340 (Topic: Birgitta, Hildegard, and Margery), 340 (Topic 51). Additional prerequisite: Upper-division standing. Topic 52: Sex and Power in the African Diaspora. Same as African and African Diaspora Studies 372G (Topic 33) and Anthropology 324L (Topic 48). 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. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Sex and Power in the African Diaspora), 372G (Topic 33), Anthropology 324L (Topic: Sex and Power in the African Diaspora), 324L (Topic 48), Women's and Gender Studies 340 (Topic: Sex and Power in the African Diaspora), 340 (Topic 52).
Topic 53: Women and Social Movements in the Twentieth-Century United States. Same as American Studies 321 (Topic 10) and History 365G (Topic 8). Examines women's participation in well-known and lesser-known social movements during the twentieth century. Only one of the following may be counted: American Studies 321 (Topic: Women and Social Movements in the Twentieth-Century United States), 321 (Topic 10), History 365G (Topic: Women and Social Movements in the Twentieth-Century United States), 365G (Topic 8), Women's and

Gender Studies 340 (Topic: Women and Social Movements in the Twentieth-Century United States), 340 (Topic 53).
Topic 54: The Qur'an. Same as Comparative Literature 323 (Topic 37), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), and Religious Studies 325G. The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Arabic 372 (Topic 2: The Qur'an), Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 320 (Topic 14: The Qur'an), 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upperdivision standing.
Topic 55: Women Filmmakers in the Middle East. Same as Middle Eastern Languages and Cultures 321 (Topic 23) and Middle Eastern Studies 342 (Topic 32). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 23), Middle Eastern Studies 322K (Topic: Women Filmmakers in the Middle East), 342 (Topic 32), Turkish 372 (Topic: Women Filmmakers in the Middle East), Women's and Gender Studies 340 (Topic: Women Filmmakers in the Middle East), 340 (Topic 55). Additional prerequisite: Upperdivision standing.
Topic 56: Muslim Women in Politics. Same as Islamic Studies 372 (Topic 23) and Religious Studies 358 (Topic 19). Only one of the following may be counted: Anthropolgy 324L (Topic: Muslim Women in Politics), Islamic Studies 372 (Topic: Muslim Women in Politics), 372 (Topic 23), Religious Studies 358 (Topic: Muslim Women in Politics), 358 (Topic 19), Women's and Gender Studies 340 (Topic: Muslim Women in Politics), 340 (Topic 56).
Topic 57: Sacred and Ceremonial Textiles. Same as Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), and Religious Studies 358 (Topic 11). Textiles and material objects indigenous to the Islamic world, and what they reveal about the culture of various Islamic societies. Only one of the following may be counted: Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Studies 322K (Topic 24), 328 (Topic: Sacred and Ceremonial Textiles), Religious Studies 358 (Topic: Sacred and Ceremonial Textiles), 358 (Topic 11), Women's and Gender Studies 340 (Topic: Sacred and Ceremonial Textiles), 340 (Topic 57). Additional prerequisite: Upperdivision standing.
Topic 58: Queer Ethnographies. Same as Anthropology 324L (Topic 45). 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. Only one of the following may be counted: Anthropology 324L (Topic: Queer Ethnographies), 324L (Topic 45), Women's and Gender Studies 340 (Topic: Queer Ethnographies), 340 (Topic 58).
Topic 59: Ancient Mediterranean Masculinities. Same as Classical Civilization 348 (Topic 18). Examines in-depth literary and artistic evidence from multiple ancient cultures to determine how each society defined the distinctively "masculine" role it expected of men and boys and how each society transformed boys into men. Only one of the following may be counted: Classical Civilization 348 (Topic: Ancient Mediterranean Masculinities), 348 (Topic 18), Women's and Gender Studies 340 (Topic: Ancient Mediterranean Masculinities), 340 (Topic 59).

## WGS 441. The Roots of Social and Economic Justice.

Four lecture hours a week for one semester. Only one of the following may be counted: Social Work 460K (Topic: Roots of Social and Economic Justice), Women's and Gender Studies 440 (Topic: Roots of Social and Economic Justice), 441. Prerequisite: Upper-division standing.

WGS 345. Topics in Women's and Gender Studies.
Three lecture hours a week for one semester, or as required for the topic. Some topics partially fulfill legislative requirement for American history. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

## Topic 1: Child Development.

Topic 2: The Family. Same as Sociology 323. 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. Three lecture hours a week for one semester. Sociology 323 and Women's and Gender Studies 345 (Topic 2) may not both be counted. Additional prerequisite: Upper-division standing.
Topic 3: Women in Sickness and Health. Same as History 350R (Topic 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. Only one of the following may be counted: History 350L (Topic: Women in Sickness and Health), 350R (Topic 18), Women's and Gender Studies 345 (Topic 3). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing and six semester hours of coursework in history.
Topic 5: Women and Sport. Same as Kinesiology 352K (Topic 3: Women and Sport).
Topic 6: Introduction to Developmental Psychology. Physical, social, and cognitive development in humans. Psychology 333D and Women's and Gender Studies 345 (Topic 6) may not both be counted.
Topic 7: Eighteenth-Century Women Writers. Same as English 350M (Topic 1: Eighteenth-Century Women Writers). Women writers in the early 18th-century canon. Argues for a historical perspective that demonstrates the centrality of early 18th-century women writers to the western canon. Only one of the following may be counted: English 350M (Topic 1), 376L (Topic: Aphra Behn and 18th Century Women Writers), Women's and Gender Studies 345 (Topic 7). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 8: Gender-Based Discrimination. Same as American Studies 370 (Topic 6: Gender-Based Discrimination) and Government 357M (Topic 1: Gender-Based Discrimination). Studies the substance of laws that relate to gender-based roles, and the participation of women in the legal process. Additional prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, a University grade point average of at least 3.50, and consent of department received prior to registering.
Topic 9: Women in Classical Antiquity. Same as Classical Civilization 348 (Topic 7: Women in Classical Antiquity).
Topic 12: Family Policy Issues. Same as Sociology 352M (Topic 5: Family Policy Issues). Consideration of liberal, conservative, and centrist views concerning the major family policy issues facing the United States and other advanced industrial societies.
Topic 13: Isak Dinesen/Karen Blixen. Same as Comparative Literature 323 (Topic 14), European Studies 347 (Topic 15), and German, Scandinavian, and Dutch Studies 341G. 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. Only one of the following may be counted: Comparative Literature 323 (Topic: Isak Dinesen/Karen Blixen), 323 (Topic 14), European Studies 347 (Topic: Isak Dinesen/Karen Blixen), 347 (Topic 15), German, Scandinavian, and Dutch Studies 341G, Germanic Civilization 323E (Topic 1), Scandinavian 373 (Topic 6), Women's and Gender Studies 345 (Topic 13). Additional prerequisite: Upper-division standing.

Topic 14: Social Dramas of Henrik Ibsen. Same as Comparative Literature 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic 12), and German, Scandinavian, and Dutch Studies 341D. 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 topics such as: the family and the home; the public world of reputation, work, and citizenship; the predicaments of men and women in a maledominated society; and the motives of our interventions into the lives of others. Only one of the following may be counted: Comparative Literature 323 (Topic: Social Dramas of Henrik Ibsen), 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic: Social Dramas of Henrik Ibsen), 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, Scandinavian 323 (Topic 2), Women's and Gender Studies 345 (Topic 14). Additional prerequisite: Upper-division standing.
Topic 15: Contemporary Women Authors. Same as African and African Diaspora Studies 374F (Topic 4: Contemporary Women Authors) and English 370W (Topic 2: Contemporary Women Authors). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 17: Language and Gender. Same as English 364S. Linguistic, social, and political dimensions of gender-related speech differences. Only one of the following may be counted: English 346S, Linguistics 373 (Topic: Language and the Sexes), Women's and Gender Studies 345 (Topic 17). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 19: Social Development in Children. Development of social behavior (for example, sex typing and aggression) and social relationships. Psychology 333R and Women's and Gender Studies 345 (Topic 19) may not both be counted. Prerequisite: Upper-division standing, Psychology 301 with a grade of at least C, Psychology 304 or 333D, and Psychology 418 or an equivalent statistics course with a grade of at least $C$.
Topic 21: Male-Female Communication. Same as Communication Studies 365 K . 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. Prerequisite: Upper-division standing.
Topic 23: Sociology of Education. Same as African and African Diaspora Studies 321L and Sociology 321L. Education as a societal institution, with emphasis on the United States educational system: how the system works; the effects of the system; recent changes. Prerequisite: Upper-division standing.
Topic 26: American Dilemmas. Same as Sociology 336C and Urban Studies 354 (Topic 13). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 336C, Urban Studies 354 (Topic: American Dilemmas), 354 (Topic 13), Women's and Gender Studies 345 (Topic 26). Additional prerequisite: Upperdivision standing.
Topic 27: Southern Cultures. Same as American Studies 370 (Topic 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. Prerequisite: Upperdivision standing.

Topic 28: Cult Movies and Gender Issues. Three lecture hours and two and one-half screening hours a week for one semester. Prerequisite: Upper-division standing.
Topic 29: Witches, Workers, and Wives. Same as European Studies 346 (Topic 3: Witches, Workers, and Wives) and History 343W.
Explores the role of families and concepts of gender as expressed in key economic, social, political, and cultural patterns in early modern Europe. Prerequisite: Upper-division standing.
Topic 30: Gay and Lesbian Literature and Culture. Same as English 370W (Topic 8: Gay and Lesbian Literature and Culture). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 31: Gender and Slavery in the United States. Same as African And African Diaspora Studies 372C (Topic 4: Gender and Slavery in the United States) and History 350R (Topic 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. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic 4), 374D (Topic: Gender and Slavery in the United States), History 350L (Topic: Gender and Slavery in the United States), 350R (Topic 14), Women's and Gender Studies 340 (Topic: Gender and Slavery in the United States), 345 (Topic 31). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing and six semester hours of coursework in history.
Topic 33: The History of Witchcraft. Study of the prosecution of people, most of them women, for the crime of witchcraft in Europe and colonial America between 1450 and 1750. Prerequisite: Upper-division standing.
Topic 34: Leadership in America. Same as American Studies 370 (Topic 10: Leadership in America) and Government 370L (Topic 2: Leadership in America). Introduction to the concepts of leadership and the application of those concepts in public and political leadership. Additional prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, a University grade point average of at least 3.50 , and consent of department received prior to registering.
Topic 35: Psychosocial Issues in Women's Health. Psychosocial issues in women's physical and mental health. Includes a broad definition of women's health that considers 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. Prerequisite: Upperdivision standing.
Topic 36: Feminist Media Theory. Survey of basic theories related to the structure and process of film and video communication. Three lecture hours and two and one-half screening hours a week for one semester.
Topic 37: Women in Postwar America. Same as American Studies 370 (Topic: 30: Women in Postwar America) and History 350R (Topic 8: Women in Postwar America). Only one of the following may be counted: American Studies 370 (Topic 30), History 350L (Topic 58: Women in Postwar America), 350R (Topic 8), Women's and Gender Studies 345 (Topic 37). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing and six semester hours of coursework in history.
Topic 38: History of Sexuality in America. Same as History 350R (Topic 13: History of Sexuality in America). Only one of the following may be counted: History 350L (Topic 55: History of Sexuality in America), 350R (Topic 13), Women's and Gender Studies 345 (Topic 38). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing and six semester hours of coursework in history.

Topic 39: Gender, Sexuality, and Migration. Same as English 370W (Topic 9: Gender, Sexuality, and Migration). Only one of the following may be counted: Asian American Studies 320 (Topic: Gender, Sexuality, and Migration), English 370W (Topic 9), 370W (Topic: Cultures of Immigration and Dislocation), Women's and Gender Studies 345 (Topic 39). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.
Topic 40: Virginia Woolf. Same as English 349S (Topic 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. Only one of the following may be counted: English 349S (Topic 8), 370W (Topic 10: Virginia Woolf), Women's and Gender Studies 345 (Topic 40). Prerequisite: Six semester hours of upper-division coursework in English.
Topic 41: American Food. Same as American Studies 370 (Topic 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. Prerequisite: Upper-division standing.
Topic 42: Nature and Gender in America. Same as American Studies 370 (Topic 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. Prerequisite: Upperdivision standing.
Topic 43: Animals and American Culture. Same as American Studies 370 (Topic 28: Animals and American Culture) and History 350R (Topic 9: Animals and American Culture). Explores the role of animals in American history, culture, and society. History 350L (Topic 60: Animals and American Culture) and Women's and 28), History 350L (Topic 60: Animals and American Culture), 350R (Topic 9 ), Women's and Gender Studies 345 (Topic 43). Partially fulfills legislative requirement for American history. Prerequisite: Upperdivision standing and six semester hours of coursework in history.
Topic 44: Women Radicals and Reformers. Same as American Studies 370 (Topic 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. Prerequisite: Upper-division standing.
Topic 45: Comparative Cultures of Beauty. Same as American Studies 370 (Topic 24: Comparative Cultures of Beauty) and Asian American Studies 320 (Topic 2: Comparative Cultures of Beauty). Examines fashion and beauty as discourses and cultural practices affecting identity, body politics, race, gender, sexuality, and class. Additional prerequisite: Upper-division standing.
Topic 46: Toni Morrison. Same as African and African Diaspora Studies 372E (Topic 1: Toni Morrison) and English 349S (Topic 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. Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 1), 374F (Topic: Toni Morrison), English 349S (Topic 5), Women's and Gender Studies 340 (Topic: Toni Morrison), 345 (Topic 46). Prerequisite: Six semester hours of upper-division coursework in English.

Topic 47: The Face of Justice. Same as Government 357M (Topic 11). Examination of the inalienable rights: liberty, due process, equality, speech, assembly, security in the home, and practice or nonpractice of religion. Historical overview of women's rights and women's participation in the justice system. Discussion of individuals whose rights are being protected, and those whose rights are being overlooked by the American judicial system. Only one of the following may be counted: Government 357M (Topic: Face of Justice), 357M (Topic 11), Liberal Arts Honors 350 (Topic: Face of Justice), Women's and Gender Studies 345 (Topic: Face of Justice), 345 (Topic 47). Offered on the letter-grade basis only. Additional prerequisite: For government majors, six semester hours of lower-division coursework in government; for others, upper-division standing.
Topic 48: Women's Autobiographical Writing. Same as English 370W (Topic 11). 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. Only one of the following may be counted: English 370W (Topic: Women's Autobiographical Writing), 370W (Topic 11), Women's and Gender Studies 345 (Topic: Women's Autobiographical Writing), 345 (Topic 48).
Topic 49: History of American Feminism. Same as History 350R (Topic 20). Only one of the following may be counted: History 350R (Topic: History of American Feminism), 350R (Topic 20), Women's and Gender Studies 345 (Topic: History of American Feminism), 345 (Topic 49). Partially fulfills legislative requirement for American history.

Topic 52: American Literary Masculinities. Same as English 370W (Topic 12). 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. Only one of the following may be counted: English 370W (Topic: American Literary Masculinities), 370W (Topic 12), Women's and Gender Studies 345 (Topic: American Literary Masculinities), 345 (Topic 52). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.
Topic 53: Gender and Sexuality in Ancient Novel. Same as Classical Civilization 348 (Topic 13). The major works of prose fiction from Greco-Roman antiquity and how those works relate to the intellectual, cultural, and social currents of late antiquity. Only one of the following may be counted: Classical Civilization 348 (Topic: Gender and Sexuality in Ancient Novel), 348 (Topic 13), Women's and Gender Studies 345 (Topic: Gender and Sexuality in Ancient Novel), 345 (Topic 53).

## WGS 350. Feminist Theory.

Restricted to women's and gender studies majors and minors. Feminist theory with selections from women's and gender studies scholars. Recommended feminist theory course for women's and gender studies majors. Three lecture hours a week for one semester. Women's and Gender Studies 322 (Topic 4: Feminist Theory) and 350 may not both be counted. Prerequisite: Upper-division standing and nine semester hours of coursework in women's and gender studies.

## WGS 356. Introduction to Feminist Research Methods.

Restricted to women's and gender studies majors and minors. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and six semester hours of coursework in women's and gender studies.

## WGS 358Q. Supervised Research.

Supervised individual research on an issue in women's and gender studies. Individual instruction. Prerequisite: Upper-division standing, Women's and Gender Studies 356 with grade of at least C-, and written consent of the supervising faculty member; consent forms are available in the Center for Women's and Gender Studies.

## WGS 360. Research and Thesis in Women's and Gender Studies.

Restricted to women's and gender studies majors. Individual project or paper to be completed under the direction of a women's and gender studies faculty member. Conference course. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Women's and Gender Studies 356 with grade of at least C-; credit or registration for Women's and Gender Studies 358Q; and written consent of the supervising faculty member on a consent form available in the Center for Women's and Gender Studies for that purpose.

## WGS 466. Guidance in Adult-Child Relationships.

Same as Human Development and Family Sciences 466. Theory and implementation of positive child and adult interactions, communication, and guidance strategies. Two lecture hours and four laboratory hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 466, Women's and Gender Studies 345 (Topic 4: Guidance in Adult-Child Relationships), 466. Prerequisite: Human Development and Family Sciences 313 and 113L; and three semester hours of upper-division coursework in human development and family sciences, education, psychology, or sociology.

## WGS 679H. Honors Tutorial Course.

Restricted to honors candidates majoring in women's and gender studies. Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. The equivalent of three lectures hours a week for two semesters. Prerequisite: For 679HA, twelve semester hours of coursework in women's and gender studies and consent of supervising faculty; for 679HB, Women's and Gender Studies 679HA.

## WGS 379L. Internship in Women's and Gender Studies.

Experience working in the community or for a nonprofit agency. Six to nine hours of work a week for one semester. Prerequisite: At least twelve semester hours of coursework in women's and gender studies and written consent of the supervising faculty member; consent forms are available in the Center for Women's and Gender Studies.

## WGS 379S. Senior Seminar.

Intensive study of selected topics in women's and gender studies. Three lecture hours a week for one semester. May not be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and completion of at least ninety semester hours of coursework, including six hours in women's and gender studies.

# College of Natural Sciences 

Linda A. Hicke, PhD, Dean<br>Dean Appling, PhD, Associate Dean, Research and Facilities Sacha E. Kopp, PhD, Associate Dean, Undergraduate Education<br>Shelly Payne, PhD, Associate Dean, Faculty Affairs<br>Kelsey A. Evans, BA, Assistant Dean, External Relations Ricardo Medina, MBA CPA, Assistant<br>Dean, Business Affairs and Administration<br>Susan C. Harkins, EdD, Assistant Dean, Texas Interdisciplinary Plan<br>Michael W. Raney, PhD, Assistant Dean,<br>Student Affairs and First-Year Initiatives Assistant Dean, Honors, Research, and International Studies Catherine A. Stacy, PhD, Senior Assistant Dean, Strategy and Planning http://cns.utexas.edu/

## General Information

## Arts and Sciences Education

The academic program offered cooperatively by the College of Natural Sciences and the College of Liberal Arts provides what is sometimes referred to as a "liberal arts" or an "arts and sciences" education. No matter what area of knowledge a student intends to specialize in, the program of study will require courses in both colleges. The colleges work together to ensure that the individual interests and needs of the students pursuing an arts and sciences program are met.

Guidelines for developing a coherent plan of study are provided by major requirements, by sequential prerequisites, and by optional patterns of emphasis. Departmental majors, areas of specialization, and interdepartmental programs are designed to enable every student to study at least one field in depth. These programs are sufficiently broad in scope to allow students in the same major to develop quite different plans of study in pursuit of their individual interests and goals. Each student should choose courses that are intellectually challenging and that contribute to his or her long-term objectives.

Arts and sciences students are required to take a certain number of courses in the natural sciences, the social and behavioral sciences, and the humanities. Consequently, whatever their fields of study, they have the opportunity to learn something about the basic differences in the ways questions are raised and answered in several fields of inquiry, and about the techniques for validating the answers and putting the results to use. At the same time, they may gain some of the philosophical and historical perspectives that illuminate and give form to general or specialized knowledge and help to reveal its relevance.

Both teachers and students sometimes make the assumption that independent and creative study is exclusively for the gifted. In fact, the primary requirement is that the student be highly motivated, although he or she must also demonstrate ability. The departments that make up the two arts and sciences colleges encourage all qualified students to work independently in special honors courses and seminars and in conference, studio, or laboratory work. The student is free to define a major, to determine whether a given assignment will be an adventure or a chore, free to develop its latent possibilities or merely satisfy its explicit demands. True creativity presupposes more than a gift for innovation; it requires an unceasing commitment to thinking and working at one's highest level.

As competence is gained in a chosen field, the mind should be progressively sharpened, disciplined, and enriched. The student who
leaves arts and sciences studies with an enhanced understanding of self and humankind, of cultural and historical heritage, of the world and the universe, and of the moral values that make it possible to live a meaningful life, will have made the most of education, having gained something over and above the objective of vocational preparedness.

## Financial Assistance Available through the College

A number of scholarship funds established by individuals, foundations, and industrial or research organizations are available to students in the college. Awards are made for reasons ranging from academic promise to financial need. More information about scholarships is given at http:// cns.utexas.edu/honors/scholarships-fellowships.

## Student Services

## Academic Advising

Academic advising is a responsibility shared by advisers and students. Advisers help students clarify their values and goals, assist with the selection of courses, and monitor and evaluate students' progress toward their degrees. Each student is assigned an academic adviser in his or her proposed field of study; students are expected to communicate with their advisers before registration each semester.

## Career Design Center

The Career Design Center is a multidisciplinary hub for students to explore the next phase of their professional or educational career. Additional information is given on the Career Design Center Web site (http://cns.utexas.edu/career-design-center).

## Study Abroad

Students are encouraged to incorporate an international experience into their course of study. In addition to the traditional study abroad programs, students may take advantage of programs specifically designed for science study, including faculty-led courses, Maymester courses, and research abroad. The Office for Honors, Research, and International Study provides information sessions, one-on-one advising, and resources for science students interested in these programs.

## Student Programs

The College of Natural Sciences offers additional programs to supplement the degree plans. Additional information is given at http://cns.utexas.edu/.

## Biology Scholars Program

The Biology Scholars Program (BSP) is designed to provide lower-division biology students with a broader understanding of the study of biology and a strong sense of community as they begin their academic careers. Throughout the two-year program, BSP provides academic support, resources for peer-led study, and community service opportunities. Each semester, BSP students take a specialized critical thinking seminar on topics that range from the study of biological sciences to graduate and professional careers in biology. These classes emphasize working in small groups and help BSP students develop strong problem-solving and study skills.

## Emerging Scholars Program

The Emerging Scholars Program (ESP) is designed to help highly motivated mathematics, science, and engineering students toward continued academic success in essential first-year math and science courses. ESP students work closely with faculty members and with other high-achieving students in a supplemental workshop designed to enrich their course experience and intensify their understanding of the course
material. The ESP experience is currently available in calculus and chemistry. Students are invited to participate during the spring of their senior year of high school on the basis of strong academic credentials and history of achievement in mathematics and sciences.

## Freshman Research Initiative

The Freshman Research Initiative introduces undergraduate students to the world of scientific research at the beginning of their academic careers by integrating a three-semester research experience into coursework required for the degree. All students begin with an introductory research methods course in the first semester, followed by two semesters of work on real, cutting-edge research projects in fields like biology, biochemistry, nanotechnology, molecular biology, astronomy, physics, mathematics, and computer science. After finishing the course sequence, interested students are assisted in joining faculty or other research laboratories for further work.

## Texas Interdisciplinary Plan

The Texas Interdisciplinary Plan (TIP) transforms the learning experience for its students by creating small academic communities that promote academic excellence and leadership. TIP offers a collection of selective academic programs that serve about nine hundred students each year, including TIP Scholars, TIP Fellows, Getting Ready for Advanced Degrees (grad), and the TIP Mentor Academy. While each program is unique, all incorporate assisted registration for courses, mentoring, tutoring, and academic and social connections. Admission criteria differ for each program. More information is available from the TIP office.

## Undergraduate Research

One advantage that the University offers undergraduates is the opportunity to participate in state-of-the-art research with some of the world's most respected scientists. Each department in the College of Natural Sciences supports undergraduate research programs in which students may earn University credit. Students may also earn special departmental honors for exceptional research. The college holds an annual Undergraduate Research Forum to recognize and reward students who participate in research. Additional opportunities vary from department to department; information is available in the Office for Honors, Research, and International Study.

## UTeach-Natural Sciences

UTeach-Natural Sciences is an innovative teacher preparation program that allows students to pursue middle grades and secondary school teacher certification within a four-year mathematics, science, or computer science degree program. While learning the subject matter of their majors, students also learn how to teach. Upon completing the program, students graduate with a bachelor's degree and are recommended for a middle grades or secondary school teaching certificate. The UTeach-Natural Sciences program invites students to explore their interest in teaching as early as the freshman year. Through courses taught by some of Texas's most respected secondary school math and science teachers, students learn quickly whether they are suited to the profession. More information about teacher certification requirements is given in the UTeach Teacher Certification (p. 543) of Degrees and Programs.

## Women in Natural Sciences

The Women in Natural Sciences (WINS) Honors Residential Program is designed to promote the involvement and success of women in the sciences. Students live together in an honors dormitory during their first year and participate in socially and educationally enriching activities. In their first semester they take an innovative small seminar class in which they are introduced to faculty members in their areas of interest. Through the seminar and a wide range of academic, cultural, and social events,

WINS students are connected with other students and faculty members who share their interest in science.

## Admission and Registration

## Admission Policies of the College

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. Information about admission to the University is given in the General Information Catalog (http://catalog.utexas.edu/general-information/admission/undergraduateadmission).

Freshman and transfer students wishing to enter the College of Natural Sciences must apply for admission with the Office of Admissions. The College of Natural Sciences works jointly with the Office of Admissions to identify applicants who have demonstrated preparation and interest in mathematics and sciences. A student must be admitted to the college to pursue a degree program described in this section. A student who is denied admission to the college may seek to enter another college or school.

## Freshman Admission

Applicants should be prepared to make the necessary placements scores on the placement exams for calculus or statistics upon admission into the college. Mathematics, in the form of calculus or statistics, is required for all natural sciences degrees. To enroll in a calculus or statistics course in college, students must first take the mathematics placement exam. Information about scores necessary for placement are posted by the Student Division (http://cns.utexas.edu/students/incoming-students/ assessments).

## Internal Transfer

Students enrolled in other colleges or schools at the University may apply by April 15 to be considered for admission into an entry-level major in the following fall semester. If April 15 falls on a weekend or an official university holiday, the application is due on the next business day.

Admission to the college is limited and competitive. To be competitive, students should:

1. Complete a minimum of twenty-four semester hours in residence
2. Achieve a grade point average of at least 3.00 in residence
3. Complete one of the following courses in residence with a grade of at least $B$-: Mathematics 408C, 408D, 408K, 408L, 408M, 408N, 408S, or Statistics and Data Sciences 302.
4. Complete two of the following courses in residence with grades of at least $B$-: Biology 311C, Chemistry 301, 302, Physics 303K, and 303L, or majors level equivalents.
5. Submit an essay describing how the intended major would impact achievement of the educational and career goals.

Students may also submit evidence of scientific achievements in the form of a resume or other document, if desired.

## External Transfer

Students enrolled at other universities who wish to enter the College of Natural Sciences must apply for transfer admission through the Office of Admissions. Students must meet transfer admission deadlines and requirements.

Admission to the college is limited and competitive. To be competitive, students should:

1. Complete a minimum of thirty transferable semester hours.
2. Achieve a grade point average of at least 3.00
3. Complete one of the following courses with a grade of at least $B$-: Mathematics 408C, 408D, 408K, 408L, 408M, 408N, 408S, and Statistics and Data Sciences 302.
4. Complete two of the following courses with grades of at least $B$-: Biology 311C, Chemistry 301, CH 302, Computer Science 311, 312, Physics 303K, and 303L, or majors level equivalents.
5. Submit an essay describing how the intended major would impact achievement of the educational and career goals.

Meeting all of the criteria does not guarantee admission. Students who do not meet all of the criteria are welcome to apply. Students may also submit evidence of scientific achievements in the form of a resume or other document, if desired.

## The Entry-Level Major

All new freshman and transfer students are admitted into the College of Natural Sciences in an entry-level major. After completing a specified set of entry-level mathematics and science courses required for the degree with a grade of at least $C$ - in each course, students are admitted to the major and option they plan to pursue unless the major or option has special admission-to-major requirements.

Students who wish to pursue computer science but who were not admitted to the entry-level major by the Office of Admissions must have a minimum overall grade point average of 2.50 in residence at the University to transfer into the entry-level major. If a student completes transfer courses approved as substitutes for the entry-level courses, he or she may also count the grades of the approved substitutes toward the minimum overall grade point average of 2.50 for admission into the entrylevel major. A student who is not admitted may submit an appeal to the department for consideration.

## Adding a Simultaneous Major or Changing Majors

Students interested in declaring a simultaneous major must first discuss the impact of the simultaneous major on their progress toward degree and develop a timely graduation plan with their academic advisers. Students approved to declare a simultaneous major must follow the application procedure and meet admission requirements that have been established for the simultaneous major. At minimum, students must complete thirty semester hours of coursework in residence at the University. Students interested in changing majors must meet the entry-level or admission requirements of the major they wish to enter.

## Admission-to-Major Requirements The Major in Computer Science

Several programs are available to undergraduates who wish to major in computer science. Each program involves an admission process in addition to the student's application for admission to the University. All students may apply to the University as entry-level computer science majors and later seek admission to one of the computer science programs as described in this section; those seeking admission to the Turing Scholars program may also apply to that program when they apply for admission to the University. Students who were not admitted to the entrylevel major by the Office of Admissions must have a minimum overall grade point average of 2.50 in residence at the University to transfer into the entry-level major. A student who is not admitted may submit an appeal to the department for consideration.

Admission requirements for the Bachelor of Arts with a major in computer science, the Bachelor of Science and Arts with a major in computer science, the Bachelor of Science in Computer Science, option I, and the Integrated Program are given below. Those for the Bachelor of Science in Computer Science, option II, Turing Scholars honors, and option III, computer science honors, are given in Academic Policies and Procedures (p. 535).

## Bachelor of Arts; the Bachelor of Science and Arts; and the Bachelor of Science in Computer Science, Option I and V

To apply for admission to the Bachelor of Arts with a major in computer science, the Bachelor of Science and Arts with a major in computer science, or the Bachelor of Science in Computer Science, option I and option V degree programs, the student must earn a grade of at least $C$ in each of three entry-level courses: Computer Science 311 or 311 H , Computer Science 312 or 312 H , and 314 or 314 H . It is recommended that he or she complete all of the entry-level courses in residence at the University. However, he or she may request that transfer courses be approved as substitutes for the entry-level courses. The letter grades for approved transfer courses will be used in combination with entry-level courses taken in residence to calculate the grade point average required for admission to the major. He or she must earn a grade point average of at least 2.75 in the three entry-level courses taken in residence or out of residence, and a grade point average of at least 2.00 in all courses taken in residence. A student who is not admitted may submit an appeal to the department for consideration. These requirements apply to entrylevel computer science students seeking admission to the Bachelor of Arts major in Computer Science, the Bachelor of Science and Arts major in Computer Science, and the Bachelor of Science in Computer Science, option I and option V.

Students are evaluated after the end of each fall semester, spring semester, and summer session by the Department of Computer Science Admission Committee. Students should consult advisers in the College of Natural Sciences Department of Computer Science for information about admission to the major.

## The Integrated Program in Computer Science

The Integrated Program is a curriculum of undergraduate and graduate coursework that allows the student to earn the Bachelor of Science in Computer Science and the Master of Science in Computer Science, the Master of Science in Information Studies, or the Master of Science in Computational Science, Engineering, and Mathematics degrees at the same time. The integrated Master of Science in Computer Science includes the same coursework as the traditional master's degree program, as well as the opportunity for research. The integrated Master of Science in Information Studies allows students to choose a pathway for completing a capstone and electronic portfolio comprised of a professional experience project, a master's report, or a thesis. The integrated Master of Science in Computational Science, Engineering, and Mathematics includes the same coursework as the traditional computational sciences, engineering and mathematics master's degree program and also offers opportunity for research.

Students in the Integrated Program are expected to become leaders in the profession. Highly motivated students with the personal qualities and intellectual capacity to establish successful careers in higher education and industry are encouraged to apply.

Undergraduates typically follow option I, II, or III for their first three years, then enter the Integrated Program in their fourth year. Admission is granted only for the fall semester; January 2 is the application deadline for those who wish to begin the program the following fall. By the end of the spring semester in which they apply, students must have completed
at least sixty semester hours of coursework, including Computer Science 345 or $345 \mathrm{H}, 429$ or 429 H , and 353 .

Admission is based on the applicant's grade point average, letters of recommendation, statement of purpose, and SAT Reasoning Test or ACT scores, as well as other relevant examples of academic ability and leadership. An applicant with a University grade point average of less than 3.50 is unlikely to be admitted. Admission may be restricted by the availability of instructional resources. Application materials and information about deadlines are published by the Department of Computer Science, available at http://www.cs.utexas.edu/.

Before beginning the fifth year, students in the Integrated Program must be admitted to the Graduate School and the graduate program in the Department of Computer Science, the School of Information, or the Institute of Computational Science, Engineering, and Mathematics. Application forms must be completed by January 2 of the student's fourth year. Before the application deadline, students must have completed the prescribed work common to all Bachelor of Science in Computer Science options. They must earn an acceptable score on the Graduate Record Examinations General Test (GRE) and must have their test scores reported to the University. Students usually take the GRE in the fall semester of their fourth year.

## The Coordinated Program in Dietetics

Freshman and transfer applicants to the University who plan to enter the Coordinated Program in Dietetics (CPD) should begin in the entry-level major in nutrition. When they have met the requirements described below, students may apply for admission to the CPD.

Prior to applying for admission to the CPD, students must complete at least sixty semester hours of the coursework required for the Bachelor of Science in Nutrition, option I, including Biology 325 or 325 H , and 365S; Biochemistry 369; and Nutrition 307, 107L, 312 or $312 \mathrm{H}, 112 \mathrm{~L}$ or 312 R , 315 , and 326. A list of other recommended courses is available from the School of Human Ecology. Students must have a grade point average of at least 2.70 in coursework taken in residence at the University. Students should consult advisers in the School of Human Ecology for information about the application process and deadlines. Application materials are available from the school.

The number of applicants to the CPD may exceed the number that can be adequately instructed by the faculty and accommodated within available facilities. Admission decisions are based on the student's biology, chemistry, and nutrition grade point average, his or her University grade point average, and other factors. These factors include, but are not limited to, the difficulty of the student's coursework, work or volunteer experience, leadership, commitment to the profession of dietetics, and personal interview. Students whose applications are denied may reapply.

## The Bachelor of Science in Environmental Science

Students must be admitted to the Bachelor of Science in Environmental Science degree program; they may apply for admission after completing the following requirements:

The student must earn a grade of at least $C$ - in Biology 311C, Chemistry 301 , Mathematics 408 C or 408 N ; and a grade of at least $B$ - in Geological Sciences 401 or 303 . To be competitive for admission, the student must have a grade point average of at least 2.75 in these four courses.

Applications are evaluated after the end of each fall and spring semester. Students whose applications are denied may reapply through the supplemental admission process the following semester. Admission decisions are based on the student's grade point average in the basic sequence courses, his or her University grade point average, and other
factors; these factors include, but are not limited to, the difficulty of the student's course load, course repetitions, and proven mathematical ability. Students should consult advisers in the College of Natural Sciences Transitional Advising Center (TRAC) for information about the application process and application deadlines.

More information about the degree program is given in Bachelor of Science in Environmental Science (p. 534).

## The Bachelor of Science in Neuroscience, Option I

Prior to applying for admission to the Bachelor of Science in Neuroscience, option I, degree program, the student must earn grades of at least $B$-in Neuroscience 330 or 365 R, and 335 . Neuroscience 330 or 365 R , and 335 must be taken in residence. The student must also complete any of the four following courses, with grades of at least $C$-: Biology 311C, 311D, 315H, 325H; Chemistry 301, 301H, 302, 302H, and 204; Mathematics 408C, 408D, 408N, 408S, 408M, 427K, and 427L; and Physics 301, 316, 303K, 303L, 317K, and 317L. To be competitive for admission, the student should have a combined grade point average of at least 3.00 in the six courses required for admission. Entry-level majors are encouraged to take Neuroscience 330 in the fall of their first year, and Neuroscience 335 in the spring of their first year.

To apply, the student should consult advisers in the Center for First-Year Advising for information about the application process and deadlines. Applications are evaluated after the end of each fall and spring semester by the Department of Neuroscience. Students whose applications are denied may reapply twice through the supplemental admission process. Admission decisions are based on a number of factors including, but not limited to, the student's grade point average, course load difficulty, and written statement about their commitment to a future in the field of neuroscience.

## The Major in Public Health

To apply for admission to the public health degree program, the student must have earned a grade of at least $C$ - in Biology 311C and 311D or 315 H ; Chemistry 301 or 301 H and 302 or 302 H ; and Mathematics 408 C or 408 N ; and a grade of at least $B$-in Public Health 317. To be competitive for admission, the student must have a grade point average of at least 2.75 in these six courses.

Applications are evaluated after the end of each fall and spring semester. Students whose applications are denied may reapply through the supplemental admission process the following semester. Admission decisions are based on the student's grade point average in the basic sequence courses, his or her University grade point average, and other factors; these factors include, but are not limited to, the difficulty of the student's course load, course repetitions, and proven mathematical ability. Students should consult advisers in the College of Natural Sciences Center for First-Year Advising for information about the application process and application deadlines.

Students who plan to follow option II, public health honors, must be admitted to the Dean's Scholars Honors Program (p. 536).

To apply for admission to option III, the student must already be admitted to option I. The option I student may apply for admission to option III upon completion of the fourth semester with a grade point average of at least 3.40. The eligible option I student may apply to option III and the Master of Public Health program following the admission schedule and policies of the School of Public Health at the University of Texas Health Sciences Center at Houston. The application is typically completed during the fifth semester of the Bachelor of Science in Public Health, Option I. Admission to option III requires approval by the Department of Molecular Biosciences
at the University of Texas at Austin and the School of Public Health at the University of Texas Health Sciences Center at Houston at the Austin Regional campus.

## The Major in Textiles and Apparel

## Admission to the Field Experience Programs

All textiles and apparel students must complete a field experience. The internship experience facilitates learning through the blending of theory and practice. The program is a cooperative effort involving three major participants: the student, the sponsoring firm or site supervisor, and the faculty coordinator.

The primary purpose of the program is to provide students with a realistic view of their profession through actual work experience in a professional environment. Experiences in the field setting challenge the student developmentally by providing an opportunity for both cognitive and effective learning, as well as fundamental changes in attitude, work habits, and maturity level.

Before beginning the internship, students will be expected to participate in interviews with representatives from participating sites. These interviews are designed to prepare students for a competitive marketplace. To ensure a placement that best meets the professional needs of each student, the program partners with organizations and support industries over a wide geographic area. The program director must approve all sites prior to a student's acceptance of the internship. Once a student accepts an approved internship, the placement is binding. Depending on the policy of the host site, the intern may or may not receive compensation. During the internship, the student is responsible for all assignments given by the faculty coordinator and the internship site. The interning student is also responsible for housing, relocation arrangements, and expenses.

Materials, information about deadlines, and directions for application are available from the Director of Internships in Textiles and Apparel.

## Option I: Apparel, Functional, and Technical Design

## Application Process for Internship

Students must apply and be admitted to the Apparel, Functional, and Technical Design Internship Program the semester before they plan to participate in their internship.

Before applying to the internship program, students must complete the following courses with a grade of at least $C$ - in each: Textiles and Apparel 301, 205, 105L, 313, 214K, 214L, 316L, 164K (Topic 1: Flat Pattern), 264L (Topic 1: Flat Pattern), and 355C.

## Internship Semester

Textiles and Apparel 352C. Students may opt to take additional coursework during this semester.

## Option II: Merchandising and Consumer Sciences

## Application Process for Internship

Students must apply and be admitted to the Merchandising and Consumer Sciences Internship Program the semester before they plan to participate in their merchandising and consumer sciences internship block.

Before applying to the internship program, students must complete the following courses with a grade of at least $C$-in each: Textiles and Apparel 301, 205, 105L, 313, 214K, 214L, 316Q, 219C, 119L, 151, and 376. The merchandising and consumer sciences internship block is to be completed during the senior year, serving as the capstone experience for merchandising and consumer sciences majors.

## Internship Semester

The merchandising and consumer sciences internship block is comprised of four internship courses: Textiles and Apparel 315K, 352M, 355P, and 377, as well as a placement in an approved field experience, all taken concurrently. Students may not enroll in additional coursework during the semester.

## Option IV: Textile Conservation and Museum Studies

## Application Process for Internship

Students must apply and be admitted to the Textile Conservation and Museum Studies Internship Program the semester before they plan to participate in their conservation internship.

Before applying to the internship program, students must complete the following courses with a grade of at least $C$ - in each: Textiles and Apparel 301, 205, 105L, 313, 214K, 214L, 151, 354C, 354D, 354E, 354F, 355D. The Textile Conservation and Museum Studies Internship is to be completed during the senior year, serving as the capstone experience for textile conservation and museum studies majors.

## Internship Semester

Textiles and Apparel 652C. Students may opt to take additional course work during this semester.

## Academic Policies and Procedures

## Academic Standards

## Mathematics Placement

Mathematics, in the form of calculus or statistics, is required for all natural sciences degrees. To enroll in a calculus or statistics course in the college, students must first take the mathematics placement exam. Scores necessary for placement into specific mathematics and statistics courses are posted by the Student Division (http://cns.utexas.edu/ students/incoming-students/assessments). More information about scores and course placement is available from academic advisers.

## Repetition of a Course

No student may enroll in any course in the College of Natural Sciences more than twice, even if the course is needed to meet degree requirements, without first obtaining the written consent of his or her major adviser and of the department that offers the course; students in colleges other than the College of Natural Sciences need only departmental approval. A symbol of $Q$ or $W$ counts as an enrollment unless it has been approved by the dean's office for nonacademic reasons.

A student may not repeat any course in which he or she has earned a grade of $C$ - or better.

Departments in the college may have additional requirements for students who repeat courses.

## Concurrent Enrollment

Concurrent enrollment is enrollment simultaneously at the University and at another educational institution or in University Extension. Math and science courses may not be taken concurrently during fall and spring semesters and will not be counted toward a degree unless they are specifically approved in advance by the College of Natural Sciences. The college permits concurrent enrollment during summers without prior approval and during fall and spring semesters with certain restrictions. Students must see their academic advisers to petition for approval. No
more than 30 percent of the semester hours required for any degree in the college may be completed online with University Extension.

## Undergraduates in a Graduate Course

The College of Natural Sciences encourages undergraduates who excel academically and would benefit from further challenges to enroll in graduate courses. With permission, undergraduates may count graduate courses toward their undergraduate degrees or may reserve them for graduate credit. To enroll in a graduate course, undergraduates must meet the University's eligibility requirements and must receive permission from the course instructor, the graduate adviser for the field in which the course is offered, and the college. Undergraduates reserving courses for graduate credit must also receive permission from the graduate dean. More information is given in Coursework in the Graduate School and the School of Law (p. 15).

## Petitions for Degree Requirements

Petitions for exceptions to degree requirements, other than the Universitywide core curriculum, are handled through an online petition system. Academic advisers initiate petitions on the student's behalf and route them through departmental faculty advisers. The most common reason for petitioning is to request the substitution of transfer coursework for a specific degree requirement. Final decisions on all petitions are made by the dean's office. Degree requirements are very rarely waived outright.

## Honors

There are several avenues available for undergraduates to achieve honors recognition for exemplary academic ability and performance. They include: University-wide Honors, graduation with University Honors, college-wide honors programs, departmental honors degree options, and completion of departmental honors. University-wide Honors consists of recognition each fall and spring for students who meet the university criteria for University Honors. Graduation with University Honors consists of recognition at the time of graduation to a percentage of the college's graduates for students who meet the University criteria for graduating with University Honors.

The College of Natural Sciences offers Bachelor of Science and Arts and Bachelor of Science honors degree options. These honors degrees are available to students in the Dean's Scholars Program, the Health Science Scholars Program, and the Polymathic Scholars Program. Each program has its own admission process and requirements for participants to remain in good standing. The College of Natural Sciences Honors Center is available for inquires about admission and requirements.

Honors degree options that are sponsored by departments include: Turing Scholars in Computer Science; Honors in Advanced Human Development and Family Sciences Program; and the Honors in Advanced Nutritional Sciences Program.

Lastly, students may earn departmental honors upon graduation through completion and approval of an undergraduate thesis.

## University Honors

Information relating to University Honors can be found in the General Information Catalog (http://catalog.utexas.edu/general-information/ academic-policies-and-procedures/honors/university-honors). In addition, the College of Natural Sciences encourages academic excellence through programs such as the Dean's Scholars Honors Program and Turing Scholars in Computer Science. Students may also graduate with departmental honors as described below and may earn membership in one or more of the honorary scholastic societies open to undergraduates.

## Graduation with University Honors

The University recognizes no more than the top 20 percent of each college's May graduating class as graduating with University Honors. To be eligible, an undergraduate must have completed at least sixty semester hours of coursework in residence at the University. 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 sixty-hour minimum, but only letter grades (including $F$ in pass/fail courses) are used to determine the grade point average.

Detailed requirements for graduation from the College of Natural Sciences with University Honors are given in the General Information Catalog (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/honors/graduation-with-university-honors).

## Dean's Scholars Honors Program

The Dean's Scholars Honors Program is a comprehensive honors degree program for highly motivated and talented students. The key features of the program are a first-semester research methods course; a breadth requirement, usually completed during the first four semesters, that exposes students to various forms of scientific inquiry; and at least two semesters of supervised research and writing that culminate in an honors thesis. Students in good standing in the Dean's Scholars Honors Program may follow the honors option for the appropriate bachelor of science degree. The honors degree option is available in most fields in the college.

Application to the Dean's Scholars Honors Program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available in the program office and on the Dean's Scholars Web site (http://cns.utexas.edu/ds). Students may enter the program as freshmen, as transfer students, or after they have enrolled at the University. In general, students who have completed more than fifty semester hours of college coursework are not considered for admission.

Factors in the admission decision are the student's high school and/ or University grades, class rank, the rigor of the courses the student has taken, the quality of the required application essays, faculty recommendations, and the student's interest and aptitude in math and science as demonstrated by relevant extracurricular activities.

To remain in good standing in the Dean's Scholars Honors Program, students must maintain an in-residence grade point average of at least 3.25 after thirty hours in residence, of at least 3.40 after sixty hours in residence, and of at least 3.50 after ninety hours in residence. Students who fail to maintain the required grade point average will usually be dismissed from the program. Under special circumstances and at the discretion of the departmental honors adviser, a student may be allowed to continue under academic review.

## Health Science Scholars Program

The Health Science Scholars Program is intended for students whose interest in science
is focused on clinical careers and healthcare practice or policy. Health Science Scholars pursue a Bachelor of Science and Arts honors degree and complete a major in a field of study within the College of Natural Sciences, as well as an interdisciplinary minor which complements their scientific interest and prepares them for health professions, policy, or business. Students complete a departmental honors thesis, or a healthrelated internship/practicum and a thesis that synthesizes and analyzes scholarly literature related to the internship/practicum.

Application to the Health Science Scholars Program is separate from, and in addition to, application to the University. Application materials and
information about deadlines are available on the Health Science Scholars Web site (http://cns.utexas.edu/honors/honors-programs-center/health-science-scholars).

## Polymathic Scholars Program

The Polymathic Scholars Program is designed for students with a strong interest in the sciences, but who also have strong scholarly interests beyond their major. Polymathic Scholars design an interdisciplinary minor field of study-a field defined by the students' interests and limited only by their ability to engage them as a scholar. The interdisciplinary minor is an opportunity for the student to explore the impacts of their field of study or a completely different field of interest. Polymathic Scholars pursue a Bachelor of Science and Arts honors degree and complete a thesis that synthesizes and analyzes scholarly literature within their field of study.

Application to the Polymathic Scholars Program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available on the Polymathic Scholars Web site (http://cns.utexas.edu/honors/honors-programs-center/ polymathic-scholars).

## Turing Scholars in Computer Science

The Department of Computer Science offers a comprehensive honors degree program for highly motivated and talented students. The key features of the program are an intensive, accelerated freshman- and sophomore-year program; special Turing Scholars sections of many advanced computer science courses; a second-semester freshmanyear course that introduces students to the research activities of the department; and at least two semesters of supervised research and writing. Upon completion of both a sequence of Turing Scholars courses, approved by the program director, and an approved thesis, students graduate as Turing Scholars in Computer Science.

Students in the Turing Scholars program pursue the Bachelor of Science in Computer Science, option II. Application to the program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available in the Department of Computer Science and on the Turing Scholars Web site (http:// cns.utexas.edu/honors/honors-programs-center/turing-scholars). Students may enter the program either as freshmen or after they have enrolled at the University. Factors in the admission decision are the student's high school grades and class rank, the rigor of the courses the student has taken, the quality of the required application essays, and the student's interest and aptitude in math, science, and computing as demonstrated by extracurricular activities.

More information about the degree program is given in the Degrees and Programs (p. 560) section.

## Honors In Advanced Human Development and Family Sciences Program

The Department of Human Development and Family Sciences offers a comprehensive honors degree program for highly motivated and talented students. The key features of the program are a core of small, select Human Development and Family Sciences courses that expose students to the research activities of the department, and at least two semesters of supervised research and writing that culminates in an honors thesis and presentation of student research in an approved public forum. Application to the Human Development and Family Sciences Honors Program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available in the Department of Human Development and Family Sciences and online (http://he.utexas.edu/hdfs/undergraduate-program/honors). Students may enter the program as freshmen, as transfer students, or after they
have enrolled at the University. Factors in the admission decision are the student's high school and/or University grades, class rank, the rigor of the courses the student has taken, faculty recommendations, standardized test scores and the student's interest and aptitude in math and science as demonstrated by relevant extracurricular activities.

More information about the degree program is given in the Degrees and Programs (p. 566) section.

## Honors In Advanced Nutritional Sciences Program

The Department of Nutritional Sciences offers a comprehensive honors degree program for highly motivated and talented students. The key features of the program are a core of select nutrition courses that expose students to the research activities of the department; and at least two semesters of supervised research and writing that culminates in an honors thesis and presentation of student research in an approved public forum. Application to the Honors in Advanced Nutritional Sciences Program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available in the Department of Nutritional Sciences and online (http://he.utexas.edu/ ntr/undergraduate-program/degree-options/option-iv-hans). Students may enter the program as freshmen, as transfer students, or after they have enrolled at the University. Factors in the admission decision are the student's high school and/or University grades, class rank, the rigor of the courses the student has taken, the quality of the required application essays, faculty recommendations, and the student's interest and aptitude in math and science as demonstrated by relevant extracurricular activities.

More information about the degree program is given in the Degrees and Programs (p. 574) section.

## College Honors <br> Departmental Honors

Most departments in the College of Natural Sciences offer departmental honors programs to their majors. Minimum requirements for the completion of all such programs include (1) a University grade point average of at least 3.00; (2) a three-semester-hour thesis or research project, or a reasonable equivalent, with a grade of at least $B$-; some programs may require a higher grade; (3) completion, with a grade point average of at least 3.50 , of the coursework required for a major in the field in which the student seeks honors; and (4) completion at the University of at least sixty semester hours of coursework counted toward the degree.

The statement "Special Honors in (name of field)" appears on the transcript of each graduate certified as having completed the honors program.

## Astronomy Departmental Honors

Majors who plan to seek special departmental honors in astronomy should apply to the honors adviser for admission to the honors program no later than the beginning of the fourth year; application by the end of the third year is recommended. A University grade point average of at least 3.00 and a combined University grade point average in physics and astronomy of at least 3.50 are required for admission.

The requirements for graduation with special departmental honors are (1) Astronomy 379H, Honors Tutorial Course, in which the student completes a supervised research project; the student may take a second semester of Astronomy 379H if necessary to complete the project; two semesters in this course may be counted toward the major requirement; (2) a written report and oral presentation on the research project approved by the research supervisor and the honors adviser; (3) a University grade point average of at least 3.00 and a combined University grade point average
in physics and astronomy of at least 3.50 ; and (4) completion at the University of at least sixty semester hours of coursework counted toward the degree.

## Biochemistry Departmental Honors

Majors who plan to seek special departmental honors in biochemistry should apply to the honors adviser for admission to the honors program no later than the beginning of the senior year. A University grade point average of at least 3.00 and a grade point average in biochemistry and chemistry of at least 3.50 are required for admission.

The requirements for graduation with special departmental honors are (1) all requirements for the degree of Bachelor of Science in Biochemistry;
(2) two semesters of Chemistry 379H, Chemistry Honors Tutorial Course;
(3) a thesis and a presentation based on research; the research topic and the thesis must be approved by the supervising faculty member and the undergraduate faculty adviser; (4) a University grade point average of at least 3.00 and a grade point average in biochemistry and chemistry of at least 3.50; (5) completion at the University of at least sixty semester hours of coursework counted toward the degree; and (6) approval of the honors adviser.

## Biology Departmental Honors

Majors who plan to seek special departmental honors in biology should apply to the honors adviser for admission to the honors program no later than the beginning of the senior year. A University grade point average of at least 3.00 and a grade point average in biology of at least 3.50 are required for admission.

The requirements for graduation with special departmental honors, which are in addition to the requirements of the major, are (1) two semesters of Biology 379H, Honors Tutorial Course; (2) a thesis based on original research and approved by the supervising faculty member and the honors adviser; honors students in the human biology option must select both a thesis supervisor and a second reader, one of whom must be a tenure-track faculty member or senior lecturer in the School of Biological Sciences; (3) a University grade point average of at least 3.00 and a grade point average in biology of at least 3.50; and (4) completion at the University of at least sixty semester hours of coursework counted toward the degree.

## Chemistry Departmental Honors

Majors who plan to seek special departmental honors in chemistry should apply to the honors adviser for admission to the honors program no later than the beginning of the senior year. A University grade point average of at least 3.00 and a grade point average in chemistry of at least 3.50 are required for admission.

The requirements for graduation with special departmental honors are (1) all requirements for the degree of Bachelor of Science in Chemistry; (2) two semesters of Chemistry 379H, Chemistry Honors Tutorial Course; (3) a thesis and a presentation based on research; the research topic and the thesis must be approved by the supervising faculty member and the undergraduate faculty adviser; (4) a University grade point average of at least 3.00 and a grade point average in chemistry of at least 3.50; (5) completion at the University of at least sixty semester hours of coursework counted toward the degree; and (6) approval of the honors adviser.

## Computer Science Departmental Honors

Students seeking special departmental honors must meet with a faculty adviser at least two semesters before they plan to graduate to discuss potential research topics and the requirements for receiving special departmental honors.

The requirements for graduation with special departmental honors are (1) Computer Science 379H, Computer Science Honors Thesis, with a grade of at least $B$-; (2) a University grade point average of at least 3.00 and a grade point average in computer science of at least 3.50; (3) a thesis, written on the subject of the student's research and approved in comprehensive examination by a committee consisting of at least three faculty members, including the honors adviser; and (4) completion at the University of at least sixty semester hours of coursework counted toward the degree.

## Human Development and Family Sciences Departmental Honors

Majors who plan to seek special departmental honors in human development and family sciences should apply to the Departmental Honors Committee for admission to the honors program no later than the beginning of the senior year. The requirements for admission are a University grade point average of at least 3.00 and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree.

The requirements for graduation with special departmental honors are (1) all requirements for the degree of Bachelor of Science in Human Development and Family Sciences; (2) Human Development and Family Sciences 379H, Honors Tutorial Course; (3) completion of an honors thesis and an accompanying presentation, both of which must be approved by a committee consisting of the research supervisor and another faculty member; (4) a University grade point average of at least 3.00, a grade point average in Human Development and Family Sciences 379 H of at least 3.00, and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree and for honors; and (5) completion at the University of at least sixty semester hours of coursework counted toward the degree.

## Human Ecology Departmental Honors

Majors who plan to seek special departmental honors in human ecology must follow the requirements of the departmental honors program in human development and family sciences, nutrition, or textiles and apparel.

## Mathematics Departmental Honors

Majors who plan to seek special departmental honors in mathematics should apply to the honors adviser for admission to the honors program at least two semesters before their expected graduation. A University grade point average of at least 3.00 and a grade point average in mathematics of at least 3.50 are required for admission.

The requirements for graduation with special departmental honors are (1) Mathematics 379H, Honors Tutorial Course; (2) a thesis on the subject of the student's research or project approved in comprehensive examination by a committee consisting of at least three faculty members; (3) a University grade point average of at least 3.00 and a grade point average in mathematics of at least 3.50; and (4) completion at the University of at least sixty semester hours of coursework counted toward the degree. In order to fulfill the first requirement, students must meet the prerequisite of Mathematics 379 H —Mathematics $365 \mathrm{C}, 367 \mathrm{~K}$, 373 K , or 374 G with a grade of at least $A$-, and another of these courses with a grade of at least $B$-; and consent of the honors adviser.

## Nutrition Departmental Honors

Majors who plan to seek special departmental honors in nutrition should apply to the Departmental Honors Committee for admission to the honors program no later than the beginning of the senior year. The requirements for admission are a University grade point average of at least 3.00 and a
grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree.

The requirements for graduation with special departmental honors are (1) all requirements for the degree of Bachelor of Science in Nutrition; (2) Nutrition 379H, Honors Tutorial Course; this course may be repeated once for credit; (3) completion of an honors thesis and an accompanying presentation, both of which must be approved by a committee consisting of the research supervisor and another faculty member; (4) a University grade point average of at least 3.00, a grade point average in Nutrition 379 H of at least 3.00, and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree and for honors; and (5) completion at the University of at least sixty semester hours of coursework counted toward the degree.

## Physics Departmental Honors

Majors who plan to seek special departmental honors in physics should apply to the honors adviser for admission to the honors program near the end of the third year. A University grade point average of at least 3.00 and a grade point average in physics of at least 3.50 are required for admission.

The requirements for graduation with special departmental honors are (1) Physics 379 H , Honors Tutorial Course; (2) a written honors thesis approved by faculty readers assigned by the department; (3) a University grade point average of at least 3.00 and a grade point average in physics of at least 3.50 ; and (4) completion at the University of at least sixty semester hours of coursework counted toward the degree.

## Textiles and Apparel Departmental Honors

Majors who plan to seek special departmental honors in textiles and apparel should apply to the Departmental Honors Committee for admission to the honors program no later than the beginning of the senior year. The requirements for admission are a University grade point average of at least 3.00 and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree.

The requirements for graduation with special departmental honors are (1) all requirements for the degree of Bachelor of Science in Textiles and Apparel; (2) Textiles and Apparel 379H, Honors Tutorial Course; this course may be repeated once for credit; (3) completion of an honors thesis and an accompanying presentation, both of which must be approved by a committee consisting of the research supervisor and another faculty member; (4) a University grade point average of at least 3.00, a grade point average in Textiles and Apparel 379H of at least 3.00, and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree and for honors; and (5) completion at the University of at least sixty semester hours of coursework counted toward the degree.

## Graduation

## Special Requirements of the College

All students must fulfill the General Requirements (p. 17) for graduation. Students in the College of Natural Sciences must also fulfill the following requirements.

1. The University requires that the student complete in residence at least sixty semester hours of the coursework counted toward the degree. For the Bachelor of Arts, Plan I, these sixty hours must include at least eighteen hours in the major.
2. All University students must complete in residence at least twentyfour of the last thirty semester hours counted toward the degree.

For students seeking the Bachelor of Science in Medical Laboratory Science, this rule applies to the academic work completed at the University.
3. The University requires that at least six semester hours of advanced coursework in the major be completed in residence. Additional hours in the professional or major sequence in many cases are required by individual natural sciences degree programs.
4. A candidate for a degree must be registered in the College of Natural Sciences either in residence or in absentia the semester or summer session the degree is to be awarded. Graduation applications must be submitted no later than the date given in the academic calendar. The application and supplemental in absentia instructions are available via the College of Natural Sciences Web Site (http://cns.utexas.edu/ students/degrees-majors-advising/graduation).

## Applying for Graduation

An electronic degree audit is created for each student each semester. The student should view the audit through IDA, the University's Interactive Degree Audit system. The degree audit tells the student the courses he or she must take and the requirements he or she must fulfill to receive the degree. The degree audit normally provides an accurate statement of requirements, but the student is responsible for knowing the requirements for the degree as stated in a catalog under which he or she is eligible to graduate and for registering so as to fulfill all these requirements. The student should speak with his or her assigned academic adviser before registering if in doubt about any requirement.

In the semester or summer session in which the degree is to be conferred, the candidate must be registered at the University and must file an online graduation application form via the graduation section of the College of Natural Sciences Web Site (http://cns.utexas.edu/students/degrees-majors-advising/graduation). This should be done during the first week of classes, if possible, but in no event later than the deadline to apply for an undergraduate degree; this date is given in the official academic calendar. No degree will be conferred unless the graduation application form has been filed on time.

## Degrees and Programs

The College of Natural Sciences offers the following undergraduate degrees:

1. Bachelor of Science and Arts, with majors in astronomy, biochemistry, biology, chemistry, computer science, human development and family sciences, human ecology, nutrition, mathematics, neuroscience, and physics.
2. Bachelor of Science degrees in astronomy, biochemistry, biology, chemistry, computer science, environmental science, human development and family sciences, mathematics, medical laboratory science, neuroscience, nutrition, physics, public health, and textiles and apparel.
3. Bachelor of Arts, Plan I, with majors in astronomy, biochemistry, biology, chemistry, computer science, human ecology, mathematics, and physics.

The Bachelor of Science and Arts degree offers a cross-disciplinary experience for students who want to combine a strong core science experience with coursework in areas such as business, communications, fine arts, and the liberal arts. Students choose a major comprised of forty-eight hours of science and mathematics. Students choose either a fifteen-hour minor in a field of study outside of sciences, or an eighteen to twenty-four hour transcript-recognized certificate such as business foundations, core texts and ideas (studying books that shaped western
civilization and thought), food and society, forensic science, pre-health professions, teaching, and textile conservation, among others.

The Bachelor of Science degrees provide deep exploration of science fields for students preparing for graduate science programs and careers as specialized scientists. The degrees contain between eighty to ninety hours of science and mathematics, and typically have multiple specialized options that reflect niche areas of study.

The Bachelor of Arts, Plan I, is shared with the College of Liberal Arts.

A student may not earn more than one Bachelor of Arts, Bachelor of Science and Arts, or Bachelor of Science in Environmental Science degree from the University. A student may earn only one undergraduate degree in a particular field of study from the College of Natural Sciences. A student who holds a Bachelor of Arts or a Bachelor of Science and Arts degree from the University may earn a second major designation in another field of study that will appear on the University transcript.

The title of a graduate's degree appears on his or her diploma, but the major does not. The degree, the major, and the transcript-recognized certificate appear on the graduate's University transcript.
A natural sciences student who wishes to add another major in the college must meet the criterion described in the Admission and Registration (p. 532) section.

## Applicability of Certain Courses

## Physical Activity Courses

Physical activity (PED) courses and Kinesiology 119 may not be counted toward a degree in the College of Natural Sciences. However, they are counted as courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

ROTC units are maintained on campus by the Departments of Air Force Science, Military Science, and Naval Science. Information about each program is available from the chair of the department.

Nine semester hours of designated University of Texas at Austin coursework in air force science, military science, or naval science may be counted toward any degree in the College of Natural Sciences.

## Courses Taken on the Pass/Fail Basis

No more than sixteen semester hours taken on the pass/fail basis may be counted toward the Bachelor of Arts, Plan I. No more than six semester hours taken on the pass/fail basis may be counted toward the Bachelor of Science and Arts degree and the Bachelor of Science degrees. In general, only electives may be taken on the pass/fail basis. Complete rules on registration on the pass/fail basis are given in the General Information Catalog.

## Courses in a Single Field

For the Bachelor of Arts, Plan I, no more than thirty-nine hours may be counted in any one field of study, including the major, unless major requirements state otherwise. Additionally, for the Bachelor of Arts, Plan I, no more than thirty-nine hours may be counted in any one college or school other than the College of Liberal Arts or the College of Natural Sciences.

## College Algebra

Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward a degree in the College of Natural Sciences.

## Transcript-Recognized Certificate Programs

Undergraduate certificate programs encourage students to explore academic areas that support and extend their degree plans. The following certificates require at least eighteen semester hours of coursework, some of which may also be used to fulfill degree requirements. Undergraduates who complete the certificate requirements in conjunction with their degree requirements or within one year after earning the degree will receive a certificate and recognition on their University transcript. A maximum of nine hours in the certificate program may be taken after completion of the undergraduate degree. At least half of the required coursework in the certificate program must be completed in residence at the University.

## Certificate in Computational Science and Engineering

Information relating to the Certificate in Computational Science and Engineering (p.14) can be found in The University section.

## The Elements of Computing Program

The Elements of Computing Program, administered by the Department of Computer Science, is designed to support computational work in disciplines other than computer science and to provide students with skills in the use of computer applications. Any non-computer science major may take any elements of computing course for which he or she meets the prerequisite. No application process is required.

To earn the Elements of Computing Certificate, students must complete eighteen semester hours of coursework with a grade of at least $C$ - in each course. The following coursework is required:

> - One core course: Computer Science 303E, Elements of Computers and Programming, or the equivalent
> - Five of the following courses, including at least three upper-division courses:
> Computer Science 301K, Foundations of Logical Thought
> Computer Science 302, Computer Fluency
> Computer Science 313E, Elements of Software Design
> Computer Science 320N, Topics in Computer Science for Nonmajors
> Computer Science 324E, Elements of Graphics and Visualization
> Computer Science 326E, Elements of Networking
> Computer Science 327E, Elements of Databases
> Computer Science 329E, Topics in Elements of Computing

With the approval of the certificate program faculty committee, other appropriate courses may be counted toward the elective requirement.

## Forensic Science Certificate

The Forensic Science Certificate provides an interdisciplinary perspective for students interested in careers in forensic science.

Students seeking employment in forensic science laboratories upon graduation are encouraged to select biology and chemistry courses. Some of these courses may require introductory biology and chemistry courses as prerequisites.

No admission to the certificate is required. Students must contact the dean's office in the College of Natural Sciences to apply for the certificate during the semester in which they are completing the requirements. The certificate consists of eighteen hours, including:

1. Three to six hours of forensic science, chosen from Anthropology 301, 324L (approved topics), and 366.
2. Six to twelve hours chosen from any of the following courses relevant to forensic science:
a. Criminalistics: Sociology 302, 325K, and 325L
b. Behavioral Science: Psychology 301, 308, 319K, and 352
c. Pharmacology: Neuroscience 365D
3. To achieve the minimum of eighteen hours required for the certificate, up to eight hours may be selected from any of the following courses:
a. Anatomy and Physiology: Biology 309D or 365S, 446L, 361T, 165U, and 371L
b. Chemistry: Chemistry 220C, 320M, 320N, 455, and Biochemistry 369
c. Genetics and Microbiology: Biology 325, 325L, 325T, 226L, and 326R
d. Statistics and Computation: One course chosen from the following: Biology 321G, Statistics and Data Sciences 302, 304, 306, 328M, or Mathematics 316.

## Certificate in Scientific Computation

The Certificate in Scientific Computation helps undergraduates equip themselves with the mathematical, statistical, and computer-based tools necessary to investigate complex systems in a variety of applications. It is designed to appeal to students across the University in science, engineering, economics, premedicine, sociology, and many other disciplines. The program is administered by the Department of Statistics and Data Sciences. To be admitted, a student must be in good standing in an approved undergraduate degree program and must have earned a grade of at least $C$ - in each certificate course he or she has completed. Students may apply for admission to the program at any point in their undergraduate study; they are encouraged to apply as early as possible so that they can be advised throughout the program.

The following coursework is required. Students must also complete Mathematics 408D or 408M as a prerequisite. No single course or topic may be used to meet more than one of these requirements.

## 1. Statistics and Data Sciences 222

2. One course in linear algebra, discrete mathematics, or differential equations chosen from the following: Mathematics 340L, 341, 362M, 372K, Statistics and Data Sciences 329C
3. Two courses in scientific computing, chosen from two of the following areas:
a. Numerical methods: Aerospace Engineering 211K, Chemical Engineering 348, Computer Science 323E, 323H, 367, Mathematics 348, Petroleum and Geosystems Engineering 310, Statistics and Data Sciences 335
b. Statistical methods: Biomedical Engineering 335, Electrical Engineering 351 K , Mathematics $358 \mathrm{~K}, 378 \mathrm{~K}$
c. Other computing topics: Computer Science $324 \mathrm{E}, 327 \mathrm{E}, 329 \mathrm{E}$ (approved topics), 377, Mathematics 346, 362M, 368K, 372K, 375T (approved topics), 376C, Mechanical Engineering 367S, Statistics and Data Sciences 329D, 374C, 374D, 374E
4. One of the following courses in applied computational science: Aerospace Engineering 347, Biology 321G, Biomedical Engineering 342, 346, 377T (approved topics), Chemistry 368 (approved topics), Computer Science 324E, 329E (approved topics), Economics 363C, Electrical Engineering 379K (approved topics), Geological Sciences 325K, Mathematics 375T (approved topics), 374M, Physics 329
5. An independent research course: Statistics and Data Sciences 479R.

## Evidence and Inquiry Certificate*

The Evidence and Inquiry Certificate allows students to design an area of study shaped by questions that require evidence and methodologies
outside their major. Students work with faculty and academic consultants to identify interests, map them onto academic disciplines at the University, and determine questions related to those interests that might be answerable by research that combines expertise from at least two disciplines. Students describe their area of study, identify primary questions, name two University of Texas at Austin faculty members with research experience relevant to their field, and justify the courses they would take in a written proposal that must be approved by a member of program's faculty panel. Students have the opportunity to present an original research project in a capstone seminar. Those who plan to pursue the certificate should apply to the program for admission no later than the end of their third long semester. More information about the Evidence and Inquiry Certificate is available on the College of Natural Sciences Web site (https://cns.utexas.edu/students/degrees-majors-advising/transcriptedcertificates).

The certificate program requires eighteen semester hours of coursework, including at least nine hours completed in residence. Students must meet the following requirements:

1. Critical thinking or research methods course from an approved list available from the adviser. The approved list may include Undergraduate Studies 303, (One of the following subjects: Originality in the Arts and Sciences; Research Methods; or Critical Thinking for the 21st Century). Other subjects or courses may be eligible for substitution by petition.
2. Four additional courses, including at least six semester hours of upper-division coursework, from the student's approved evidence and inquiry area of study.

## 3. Senior Capstone Seminar: Natural Sciences 371

In the College of Natural Sciences, the Evidence and Inquiry Certificate may be used to complement any major. Some certificate courses will also fulfill degree requirements established by the student's major department and are given later in this section; however, some of the eighteen hours required for the certificate may be in addition to the number of hours required for the degree.

## Food and Society Certificate

Though food-related issues vary widely in focus, they are all linked by their complexity and are deeply interdisciplinary nature, each relating to topics of health and nutrition, genetics, politics, culture, the environment, economics, and business. Students will be able to appreciate the full range of these interdisciplinary ties and apply new perspectives to their primary academic majors and careers.

Students completing the certificate will be able to apply a more comprehensive understanding of the implications of their food-related actions and decisions; find better solutions to today's complex problems; formulate more effective public policy; become better informed and active citizens; and make healthier choices for themselves and their families.

No admission to the certificate is required. Students must contact the advising office in the School of Human Ecology to apply for the certificate the semester before the certificate requirements are met. The certificate consists of eighteen hours, of which nine hours must be in upper-division coursework. Courses must be completed with minimum grades of at least $C$ - unless the course is offered only on the pass/fail basis.

Some of the courses may contain prerequisites that are in addition to the coursework for the certificate.

1. Three hours of introductory nutrition, chosen from Nutrition 306, 312, or 312 H .
2. Fifteen hours selected from a minimum of two themes chosen from a, b, and c. No more than nine hours in a single theme may be applied toward the certificate.
a. Nutrition and Health
i Nutrition 307, Introductory Food Science
ii Nutrition 315, Nutrition through the Life Cycle
iii Nutrition 218, Assessment of Nutritional Status and Nutrition 118L, Assessment of Nutritional Status Laboratory
iv Nutrition 330, Nutrition Education and Counseling
v Nutrition 321, International Nutrition: The Developing World
vi Nutrition 334, Foodservice Systems Management
vii Nutrition 353, Field Experience in International Nutrition
viii Nutrition 365 (Topic 4: Obesity and Metabolic Health)
ix Sociology 308S, Introduction to Health and Society
x Nursing 309, Global Health
b. Culture and History
i Nutrition 316, Culture and Food
ii American Studies 370 (Topic 26: American Food)
iii Anthropology 307, Culture and Communication
iv Asian Studies 379 (Topic 7: Cuisine and Culture in Asia)
v Classical Civilization 340 (Topic 6: Food, Health, and Culture in the Ancient Mediterranean)
vi Classical Civilization 348 (Topic 14: Ancient Greek Medicine)
c. Politics, Economics, and Environment
i Nutrition 331, International Nutrition: Social and Environmental Policies
ii Nutrition 332, Community Nutrition
iii Geography 331K, Nature, Society, and Adaptation
iv Geography 344K, Global Food, Farming, and Hunger
v Geography 339K, Environment, Development, and Food Production
vi Government 370L (Topic 21: Politics of Food in America)
vii Marine Science 308, Humans and a Changing Ocean
viii Marine Science 367K, Human Exploration and Exploitation of the Sea

## Pre-Health Professions Certificate

The Pre-Health Professions Certificate assists students in preparing for post-baccalaureate, healthcare professional programs.

Students are encouraged to work closely with the Health Professions Office to select healthcare themes relevant to their professional career goals. Some of the courses may contain prerequisites that are in addition to the coursework for the certificate.

Majors in the College of Natural Sciences must seek the Science Major Track. The composition of the science major track is one-half science coursework and one-half coursework from a theme related to healthcare. No admission to the track is required.

Majors outside of the College of Natural Sciences must seek the NonScience Major Track. The composition of the non-science major track is science coursework necessary for admission to post-baccalaureate, healthcare professional programs. Non-science majors may apply to the certificate program upon completion of the following courses with grades of at least $B$-: Chemistry 301 and completion of one of the following: Statistics and Data Sciences 302, Mathematics 408C, 408K, or 408 N . Upon admission, the ability to progress in the certificate is dependent on completion of the certificate courses with satisfactory grades. Non-science majors who complete the certificate may be eligible to enroll in select
upper-division courses necessary for application to the health professions programs to which they are applying.

Students must contact the dean's office in the College of Natural Sciences to request the certificate during the semester in which they are completing the requirements. The certificate consists of a minimum of eighteen hours. Each course presented for the certificate must be completed with a grade of at least $C$ -

## Science Major Track

1. Complete up to nine hours chosen from the following:
a. Biochemistry and Chemistry: Chemistry 220C, 320M, 320N, and Biochemistry 369
b. Biology: Biology 311C, 311D, and 206L
c. Physics: Physics 302K, 102M, 302L, 102N; 317K, 117M, 317L, $117 \mathrm{~N} ; 301,101 \mathrm{~L}, 316,116 \mathrm{~L} ; 303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}, 103 \mathrm{~N}$.
d. Statistics: One of the following courses: Mathematics 316, Statistics and Data Sciences 302, 304, 306, or 328M.
2. Complete a minimum of nine hours chosen from the following themes relevant to healthcare:
a. Cultural Awareness:
i Anthropology 322M (Topic 5: Indians of Mexico and Guatemala)
ii Asian American Studies 301 and Asian American Studies 310 (Topic 1: Psychological Perspectives on Asian American Identity)
iii African and African Diaspora Studies 301
iv Latin American Studies 324L (Topic 16: Mexican Immigration Cultural History)
v Mexican American Studies 307
vi Middle Eastern Studies 301L
b. Health and Anatomy:
i Classical Civilization 306M
ii Educational Psychology 363 (Topic 3: Human Sexuality) or Health Education 366.
iii Health Education 335, 343, 352K, 370K, and 373
iv Kinesiology $320,324 \mathrm{~K}, 325 \mathrm{~K}$, and 326 K
v Psychology 301, 308, 332C, Psychology 341K (Topic 4: Health Psychology), Psychology 346K, and Psychology 353K
c. Healthcare Policy:
i Communication Studies 322E
ii History 350R (Topic 18: Women in Sickness and Health)
iii Philosophy 325M
iv Nursing 309 and Nursing 321
v Sociology 307M, 319, 336D, 354K, 358D, 368D, and 369K
vi Urban Studies 350 (Topic: Human Health and the Environment)
vii Geography 357
viii Public Health 317
d. Human and Societal Development:
i Communication Studies 310K and 322E.
ii Educational Psychology 369K (Topic 10: Educational Neuroscience).
iii Human Development and Family Sciences 304, 313, 335, 342, 351, and 378K (Topic: Biobehavioral Health Processes Across the Family).
iv Nursing 310.
v Psychology 301, 308, 332C, 341K (Topic 4: Health Psychology), and 346K.
vi Sociology 302 and 330 C .
e. Nutrition:
i Communication Studies 322E
ii History 350R (Topic 5: American Cultural History of Alcohol and Drugs)
iii Nutrition 312, 218, 326, and 331

## Non-science Major Track

1. Complete a minimum of eighteen hours from the following:
a. Biology: Biology 311C, 311D, and 206L
b. Chemistry: Chemistry 302 and Chemistry 204.
c. Physics: Physics 302K, 102M, 302L, and 102N. The following physics sequences may substitute if they are already completed: Physics 317K, 117M, 317L, and 117N; Physics 301, 101L, 316, and 116L; Physics 303K, 103M, 303L, and 103N.
2. Students who successfully complete the Non-Science Major Track in requirement 1 will be eligible to enroll in the following courses according to the professional field they intend to enter. These additional courses are not required to earn the Pre-Health Professions Certificate.
a. Pre-dental preparation: Biochemistry 369; Biology 320, 325, 326M; Chemistry 320M, 320N, 220C
b. Pre-medical preparation: Biochemistry 369; Biology 320, 325; Chemistry 320M, 320N, 220C
c. Pre-occupational therapy preparation: Biology 325, 446L, 365S, 165U; Mathematics 316
d. Pre-optometry preparation: Biochemistry 369; Biology 325, 326M, 226L, 446L, 365S, 165U; Chemistry 320M, 320N, 220C; Mathematics 316
e. Pre-physical therapy preparation: Biology 325, 446L, 365S, 165U; Mathematics 316
f. Pre-physician assistant preparation: Biochemistry 369; Biology 320, 325, 326M, 226L, 344, 446L, 365S, 165U; Chemistry 320M, 320N, 220C; Mathematics 316; Nutrition 306.
g. Pre-pharmacy preparation: Biology 325, 326M, 226L, 446L, 365S, 165U; Chemistry 320M, 320N, 220C; Mathematics 316
h. Pre-veterinary preparation: Biochemistry 369; Biology 325, 326R, 226L, 344; Statistics and Data Sciences 321 or 328M

## Certificate in Textile Conservation and Museum Studies

The Certificate in Textile Conservation and Museum Studies helps undergraduates equip themselves with the fiber science, exhibition planning, textile conservation, and museum management skills necessary to conserve textiles in various settings. It is designed to appeal to students across the University in science, history, information science, computational science, merchandising, fiber science and apparel design, and many other disciplines. The program is administered by the Division of Textiles and Apparel in the School of Human Ecology. To be admitted, a student must be in good standing in an approved undergraduate degree program and must have earned a grade of at least $C$ - in each certificate course he or she has completed. Students may apply for admission to the program at any point in their undergraduate study; they are encouraged to apply as early as possible so that they can be advised throughout the program.

The following coursework is required.

1. Textiles and Apparel 205 and 105L
2. Textiles and Apparel 219C and 119L
3. Textiles and Apparel 325L
4. Textiles and Apparel 325M
5. Textiles and Apparel 355D
6. Textiles and Apparel 352C
7. Information Studies 304W
8. Information Studies 335W

## UTeach Natural Sciences Secondary Teaching Option Certificate**

The UTeach Natural Sciences program offers a secondary teaching option certificate to students who intend to teach at the middle or high school level.

The following coursework is required, with grades of at least $C$ -

1. One of the following courses: Biology 337 (Topic 2: Research Methods: UTeach), Chemistry 368 (Topic 1: Research Methods: UTeach), or Physics 341 (Topic 7: Research Methods: UTeach).
2. History 329U or Philosophy 329U.
3. Eighteen hours of professional development coursework, consisting of:
a. Curriculum and Instruction 650 S
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360.
e. UTeach-Natural Sciences 101,110, and UTeach-Natural Sciences 170
4. In addition, students must meet the following requirements to graduate and be recommended for certification:
a. University grade point average of at least 2.50 .
b. Successful completion of secondary teacher certification and identified discipline specific content courses.
c. Successful passing of final teaching portfolio review, conducted by the UTeach Program in Natural Sciences.

## Special Requirements

Students who successfully complete this certificate may be eligible for recommendation for state teaching certification if they have met all professional development and discipline specific content courses. Students seeking middle grades certification must also complete the following courses with grades of at least $C$-: Educational Psychology 363M (Topic 3: Adolescent Development) or Psychology 301 and 304; and Curriculum and Instruction 339E. Students must adhere to the current state certification requirements, even if they differ from those listed in a University Catalog. For more information about these requirements, students should consult with the UTeach-Natural Sciences academic adviser.

## UTeach Teacher Certification

UTeach-Natural Sciences prepares students in the College of Natural Sciences and the Jackson School of Geosciences for single-field teacher certification in mathematics or computer science or for composite certification with biology, chemistry, geological sciences, or physics as the primary teaching field. Composite certification that includes engineering is also available through UTeach-Engineering, in collaboration with the Cockrell School of Engineering. Composite certification requires fortyeight semester hours of coursework, consisting of twenty-four hours in one science, twelve in a second science, and six each in two additional sciences.

Students can complete the courses for certification as electives within a standard bachelor's degree program; lists of the required content courses and additional certification requirements are available in the UTeachNatural Sciences office. However, students are strongly encouraged to consider the teaching options in biology, chemistry, geological sciences, mathematics, nutrition, and physics. These incorporate not only the required coursework in the major but also the professional development courses, supporting courses, and courses in other sciences that are required for certification.

To graduate and be recommended for certification, the student must have a University grade point average of at least 2.50 . He or she must have earned a grade of at least $C$ - in each of the professional development courses and supporting courses listed below and must pass the final teaching portfolio review. Information about the portfolio review and additional certification requirements is available from the UTeach-Natural Sciences academic adviser.

Students must adhere to current certification requirements, even if they differ from those listed in a University catalog.

## Professional Development Sequence

All students seeking teacher certification must complete the following courses:

1. UTeach-Natural Sciences 101, Secondary Teacher Education Preparation: STEP 1
2. UTeach-Natural Sciences 110, Secondary Teacher Education Preparation: STEP 2
3. UTeach-Natural Sciences 170, Student Teaching Seminar
4. Curriculum and Instruction 650S, Secondary School Teaching Practicum
5. Curriculum and Instruction 365C, Knowing and Learning in Math and Science
6. Curriculum and Instruction 365D, Classroom Interactions
7. Curriculum and Instruction 365E, Project-Based Instruction

Students seeking middle grades certification must also complete the following courses. To be recommended for certification, the student must earn a grade of at least $C$ - in each course.

Curriculum and Instruction 339E, Secondary School Literacy across the Disciplines,
Educational Psychology 363M (Topic 3: Adolescent Development); or both Psychology 301, Introduction to Psychology, and Psychology 304, Introduction to Child Psychology

## Supporting Courses

1. One of the following:

Biology 337 (Topic 2: Research Methods: UTeach)
Chemistry 368 (Topic 1: Research Methods: UTeach)
Physics 341 (Topic 7: Research Methods: UTeach)
2. One of the following:

History 329U, Perspectives on Science and Mathematics Philosophy 329U, Perspectives on Science and Mathematics

Interested students are encouraged to start the program at any time during their undergraduate careers. Students must be considering a teaching career in middle grades or secondary school science, computer science, mathematics, and/or engineering, and must meet grade point average requirements. Students who are interested in teaching earlier grades should consult the College of Education.
*Changes pending approval by the University of Texas System
**Changes pending approval by the University of Texas System and the Texas Higher Education Coordinating Board

## Bachelor of Arts, Plan I

The requirements for the Bachelor of Arts under Plan I are designed to give each student flexibility in the selection of courses to meet individual needs.

A total of 120 semester hours is required. Thirty-six hours must be in upper-division courses. At least sixty hours, including twenty-one hours of upper-division coursework, must be completed in residence at the University; at least twenty-four of the last thirty hours must be completed in residence at the University. Provided residence rules are met, credit may be earned by examination, by extension, by correspondence (up to 30 percent of the hours required for the degree), or, with the approval of the dean, by work transferred from another institution. Up to sixteen semester hours of classroom and/or correspondence coursework may be taken on the pass/fail basis; this coursework may be counted only as electives.

All students must complete the University's (p. 20) Core Curriculum (p. 20). In the process of fulfilling the core curriculum and other degree requirements, all students must complete courses with content in the following areas:

1. Writing: two flagged courses, including one at the upper-division level, beyond Rhetoric and Writing 306 or its equivalent.
2. Quantitative reasoning: one flagged course

Courses in the major and minor may also be used to fulfill prescribed work requirements unless expressly prohibited. A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills one requirement may also be used to fulfill a flag requirement. Courses that fulfill these flag requirements will be identified in the Course Schedule by the appropriate flags.

The student must fulfill both the University ( $p$. 17) $G$ ( $p$. 17)eneral Requirements ( $p$. 17) for graduation and the $R$ ( $p$. 539)equirements of the College of Natural Sciences ( p .539 ). University graduation requirements include a grade point average of at least 2.00 in all courses taken at the University (including credit by examination, correspondence, and extension) for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded; for the Bachelor of Arts, Plan I, the student must also earn a grade point average of at least 2.00 in courses taken at the University and counted toward the major requirement. The student should also refer to the description of his or her major in the section "Majors and Minors" below, since some majors include higher minimum scholastic requirements.

More information about grades and the grade point average is given in the General Information Catalog (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/computation-of-the-grade-point-average).

## Prescribed Work

1. Writing: Two courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag. One of these courses must be upper-division. Courses with a writing flag are identified in the Course Schedule (http://registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
2. Foreign language: Four semesters or the equivalent in a single foreign language.

The foreign language requirement is the attainment of a certain proficiency, as well as the completion of a specified number of courses; however, the courses taken to gain proficiency are not electives and may not be taken on the pass/fail basis. Any part of the requirement may be fulfilled by credit by examination.

To achieve proficiency in a foreign language as rapidly as possible, qualified students are urged to take intensive foreign language courses. Information about these courses is available from the departments that offer them.

Courses used to fulfill the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be counted.
3. Social science: Three semester hours chosen from a list of approved courses, in addition to the course used to fulfill the social and behavioral sciences requirement of the core curriculum. The course(s) must be in a field of study taught in the College of Liberal Arts and must be in a different field of study from the course used to fulfill the social and behavioral sciences requirement of the core. Courses on the approved list are primarily in anthropology, economics, geography, linguistics, psychology, and sociology, but not every course in these fields is approved. Courses that are approved to count toward any core curriculum area other than social and behavioral sciences may not be counted toward this requirement.

The list is available each semester in the Student Division and on the College of Liberal Arts Web site (http://www.utexas.edu/cola/student-affairs/Majors-and-Degrees/Course-Lists.php).
4. Mathematics: Three semester hours in mathematics, excluding Mathematics 301, 316K, and 316L.
5. Natural science: Six semester hours in natural sciences, in addition to the courses counted toward the science and technology requirements of the core curriculum. Courses used to fulfill this requirement must be chosen from the fields of study listed below; no more than three hours may be in either the history of science or the philosophy of science. To satisfy the mathematics and science and technology requirements of the core curriculum and the natural science requirement of the Bachelor of Arts, Plan I, a student may count (1) no more than twelve hours in mathematics, computer science, and statistics and data sciences combined; and (2) no more than nine hours in any single field of study.
a. Astronomy
b. Biology
c. Chemistry
d. Geological sciences
e. Marine science
f. Nutrition
g. Physical science
h. Physics
i. Mathematics (excluding Mathematics 301), computer science, statistics and data sciences
j. Other alternative science courses approved by the dean
k. Approved alternative courses in history of science and philosophy of science
6. Cultural expression, human experience, and thought: Three semester hours chosen from a list of approved courses. The course(s) must be in a field of study taught in the College of Liberal Arts. A course counted toward any requirement of the core curriculum may not also be counted toward this requirement.

A list of approved courses is available each semester in the Student Division and on the College of Liberal Arts Web site (http:// www.utexas.edu/cola/student-affairs/Student-Services/Majors-and-Degrees/Course-Lists.php).

## Electives

In addition to the core curriculum, prescribed work, and major and minor, the student must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than twelve semester hours of Bible courses; nine hours of designated coursework in air force science, military science, or naval science; sixteen hours completed on the pass/fail basis; thirtynine hours in any one field of study offered in the College of Liberal Arts or the College of Natural Sciences, unless major requirements state otherwise; and thirty-nine hours in any other single college or school of the University.

## Majors and Minors Major Requirements

The Bachelor of Arts, Plan I, requires the completion of all requirements for one major.

The number of semester hours required in the major varies with the field selected. Unless the requirements of the major state otherwise, a major consists of at least twenty-four but no more than thirty-nine semester hours, with at least fifteen hours in upper-division courses. Of these fifteen hours, six must be completed in residence. At least eighteen hours of coursework in the major, including six hours of upper-division coursework, must be completed in residence at the University.

## Minors

Students in most majors must also fulfill the requirements of a minor. The requirements of the minor are established by the major department and are given with the major requirements. Additional restrictions may be imposed by the academic department(s) in which the student takes the courses used to fulfill the requirements of the minor; before planning to use a course to fulfill the minor requirement, the student should consult the department that offers the course.

## Astronomy

## Major

The following coursework is required:

1. Physics 301 and 101L
2. Physics 316 and 116L (Prerequisites: Physics 301 and 101L)
3. Physics 315 and 115L (Prerequisites: Physics 316 and 116L)
4. Nine semester hours of upper-division coursework in astronomy, including at least two of the following courses:
Astronomy 352K
Astronomy 352L
Astronomy 353
Astronomy 358
Astronomy 364
5. Six additional upper-division hours in astronomy and/or physics

## Minor

Six semester hours of coursework (other than astronomy, lowerdivision physics, lower-division mathematics, and Mathematics 427K) approved by the undergraduate adviser; and either six semester hours of upper-division physics in addition to the courses used to fulfill the
major requirements or six semester hours of upper-division coursework approved by the undergraduate adviser.

Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00.

All astronomy majors should consult the astronomy undergraduate adviser regularly about the choice of appropriate courses in both the major and the minor. Qualified students are encouraged to carry out a supervised research project by taking a conference course, such as Astronomy 375 or 379 H . No more than six of the hours counted toward the major requirement may be earned in conference courses.

## Biochemistry

In addition to the requirements below, biochemistry majors must take either Mathematics 408C and 408D or Mathematics 408N, 408S, and Statistics and Data Sciences 328M; and eight semester hours of physics: either Physics 301, 101L, 316, and 116L; 303K, 103M, 303L, and 103N; or $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N .

## Major

1. Chemistry 301 or 301 H
2. Chemistry 302 or 302 H
3. Chemistry 204 or 317
4. Chemistry 320M
5. Chemistry 353 or 353 M
6. Chemistry 455
7. Biochemistry 339F
8. Biochemistry 369L
9. Two of the following courses:

Biochemistry 339J
Biochemistry 339M
Biochemistry 339N
Biochemistry 370

## Minor

Either Biology 311C, 311D, and 325 or 315H and 325H; six additional semester hours in biology, three of which are chosen from Biology 328, 339, 345, 361T, Neuroscience 365R or Biology 371M, and 365S; and three additional hours chosen from the preceding list or from Biology 320, $325 \mathrm{~T}, 226 \mathrm{~L}$ and either 326M or 326R, 327D, 330, 331L, 335, 336, 339M, 344, 346, 347, 349, 360K, 361, 377 and Neuroscience 365W.

Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00.

## Biology

In addition to the requirements below, biology majors must complete Mathematics 408 C or 408 N , Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204; and one of the following: (1) Chemistry $220 \mathrm{C}, 320 \mathrm{M}$, and 320 N ; (2) eight hours of coursework in physics, including laboratory work; or (3) six hours of coursework in computer science, including at least three hours of upper-division work.

## Major

The following coursework is required:

1. Either Biology 311C, 311D, and 325 or Biology 315H and 325H.
2. Biology 206L or 208L.
3. Six semester hours in core biology courses, consisting of three hours in each of the following areas.
a. Cellular, developmental, and molecular biology: Biology 320, 344, 349.
b. Ecology and evolution: Biology 357, 370, 373.
4. Eighteen additional semester hours of coursework, consisting of three hours in each of the following six areas. No course may be counted toward more than one of the six areas in requirement 4. No course may be counted toward both requirement 3 and requirement 4 . The courses counted toward requirement 4 must include at least three laboratory courses.
a. Cellular, developmental, and molecular biology: Biology 320, 320L, 323L, 325L, 325T, 226L, 326R, 328D, 330, 230L, 331L, 332, 333, 335, 336, 339, 339M, 344, 347, 349, 349L, 350M, 360K, 160L, 366, 366R, 368L,Biochemistry 369, Neuroscience 366L, 366S.
b. Physiology and neurobiology: Biology 322, 122L, 328, 329, 129L, 336, 339, 345, 345E, 359K, 359R, 360K, 160L, 361, 361L, 361T, 365N, 365S, 165U, 371L, 371M, Neuroscience 365D, 365L, 365R, 365T, 365W, and 366C.
c. Ecology and evolution: Biology 328M, 321L, 340L, 448L, 351, 352, 453L, 354L, 455L, 456L, 357, 359J, 364, 369L, 370, 471G, 373, 373L, 375, Marine Science 352C, 354Q.
d. Animal biology: Biology 321L, 438L, 340L, 346, 446L, 448L, 453L, 354L, 455L, 359J, 359K, 359R, 361T, 365S, 369L, 371L, 478L, Marine Science 354, 354C.
e. Plant biology: Biology 322, 122L, 324 and 124L, 327 and 127L, 328, 328D, 350M, 351, 352, 374 and 174L, Marine Science 352D.
f. Microbiology: Biology 226L, 326R, 329, 129L, 330, 230L, 333, 339, 364, Marine Science 354E.

Students must earn a grade of at least $C$-in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00.

## Chemistry

In addition to the requirements below, chemistry majors must take Mathematics 408C and 408D or Mathematics 408N, 408S, and 408M; and eight semester hours of physics: either Physics 301, 101L, 316, and 116L; $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or 317K, 117M, 317L, and 117N.

## Major

1. Chemistry 301 or 301 H
2. Chemistry 302 or 302 H
3. Chemistry 204 or 317
4. One of the following sequences:

Chemistry $220 \mathrm{C}, 320 \mathrm{M}$, and 320 N ; or
Chemistry 128K, 128L, 328M, and 328N
5. Chemistry 353
6. Chemistry 153 K
7. Chemistry 354 or 354 L
8. Chemistry 154 K
9. Chemistry 456
10. Chemistry 376K

## Minor

Either (1) twelve semester hours of biology, geological sciences, mathematics, physics, or, with written consent of the department chair and approval of the dean, a field of study outside the College of Natural Sciences or the Jackson School of Geosciences; or (2) Computer Science

303E, 313E, and six hours chosen from Computer Science 323E, 324E, $326 \mathrm{E}, 327 \mathrm{E}$, and 329 E . Students who complete the second option may simultaneously fulfill some of the requirements of the Elements of Computing Certificate (p. 540).

Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00.

## Computer Science

An undergraduate may not enroll in any computer science course more than once without written consent of an undergraduate adviser in computer science. No student may enroll in any computer science course more than twice. No student may take more than three upper-division computer science courses in a semester without written consent of an undergraduate adviser in computer science.

## Major:

The following courses in computer science:

1. Theory: Computer Science 311 or $311 \mathrm{H}^{*}$, 331 , or $331 \mathrm{H}^{*}$, and three additional hours from an approved list available in the department.
2. Programming: Computer Science 312 or $312 \mathrm{H}^{*}, 314$ or $314 \mathrm{H}^{*}$, and three additional hours from an approved list available in the department.
3. Systems: Computer Science 429 or $429 \mathrm{H}^{*}, 439$ or $439 \mathrm{H}^{*}$, and three additional hours from an approved list available in the department.
4. Twelve additional hours of upper-division courses in computer science.

Computer Science 370 may be counted toward the degree only once.

## Minor for Computer Science Majors

Mathematics 408 C or 408 N , and 340 L or Statistics and Data Sciences 329C, and 321.

Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00 .

With the exception of Computer Science 311 or $311 \mathrm{H}^{*}, 312$ or $312 \mathrm{H}^{*}$, and 314 or $314 \mathrm{H}^{*}$, all computer science courses that may be counted toward a degree in computer science are restricted to students who have been admitted to the computer science major or have the consent of the undergraduate faculty adviser.

* Computer science courses with numbers ending in $H$ are intended for students pursuing the Bachelor of Science in computer science, option II, the Turing Scholars program, and option III, computer science honors. Students outside these options may enroll in these courses only with the special consent of the honors director.


## Human Ecology

## Major

Human ecology majors must complete thirty semester hours of coursework in the School of Human Ecology, including at least fifteen hours of upper-division coursework and at least six hours chosen from each of the following areas:

1. Human Development and Family Sciences 304, 312, 313, 113L, 315L, 322, and 337;
2. Nutrition 306, 307, 107L, 312 or $312 \mathrm{H}, 112 \mathrm{~L}, 315,316,218,118 \mathrm{~L}$, 326 and 126L, 321, 331, 332, and 338W or 338 H ;
3. Textiles and Apparel 205, 105L, 316Q, 219C and 119L, 325L, and 325M

Additionally, students must complete the following coursework with a grade of at least $C$ - in each course:

1. Mathematics 408 N or the equivalent;
2. Statistics and Data Sciences 302, 303, 304, 305, 306, or $325 H$;
3. Please complete one of these sequences:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and Biology 311C, or
b. Chemistry 301 or 301 H and Biology 311C and 311D;
4. two to four additional hours in astronomy, biology, chemistry, computer science, geological sciences, mathematics, and/or physics. Courses designed for non-science majors may not be counted toward this requirement. This coursework also meets the core curriculum mathematics and science and technology requirements.

Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00.

To develop a meaningful and coherent degree program, the student should select courses with the assistance of faculty and academic advisers.

## Mathematics

Undergraduates seeking a Bachelor of Arts degree with a major in mathematics must choose either the standard option or the middle grades or secondary school teaching option.

## Major: Standard Option

At least twenty-four semester hours of upper-division coursework in mathematics. Students must earn a grade of at least $C$-in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00.

The student must complete the following:

1. Mathematics 408C and 408D
2. Mathematics 340 L or 341
3. Mathematics $328 \mathrm{~K}, 343 \mathrm{~K}$, or 373 K
4. Mathematics 361 K or 365 C
5. Mathematics 362 K
6. To broaden the student's training, at least one course chosen from the following: Mathematics 333L, 339J, 339U, 343L, 343M, 344K, 348, $358 \mathrm{~K}, 361,367 \mathrm{~K}, 368 \mathrm{~K}, 372 \mathrm{~K}, 374 \mathrm{M}, 376 \mathrm{C}, 378 \mathrm{~K}$

## Major: Options in Mathematics for Middle Grades and Secondary School Teaching:

At least twenty-four semester hours of upper-division coursework in mathematics. Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00.

The teaching options are designed to give students the mathematical background appropriate for teaching middle grades and secondary school mathematics, but students must meet additional requirements, including grade point average requirements, to obtain certification. Lists of the combined requirements of the UTeach-Natural Sciences certification
programs and these options are available from the UTeach-Natural Sciences academic adviser and in the Undergraduate Catalog.

All students must complete the following:

1. Mathematics 408C and 408D
2. Mathematics 340 L or 341
3. Mathematics $315 \mathrm{C}, 325 \mathrm{~K}, 333 \mathrm{~L}, 358 \mathrm{~K}$, and 362 K
4. Mathematics 360 M or 375D
5. Mathematics 361 K or 365 C
6. Mathematics $328 \mathrm{~K}, 343 \mathrm{~K}$, or 373 K

Students pursuing teacher certification through the UTeach-Natural Sciences program must also complete the following:
7. Biology 337 (Topic 2: Research Methods: UTeach), Chemistry 368 (Topic 2: Research Methods—UTeach), or Physics 341 (Topic 7: Research Methods-UTeach)
8. History 329U or Philosophy 329 U
9. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 650 S
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
e. UTeach-Natural Sciences 101, 110, and 170
10. For students seeking middle grades certification, the following courses: Educational Psychology 363M (Topic 3: Adolescent Development), or Psychology 301 and 304; and Curriculum and Instruction 339E

To graduate and be recommended for certification, students who follow the teaching option must have a University grade point average of at least 2.50. They must earn a grade of at least $C$ - in the supporting course in requirement 8 and in each of the professional development courses listed in requirement 9 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least $C$ in each of the courses listed in requirement 10. For information about the portfolio review and additional teacher certification requirements, students should consult the UTeach-Natural Sciences academic adviser.

## Physics

## Major

Physics $315,115 \mathrm{~L}, 355$, and at least fifteen semester hours of upperdivision coursework in physics, including Physics 336K, 352K, and 353L.

Additionally, students majoring in physics must complete Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.

## First Minor for Physics Majors

Twelve semester hours of mathematics, of which six must be in upperdivision coursework; the upper-division coursework must include three hours in differential equations.

## Second Minor for Physics Majors

Six semester hours, of which three must be in upper-division coursework, in any one of the following: biology, chemistry, geological sciences, philosophy, psychology; or in courses offered in the College of Education or the Cockrell School of Engineering. Courses used to fulfill specific
degree requirements other than the writing requirement may not also be used to fulfill this requirement.

Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00.

## Bachelor of Science and Arts

The requirements for the bachelor of science and arts degree are designed to give each student an opportunity to combine a core mathematics or science experience with an interdisciplinary curriculum which complements his or her major. Students pursuing the Bachelor of Science and Arts will major in a discipline within the College of Natural Sciences as well as minor in a field of study which allows the student to explore applications of his or her major in the broader society, allows the student to see the impacts of the sciences in other fields of study, and develops a complementary expertise, which supports multidisciplinary study.

All students pursuing an undergraduate degree must complete the University's (p. 20) Core Curriculum (p. 20). The prescribed work requirements for the Bachelor of Science and Arts consist of the language, arts, and culture requirement, major requirements, minor or transcript-recognized certificate requirements, and electives. Students may not use a course in one area of prescribed work to fulfill the requirements of another area of prescribed work; the only exception to this rule is that a course that fulfills one requirement may also be used to fulfill a flag requirement. Courses used to fulfill prescribed work requirements may be used to fulfill the University core curriculum requirements except where expressly prohibited.

In the process of fulfilling the core curriculum and other degree requirements, all students must complete courses with content in the following areas:

1. Writing: two flagged courses, including one at the upper-division level, beyond Rhetoric and Writing 306 or its equivalent
2. Ethics and leadership: one flagged course
3. Independent inquiry: one flagged course
4. Quantitative reasoning: one flagged course

Students pursuing a Bachelor of Science and Arts must fulfill both the University general requirements for graduation and the requirements of the College of Natural Sciences. These include a University grade point average of at least 2.00 in all courses taken at the University (including credit by examination, correspondence, and extension), and a grade of at least $C$ - in all math and science courses required in the major. Students completing a transcript-recognized certificate program must meet the minimum grade requirements and grade point average requirements of the program. Students must also complete a minimum of sixty hours in residence at the University, including at least eighteen hours of the major in residence.

Students may earn an honors major in their fields of study upon graduation by completing the following requirements:

1. Good standing in the Health Science Honors Program or the University Fellows Program.
2. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
3. Six hours of coursework in the major must be at the honors-level.
4. Natural Sciences 371.
5. A University grade point average of at least 3.50 .

## Prescribed Work Common to All Majors

1. Language, Arts, and Culture Requirement

Twelve hours selected from at least two of the following four areas:
a. Fine arts: courses chosen from design, ensemble, fine arts, music, studio art, performance, visual art studies, and theatre and dance.
b. Humanities: courses chosen from American studies, ancient history and classical civilization, art history, classical civilization, comparative literature, English, humanities, philosophy, religious studies, and rhetoric and writing.
c. Social and behavioral sciences: courses chosen from anthropology, economics, geography, government, history, linguistics, psychology, and sociology.
d. Foreign language and culture: foreign language courses or culture courses chosen from an approved list available in the college advising centers. Students who elect to pursue a foreign language must minimally complete a one-year competency.

Courses used to satisfy the University core curriculum, or credit earned by examination, may not be used to satisfy this requirement.

1. Major Requirements

The specific courses required for the major vary with the major selected and are described in the links to the right. Unless the requirements of the major state otherwise, a major consists of at least thirty-six but no more than forty-nine semester hours.
2. Minor or Certificate Requirement

The Bachelor of Science and Arts requires the completion of all requirements for one transcript-recognized certificate program or a minor. A minor consists of at least fifteen hours in a single field of study that is outside the College of Natural Sciences, Cockrell School of Engineering, and Jackson School of Geosciences. A student may not pursue a certificate that requires more than three hours of coursework required in the major, or more than six hours of coursework in their major field of study.
3. Electives

Enough additional coursework to make a total of 120 semester hours.

## Astronomy

## Major

1. Mathematics:
a. Mathematics 408C and 408D.
b. Mathematics 427K.
2. Primary science:
a. Physics 301, 101L, 315, 115L, 316, and 116L.
b. Two courses chosen from the following: Astronomy 352K, 353, and 358.
c. Six additional upper-division semester hours in astronomy and physics.
3. Secondary science:

Twelve additional semester hours of majors-level coursework from one or more of the following areas. It is recommended that students select three of the twelve hours to also fulfill the Natural Science and Technology Part II core curriculum requirement.
a. Biology
b. Chemistry
c. Computer Science
d. Geological Sciences
e. Mathematics
f. Statistics and Data Sciences

## Biochemistry

## Major

1. Mathematics:
a. Mathematics 408C or 408N.
b. Statistics and Data Sciences 328M.
2. Primary science:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
b. Chemistry 320M.
c. Biochemistry 339F and 369L.
d. Two courses chosen from the following: Biochemistry 339J, 339M, $339 N$, and 370.
3. Secondary science:
a. Biology 311C, 311D and 325, or Biology 315H and 325H.
b. One of the following physics sequences: i Physics 317K, 117M, 317L, and 117N (recommended).
ii Physics 301, 101L, 316, and 116L.
iii Physics 303K, 103M, 303L, and 103N.

## Biology

## Major

1. Mathematics:
a. Mathematics 408C or 408 N .
b. Statistics and Data Sciences 328M.
2. Primary science:
a. Biology 206L or 208L; 311C, 311D, and 325, or 315 H and 325 H .
b. One of the following: Biology 320 or 344.
c. One of the following: Biology 370 or 373 .
d. Nine additional semester hours, including three hours each from three of the four following areas. Courses used to satisfy requirement b or c may not also be used to satisfy requirement d. Of the nine semester hours chosen, at least one approved laboratory course must be completed. These courses are marked with an asterisk. Biology 377 may count with approval of the undergraduate adviser.
i Animal Biology: Biology 321L*, 438L*, 340L*, 347, 349, 448L*, 353F*, 453L*, 354L*, 455L*, 359J, 359K, 359R, 361T, 365S, 369F*, 369L*, 371L*, 478L*, Marine Science 354 and 354C, and Neuroscience 365R, 366L*, 366S.
ii Ecology and Evolution: Biology 357, 456L*, 370, 373, 375, and Marine Science 320, 120L*, 352C.
iii Molecular Genetics and Microbiology: Biology 320, 325L*, 326M, 326R, 226L*,327D, 344, 366R, Biochemistry 369, and Marine Science 354E.
iv Plant Biology: Biology 322 and 122L*, 324 and 124L*, 327 and $127 L^{*}, 328,328 \mathrm{D}^{*}, 350 \mathrm{M}, 351,352,374$ and $174 \mathrm{~L}^{*}$, and Marine Science 352D.
3. Secondary science:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
b. Six additional semester hours of majors-level coursework chosen from astronomy, biology, chemistry, computer science, environmental science, geological sciences, mathematics, marine
science, neuroscience, nutrition, public health, physics, statistics and data sciences, and systems biology.

## Chemistry

## Major

1. Mathematics:
a. Mathematics 408C and 408D, or 408N and 408S.
2. Primary science:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204 or 317.
b. Chemistry $320 \mathrm{M}, 320 \mathrm{~N}$ and 220 C , or $328 \mathrm{M}, 328 \mathrm{~N}, 128 \mathrm{~K}$ and 128L.
c. Chemistry 353 or 353 M , and 153 K
d. Chemistry 431; 455 or 456; and Biochemistry 369.
3. Secondary science: One of the following physics sequences:
a. Physics 301, 101L, 316, and 116L.
b. Physics 303K, 103M, 303L, and 103N.
c. Physics 317K, 117M, 317L, and 117N.

## Computer Science

## Major

1. Mathematics:
a. Mathematics 408C or 408 N .
b. Mathematics 340L or Statistics and Data Sciences 329C.
c. Statistics and Data Sciences 321.
2. Primary science:
a. Theory: Computer Science 311 or 311 H , and 331 or 331 H .
b. Programming: Computer Science 312 or 312 H , and 314 or 314 H .
c. Systems: Computer Science 429 or 429 H , and 439 or 439 H .
d. Twelve additional semester hours of approved upper-division computer science.
3. Secondary science:
a. Six semester hours of majors-level coursework chosen from a single field of study: astronomy, biology, chemistry, geological sciences, marine science, or physics. It is recommended that students select courses that will also fulfill the Natural Science and Technology Part I core curriculum requirement.

## Human Ecology

## Major

1. Mathematics:
a. Statistics and Data Sciences 302.
b. Mathematics 408C, 408N, or Statistics and Data Sciences 332.
2. Primary science:
a. Twenty-seven semester hours from the School of Human Ecology, including the following:
b. One of the following: Human Development and Family Sciences $304,304 \mathrm{H}, 313$ and 113 L , or 313 H and 113 L .
c. Nutrition 306, 312, or 312 H
d. Textiles and Apparel 303 or 205 and 105L.
e. Fifteen semester hours of upper-division coursework.
3. Secondary science:
a. Chemistry 301 or 301 H .
b. Biology 311C.
c. Biology 311D, 302, or 302H.

## Human Development and Family Sciences

## Major

1. Mathematics:
a. Statistics and Data Sciences 302.
b. Mathematics 408C or 408N, or Statistics and Data Sciences 332.
2. Primary science:
a. Human Development and Family Sciences 304, 313 and 113L, and 315L.
b. Eighteen semester hours of upper-division human development and family sciences.
3. Secondary science:
a. Chemistry 301 or 301 H .
b. Biology 311C.
c. One of the following courses: Biology 311D, Chemistry 302, or 302H.

## Mathematics

## Major

1. Mathematics:
a. Mathematics 408C and 408D.
2. Primary science:
a. Mathematics 341.
b. Mathematics $328 \mathrm{~K}, 343 \mathrm{~K}$, or 373 K .
c. Mathematics 362K.
d. Mathematics 361 K or 365 C .
e. Twelve additional semester hours of approved upper-division mathematics.
3. Secondary science:
a. Six semester hours of majors-level coursework chosen from a single field of study: astronomy, biology, chemistry, geological sciences, marine science, or physics. It is recommended that students select courses that will also fulfill the Natural Science and Technology Part I core curriculum requirement.
b. Three semester hours of majors-level coursework chosen from a different field of study: astronomy, biology, chemistry, computer science, geological sciences, marine science, or physics. It is recommended that students select a course that will also fulfill the Natural Science and Technology Part II core curriculum requirement.

## Neuroscience

## Major

1. Mathematics:
a. Mathematics 408 C or 408 N and 408 S .
b. Statistics and Data Sciences 328M.
2. Primary science:
a. Biology 206L; 311C and 311D, or 315H and 325H.
b. Neuroscience 365R or 330.
c. Neuroscience 335.
d. Twelve additional semester hours of neuroscience, chosen from: Biology 337 (Topic: Evolutionary Neuroscience), 337 (Topic: Sensory Neuroscience), 337 (Topic: Genetic Analysis of Behavior and Disease), 359K, 365N, Neuroscience 365T, 365W, 366C, 366D, 366E, 367F, and 466G.
3. Secondary science:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
b. One of the following physics sequences:
i Physics 301, 101L, 316, 116L.
ii Physics 303K, 103M, 303L, 103N.
iii Physics 317K, 117M, 317L, 117N.

## Nutrition

## Major

1. Mathematics:
a. Statistics and Data Sciences 302, 304, 306, 325H, or 328M.
b. Mathematics 408C or 408N or Statistics and Data Sciences 332.
2. Primary science:
a. One of the following sequences:
i Nutrition 312, 112L, 326, and 126L.
ii Nutrition 312H and 312R.
b. Sixteen additional semester hours of nutrition, including twelve semester hours of upper-division coursework.
3. Secondary science:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
b. Chemistry 320M.
c. Biology 311C.

## Physics

## Major

1. Mathematics:
a. Mathematics 408C, 408D, 427K, and 427L.
2. Primary science:
a. Physics 301, 101L, 315, 115L, 316, and 116L.
b. Physics 336K, 352K, 355, 369, and 373.
c. One course chosen from the following: Mathematics 340L; and Physics 329, 333, 345, 353L, 362K, 362L, 474, 375S, 375R, or 375P.
3. Secondary science:
a. Three semester hours of majors-level coursework chosen from: astronomy, biology, chemistry, computer science, and geological sciences. It is recommended that students select a course that will also fulfill the Natural Science and Technology Part II core curriculum requirement.

## Bachelor of Science in Astronomy

Astronomy tells us about the place of humankind in the universe: how Earth was created, how the Sun was formed, how galaxies form and evolve. It tells us where the universe is going and where it came from. Astronomers address these questions at a fundamental level. Their goal is to determine the basic and controlling properties of the universe and to transmit that knowledge to society. The Bachelor of Science in Astronomy is designed to give students an understanding of the universe and to prepare them to participate in the advancement of this exciting search.

Two options are available: astronomy and astronomy honors. Students who plan to follow option II, astronomy honors, must be admitted to the Dean's Scholars Honors Program (p. 536).

## Prescribed Work Common to all Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Astronomy must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule (http:// registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. One of the following foreign language/culture choices. Students in option II are exempt from this requirement.
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area chosen from an approved list available in the dean's office and the college advising centers.
4. At least thirty-six semester hours of upper-division coursework.
5. At least twenty-one hours of upper-division coursework, including at least twelve semester hours in physics and astronomy, must be completed in residence at the University.

## Additional Prescribed Work for Each Option Option I: Astronomy

6. Six semester hours in biology, chemistry, computer science, and/or geological sciences. Chemistry 301 or 301 H and the courses in the Elements of Computing Certificate Program may be counted toward this requirement; any other course to be counted must meet major requirements in the department that offers it.
7. Mathematics 408C and 408D, or the equivalent; and 427K, 427L, and 340L.
8. Physics 301, 101L, 315, 115L, 316, 116L, 336K, 352K, 353L, 355, $362 \mathrm{~K}, 369$, and 373.
9. Twelve semester hours of upper-division coursework in astronomy, including Astronomy 352K, 353, and 358. Astronomy 351 is recommended.
10. Nine additional semester hours of upper-division coursework in physics and/or astronomy.
11. Enough additional coursework to make a total of 123 semester hours.

## Option II: Astronomy Honors

6. Breadth requirement: An honors mathematics course, Chemistry 301 H , and nine additional hours of coursework chosen from honors courses in the college. Credit earned by examination may not be counted toward this requirement.
7. Physics 301, 101L, 315, 115L, 316, and 116L.
8. Twelve semester hours of upper-division coursework in astronomy approved by the departmental honors adviser.
9. Eighteen semester hours of upper-division coursework in physics approved by the departmental honors adviser.
10. Three additional semester hours of upper-division coursework in astronomy or physics.
11. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
12. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program.
13. Astronomy 379H and either a three-semester-hour upper-division research course approved by the departmental honors adviser or a second section of Astronomy 379H.
14. Sixteen additional hours of coursework approved by the departmental honors adviser.
15. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
16. Enough additional coursework to make a total of 120 semester hours.

## Special Requirements

Students in both options must fulfill both the University's General Requirements (p. 17) for graduation and the college requirements (p. 539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in General Information.

To graduate under option II, students must remain in good standing in the Dean's Scholars Honors Program, must earn grades of at least $A$ - in the departmental research and thesis courses described in requirement 12 above, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum (http://cns.utexas.edu/research-experience/undergraduate-research/ undergraduate-research-forum).

## Bachelor of Science in Biochemistry

The degree of Bachelor of Science in Biochemistry is intended to prepare students for professional careers as chemists, either upon graduation or after graduate study in chemistry or related fields. In addition, it may serve as the basis for work in many areas outside pure chemistry, such as materials science, medicine and other health-related fields, pharmacology, patent law, business, and environmental science. The honors option is intended to prepare students for academic or research careers.

Students who plan to follow option III, biochemistry honors, must be admitted to the Dean's Scholars Honors Program (http:// catalog.utexas.edu/undergraduate/natural-sciences/academic-policies-and-procedures/\#deansscholarshonorsprogram).

## Prescribed Work Common to all Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (http://catalog.utexas.edu/ undergraduate/undergraduate-studies/academic-policies-and-procedures/ \#corecurriculum).

In addition, students seeking the Bachelor of Science in Biochemistry must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule (http:// registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. At least thirty-six semester hours of upper-division coursework.
4. At least twenty-one semester hours of upper-division coursework, including at least twelve semester hours of upper-division coursework in chemistry, must be completed in residence at the University.

## Additional Prescribed Work for Each Option

## Option I: Biochemistry

5. Mathematics 408C and 408D, or 408N and 408S.
6. Biostatistics: Biology 328M or Statistics and Data Sciences 328M.
7. One of the following sequences:
a. Physics 301, 101L, 316, and 116L;
b. $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or
c. $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N .
8. The following chemistry courses:
a. General chemistry: Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204 or 317.
b. Organic chemistry: Chemistry 320M.
c. Biochemistry: Biochemistry 339F and 369L, and three additional courses chosen from Biochemistry 339J, 339M, 339N, and 370.
d. Physical chemistry: Chemistry 353 or 353 M .
e. Analytical chemistry: Chemistry 455.
9. One of the following sequences:
a. Biology 311C, 311D, and 325; or
b. Biology 315 H and 325 H .
10. Completion of one of the following: a. Eighteen additional semester hours of upper-division biochemistry, biology, chemistry, and neuroscience;
b. Eighteen additional semester hours in a field of study approved by the undergraduate adviser; or
c. A transcript-recognized certificate.
11. Enough additional coursework to make a total of 120 semester hours.

## Option III: Biochemistry Honors

5. Breadth requirement: An honors mathematics course, Biology 315 H and 325 H , Chemistry 301 H and 302 H , and three additional semester hours of coursework chosen from honors courses in the college. Credit earned by examination may not be counted toward this requirement.
6. The following chemistry courses:
a. General chemistry: Chemistry 204 or 317.
b. Organic chemistry: Chemistry 128K, 128L, 328M, and 328N; or 220C, 320M, and 320N.
c. Biochemistry: Biochemistry 339F and 369L, and three additional courses chosen from Biochemistry 339J, 339M, 339N, and 370.
d. Physical chemistry: Chemistry 353 or 353M.
e. Analytical chemistry: Chemistry 455.
7. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
8. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program.
9. Chemistry 379 H or 379 H and either a three-semester-hour upperdivision research course approved by the departmental honors adviser or a second section of Chemistry 379H or Biochemistry 379H.
10. Twenty-four additional semester hours of coursework approved by the departmental honors adviser.
11. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
12. Enough additional coursework to make a total of 120 semester hours.

## Special Requirements

Students in all options must fulfill both the University's (p. 17) General Requirements ( $p .17$ ) for graduation and the college requirements ( $p$. 539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/computation-of-the-grade-point-average) Catalog.

To graduate under option III, students must remain in good standing in the Dean's Scholars Honors Program, must earn grades of at least $A$ - in the departmental research and thesis courses described in requirement 8 above, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum may be found on the College of Natural Sciences Web site (https://cns.utexas.edu/).

## Order and Choice of Work

The student must consult the undergraduate adviser each semester regarding order and choice of work.

## Bachelor of Science in Biology

The Bachelor of Science in Biology degree program offers ten options. The options have certain prescribed work in common, and each option has additional requirements. Many fields in the study of biological systems require broadly based training that transcends the classical boundaries of biology. In planning a program of work to meet his or her degree requirements, a student interested in specializing in these interdisciplinary areas should choose courses both in biology and in sciences that complement biology. Students who plan to complete the program within four years will have little flexibility in course selection unless they plan a schedule in advance. More information is given in order and choice of work (p. 557) below.

Students who plan to follow option IX, biology honors, must be admitted to the Dean's Scholars Honors Program (p. 536).

## Prescribed Work Common to All Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Biology must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule (http:// registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. Options I, III-VII and X: One of the following foreign language/culture choices. Students in options II, VIII, and IX are exempt from this requirement.
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area chosen from an approved list available in the dean's office and the college advising centers.
4. At least twenty-four semester hours of upper-division coursework beyond Biology 325 in biology and approved related fields, including at least one course from each of the following areas. In most options, the student must use specific courses to meet this requirement; these courses are listed in Additional Prescribed Work for Each Option (p. 553).
a. Cellular, developmental, and molecular biology: Biology 320, 326R, 344, 349.
b. Physiology and neuroscience: Biology 328, 361T, 365S, Neuroscience 365R.
c. Ecology, evolution, and behavior: Biology 357, 359K, 370, 373.
5. All students must complete at least thirty-six semester hours of upperdivision coursework; at least twenty-one semester hours of upperdivision coursework in biology must be completed in residence at the University.

## Additional Prescribed Work for Each Option Option I: Ecology, Evolution, and Behavior

6. Mathematics 408C and 408D, or 408N and 408S.
7. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics 317K, 117M, 317L, and 117N;
c. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or
d. Physics 302K, 102M, 302L, and 102N
8. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
9. Either Biology 311C, 311D, and 325 or Biology 315H and 325H; these courses must be completed before the student progresses to other upper-division biology courses.
10. At least four laboratory courses in biology; three of these courses must be upper-division. One of the four courses must have a field component; the following courses may be used to meet this requirement: Biology 321L, 340L, 453L, 354L, 455L, 456L, 369L, 373L, Marine Science 352D, 354, 354C.
11. Statistics and Data Sciences 328 M and three hours of coursework chosen from the following: Chemistry 320M, Computer Science 303E or 313E or the equivalent, Geological Sciences 401 or 303 , or an upper-division mathematics courses.
12. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete the following courses; no single course may be used to meet more than one of these requirements:
a. Ecology: Biology 357, 373, or Marine Science 320.
b. Evolution: Biology 370.
c. Behavior and comparative physiology: Biology 322 and 122L, 359 K , or 361 T .
d. One of the following taxon-based diversity courses or pairs of courses: Biology 321L, 324 and 124L, 327 and 127L, 340L, 448L,

352, 353F, 453L, 354L, 455L, 369L, Marine Science 352D, 354, 354C, 354E.
e. Six additional hours chosen from the following:
i Evolution: 472L, 374 and 174L, 478L.
ii Ecology: Biology 456L, 364, 364E, 373L, Marine Science 120L, 352C.
iii Behavior: Biology 438L, 359J, 359R.
iv Conservation biology: Biology 375, Marine Science 354Q.
13. Enough additional coursework to make a total of 126 semester hours.

## Option II: Human Biology

6. Mathematics 408C or 408 N , and Statistics and Data Sciences $328 \mathrm{M}^{*}$.
7. One of the following courses: Mathematics 408D, 408S, or Statistics and Data Sciences 348.
8. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N ;
c. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or
d. Physics 302K, 102M, 302L, and 102N
9. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
10. Either Biology 311C, 311D, and 325 or Biology 315H and 325H; these courses must be completed before the student progresses to other upper-division biology courses.
11. At least four laboratory courses in biology and related fields, including Biology 206L or 208L. Three of these courses must be upper-division, including one course in biology. Courses that may count toward the laboratory requirement are marked with an asterisk.
12. Chemistry $220 \mathrm{C}, 320 \mathrm{M}$, and 320 N .
13. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete Biology 346, at least six semester hours in area a below, and at least three hours each in areas $b$ through $d$
a. Cellular and molecular biology: Biology 320, 320L*, 323L*, 325L*, 325T, 226L and 326R, 344.
b. Physiology: Biology 361T, 365S, Neuroscience 365R.
c. Behavior and psychology: Biology 359K, 359R, Psychology 332.
d. Evolution and ecology: Biology 357, 364, 370, 373.
14. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete at least fifteen semester hours of coursework, including at least nine hours of upper-division work, from one of the two following groups of concentrations. A course counted toward requirement 13 may not also be counted toward requirement 14.

Group A: Biochemistry 369 and twelve additional hours chosen from the following concentrations.
a. Cellular, molecular, and developmental biology: Biology 320, 320L*, 323L*, 325L*, 325T, 226L*, 326R, 327E, 328D*, 330, 230L*, 331L*, 332, 337 (Topic: Genomics), 339, 339M, 345, 349, 349L*, 365N, 366R.
b. Genetics and biotechnology: Biology 325L*, 325T, 226L*, 326R, 327D, 327E, 335, 337 (Topic: Genomics), 339, 347, 361, 366, 366R, Philosophy 325M.
c. Pathogenesis and immunity: Biology $226 L^{*}, 326 R, 327 E, 330,230 L^{*}$, 327D, 331L*, 332, 336, 337 (Topic: Genomics), 339, 347, 360K, 160L*, 360M, 361, 361L*, 361P, 366, Neuroscience 365T.

Group B: Fifteen hours chosen from the following concentrations; only one of the following courses may be counted: Anthropology 432L*, Biology
$446 L^{*}$, 478L* , or Kinesiology $324 \mathrm{~K}^{*}$. Sociology 319 and 369 K may not both be counted.
a. Social aspects of health and disease: Biochemistry 369, Geography 357, Pharmacy 310K or 350K, Philosophy 325M, Sociology 307E, 307M, 307P, Sociology 308 (Topic 3: Life and Death Decisions; Topic: Conquest of Disease), Sociology 319, 321K, 330C, 336C, 336D, 354K, 358D, 369K.
b. Problems of developing countries: Biology 351, Geography 340D, 342C, 346, 356, 356T (Topic: Global Societies), 357, 358, Sociology 319, 324K, 340C, 369K, 369L.
c. Human impact on the environment: $373,373 L^{*}, 375$, Geography 334, 335N, 336C, 346, 356T (Topic: Environment, Development, and Food Production), 366K, 367K, Marine Science 320, 120L*, 354Q, Philosophy 325C, Sociology 319.
d. Human variation and evolution: Biochemistry 369 and twelve hours chosen from the following courses:Anthropology 432L*, 346L, 346M, 347C, 348, 348K (approved topics only), 349C, 350C, 351E, Biology 446L*, 478L*, Kinesiology 324K*.
15. Enough additional coursework to make a total of 120 semester hours.

## Option III: Marine and Freshwater Science

6. Mathematics 408C and 408D, or 408N and 408S.
7. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics 317K, 117M, 317L, and 117N;
c. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or
d. Physics 302K, 102M, 302L, and 102N
8. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,220 \mathrm{C}, 320 \mathrm{M}$, and 320 N .
9. Either Biology 311C, 311D, and 325 or Biology 315H and 325H; these courses must be completed before the student progresses to other upper-division biology courses.
10. At least four laboratory courses in biology, of which three must be upper-division; the student must complete Biology 206L or 208L.
11. Biology 328M or Statistics and Data Sciences 328M.
12. Marine Science 310; Biology 101C (Topic 1: Marine Science Seminar); and three semester hours in geological sciences, chosen from courses that may be counted toward the requirements for a major in geological sciences.
13. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete the following courses: a. Biology 226L and 326R.
b. Marine Science 320 and 120 L .
c. At least twenty-one semester hours of coursework chosen from the following: Biology 321L, 327, 127L, 328, 128L, 354L, 361T, 370, 375, Geological Sciences 422K, Marine Science 440, 352C, 352D, 353 (Topic 17: Marine Fish Physiology), 354C, 354Q, 354T, 354U, 356, 357, 367K, 170, 270, 370, Biology 448L or Marine Science 354, Biology 364 or Marine Science 354E; six hours of this coursework must be completed at the Marine Science Institute at Port Aransas (http://www.utmsi.utexas.edu).
14. Enough additional coursework to make a total of 126 semester hours.

## Option IV: Microbiology and Infectious Diseases

6. Mathematics 408 C or 408 N and Statistics and Data Sciences 328M.
7. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N ;
c. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or
d. Physics 302K, 102M, 302L, and 102N
8. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204$, and Chemistry 220C, 320M, 320N, and Biochemistry 369.
9. Biology 311C, 311D, and 325 or Biology 315H and 325H; these courses must be completed before the student progresses to other upper-division biology courses.
10. Biology 206L.
11. Two upper-division biology laboratory courses, one of which must be chosen from Biology 230L, 160L, and 361L; Biology 377FRI/377/379H may be used for the second course if approved in advance by the microbiology faculty adviser; Biology 226L may not be used to fulfill this requirement.
12. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete the following courses: Biology 226L, 326R, 330, 339, 360K, 366, 370, and 320 or 344.
13. Enough additional coursework to make a total of 126 semester hours.

## Option V: Cell and Molecular Biology

6. Mathematics 408 C or 408 N and Statistics and Data Sciences 328M.
7. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N ; or
c. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N
8. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,220 \mathrm{C}, 320 \mathrm{M}, 320 \mathrm{~N}$, and Biochemistry 369.
9. Either Biology 311C, 311D, and 325 or Biology 315 H and 325 H ; these courses must be completed before the student progresses to other upper-division biology courses.
10. At least four laboratory courses in biology, of which three must be upper-division; Biology 377-FRI/377/379H may be used for the second course if approved in advance by the cell and molecular biology faculty adviser.
11. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete the following courses:
a. Biology 320 and 344 .
b. Biology 226L, 326R, 349, 370, and one of the following: 320L, 331L, 349L.
c. Biology 328, 365S, Neuroscience 365R.
d. At least six semester hours chosen from the following: Biology 323L, 325L, 325T, 327D, 330, 230L, 335, 336, 337J, 339, $339 \mathrm{M}, 347,349 \mathrm{~L}, 350 \mathrm{M}, 360 \mathrm{~K}, 160 \mathrm{~L}, 360 \mathrm{M}, 365 \mathrm{~N}, 366,366 \mathrm{R}$, Chemistry 353 or 353M, and Neuroscience 365D, 365L, 365T, 365W.
12. Enough additional coursework to make a total of 126 semester hours.

## Option VI: Neurobiology

6. Mathematics 408 C and 408D, or 408 N and 408 S .
7. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N ;
c. Physics 303K, 103M, 303L, and 103N; or
d. Physics 302K, 102M, 302L, and 102N
8. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,220 \mathrm{C}, 320 \mathrm{M}$, and 320 N .
9. Either Biology 311C, 311D, and 325 or Biology 315H and 325H; these courses must be completed before the student progresses to other upper-division biology courses.
10. At least four laboratory courses in biology. The student must complete Biology 206L, and at least nine semester hours chosen from the following courses: Biology 320L, 325L, 331L, 371L, 478L, Electrical Engineering 374L, Neuroscience 365L, 366L, 478L,366P,366S.
11. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete the following courses:
a. Biology 320, 344, 349, 370, and Neuroscience 365R.
b. Six semester hours chosen from the following courses: Biology 359K, 365N,Neuroscience 365D, 365T, 365W, 366C, 366D, 466G, Psychology 353K.
c. Six semester hours chosen from the following courses: Biology 328M or Statistics and Data Sciences 328M, Biology 321G, 337J, Chemistry 353 or 353M, 354, Biochemistry 369, 370, Computer Science 313E, 323E, 324E, 326E, 327E, Electrical Engineering $411,313,325,438,438 \mathrm{~K}, 351 \mathrm{~K}, 374 \mathrm{~K}$.
d. Three additional semester hours chosen from the following courses: Computer Science 303E, Psychology 308, 332, or 353K.
12. Enough additional coursework to make a total of 126 semester hours.

## Option VII: Plant Biology

6. Mathematics 408 C or 408 N and Statistics and Data Sciences 328M.
7. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N ;
c. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or
d. Physics $302 \mathrm{~K}, 102 \mathrm{M}, 302 \mathrm{~L}$, and 102 N
8. Chemistry 301 or 301H, 302 or 302H, 204, 220C, 320M, and 320N.
9. Either Biology 311C, 311D, and 325 or Biology 315H and 325H; these courses must be completed before the student progresses to other upper-division biology courses.
10. Four biology laboratory courses, of which three must be upperdivision; one of which must be chosen from chosen from Biology 206L or 208L; Biology 377-FRI/377/379H may be used for the second course if approved in advance by the plant biology faculty adviser
11. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete at least twenty-four hours of coursework chosen from the following: Biology 320, 320L, 322 and $122 \mathrm{~L}, 323 \mathrm{~L}, 324$ and 124L, 327 and 127L, 328, 328D, 331L, 350M, 351, 352, 370, 472L, 373, 373L, 374 and 174L, 375, and Biochemistry 369.
12. Eleven additional semester hours of upper-division coursework in the College of Natural Sciences or the Jackson School of Geosciences; a course may not be counted toward this requirement if it does not fulfill major requirements in the department that offers it.
13. Enough additional coursework to make a total of 126 semester hours.

## Option VIII: Teaching

This option is designed to fulfill the course requirements for certification as a middle grades or secondary school science teacher in Texas; the student chooses either composite science certification with biology as the primary teaching field or life science certification. However, completion of the course requirements does not guarantee the student's certification. Information about additional certification requirements is available from the UTeach-Natural Sciences academic adviser.
5. Mathematics 408 C and 408 D , or 408 N and 408 S .
6. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N ;
c. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or
d. Physics 302K, 102M, 302L, and 102N

Science 360 (Topic 4: Physics by Inquiry) and Physics 108 may substitute for Physics 316 and 116L, 317L and 117N, 303L and 103N, or 302L and 102 N ; Physics 108 is offered on the pass/fail basis.
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204$, and either Chemistry $320 \mathrm{M}, 320 \mathrm{~N}$, and 220 C or 320M and Biochemistry 369.
8. Either Biology 311C, 311D, and 325 or 315 H and 325H. These courses must be completed before the student progresses to other upper-division biology courses.
9. At least four laboratory courses in biology. Three of these courses must be upper-division. The student must complete Biology 206L or 208L.
10. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete the following courses:
a. Biology 320, 226L, 326R, 370, and either 324 and 124 L or 322 and 122L.
b. At least three semester hours chosen from the following courses in physiology, neurobiology, and behavior: Biology 322, 122L, 328, 328D, 128L, 329, 129L, 438L, 339, 345, 359J, 359K, 359R, 360K, 160L, 361, 361L, 361T, 365N, 365S, 371L, Neuroscience 365L, 365R.
c. One of the following courses with a substantial field component: Biology 321L, 340L, 453L, 455L, 456L, 373L, Marine Science 352D, 354, 354C.
11. One of the following research methods courses: Biology 328D, 337 (Topic 2: Research Methods: UTeach), Chemistry 368 (Topic 1: Research Methods: UTeach), Physics 341 (Topic 7: Research Methods: UTeach).
12. History 329U or Philosophy 329U.
13. One of the following:
a. For composite science certification: Biochemistry 369 (to be counted as upper-division biology hours) and six semester hours of coursework in geological sciences. Courses intended for nonscience majors may not be counted toward this requirement. The remaining composite certification content requirements are met by the chemistry, physics, and science courses used to fulfill requirements 7 and 8 .
b. For life science certification: Biology 373, and three additional semester hours of biology chosen from the courses listed in requirement 11 b .
14. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 650S.
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350.
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355.
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360.
e. UTeach-Natural Sciences 101, 110, and 170.
15. Students seeking middle grades certification must complete the following courses: Educational Psychology 363M (Topic 3: Adolescent Development), or Psychology 301 and 304; and Curriculum and Instruction 339E.
16. Enough additional coursework to make a total of 126 semester hours.

## Option IX: Biology Honors

6. Breadth requirement: An honors mathematics course; Biology 315H and 325 H ; Chemistry 301 H and 302 H ; and one of the following: a
three-hour honors-designated computer science course; a threehour honors-designated statistics course; Physics 301 and 101L; Physics 315 and 115L; or Physics 316 and 116L. Credit earned by examination may not be counted toward this requirement.
7. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N ; or
c. Physics 303K, 103M, 303L, and 103N

Courses used to satisfy this requirement may also be counted toward requirement 6.
8. Chemistry 204, 128K, 128L, 328M, and 328N.
9. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete Biology 320 or 344, 349, 370, Neuroscience 365R, and at least twelve additional semester hours of upper-division coursework in biology chosen from a list available in the student's advising office. Six semester hours of thesis coursework may be counted toward the twelve semester hours of upper-division biology.
10. Three upper-division laboratory courses in biology; Biology 377 or 379 H may be used as only one of the three required upper-division laboratory courses. Courses used to fulfill this requirement may also be counted toward requirement 9 .
11. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
12. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program .
13. Two semesters of Biology 379H.
14. Fifteen additional semester hours of coursework approved by the departmental honors adviser.
15. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
16. Enough additional coursework to make a total of 120 semester hours.

## Option X: Computational Biology

6. Mathematics 408C and 408D, or 408N, 408S, and 408M; Statistics and Data Sciences 329C or Mathematics 340L or 341; Mathematics 362 K ; and Mathematics 358 K or 378 K or Statistics and Data Sciences 321 or 325 H or 328 M .
7. Computer Science 303E; Computer Science 313E or Statistics and Data Sciences 222; and one of the following courses: Computer Science 323E, 323H, 324E, 327E, 329E, 337, 367, Statistics and Data Sciences 329D, 335, 374D, 374E, Mathematics 348, 372K, 376C.
8. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N ; or
c. Physics 303 K, 103M, 303L, and 103 N
9. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
10. Either Biology 311C, 311D, and 325 or Biology 315H and 325H; these courses must be completed before the student progresses to other upper-division biology courses.
11. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete Biology 321G, 370, and six additional hours of upper-division coursework in biology.
12. Four biology laboratory courses, of which three must be upperdivision; Biology 321G and Statistics and Data Sciences 328M may fulfill two of these upper-division requirements.
13. Enough additional coursework to make a total of 126 semester hours.

## Special Requirements

Students in all options must fulfill both the University's General Requirements ( p .17 ) for graduation and the college requirements ( p . 539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in General Information.

To graduate and be recommended for certification, students who follow the teaching option must have a University grade point average of at least 2.50. They must earn a grade of at least $C$ - in the supporting course in requirement 12, and in each of the professional development courses listed in requirement 14 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least $C$ - in each of the courses listed in requirement 15. For information about the portfolio review and additional teacher certification requirements, students should consult the UTeach-Natural Sciences academic adviser.

To graduate under the honors option, students must remain in good standing in the Dean's Scholars Honors Program (http://cns.utexas.edu/ honors/honors-programs-center/deans-scholars), must submit an honors thesis approved by the departmental honors adviser, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.

## Order and Choice of Work

Students begin the Bachelor of Science in Biology degree program with six hours of introductory biology for science majors (Biology 311C and 311D), as well as Chemistry 301 or 301 H and 302 or 302 H and Mathematics 408C or 408 N . The genetics course, Biology 325, is prerequisite to other upper-division biology courses. Students should consult with academic advisers about specific concentrations within biology, about appropriate courses in mathematics and physical sciences, and about course load and the balance between laboratory and nonlaboratory work. Most students select an option by the end of the second year and take at least twenty-one hours of upper-division coursework in the major in the third and fourth years.

## Bachelor of Science in Chemistry

Four degree plans lead to the Bachelor of Science in Chemistry. Option I, chemistry, is intended to prepare students for professional careers as chemists, either upon graduation or after graduate study in chemistry or related fields. Option II, computation, is intended to prepare students for the workplace by giving them opportunities to develop hands-on computation skills. Option III, teaching, is intended to prepare students to enter the teaching profession. Option IV, chemistry honors, is intended to prepare students for academic or research careers. Students who plan to follow option IV must be admitted to the Dean's Scholars Honors Program (p. 536).

The four degree plans may also serve as the basis for work in many areas outside pure chemistry, such as materials science, medicine and other health-related fields, pharmacology, patent law, business, computation, or environmental science. After general chemistry courses, depending on his or her background, the student makes an intensive core study of some of the major areas of chemistry-organic, physical, inorganic, and analytical chemistry. The chemistry coursework in these degree plans culminates in approximately three semesters of advanced work, allowing each student to study more broadly by taking courses in some areas of chemistry not covered in the core courses, such as macromolecular
chemistry, biochemistry, or other areas of physical chemistry, or more deeply by taking advanced special topics courses in areas of special interest and by undertaking research projects. Throughout the curricula, emphasis is placed on laboratory experience-synthesis, separations and analysis, structure identification and determination, measurement of rates of reactions, determinations of energy changes accompanying reactions. Supporting work in mathematics and physics is an integral part of the degree programs. Compared to the program leading to the bachelor of arts degree, the Bachelor of Science in Chemistry degree programs are more thorough and demanding and potentially more rewarding to the student planning a career in chemistry.

## Prescribed Work Common to All Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Chemistry must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag; one of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule (http:// registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. Options I and II: One of the following foreign language/culture choices. Students in options III and IV are exempt from this requirement.
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area. The courses must be chosen from an approved list available in the dean's office and the college advising centers.
4. The following courses:
a. General chemistry: Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 317.
b. Organic chemistry: Chemistry $128 \mathrm{~K}, 128 \mathrm{~L}, 328 \mathrm{M}$, and 328 N ; or 220C, 320M, and 320N.
c. Biochemistry: Biochemistry 339F or 369 .
d. Physical chemistry: Chemistry 353 or $353 \mathrm{M}, 153 \mathrm{~K}, 154 \mathrm{~K}$, and either 354 or 354L.
e. Inorganic chemistry: Chemistry 431.
f. Analytical chemistry: Chemistry 456 and 376 K.
5. Thirty-six semester hours of upper-division coursework.
6. At least twenty-one semester hours of upper-division coursework, including at least twelve semester hours of upper-division coursework in chemistry, must be completed in residence at the University.

## Additional Prescribed Work for Each Option Option I: Chemistry

7. Mathematics 408C and 408D, or 408N, 408S, and 408M; and at least three semester hours of upper-division coursework in mathematics or computer science.
8. One of the following sequences:
a. Physics 301, 101L, 316, and 116L;
b. Physics 303K, 103M, 303L, and 103N; or
c. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N .
9. Six semester hours chosen from the following courses: Biochemistry 339J, 364C, 364D, 364E, 364F, 369L*, 370, Chemistry 341*, 354, 354L, 354S, 367C, 367L, 368, 369K*, 371K*, 372C*, 375K, and 475 K . At least three of these six hours must be in a laboratory course; courses marked with an asterisk (*) may be used to fulfill this laboratory requirement. Chemistry 341 and 368 may be repeated for credit toward this requirement when the topics vary. No more than three semester hours in Chemistry 369K may be counted toward this requirement; three additional hours may be counted as electives. No more than three semester hours in Chemistry 371 K may be counted toward this requirement; three additional hours may be counted as electives. No more than three hours in Chemistry 372C may be counted toward this requirement; three additional hours may be counted as electives.
10. Nine additional semester hours of coursework in the College of Natural Sciences (excluding chemistry), the Cockrell School of Engineering, and the Jackson School of Geosciences. Any course designed for science or engineering majors may be counted. With the exception of courses in the Elements of Computing Certificate Program, a course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it. No more than six hours of laboratory or field research from the Jackson School or any department in the College of Natural Sciences or the Cockrell School may be counted.
11. Enough additional coursework to make a total of 127 semester hours.

## Option II: Computation

Students who complete option II may simultaneously fulfill some of the requirements of the Certificate in Scientific Computation (p.541).
7. Mathematics 408 C and 408D, or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M ; and Statistics and Data Sciences 329C or Mathematics 340L or 341.
8. One of the following sequences:
a. Physics 301, 101L, 316, and 116L;
b. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or
c. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N .
9. Chemistry 368 (Topic: Computational Chemistry).
10. At least three semester hours chosen from the following laboratory courses: Biochemistry 369T, Chemistry 341, 369K, and 371K.
11. Statistics and Data Sciences 222 and three of the following courses; the student must complete coursework from at least two of the following areas.
a. Numerical methods: Chemical Engineering 348, Computer Science 323E, 323H, 367, Mathematics 348,Statistics and Data Sciences 335.
b. Statistical methods: Biomedical Engineering 335, Mathematics $358 \mathrm{~K}, 378 \mathrm{~K}$.
c. Other computing topics: Computer Science $324 \mathrm{E}, 327 \mathrm{E}, 329 \mathrm{E}$ (approved topics), 377, Mathematics 346, 362M, 368K, 372K, 376C, Mechanical Engineering 367S, Statistics and Data Sciences 329D, 374C, 374D, 374E.
12. Enough additional coursework to make a total of 127 semester hours.

## Option III: Teaching

This option is designed to fulfill the course requirements for certification as a middle grade or secondary school science teacher in Texas; the student chooses one of the following areas: composite science certification with chemistry as the primary teaching field; physical sciences certification; or physical science, mathematics, and engineering certification. However, completion of the course requirements does not guarantee the student's certification. Information about additional teacher certification requirements is available from the UTeach-Natural Sciences academic adviser.
7. Mathematics 408C and 408D, or 408N, 408S, and 408M.
8. History 329U or Philosophy 329U.
9. One of the following sequences:
a. For students seeking composition science certification: Physics 301, 101L, 316, and 116L; or Physics 303K, 103M, 303L, and 103N; or Physics 317K, 117M, 317L, and 117N. Science 360 (Topic 4: Physics by Inquiry) and Physics 108 (Topic: Physics by Inquiry) may substitute for Physics 316 and 116L, 317L and 117N, or 303L and 103 N . Physics 108 is offered on the pass/fail basis.
b. For students seeking either physical sciences certification or, mathematics, physical science, and engineering certification: Physics 301, 101L, 316, 116L, 315, and 115L; or 303K, 103M, 303L, 103N, 315, and 115L.
10. The requirements of one of the following certification areas:
a. For composite science certification:
i Biology 311C and 311D.
ii Six hours of coursework in geological sciences; courses intended for non-science majors may not be counted toward this requirement.
iii Enough additional approved coursework in biology, geological sciences, or physics to provide the required twelve hours in a second field.
iv Chemistry 368 (Topic 1: Research Methods: UTeach) or, with the consent of the UTeach-Natural Sciences academic adviser, an upper-division chemistry course that includes a substantial research component.
$v$ In place of requirements 4 c through 4 f of the prescribed work above, the following courses, for a total of at least thirty-four semester hours of chemistry: Biochemistry 339F or 369; Chemistry 353; and 455 or 456.
b. For physical sciences certification:
i Mathematics 427 K and 427 L .
ii Chemistry 153K, 354L, and 154K.
iii Chemistry 354 and three hours of upper-division coursework in physics.
iv Chemistry 368 (Topic 1: Research Methods: UTeach) or, with the consent of the UTeach-Natural Sciences academic adviser, an upper-division chemistry course that includes a substantial research component.
$v$ In place of requirements 4 c through 4 f of the prescribed work above, the following courses, for a total of at least thirty-four semester hours of chemistry: Biochemistry 339F or 369; Chemistry 353, and 455 or 456.
c. For mathematics, physical science, and engineering certification:
i Mathematics 315C, 360M or 375D (Topic: Discovery: Introduction to Advanced Study in Mathematics), 427K, and 333L.
ii Chemical Engineering 379 (Topic: Fundamentals of Engineering and Design), 379 (Topic: Engineering Energy Systems), and Mechanical Engineering 379M (Topic: Design of Machines and Systems).
iii Chemistry 368 (Topic 1: Research Methods: UTeach) or, with the consent of the UTeach-Natural Sciences academic adviser, an upper-division chemistry course that includes a substantial research component.
iv In place of requirements 4 c through 4 f of the prescribed work above, the following courses, for a total of at least thirty semester hours in chemistry: Chemistry 353 and 153K, 455, and Biochemistry 369.
11. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 650S.
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350.
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355.
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360.
e. UTeach-Natural Sciences 101, 110, and 170.
12. Students seeking middle grades certification must complete the following courses: Educational Psychology 363M (Topic 3: Adolescent Development), or Psychology 301 and 304; and Curriculum and Instruction 339E.
13. Enough additional coursework, if needed, to make a total of 126 semester hours.

## Option IV: Chemistry Honors

7. Breadth requirement: An honors mathematics course, Chemistry 301 H and 302H, Physics 301, 101L, 316, and 116L, and a three-semester-hour honors course in biology or computer science. Credit earned by examination may not be counted toward this requirement.
8. Chemistry 317.
9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
10. A section of Rhetoric and Writing 309S that is restricted to Dean's Scholars.
11. Chemistry 379 H and a three-semester-hour upper-division research course approved by the departmental honors adviser, or six hours of Chemistry 379H.
12. Twenty-two additional hours of coursework approved by the departmental honors adviser.
13. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
14. Enough additional coursework to make a total of 120 semester hours.

## Special Requirements

Students in all options must fulfill both the University's General Requirements (p. 17) for graduation and the college requirements (p. 539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in General Information (http:// catalog.utexas.edu/general-information).

To graduate and be recommended for certification, students who follow the teaching option must have a University grade point average of at least 2.50 . They must earn a grade of at least $C$ - in the supporting course in requirement 7 , and each of the professional development courses listed in requirement 10 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least $C$ in each of the courses listed in requirement 11. For information about the
portfolio review and additional teacher certification requirements, consult the UTeach-Natural Sciences academic adviser.

To graduate under option IV, students must remain in good standing in the Dean's Scholars Honors Program, must earn grades of at least $A$ - in the departmental research and thesis courses described in requirement 10 above, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum may be found on the College of Natural Sciences Web site (https://cns.utexas.edu/).

## Order and Choice of Work

Students are strongly recommended to take the chemistry/biochemistrymajor sections of the following courses: Chemistry 301 or 301 H (if taken), 302 or $302 \mathrm{H}, 128 \mathrm{~K}, 128 \mathrm{~L}, 328 \mathrm{M}$, and 328 N . Students planning a graduate program are strongly recommended to take Physics 301, 101L, 316, $116 \mathrm{~L}, 315$, and 115L.

Students in option II should consult the undergraduate adviser each semester regarding order and choice of work; those in option III should consult the UTeach-Natural Sciences academic adviser.

The following order of work is recommended as a typical minimum program for option I. It assumes that the student has high school credit in trigonometry, college algebra, and the first semester of general chemistry; is able to earn credit by examination for Chemistry 301; and is able to score well enough on the ALEKS placement examination to take Mathematics 408 C or 408 N in the first semester of the freshman year. Many students meet some of the following course requirements by credit by examination.

First year: Chemistry 302 or 302H, and 317; Mathematics 408C and 408D, or 408N, 408S, and 408M; Physics 301 and 101L, or 303 K and 103 M , or 317 K and 117M (to be taken after Mathematics 408C or 408N); Rhetoric and Writing 306; six semester hours to fulfill core curriculum requirements.

Second year: Chemistry 128K, 128L, 328M, and 328N, or 220C, 320 M , and 320 N ; any coursework needed to meet a core curriculum requirement; three semester hours to be counted toward requirement 4 of the prescribed work; English 316L, 316M, 316N, or 316P; Physics 316 and 116 L , or 303 L and 103 N , or 317 L and 117 N ; an upper-division mathematics course (such as Mathematics 427 K ) or an upper-division computer science course.

Third year: Biochemistry 339F or 369, Chemistry 353, 153K, 354L, 456; six semester hours of American and Texas government; six semester hours of American history; three semester hours of electives; a three-semester-hour course to fulfill a core curriculum requirement; three semester hours to be counted toward requirement 4 of the prescribed work.

Fourth year: Chemistry 431, 154K, 376K, and courses to fulfill requirement 3 of the prescribed work. The student must also take enough additional coursework to fulfill requirements $4,5,9$, and 10 of the prescribed work. It is recommended that the majority of the elective courses taken to fulfill requirements 4 and 9 be chosen from upper-division courses in biology, chemistry, chemical engineering, mathematics, and physics.

## Bachelor of Science in Computer Science

The Bachelor of Science in Computer Science degree program provides a strong technical background for students planning to begin careers upon graduation and for those interested in graduate study in computer
science. This program allows students to take more coursework in computer science and related technical areas than does the bachelor of arts degree program.

In addition to the three options leading to the Bachelor of Science in Computer Science, students may apply to option IV, the Integrated Program, which leads to simultaneous completion of the Bachelor of Science in Computer Science and the Master of Science in Computer Science, the Master of Science in Information Studies, or the Master of Science in Computational Science, Engineering, and Mathematics. The requirements for the Bachelor of Science in Computer Science, option IV, are given below. The requirements for the Master of Science in Computer Science, the Master of Science in Information Studies, and the Master of Science in Computational Science, Engineering, and Mathematics are described in the Graduate Catalog.

Students who would like to pursue any of the following options must first be admitted to the degree program. The admission processes for options I, II, and IV are described in The Major in Computer Science (p. 533); the admission process for option III is described in the section Dean's Scholars Honors Program (p. 536).

## Prescribed Work Common to All Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Computer Science must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. Options I, II, and IV: One of the following foreign language/ culture choices. Students in option III and V are exempt from this requirement.
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area. The courses must be chosen from an approved list available in the dean's office and the college advising centers.
4. At least forty-two semester hours of upper-division coursework.
5. At least twenty-one semester hours of upper-division coursework in computer science must be completed in residence at the University.

## Additional Prescribed Work for Each Option Option I: Computer Science

6. Mathematics 408C and 408D, or 408N, 408S, and 408M; either 340L or 341 or Statistics and Data Sciences 329C; and Mathematics 362K or Statistics and Data Sciences 321.
7. One of the following sequences of coursework:
a. Either Biology 311C and 311D, or Biology 315H and 325H, and Biology 206L or 208L.
b. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204 .
c. Geological Sciences 401 and either 404C or 405.
d. Physics 303K, 303L, 103M, and 103N.
8. An additional sequence chosen from those in requirement 7 above, or one of the following:
a. At least six hours of upper-division coursework in biology approved by the undergraduate adviser.
b. Chemistry $128 \mathrm{~K}, 128 \mathrm{~L}, 328 \mathrm{M}$, and 328 N , or Chemistry 220C, 320 M , and 320 N , or at least six hours of upper-division coursework in chemistry approved by the undergraduate adviser.
c. Geological Sciences 416K and 426P, or at least six hours of upper-division coursework in geological sciences approved by the undergraduate adviser.
d. Physics 315 and at least three hours of upper-division coursework in physics approved by the undergraduate adviser.
e. At least six hours of upper-division coursework in mathematics approved by the undergraduate adviser; a course may not be counted toward both requirement 6 and requirement 8.
f. Electrical Engineering 313 and 331.
9. The following courses in computer science:
a. Theory: Computer Science 311 or $311 \mathrm{H}, 331$ or 331 H , and three additional hours from an approved list available in the department.
b. Programming: Computer Science 312 or $312 \mathrm{H}, 314$ or 314 H , and three additional hours from an approved list in the department.
c. Systems: Computer Science 429 or $429 \mathrm{H}, 439$ or 439 H , and three additional hours from an approved list available in the department.
d. Fifteen additional hours of upper-division courses in computer science.
10. Enough additional coursework to make a total of 127 semester hours.

## Option II: Turing Scholars Honors

6. Mathematics 408C and 408D, or 408N, 408S, and 408M; either 340L or 341 or Statistics and Data Sciences 329C; and Mathematics 362K or Statistics and Data Sciences 321.
7. One of the following sequences of coursework:
a. Either Biology 311C and 311D, or Biology 315H and 325H; and Biology 206L or 208L.
b. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204 .
c. Geological Sciences 401 and either 404 C or 405 .
d. Physics 303K, 303L, 103M, and 103N.
8. An additional sequence chosen from those in requirement 7 above, or one of the following:
a. At least six hours of upper-division coursework in biology approved by the undergraduate adviser.
b. Chemistry $128 \mathrm{~K}, 128 \mathrm{~L}, 328 \mathrm{M}$, and 328 N, or Chemistry 220C, 320 M , and 320 N , or at least six hours of upper-division coursework in chemistry approved by the undergraduate adviser.
c. Geological Sciences 416K and 426P, or at least six hours of upper-division coursework in geological sciences approved by the undergraduate adviser.
d. Physics 315 and at least three hours of upper-division coursework in physics approved by the undergraduate adviser.
e. At least six hours of upper-division coursework in mathematics approved by the undergraduate adviser; a course may not be counted toward both requirement 6 and requirement 8 .
f. Electrical Engineering 313 and 331.
9. The following courses in computer science:
a. Theory: Computer Science 311 or $311 \mathrm{H}, 331$ or 331 H , and three additional hours from an approved list available in the department.
b. Programming: Computer Science 314 or 314 H , and three additional hours from an approved list available in the department.
c. Systems: Computer Science 429 or $429 \mathrm{H}, 439$ or 439 H , and three additional hours from an approved list available in the department.
d. Computer Science 178 H and 379 H .
e. Twelve additional hours of upper-division courses in computer science.

The courses the student chooses to fulfill requirements a through c must be approved by the Turing Scholars (https://www.cs.utexas.edu/turingscholars) program director. In addition to Computer Science 178 H and 379 H , at least four upper-division courses chosen to fulfill requirements a through e must be honors courses. The honors thesis the student completes in Computer Science 379H must be approved by the program director.
10. Enough additional coursework to make a total of 127 semester hours.

## Option III: Computer Science Honors

6. Breadth requirement: An honors mathematics course; Computer Science 311 H and 314 H ; one of the following two-semester sequences: Biology 315 H and 325 H , Chemistry 301 H and 302 H , Physics 301, 101L, 316, and 116L; and either an additional three hours chosen from these courses or Physics 315 and 115L. Credit earned by examination may not be counted toward this requirement.
7. At least six semester hours of upper-division coursework in mathematics.
8. Computer Science $429 \mathrm{H}, 331 \mathrm{H}, 439 \mathrm{H}$, and twelve additional hours of upper-division coursework in computer science.
9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program.
11. Computer Science 379H and a three-semester-hour upper-division research course approved by the departmental honors adviser.
12. Twenty-five additional semester hours of coursework approved by the departmental honors adviser.
13. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
14. Enough additional coursework to make a total of 120 semester hours.

## Option IV: Integrated Program

6. Mathematics 408 C and 408 D , or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M ; either 340L or 341 or Statistics and Data Sciences 329C; and Mathematics 362K or Statistics and Data Sciences 321.
7. One of the following sequences of coursework:
a. Either Biology 311C and 311D, or Biology 315H and 325H; and Biology 206L or 208L.
b. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
c. Geological Sciences 401 and either 404 C or 405 .
d. Physics 303K, 303L, 103M, and 103N.
8. An additional sequence chosen from those in requirement 6 above, or one of the following:
a. At least six hours of upper-division coursework in biology approved by the undergraduate adviser.
b. Chemistry $128 \mathrm{~K}, 128 \mathrm{~L}, 328 \mathrm{M}$, and 328 N , or Chemistry 220C, 320 M , and 320 N , or at least six hours of upper-division coursework in chemistry approved by the undergraduate adviser.
c. Geological Sciences 416 K and 426P, or at least six hours of upper-division coursework in geological sciences approved by the undergraduate adviser.
d. Physics 315 and at least three hours of upper-division coursework in physics approved by the undergraduate adviser.
e. At least six hours of upper-division coursework in mathematics approved by the undergraduate adviser; a course may not be counted toward both requirement 6 and requirement 8 .
f. Electrical Engineering 313 and 331.
9. The following courses in computer science:
a. Theory: Computer Science 311 or $311 \mathrm{H}, 331$, or 331 H , and three additional hours from an approved list available in the department.
b. Programming: Computer Science 312 or $312 \mathrm{H}, 314$ or 314 H , and three additional hours from an approved list available in the department.
c. Systems: Computer Science 429 or $429 \mathrm{H}, 439$ or 439 H , and three additional hours from an approved list available in the department.
d. Computer Science 353 or 331 or 331 H
e. Nine additional hours of upper-division courses in computer science.
10. Enough additional coursework to make a total of 120 semester hours.

## Option V: Teaching (Senior grades)

6. History 329U or Philosophy 329U.
7. Mathematics 408 C and 408 D , or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M ; either 340L or 341 or Statistics and Data Sciences 329C.
8. One of the following sequences of coursework:
a. Biology 311C and 311D; and Biology 206L or 208L.
b. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204 .
c. Geological Sciences 401 and either 404C or 405.
d. Physics 303K, 303L, 103M, and 103N.
9. The following courses in computer science:
a. Theory: Computer Science 311 or $311 \mathrm{H}, 331$ or 331 H , and three additional hours from an approved list available in the department.
b. Programming: Computer Science 312 or $312 \mathrm{H}, 314$ or 314 H , and three additional hours from an approved list available in the department.
c. Systems: Computer Science 429 or $429 \mathrm{H}, 439$ or 439 H , and three additional hours from an approved list available in the department.
10. The requirements of one of the following certification areas:
a. For computer science certification:
i Mathematics 362 K and Statistics and Data Sciences 321.
ii An additional sequence chosen from the following:
11. Biology 325 and 337 (Topic 2: Research Methods: UTeach).
12. At least three hours of upper-division coursework in chemistry approved by the undergraduate adviser; and Chemistry 368 (Topic 1: Research Methods: UTeach).
13. Physics 315 and 341 (Topic 7: Research Methods: UTeach).
iii Fifteen additional hours of approved computer science upperdivision coursework.
b. For computer science and mathematics certification:
i Mathematics 315C, 333L, 362K, either 360M or 375D, and Statistics and Data Sciences 321
ii Twelve additional hours of approved computer science upperdivision coursework.
iii Biology 337 (Topic 2: Research Methods: UTeach), or Chemistry 368 (Topic 1: Research Methods: UTeach), or Physics 341 (Topic 7: Research Methods: UTeach).
14. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 650S.
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350.
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355.
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360.
e. UTeach-Natural Sciences 101, 110, and 170.
15. Enough additional coursework to make a total of 127 semester hours.

## Special Requirements

Students in all options must fulfill both the University's general requirements ( p .17 ) for graduation and the college requirements ( p . 539). They must also earn a grade of at least $C$-in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in General Information (http://
catalog.utexas.edu/general-information/academic-policies-and-procedures/computation-of-the-grade-point-average).

To graduate and be recommended for certification students who follow the teaching option must have a University grade point average of at least 2.50 . They must earn a grade of at least $C$ - in the supporting course in requirement 6 , and in each of the professional development courses listed in requirement 11 and must pass the final teaching portfolio review. For information about the portfolio review and additional teacher certification requirements, students should consult the UTeach-Natural Sciences academic adviser.

With the exception of Computer Science 312 or $312 \mathrm{H}, 311$ or 311 H , and 314 or 314 H , all computer science courses that may be counted toward a degree in computer science are restricted to students who have been admitted to the computer science major or have the consent of the undergraduate faculty adviser.

An undergraduate may not enroll in any computer science course more than once without written consent of an undergraduate adviser in computer science. No student may enroll in any computer science course more than twice. No student may take more than three upper-division computer science courses in a semester without written consent of an undergraduate adviser in computer science.

## Additional Requirements for Option II

Students in option II, the Turing Scholars program (https:// www.cs.utexas.edu/turing-scholars), must maintain a University grade point average of at least 3.30 and a grade point average in computer science of at least 3.30 ; in rare circumstances, this grade point average requirement will be waived for students whose honors thesis has been judged by the Department of Computer Science Undergraduate Thesis Committee to be truly outstanding. In addition to this grade point average requirement, students in option II must know and abide by the academic and disciplinary policies given in this catalog and in the General Information (http://catalog.utexas.edu/general-information) Catalog (http:// catalog.utexas.edu/general-information). Those who fail to do so will be considered for academic dismissal from the Turing Scholars program. Under special circumstances and at the discretion of the director, a student will be allowed to continue in the program under academic review. A student who is academically dismissed from the program may enter another computer science program if he or she fulfills the scholastic standards for continuance in the University given in General Information. Students in scholastic difficulty should discuss their problems with a Turing Scholars program academic adviser and the director.

## Additional Requirements for Option III

To graduate under option III, students must remain in good standing in the Dean's Scholars Honors Program, must earn grades of at least $A$ - in the departmental research and thesis courses described in requirement 10 above, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.

## Additional Requirements for Option IV Satisfactory Progress

Students are expected to make continuous progress toward the degree by completing required computer science coursework each semester. Those who fail to take program coursework two long-session semesters in a row will be removed from the program and re-enrolled in the Bachelor of Science in Computer Science option (I, II, or III) that they were following before admission to the Integrated Program (option IV). Students will be
notified before this action is taken; they must meet with their academic adviser upon being notified.

## Probation

The student is placed on probation if his or her grade point average in required undergraduate computer science courses falls below 3.00.
Except with the consent of the undergraduate adviser or the graduate adviser, a student on probation may not take graduate computer science courses.

## Dismissal

The student is dismissed from the Integrated Program if (1) he or she fails to improve his or her academic performance significantly while on probation, or (2) he or she will not achieve a grade point average of 3.00 even by earning grades of $A$ in all remaining required undergraduate computer science and graduate courses.

Like all students, those in the Integrated Program must know and abide by the academic and disciplinary policies given in this catalog and in the General Information Catalog. Those who fail to do so will be considered for academic dismissal from the program. Under special circumstances and at the discretion of the director, a student may be allowed to continue in the program under academic review. A student who is academically dismissed from the program may enter another computer science program if he or she fulfills the scholastic standards for continuance in the University given in the General Information (http://catalog.utexas.edu/ general-information) Catalog. Students in scholastic difficulty should discuss their problems with an academic adviser and the undergraduate faculty adviser.

## Graduation

To receive the Bachelor of Science in Computer Science and Master of Science in Computer Science, Master of Science in Information Studies, or Master of Science in Computational Science, Engineering, and Mathematics degrees through the Integrated Program, a student must have a University grade point average of at least 3.00 in the coursework in the Master of Science Program of Work. He or she must also have a grade point average in graduate computer science and information studies, or computational science, engineering, and mathematics coursework of at least 3.00.

## Order and Choice of Work

The student must consult the faculty adviser each semester regarding order and choice of work.

Note: Computer science courses with numbers ending in H are intended for students in option II, the Turing Scholars program, and option III, computer science honors. Students outside these options may enroll in these courses only with the special consent of the honors director.

## Bachelor of Science in Environmental Science

The Bachelor of Science in Environmental Science degree program is designed for students interested in an interdisciplinary scientific perspective on environmental and sustainability issues, analysis, and management. The degree program provides the broad foundation in physical, life, and social sciences needed for a career or graduate study in environmental science and related fields such as climate change, ecology, and conservation. Students who complete the program successfully will be able to assess environmental issues critically from multiple perspectives; to perform field, laboratory, and computer analyses; and to conduct original research. The program is designed to prepare graduates for careers in local, state, and federal government laboratories
and nonprofit agencies, environmental consulting firms, environmental education and outreach agencies, and universities and other research settings. 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. Students may earn only one Bachelor of Science in Environmental Science degree from the University.

Students must apply for admission to the degree program after completing prerequisite coursework. To be competitive for admission, students should have a University grade point average of at least 2.75. More information about admission requirements is given in The Bachelor of Science in Environmental Science (p. 534).

The Bachelor of Science in Environmental Science curriculum consists of 126 semester hours of coursework. All students must complete the University's Core Curriculum (p. 20). The specific degree requirements consist of prescribed work and major requirements. In some cases, a course that is required for the degree may also be counted toward the core curriculum.

A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills another requirement may also be used to fulfill the writing requirement if the course carries a writing flag.

## Prescribed Work Common to All Options

1. Mathematics: Mathematics 408 C , or 408 N and 408 S .
2. Chemistry: Chemistry 301 or 301H; 302 or 302H; and 204.
3. Physics: Physics 317K and 117M, or another four-hour calculusbased physics sequence.
4. Biological Sciences: Biology 311C and 311D, or 315H.
5. Ecology: Biology 373 and Biology 373L, or Marine Science 320 and either 120L or 152T (Topic: Marine Ecology); Marine Science 320 may not be used to satisfy both requirement 5 and requirement 10.
6. Geological Sciences: Geological Sciences 401 or 303, 346C, and an approved geological sciences course in sustainability.
7. Geography: Geography 335N.
8. Field experience: One course from each of the following lists:
a. Introductory field seminar: Environmental Science 311.
b. Senior field/research experience: Environmental Science 371 or Biology 377 (with prior approval of the faculty adviser).
9. Research Methods: Environmental Science 331.
10. Environmental and sustainability themes: one course in each of the following thematic areas:
a. Environmental and sustainability policy, ethics, and history: Geography 334, 336C, 339K, 340D, 342C, 344K, 356C, 356T (approved topics), Marine Science 367K, Philosophy 325C, Sociology 321K.
b. Geographic information systems: Geography 360G, 462K, Geological Sciences 327G.
c. Climates and oceans: Biology 456L, Geography 333K, 356T (approved topics), Geological Sciences 371C (approved topics), 377P, Marine Science 320, 440, 354Q, 354T, 356; Marine Science 320 may not be used to satisfy both requirement 5 and requirement 10; Marine Science 356 may not be used to satisfy both requirement 10 and requirement 14 in Option I; Marine Science 356 may not be used to satisfy both requirement 10 and requirement 18 in Option II.
d. Environmental economics, sustainability, and business: Economics $304 \mathrm{~K}, 330 \mathrm{~T}$.
11. Environmental Science 141 and 151.

## Additional Prescribed Work for Each Option

All students must complete at least fifteen semester hours of upperdivision coursework, including one upper-division laboratory/field course in addition to the laboratory/field courses in the prescribed work for the degree. The student must complete Biology 311C, 311D, and 325, or 315 H and 325 H , with a grade of at least $C$ - in each before progressing to other upper-division biology courses. All students must complete two courses with a writing flag. One of these courses must be upper-division. Courses that meet this requirement are identified in the Course Schedule (http://registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.

## Option I: Biological Science

12. One of the following foreign language/culture choices:
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers.
13. Three hours in statistics chosen from Statistics and Data Sciences 328 M and 321 ; with the consent of the undergraduate adviser, an upper-division statistics or probability course may be used to fulfill this requirement.
14. Three hours in conservation and environmental biology chosen from Biology 351, 375, Marine Science 352 (Topic: Concepts in Marine Conservation Biology), and 356; Marine Science 356 may not be used to satisfy both requirement 10 and requirement 14.
15. Biology 325 or 325 H (for students completing Biology 315 H ), and 370 .
16. One of the following taxon/systems-based diversity courses or pairs of courses: Biology 321L, 324 and 124L, 327 and 127L, 337 (Topic: Natural History of the Protists), 340L, 448L, 353F, 453L, 354L, 455L, 364, 369L, 471G, Marine Science 352 (Topic: Principles of Estuarine Ecology), 352 (Topic: Marine Invertebrates), 352D, 354C, 354E, 354U, 357, Geological Sciences 479M.
17. One of the following physiology, neurobiology, and behavior courses or pairs of courses: Biology 322 and 122L, 328 and 128L, 438L, 339, 345E, 346, 359J, 359K, 359R, 361, 361T, 365S, 371L, Marine Science 355C, Neuroscience 365R.
18. All students must complete two courses with a writing flag, one of which must be upper-division; students must also complete one quantitative reasoning flag. Courses with flags are identified in the Course Schedule (http://registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
19. Enough additional coursework to make a total of 126 hours.

## Option II: Biological Sciences Honors

12. To fulfill requirements 1 through 4 of the prescribed work common to all options above, students complete the following breadth
requirement: An honors mathematics course; Biology 315 H and 325 H ; Chemistry 301 H and 302 H ; Physics 301 and 101L; and a designated honors statistics course;Credit earned by examination may not be counted toward this requirement.
13. Chemistry 204.
14. A section of Undergraduate Studies 302 or 303 that is approved by the program adviser or Environmental Science 331.
15. A section of Rhetoric and Writing 309S that is restricted to student in the Dean's Scholars Honors Program.
16. Two semesters of Biology 379 H ; one semester may be used to fulfill requirement 8 b .
17. Biology 370 .
18. Three semester hours in conservation and environmental biology chosen from Biology 375, 351, Marine Science 352 (Topic: Concepts in Marine Conservation Biology), and 356; Marine Science 356 may not be used to satisfy both requirement 10 and requirement 18.
19. One of the following taxon/systems-based diversity courses or pairs of courses: Biology 321L, 324 and 124L, 327 and 127L, 337 (Topic: Natural History of the Protists), 340L, 448L, 353F, 453L, 354L, 455L, 364, 369L, 471G; Marine Science 352 (Topic: Principles of Estuarine Ecology), or Marine Science 352 (Topic: Marine Invertebrates), 352D, 354C, 354E, 354U, 357; or Geological Sciences 479M.
20. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
21. All students must complete two courses with a writing flag, one of which must be upper-division; students must also complete one quantitative reasoning flag. One of these courses must be upper-division. Courses with flags are identified in the Course Schedule (http://registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
22. Enough additional coursework approved by the honors adviser to make a total of 126 semester hours.

## Special Requirements

Students must fulfill both the University's general requirements (p. 17) for graduation and the college requirements (p.539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/computation-of-the-grade-point-average) Catalog.

To graduate under the honors option, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the program honors adviser, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.

## Bachelor of Science in Human Development and Family Sciences

The Bachelor of Science in Human Development and Family Sciences focuses on the study of human development, individuals in a family
context, relationships, and well-being within the family and the broader social, economic, community, and governmental environment. Students in the program are expected to develop knowledge and understanding about human development and family dynamics through classroom experiences, observation of children and families, and research. They have opportunities to apply their knowledge through practicum experiences in research and placements in the field. The program is designed to give students excellent preparation for graduate training that leads to careers in academia, research, medicine, and other health professions, as well as for employment in a field involving work with children, families, and adults.

Students seeking the Bachelor of Science in Human Development and Family Sciences must choose one of the six options described below. Those who plan to follow option V must be admitted to the Dean's Scholars Honors Program (p. 536) and those who plan to follow option VI must be admitted to the Honors in Advanced Human Development and Family Sciences Program (p. 537).

## Prescribed Work Common to All Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Human Development and Family Sciences must complete the following degreelevel requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag; one of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. Psychology 301; and six semester hours, at least three of which must be upper-division, chosen from courses in economics, social or cultural anthropology, sociology, and psychology; Psychology 304, 333D, and 339 may not be counted toward this degree.
4. At least thirty-six semester hours of upper-division coursework; at least twenty-one semester hours must be completed in residence at the University.
5. Eighteen semester hours in the School of Human Ecology must be completed in residence at the University.

## Additional Prescribed Work for Each Option

## Option I: Early Childhood

This option is designed to provide the necessary foundation for further study or a career in working with children in applied settings.
6. Statistics and Data Sciences 302; Mathematics 408C, 408N, or Statistics and Data Sciences 332.
7. Chemistry 301 or 301H; Biology 311C; Biology 311D or Chemistry 302 or 302 H ; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals.
9. Nutrition 306; Human Development and Family Sciences 304, 312, 313, 113L, 315L, and 340; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355; and three additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352 , 652F, 352L, 652P, and 355 is restricted to students whose practicum applications have been approved. Practicum applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
10. Human Development and Family Sciences 338 and 378L; and six additional semester hours chosen from Human Development and Family Sciences 342, 345, 351, 358, 362, and 378K (Topic 6: Introduction to Early Childhood Intervention).
11. Enough additional coursework to make a total of 120 semester hours.

## Option II: Human Development

This option involves the study of development across the life span.
6. Statistics and Data Sciences 302; Mathematics 408C, 408N, or Statistics and Data Sciences 332.
7. Chemistry 301 or 301H; Biology 311C; Biology 311D or Chemistry 302 or 302 H ; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals.
9. Nutrition 306; Human Development and Family Sciences 304, 312, 313, 113L, 315L, and 340; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355; and three additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652F, 352L, 652P, and 355 is restricted to students whose applications have been approved. Applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
10. Human Development and Family Sciences 378L; six semester hours chosen from Human Development and Family Sciences 335, 351, and 371 ; and three additional semester hours chosen from Human Development and Family Sciences 335, 342, 343, 345, 351, 356, 358, 371, and 372K.
11. Enough additional coursework to make a total of 120 semester hours.

## Option III: Families and Personal Relationships

This option involves the study of the formation and maintenance of close relationships, especially couple and family relationships.
6. Statistics and Data Sciences 302; Mathematics 408C, 408N, or Statistics and Data Sciences 332.
7. Chemistry 301 or 301H; Biology 311C; Biology 311D or Chemistry 302 or 302 H ; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward
this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals.
9. Nutrition 306; Human Development and Family Sciences 304, 312, 313, 113L, 315L, and 340; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355; and three additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652F, 352L, 652P, and 355 is restricted to students whose applications have been approved. Applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
10. Human Development and Family Sciences 337, and either 356 or 372K.
11. Six additional semester hours chosen from Human Development and Family Sciences 322, 335, 345, 347, 356, 358, 360, 371, and 372K.
12. Enough additional coursework to make a total of 120 semester hours.

## Option IV: Families and Society

This option involves the study of the family and its interactions with larger socioeconomic systems, such as the economy, work, the media, public policy, and government.
6. Statistics and Data Sciences 302; Mathematics 408C, 408N, or Statistics and Data Sciences 332.
7. Chemistry 301 or 301 H ; Biology 311C; Biology 311D or Chemistry 302 or 302 H ; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals.
9. Nutrition 306; Human Development and Family Sciences 304, $312,313,113 \mathrm{~L}, 315 \mathrm{~L}$, and 340; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355; and three additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352 , 652F, 352L, 652P, and 355 is restricted to students whose applications have been approved. Applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
10. Human Development and Family Sciences 347 and 362; and six additional semester hours chosen from Human Development and Family Sciences $322,342,343,356,360$, and 378 K (Topic 6 : Introduction to Early Childhood Intervention).
11. Enough additional coursework to make a total of 120 semester hours.

## Option V: Human Development and Family Sciences Honors

This option is designed to prepare students who have been admitted to the Dean's Scholars program for academic or research careers.
6. Breadth requirement: A calculus course and a statistics course, one of which must be a designated honors course; Biology 315 H and 325 H ; Chemistry 301 H and 302 H ; and three additional hours of honorsdesignated or approved coursework in biology, chemistry, computer science, mathematics, statistics and data sciences, or physics; credit earned by examination may not be counted toward this requirement.
7. Human Ecology 115 H and 225 H .
8. Human Development and Family Sciences 304H, 312, 313H, 113L, 315L, and fifteen semester hours chosen from the following: Human Development and Family Sciences 335, 337, 342, 343, 345, 347, 351, 356, 358, 362, 371, 372K, 378L, and approved social science courses.
9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program.
11. Human Development and Family Sciences 355H and 379H.
12. Twenty-one additional semester hours of coursework approved by the departmental honors adviser.
13. Six hours of coursework in the College of Liberal Arts or the College of Fine Arts.
14. Enough additional coursework to make a total of 120 semester hours.

## Option VI: Honors in Advanced Human Development and Family Sciences

This option is designed for highly motivated and talented students who are interested in research experience and training.

1. A calculus course and a statistics course, one of which must be a designated honors course.
2. Chemistry 301 or 301H; Biology 311C; and Biology 311D or Chemistry 302 or 302 H .
3. Three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for nonscience majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
4. Human Development and Family Sciences 304H, 312, 313H, 113L, and 315L; fifteen semester hours chosen from: Human Development and Family Sciences 335, 337, 342, 343, 345, 347, 351, 356, 358, 362, 371, 372K, 378L, and approved social science courses.
5. Human Development and Family Sciences 355H and 379H.
6. Twenty-one semester hours of additional upper-division coursework approved by the departmental honors adviser.
7. Enough additional coursework to make a total of 120 semester hours.

## Special Requirements

Students in all options must fulfill both the University's General Requirements ( p .17 ) for graduation and the college requirements ( p . 539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information (http:// catalog.utexas.edu/general-information/academic-policies-and-procedures/computation-of-the-grade-point-average) Catalog.

To graduate under option V , students must remain in good standing in the Dean's Scholars Honors Program, must earn grades of at least $A$ - in the departmental research and thesis courses described in requirement 10 above, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum
(http://cns.utexas.edu/research-experience/undergraduate-research/ undergraduate-research-forum).

To graduate under option VI , students must remain in good standing with an overall in-residence grade point average of at least 3.30 and an overall grade point average of 3.50 in all human development and family sciences courses. In addition, student research conducted in Human Development and Family Sciences 355H and 379H must be presented in an approved public forum, such as the college's annual Undergraduate Research Forum. Students who fail to maintain the required grade point average may be subject to dismissal from the program. Under special circumstances and at the discretion of the human development and family sciences honors adviser, a student may be allowed to continue under academic review.

## Bachelor of Science in Interdisciplinary Science

## Prescribed Work

All students pursuing an undergraduate degree must complete the University's Core Curriculum (http://catalog.utexas.edu/ undergraduate/undergraduate-studies/academic-policies-and-procedures/ \#corecurriculum).

In addition, students seeking the Bachelor of Science in Interdisciplinary Science must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

This degree is designed to fulfill the course requirements for certification in Texas as a middle grades teacher in the composite teaching field of mathematics/science. However, completion of the course requirements does not guarantee the student's certification. For information about additional certification requirements, students should consult the UTeachNatural Sciences academic adviser.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with the following flag: quantitative reasoning.

Courses with flags are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. History 329U or Philosophy 329U.
4. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 650S
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350.
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355.
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360.
e. UTeach-Natural Sciences 101, 110 and 170.

## Major Requirements

## Middle Grades Teaching in Mathematics and Science

5. Curriculum and Instruction 339E.
6. Educational Psychology 363M (Topic 3: Adolescent Development), or Psychology 301 and 304.
7. The following foundation courses:
a. Mathematics 408C and 408D, or 408N, 408S, and 408M; and Mathematics 315C, 427K, 333L, and 362K ; students who plan to take physics courses to fulfill requirement 8 must also complete Mathematics 340L or 341.
b. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204 .
c. Students who plan to use biology or geological sciences courses to fulfill requirement 7 must complete Physics 302K, 102M, 302L , and 102 N or an equivalent sequence; those who plan to use chemistry or physics must complete Physics 301, 101L, 316, and 116L.
d. Computer Science 303E or the equivalent.
e. Biology 311C and Biology 311D and 206L or 208L.
f. Three semester hours of coursework in geological sciences.
g. Three semester hours of coursework in astronomy or marine science.
h. Biology 337 (Topic 2: Research Methods: UTeach), Chemistry 368 (Topic 1: Research Methods: UTeach), or Physics 341 (Topic: 7 Research Methods: UTeach).
8. One of the following concentrations:
a. Mathematics: Twelve semester hours of coursework chosen from Mathematics 325K or Mathematics 328K; 341 or 340L ; 358K; and either 360M or 375D (Topic: Discovery: Introduction to Advanced Study in Mathematics).
b. Biology: Twelve hours of coursework chosen from Biology 320, $325,226 \mathrm{~L}$, Biology 326R, 370, 373, either 324 and 124L, or 322 and 122L, and Neuroscience 365R.
c. Chemistry: Twelve hours of coursework chosen from Chemistry 220C, 320M , 320N , 353, 455, and Biochemistry 369.
d. Geological sciences: Twelve hours of coursework chosen from Geological Sciences 404C or 405, 416K, 416M, 420K or 320L, and 335.
e. Physics: Twelve hours of coursework chosen from 315, 115L, 329 , 333, 336K , 338K , 352K , 355, and 373.
9. Enough additional coursework to make a total of at least 126 semester hours.

## Special Requirements

Students must fulfill both the University's General Requirements (http://catalog.utexas.edu/undergraduate/the-university/graduation/ general-requirements) for graduation and the college requirements (http://catalog.utexas.edu/undergraduate/natural-sciences/graduation/ \#specialrequirementsofthecollege). They must also earn a grade of at least $C$ - in the supporting course in requirement 2 and in each of the professional development courses listed in requirement 3, 4, and 5 . More information about grades and the grade point average is given in General Information.

To graduate and be recommended for certification, students must have a University grade point average of at least 2.50 and must pass the final teaching portfolio review. Information about the portfolio review and additional teacher certification requirements is available from the UTeachNatural Sciences academic adviser.

## Bachelor of Science in Mathematics

As an alternative to the Bachelor of Arts degree, the Bachelor of Science in Mathematics is designed with a twofold purpose: to offer students a more extensive scientific program that may better prepare them for graduate study or employment, and to recognize students who choose to pursue a more demanding program. Students are given the opportunity
to develop greater breadth and depth in their mathematical programs as well as to combine mathematics with a concentration in another scientific discipline.

To accomplish these goals, the minimum number of semester hours is increased and the maximum limit is removed. Specialization in one additional scientific area is encouraged, and the foreign language requirement is shortened by one semester.

Students seeking the Bachelor of Science in Mathematics must select one of six options: actuarial science, applied mathematics, mathematical sciences, pure mathematics, mathematics for secondary teaching, and mathematics honors. Students who choose the option in mathematical sciences must also select a specialization in either scientific computation or statistics, probability, and data analysis. Students who plan to follow option VI, mathematics honors, must be admitted to the Dean's Scholars Honors Program (p. 536).

## Prescribed Work Common to All Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Mathematics must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. Options I-IV: One of the following foreign language/culture choices:
a. Second-semester-level proficiency in a foreign language course.
b. First-semester-level proficiency in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour culture courses chosen from one foreign culture category from an approved list in the dean's office and college advising centers. Students in options V and VI are exempt from this requirement.
4. Forty-two semester hours of upper-division coursework. At least twenty-one semester hours of upper-division coursework must be completed in residence at the University.
5. Eighteen semester hours in mathematics must be completed in residence at the University.

## Additional Prescribed Work for Each Option

## Option I: Actuarial Science

6. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.
7. Mathematics 408C and 408D, or 408N, 408S, and 408M.
8. Actuarial Foundations 329.
9. Economics 304 K and 304 L .
10. Accounting 310F or both 311 and 312.
11. Finance 357.
12. At least thirty-two semester hours of upper-division coursework in mathematics and supporting areas, consisting of
a. One of the following courses: Mathematics 328K, 343K, 361, 361K, 365C, 367K, 373K.
b. Mathematics 340 L or 341 .
c. Mathematics 362 K and either 358 K or 378 K .
d. Four courses chosen from the following: Mathematics 339J, 339U, 339V, 339D, 339W, 349P, and 349R.
e. Enough additional coursework to provide a total of at least thirtytwo hours. In addition to upper-division mathematics courses, the following courses in supporting areas may be counted toward this requirement: Economics 420K, Finance 354, 367, 377
(Topic 2: Financial Risk Management), Legal Environment of Business 320F, 323, Management Information Systems 325, Risk Management 357E, 369K, 377. Courses used to satisfy this requirement may not be counted toward requirement 13.
13. At least six semester hours of upper-division coursework must be outside both mathematics and the fields of study listed in requirement 6. Philosophy courses in logic, computer science courses in discrete mathematics, engineering courses, and courses counted toward requirement $12 e$ may not be used to fulfill this requirement.
14. Enough additional coursework to make a total of 126 semester hours.

## Option II: Applied Mathematics

6. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.
7. Mathematics 408 C and 408 D , or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M .
8. Computer Science 303E or the equivalent.
9. Thirty-two semester hours of upper-division coursework in mathematics, consisting of the following courses; the student should consult the applied mathematics adviser for information on other courses that may be counted toward this requirement.
a. Mathematics 340 L or 341 .
b. Mathematics $427 \mathrm{~K}, 348,362 \mathrm{~K}$, and 374 M .
c. Mathematics 361 and 365C.
d. Mathematics 343 K or 373 K .
e. Enough of the following coursework to provide a total of at least thirty-two hours: Mathematics 346, 365D, 368K, 372K, 376C.
10. At least six semester hours of upper-division coursework must be outside both mathematics and the fields of study listed in requirement 6. Philosophy courses in logic, computer science courses in discrete mathematics, and engineering courses may not be used to fulfill this requirement.
11. Enough additional coursework to make a total of 126 semester hours.

## Option III: Mathematical Sciences

## Specialization in Statistics, Probability, and Data Analysis

6. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.
7. Mathematics 408C and 408D, or 408N, 408S, and 408M.
8. Computer Science 303E or the equivalent.
9. At least thirty-two semester hours of upper-division coursework in mathematics and related areas, consisting of
a. Mathematics 325 K .
b. Mathematics 427 K and 362 K .
c. Mathematics 340L or 341 .
d. Mathematics 361 K or 365 C .
e. Mathematics 358 K and 378 K .
f. Mathematics $328 \mathrm{~K}, 343 \mathrm{~K}, 346$, or 373 K .
g. Additional coursework chosen from the following: Computer Science 327E or 347, Economics 341K, 350K (Topic 4: Advanced Econometrics), 350K (Topic 6: Advanced Microeconomic Theory), 350K (Topic 7: Applied Economic Analysis), 354K,

Electrical Engineering 366L, 379K (Topic 15: Information Theory), Geography 360G, 360L, Mathematics 339J, 339U, 339V, 343L, 343M, 346, 348, 349P, 349R, 365D, 368K, 373L, 374G, 374M, Mechanical Engineering 366L, 366Q, 366R, 367S, Psychology 325K, Risk Management 357E. Courses used to satisfy this requirement may not be counted toward requirement 10. Most of these courses have substantial prerequisites, sometimes including courses in other departments. Some have restricted enrollment. The student is responsible for meeting prerequisites and other requirements for enrollment in the courses selected to fulfill this requirement. Courses should be chosen in consultation with the specialization adviser to form a coherent program consistent with the student's background and goals.

Educational Psychology 371 may not be counted toward this degree if it is taken after Mathematics 358 K or 378 K .
10. At least six semester hours of upper-division coursework must be outside both mathematics and the fields of study listed in requirement 6 Philosophy courses in logic, computer science courses in discrete mathematics, engineering courses, and courses counted toward requirement 9 g may not be used to fulfill this requirement.
11. Enough additional coursework to make a total of 126 semester hours.

## Specialization in Scientific Computation

Students who complete this specialization may simultaneously fulfill some of the requirements of the Elements of Computing Certificate or the Certificate in Scientific Computation. These certificate programs are described in Transcript-Recognized Certificate Programs (p. 540).
6. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.
7. Mathematics 408 C and 408 D , or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M .
8. One of the following sequences: Statistics and Data Sciences 318 and 222; Computer Science 312 and 314; or Computer Science 303E and 313 E .
9. At least thirty-two semester hours of upper-division coursework in mathematics and related areas, consisting of
a. Mathematics 340L or 341 .
b. Mathematics $427 \mathrm{~K}, 348,362 \mathrm{~K}$, and 368 K .
c. Mathematics 361 K or 365 C .
d. Students who fulfill the requirements of the Elements of Computing Certificate or the Certificate in Scientific Computation may count up to six hours of upper-division certificate coursework toward this requirement. Computer Science 323E may not be counted toward this requirement. Courses used to satisfy this requirement may not be counted toward requirement 10.
e. Additional coursework chosen from the following: Mathematics 325 K or 328 K (but not both), 427L, 343K or 373K (but not both), $343 \mathrm{~L}, 346,358 \mathrm{~K}, 361,365 \mathrm{D}, 372 \mathrm{~K}, 374 \mathrm{M}, 376 \mathrm{C}, 378 \mathrm{~K}$.
10. At least six semester hours of upper-division coursework must be outside both mathematics and the fields of study listed in requirement 6. Philosophy courses in logic, computer science courses in discrete mathematics, engineering courses, and courses counted toward requirement $9 e$ may not be used to fulfill this requirement.
11. Enough additional coursework to make a total of 126 semester hours.

## Option IV: Pure Mathematics

6. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.
7. Mathematics 408 C and 408D, or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M .
8. At least thirty-two semester hours of upper-division coursework in mathematics, consisting of
a. Mathematics 340 L or 341 .
b. Mathematics $427 \mathrm{~K}, 361,362 \mathrm{~K}, 365 \mathrm{C}$, and 373 K .
c. One of the following two-course sequences: Mathematics 427K and $372 \mathrm{~K}, 358 \mathrm{~K}$ and $378 \mathrm{~K}, 362 \mathrm{~K}$ and $339 \mathrm{~J}, 348$ and $368 \mathrm{~K}, 365 \mathrm{C}$ and $365 \mathrm{D}, 367 \mathrm{~K}$ and $365 \mathrm{G}, 367 \mathrm{~K}$ and $367 \mathrm{~L}, 373 \mathrm{~K}$ and 373 L .
d. Additional hours of upper-division coursework in mathematics chosen with the approval of the mathematics adviser. Either Mathematics 343 K or 361 K may be counted toward this requirement, but not both.
9. At least six semester hours of upper-division coursework must be outside both mathematics and the fields of study listed in requirement
10. Philosophy courses in logic, computer science courses in discrete mathematics, and engineering courses may not be used to fulfill this requirement.
11. Enough additional coursework to make a total of 126 semester hours.

## Option V: Teaching

This option is designed to fulfill the course requirements for certification as a middle grades or secondary school mathematics teacher in Texas; the student chooses mathematics certification or mathematics, physical science, and engineering certification. However, completion of the course requirements does not guarantee the student's certification. For information about additional certification requirements, students should consult the UTeach-Natural Sciences academic adviser.

Students are encouraged to become familiar with a variety of mathematical software relevant to middle grades or secondary teaching, such as computer geometry systems, spreadsheets, and statistical software. Whenever possible, the student should take courses and sections of courses that use these types of software.
6. History 329U or Philosophy 329U.
7. Mathematics 408 C and 408D, or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M .
8. At least six semester hours of upper-division coursework must be outside mathematics. Philosophy courses in logic, computer science courses in discrete mathematics, and engineering courses may not be used to fulfill this requirement.
9. Mathematics 315 C .
10. Biology 337 (Topic 2: Research Methods: UTeach), Chemistry 368 (Topic 1: Research Methods: UTeach) or Physics 341 (Topic 7: Research Methods: UTeach).
11. The requirements of one of the following certification areas:
a. For mathematics certification: At least thirty-two semester hours of upper-division coursework in mathematics consisting of: i Mathematics 340 L or 341 .
ii Mathematics 325 K or $328 \mathrm{~K}, 333 \mathrm{~L}, 358 \mathrm{~K}$, and 362 K .
iii Mathematics 360M or 375D (Topic: Discovery: Introduction to Advanced Study in Mathematics).
iv Mathematics 361 K or 365 C .
v Mathematics 343 K or 373 K .
vi Mathematics 427 K or 378 K .
vii Enough of the following coursework to provide a total of at least thirty-two semester hours: Mathematics 427K, 328K, 339J, 339U, 343K, 343L, 348, 360M, 361, 365C, 365D, 368K, 373K, 373L, 175T (Topic: Seminar for Prospective Teachers), 375D (Topic: Discovery: Introduction to Advanced Study in Mathematics), 378 K . A course used to fulfill requirements 11 i through 11vi may not also be counted toward requirement 11vii.
viii A three-semester-hour supporting course that uses mathematics but is in a field other than mathematics. The following courses may be used to fulfill this requirement:

Accounting 310F or 311, Architectural Engineering 323K, Astronomy 307, 352K, 352L, 358, 367M, Chemistry 301 or 301H, 303, Civil Engineering 321, 341, Computer Science 303E and 313E, Economics 420K, Electrical Engineering 302, 366, 366L, Geological Sciences 346C, 354, 476K, Geography 360L, Government 341M, Human Development and Family Sciences 322, Mechanical Engineering 320, 326, 366L, 366Q, 366R, Petroleum and Geosystems Engineering 310, Physics 301, 303K, 303L, Psychology 325K, 332, Sociology 369L. The supporting course may not also be counted toward other requirements in the prescribed work.
b. For mathematics, physical science, and engineering certification:
i Mathematics 325 K or $328 \mathrm{~K}, 427 \mathrm{~K}, 333 \mathrm{~L}, 341,358 \mathrm{~K}$, and 362K.
ii Mathematics 361 K or 365 C .
iii Mathematics 360M or 375D (Topic: Discovery: Introduction to Advanced Study in Mathematics).
iv Physics 301, 101L, 316, 116L, 315, and 115L.
v Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
vi Chemical Engineering 379 (Topic: Fundamentals of Engineering and Design), 379 (Topic: Engineering Energy Systems), and Mechanical Engineering 379M (Topic: Design of Machines and Systems).
12. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 650S.
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350.
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355.
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360.
e. UTeach-Natural Sciences 101, 110, and 170.
13. Students seeking middle grades certification must complete the following courses: Educational Psychology 363M (Topic 3: Adolescent Development), or Psychology 301 and 304; and Curriculum and Instruction 339E.
14. Enough additional coursework to make a total of at least 126 semester hours.

## Option VI: Mathematics Honors

6. Breadth requirement: An honors mathematics course; one of the following two-semester sequences: Biology 315 H and 325 H , Chemistry 301H and 302H, or Physics 301, 101L, 316, and 116L; and nine additional semester hours chosen from the preceding courses, Physics 315 and 115L. Credit earned by examination may not be counted toward this requirement
7. An honors section of Mathematics 427 K , and six semester hours of coursework chosen from Mathematics 365C, 367K, and 373K
8. Twenty additional semester hours of upper-division coursework in mathematics approved by the departmental faculty adviser
9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
10. A section of Rhetoric and Writing 309 S that is restricted to students in the Dean Scholars Honors Program.
11. Mathematics 379 H .
12. Thirty additional semester hours of coursework approved by the departmental honors adviser.
13. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
14. Enough additional coursework to make a total of 120 semester hours.

## Special Requirements

Students in all options must fulfill both the University's General Requirements (p. 17) for graduation and the college requirements (p. 539). They must also earn a grade of at least $C$-in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in General Information.

To graduate and be recommended for certification, students who follow the teaching option must have a University grade point average of at least 2.50 . They must earn a grade of at least $C$ - in the supporting course in requirement 5 and in each of the professional development courses listed in requirement 11 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least $C$ in each of the courses listed in requirement 12. For information about the portfolio review and additional teacher certification requirements, students should consult the UTeach-Natural Sciences academic adviser.

To graduate under option VI, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors adviser, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum (http://cns.utexas.edu/research-experience/undergraduate-research/undergraduate-research-forum).

## Bachelor of Science in Medical Laboratory Science

The student preparing for a career in medical laboratory science completes at least one hundred hours of academic work at the University. After this work is completed, the student enters an accredited school of medical laboratory science (or clinical laboratory science) for an additional twelve to sixteen months of clinical education. After completion of this education, the student is awarded the Bachelor of Science in Medical Laboratory Science and is eligible for national certifying examinations administered by the American Society for Clinical Pathology (ASCP). Successful completion of these exams results in national certification as a medical laboratory scientist.

The purpose of this degree program is to meet the increasing demand for laboratory professionals in hospital and clinic laboratories, research, industry, public health, education, and laboratory management. Medical laboratory science is also an excellent foundation for graduate study in medicine, dentistry, management, education, and other disciplines.

## Prescribed Work

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Medical Laboratory Science must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule (http:// registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. One of the following foreign language/culture choices:
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers.
4. Mathematics 408 C or 408 N , and Statistics and Data Sciences 304 or 328M.
5. Either Biology 311C, 311D, and 325 or Biology 315H and 325H.
6. Biology 226L, 326M, 330 or 446L, 353, 337 (Topic: Fundamentals of Health Information Technology), 344 or 366R, 360K, 160L, 361, 361L, and 365 S .
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,220 \mathrm{C}, 320 \mathrm{M}, 320 \mathrm{~N}$, and Biochemistry 369.
8. Enough additional elective coursework, if necessary, to make a total of at least 100 semester hours of academic work completed at the University before the clinical education program.
9. Twelve to sixteen months of clinical education in a program of medical laboratory science (or clinical laboratory science) accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The student must apply to and be accepted into a clinical education program. The faculty adviser in the Department of Molecular Biosciences and the clinical education program director work closely with each student to ensure his or her success in the program. Upon completion of the clinical education program, the student must submit a letter from the program director verifying completion of coursework and a transcript showing grades in all courses in the program to The University of Texas at Austin, Office of the Dean, College of Natural Sciences, 1 University Station G2500, Austin TX 78712. To be counted toward the degree, the coursework must be approved by the faculty adviser for medical laboratory science in the Department of Molecular Biosciences and the dean. None of the coursework completed in the clinical education program may be used to fulfill in-residence degree requirements, requirements 1 through 8 of the prescribed work above, or the requirements for a second bachelor's degree.

## Special Requirements

Students must fulfill both the University's General Requirements (p. 17) for graduation and the college requirements (p.539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. Students must also earn a grade of at least $C$ - in each course taken in the twelve to sixteen-month clinical education in a program of medical laboratory science (or clinical laboratory science) accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). More information about grades and the grade point average is given in the General Information Catalog (http://catalog.utexas.edu/ general-information/academic-policies-and-procedures/computation-of-the-grade-point-average).

## Order and Choice of Work

The student should consult with his or her academic and faculty advisers each semester regarding order and choice of work and balancing the laboratory load. To complete the program within four years, it may be necessary for the student to take some courses during the summer.

## Bachelor of Science in Neuroscience

The Bachelor of Science degree in Neuroscience provides a strong foundation in the core sciences and related mathematical disciplines,
along with a three-course specialization in one of six areas: biology, chemistry, computer science, mathematics, physics, or psychology. Distinctive features of the program include an emphasis on developing the quantitative, statistical, mathematical, and computational skills required in neuroscience, and meaningful hands-on laboratory experience.

## Prescribed Work Common to All Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Neuroscience must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule (http:// registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. At least twenty-one semester hours of upper-division coursework, including eighteen semester hours in biology and neuroscience, must be completed in residence at the University. All students must complete at least thirty-six semester hours of upper-division coursework.

## Option I: Neuroscience

4. Mathematics 408 C and 408D, or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408M; Mathematics 362 K or Statistics and Data Sciences 321 or 328 M .
5. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or
c. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N .
6. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
7. Biology 311C and 311D, or Biology 315H and 325H, and Biology 206L.
8. Three additional majors-level courses selected from one of the following supporting disciplines:
a. Biology: Biology 325 or $325 \mathrm{H}, 320,344$, and 349 .
b. Chemistry: Chemistry 328 M and $128 \mathrm{~K}, 328 \mathrm{~N}$ and 128L, 353 or 353M, and Biochemistry 369.
c. Computer Science: Computer Science 312, 314, Statistics and Data Sciences 335, 374E.
d. Mathematics: Mathematics $427 \mathrm{~K}, 427 \mathrm{~L}, 340 \mathrm{~L}$ or $341,358 \mathrm{~K}$ or 378K, Statistics and Data Sciences 329C; students who chose Statistics and Data Sciences 328M for requirement 4, may not also count Mathematics 358 K .
e. Physics: Physics $345,338 \mathrm{~K}, 355$.
f. Psychology: Psychology 301, 323, 353K, 355.
9. Neuroscience 330 or 365R, and Neuroscience 335.
10. Neuroscience 366M.
11. Twelve-semester-hours of laboratory courses chosen from the following: Neuroscience 365L, 366L, 366P, 366S, and 377; the same section of Neuroscience 377, Undergraduate Research, may not count toward requirement 13 if used to fulfill this requirement.
12. Six-semester-hours of upper-division neuroscience to be chosen from: Neuroscience 337 (Topic: Sensory Neuroscience), 337 (Topic: Genetic Analysis of Behavior and Disease), Biology 365N,

Neuroscience 365T, 365W, 366C, 366D, 466G, 366N, 367V, additional approved Neuroscience 337 courses, and Biology 359K, and Neuroscience 365D.
13. Three additional semester hours of either Neuroscience 377 (Undergraduate Research) or Neuroscience 379H (Honors Tutorial Course); the research topic in Neuroscience 377 or 379H must relate to neuroscience and be approved in advance by the faculty adviser.
14. Enough additional coursework to make a total of 120 semester hours.

## Option II: Neuroscience Honors

4. Breadth requirement: An honors mathematics course; Biology 315H and 325 H ; Chemistry 301 H and 302 H ; and one of the following: Physics 301 and 101L; or Physics 316 and 116L; credit earned by examination may not be counted toward this requirement.
5. Three hours of statistics chosen from the following: Statistics and Data Sciences 321, 325H, or 328M; other statistics courses may be approved by the departmental honors adviser.
6. One of the following: Physics 315 and 115L, Physics 316 and 116L, Physics 338K, 345, 355; courses counted toward requirement 4 may not also be counted toward requirement 6 .
7. Chemistry 204.
8. Chemistry $128 \mathrm{~K}, 128 \mathrm{~L}, 328 \mathrm{M}$, and 328 N .
9. Biology 320 or 344 .
10. Biology 349 and 370 .
11. Neuroscience 365R or 330.
12. Neuroscience 335.
13. Nine hours of laboratory courses chosen from: Neuroscience 365L, Neuroscience 366L, Neuroscience 366P, and Neuroscience 366S.
14. Six hours of upper-division neuroscience chosen from: Neuroscience 337 (Topic: Sensory Neuroscience), 377 (Topic: Genetic Analysis of Behavior and Disease), 365T, 365W, 366C, 366D, 366E, 466G, 366M, 366N, 367F, 367V, additional approved Neuroscience 337 courses, and Neuroscience 365D.
15. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
16. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program.
17. Two semesters of Neuroscience 379H.
18. Eight additional semester hours of coursework approved by the departmental honors adviser.
19. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
20. Enough additional coursework to make a total of 120 semester hours.

## Special Requirements

Students must fulfill both the University's General Requirements (p. 17) for graduation and the college requirements (p.539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under option II, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors adviser, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum (http://cns.utexas.edu/research-experience/undergraduate-research/undergraduate-research-forum).

## Bachelor of Science in Nutrition

Nutrition is an integrative science with the overall objective of improving the health and well-being of individuals and groups. Nutritional inquiry encompasses not only the roles of electrons, atoms, molecules, genes, cells, organs, and complex organisms in biological life processes but also the links between life science and health, behavior, education, population, culture, and economics. The Bachelor of Science in Nutrition degree program includes six options, described below.

For students pursuing careers in dietetics, courses in behavioral and clinical nutrition and food systems management provide the academic preparation required for dietetics practice. The Didactic Program in Dietetics (DPD) meets the coursework requirements that qualify graduates to apply to a dietetic internship, which leads to the Registered Dietitian credential. Completion of the Didactic Program in Dietetics requirements qualifies a graduate to apply for the exam to become a Dietetic Technician, Registered. To be eligible to apply for a dietetic internship or to practice as a Registered Dietetic Technician, additional coursework would be required for students earning a degree in Options $\mathrm{II}-\mathrm{VI}$. The Coordinated Program in Dietetics (CPD) includes both the coursework and the supervised practice necessary to be eligible to write the examination to become a registered dietitian. The DPD and CPD are accredited by the Commission on Accreditation of Dietetics Education of the American Dietetic Association (ADA), 120 S. Riverside Plaza, Suite 2000, Chicago IL 60606, (800) 877-1600.

The nutritional sciences option requires courses in science and research in order to prepare students for graduate study or professional school. Graduates may seek employment in private or publicly funded research programs or, upon completion of graduate study, may engage in college or university teaching or nutrition research. This option also allows students to fulfill requirements for postgraduate study in medicine, dentistry, and other health professions. Additional coursework is needed to be eligible to apply for a dietetic internship or to practice as a Dietetic Technician, Registered.

The nutrition and public health option III is designed to prepare students for entry-level positions in public health and nutrition at state and other health departments, in research, and in industry. It will equip them for entry into graduate programs in nutrition or other public health disciplines at schools of public health, at graduate schools in the biomedical sciences, and for entry into medical or other health professional schools as well as for those who pursue health and research careers.

Students who plan to follow option IV must be admitted into the Honors in Advanced Nutritional Sciences Program (p. 537). Students in this option take honors courses in nutrition, research methodology, and writing. In addition, students are encouraged to take honors courses in disciplines outside of nutrition, such as biology, chemistry, and mathematics. Students consult with the departmental honors adviser to develop an individualized and challenging program of study that meets their goals and interests.

Students who plan to follow option V must be admitted to the Dean's Scholars Honors Program (p. 536). In addition to taking a core of research, writing, and seminar courses in the College of Natural Sciences, students in this option consult with the departmental honors adviser to develop a coherent individual program of rigorous and challenging courses from across the University.

Students in the international nutrition option gain firsthand knowledge of nutrition issues in other countries through a study abroad experience. Students combine the study of nutrition with a broad range of courses to prepare for experience studying and practicing nutrition in another culture.

## Prescribed Work Common to All Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Nutrition must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule (http:// registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. At least thirty-six semester hours of upper-division coursework, of which at least twenty-four must be in nutrition. At least twenty-one semester hours of upper-division coursework, including eighteen semester hours in nutrition, must be completed in residence at the University.

## Additional Prescribed Work for Each Option

## Option I: Dietetics

Students in dietetics may select either the Didactic Program in Dietetics (DPD) or the Coordinated Program in Dietetics (CPD). Students who complete the DPD with at least four upper-division nutrition courses completed in residence will receive a verification statement that qualifies them to apply for an accredited dietetic internship. DPD graduates who complete a dietetic internship may become active members of the American Dietetic Association (ADA) and are eligible to write the examination to become a registered dietitian.

Students interested in the Coordinated Program in Dietetics (p. 534) must apply for admission after completing sixty semester hours of prerequisite coursework. Upon completing the CPD, which includes approximately twelve hundred hours of supervised practice, graduates immediately qualify for active membership in the ADA and to write the examination to become a registered dietitian.

Students who are admitted to the CPD should consult the faculty adviser each semester regarding order and choice of work. During the fourth year, the following courses must be taken in the indicated term: fall semester: Nutrition 245C; spring semester: Nutrition 372C, 372F, 373S; summer session: Nutrition 374C and 374P. Because these courses are taught only once a year, a student who does not take them at the indicated time may be unable to complete the program.
4. At least three semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 or 313H and 113L.
5. Mathematics 408C, 408N, or Statistics and Data Sciences 332.
6. Three semester hours of statistics chosen from Statistics and Data Sciences 302, 304, 306,325H, and 328M.
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}$, and Biochemistry 369.
8. Biology 311 C or $315 \mathrm{H}, 325$ or 325 H , and 365 S .
9. Accounting 310F or 311.
10. The following core nutrition coursework:
a. Nutrition 312 or $312 \mathrm{H}, 112 \mathrm{~L}$ or $312 \mathrm{R}, 326$, and 126 L ; students who complete Nutrition 312H and 312R or Biology 315H and 325 H are exempt from Nutrition 326 and 126L; students
must complete each course with a grade of at least $C$-before progressing to other upper-division nutrition courses.
b. Nutrition 307, 107L, 338W or 338H, 342, and 365 (Topic 1: Vitamins and Minerals; Topic 2: Nutrition and Genes; or Topic 4: Obesity and Metabolic Health); students in the CPD must complete Nutrition 370 or 371 instead of 365.
11. Coursework in nutrition, consisting of the following:
a. Behavioral and clinical nutrition:
i CPD: Nutrition 315, 218, 118L, 330, 332, 370, and 371.
ii DPD: Nutrition 315, 218, 118L, 330, 332, 370, 371, and either Nutrition 337 or 365 (Topic 1: Vitamins and Minerals; Topic 2: Nutrition and Genes; or Topic 4: Obesity and Metabolic Health). The same topic in Nutrition 365 may not count toward both requirement 10b and requirement 11aii.
b. Food systems management: Nutrition 334, 234L, and 355M.
c. Research:
i CPD: Nutrition 373S.
ii DPD: One of the following: Nutrition 324 and 124L, 353, 355 or $355 \mathrm{H}, 366 \mathrm{~L}, 379 \mathrm{H}$, Statistics and Data Sciences 318, 321, 325 H , or 352 ; with the approval of the faculty undergraduate adviser, DPD students may count Nutrition 352 toward this requirement; Statistics and Data Sciences 325 H may not be counted toward both requirement 6 and requirement 11cii.
d. Professional development:
i CPD: Nutrition 245C.
ii DPD: Nutrition 162.
12. Students in the CPD must complete an additional fifteen semester hours of supervised practice: Nutrition 345M, 372C, 372F, 374C, and 374P.
13. Enough additional coursework to make a total of 126 semester hours.

## Option II: Nutritional Sciences

4. At least six semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 or 313H, and 113L.
5. Mathematics 408C, 408N, or Statistics and Data Sciences 332.
6. Three semester hours of statistics chosen from Statistics and Data Sciences 302, 304, 306, 325H, and 328M.
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,220 \mathrm{C}, 320 \mathrm{M}, 320 \mathrm{~N}$, and Biochemistry 369.
8. Either Biology 311C, 311D, and 325 or Biology 315H and 325H; and Neuroscience 365R or Biology 446L, and 365S.
9. Complete one of the following:
a. Physics 301 and 101L;
b. Physics 302K and 102M;
c. Physics 303 K and 103 M ; or
d. Physics 317K and 117M
10. The following core nutrition coursework:
a. Nutrition 312 or $312 \mathrm{H}, 112 \mathrm{~L}$ or $312 \mathrm{R}, 326$, and 126L; students who complete Nutrition 312H and 312R or Biology 315H and 325 H are exempt from Nutrition 326 and 126L; students must complete each course with a grade of at least $C$-before progressing to other upper-division nutrition courses.
b. One of the following: Nutrition 307 and 107L; Biology 326M and 226L; 326R and 226L; Chemistry 455.
c. Nutrition 337, 338W or 338H, 342, and 365 (Topic 1: Vitamins and Minerals; Topic 2: Nutrition and Genes; or Topic 4: Obesity and Metabolic Health).
11. Nine additional semester hours of nutrition, including three hours each from the following areas:
a. Nutritional sciences: Nutrition 365 or 370 or 371 ; the same topic of Nutrition 365 may not be counted both toward this requirement and toward requirement 10c.
b. Behavioral and clinical nutrition: Nutrition 315, 218 and 118L, 321, 330, 331, 332, or 370 or 371.
c. Research: Three semester hours of coursework chosen from Nutrition 355H, 366L, Biology 325L, 331L, and Biochemistry 369L.
12. Enough additional coursework to make a total of 126 semester hours.

## Option III: Nutrition and Public Health

4. Six semester hours chosen from Anthropology 322M (Topic 12: Mexican Immigration Cultural History), Sociology 307M, 319, 354K, and 368D.
5. Three semester hours of Statistics and Data Sciences 302, 304, 306, 325 H , and 328 M .
6. One of the following courses: Mathematics 408C, 408N, or Statistics and Data Sciences 332.
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}$, and Biochemistry 369.
8. Biology 311 C or $315 \mathrm{H}, 325$ or 325 H , and 365 S .
9. The following core nutrition coursework:
a. Nutrition 312 or $312 \mathrm{H}, 112 \mathrm{~L}$ or $312 \mathrm{R}, 326$, and 126L; students who complete Nutrition 312 H and 312 R or Biology 315 H and 325 H are exempt from Nutrition 326 and 126L; students must complete each course with a grade of at least $C$-before progressing to other upper-division nutrition courses.
b. Nutrition 337, 338W or 338H, 342, and 365 (Topic 1: Vitamins and Minerals; Topic 2: Nutrition and Genes; or Topic 4: Obesity and Metabolic Health).
10. Three semester hours of research chosen from Nutrition 324 and 124L, 352, 353, 355, 366L, 379H, and Statistics and Data Sciences $318,321,325 \mathrm{H}$, or 352 ; Statistics and Data Sciences 325 H may not count toward both requirement 5 and 10.
11. Nine semester hours chosen from Anthropology 432L and 349C, Biology 446L, 361T, and 478L, Classical Civilization 306M, Health Education 352K (Topic 4: Strategic Health Communication) and 373, Kinesiology 320 and 324 K , and Psychology 332C.
12. Enough additional coursework to make a total of 120 semester hours.

## Option IV: Honors in Advanced Nutritional Sciences

4. At least three semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 or 313H and 113L.
5. Mathematics 408C, 408N, Mathematics 408D-AP-H, or Statistics and Data Sciences 332.
6. Three semester hours of statistics chosen from Statistics and Data Sciences 302, 304, 306, 325H, and 328M.
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}, 320 \mathrm{~N}, 220 \mathrm{C}$, and Biochemistry 369.
8. Biology 311C, 311D, and 325 or Biology 315H and 325H; and Biology 365S.
9. Nutrition 312H, 312R, 338H, 342, 365 (Topic 1: Vitamins and Minerals; Topic 2: Nutrition and Genes; or Topic 4: Obesity and Metabolic Health), and fourteen additional semester hours of nutrition or related coursework approved by the departmental honors adviser.
10. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
11. Nutrition 355H and 379H
12. Ten semester hours of additional coursework approved by the departmental honors adviser.
13. Enough additional coursework to make a total of 120 semester hours.

## Option V: Nutrition Honors

4. Breadth requirement: A calculus course and a statistics course, one of which must be a designated honors course; Biology 315 H and 325 H ; Chemistry 301 H and 302 H ; and three additional hours of honorsdesignated or approved coursework in biology, chemistry, computer science, mathematics, statistics and data sciences, or physics; credit earned by examination may not be counted toward this requirement.
5. At least three semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 or 313H and 113L.
6. Chemistry 204, 320M, and 320N, and Biochemistry 369.
7. Neuroscience 365R and Biology 365S.
8. Nutrition 312H, 312R, 338H, 342, and 365 (Topic 1: Vitamins and Minerals; Topic 2: Nutrition and Genes; or Topic 4: Obesity and Metabolic Health).
9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program.
11. Nutrition 355 H and 379 H .
12. Ten semester hours of additional coursework in nutrition or related area approved by the departmental honors adviser.
13. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
14. Enough additional coursework to make a total of 120 semester hours.

## Option VI: International Nutrition

Students in this option must participate for one semester or summer session in a study abroad program in nutrition offered by the University. Students must submit a study abroad application. During the study abroad experience, students complete Nutrition 353, Field Experience in International Nutrition. Additional coursework in nutrition or in the language, culture, or history of the country may be available during the international study experience. All study abroad programs in nutrition must be approved in advance by the international nutrition faculty adviser. A list of other study abroad opportunities in nutrition is maintained in the main office of the School of Human Ecology.
4. Economics 304 K or 304 L , and at least three semester hours chosen from Psychology 301, Sociology 302, and Anthropology 302.
5. Six semester hours chosen from the following: Geography 339K, 357, Mexican American Studies 307, 318, Sociology 335, 354K.
6. Second-semester proficiency in a single foreign language.
7. Mathematics 408C, 408N, or Statistics and Data Sciences 332.
8. Three semester hours of statistics chosen from Statistics and Data Sciences 302, 304, 306, 325H, and 328M.
9. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}$, and Biochemistry 369.
10. Biology 311 C or $315 \mathrm{H}, 325$ or 325 H , and 365 S .
11. The following core nutrition coursework:
a. Nutrition 312 or $312 \mathrm{H}, 112 \mathrm{~L}$ or $312 \mathrm{R}, 326$, and 126L. Students who complete Nutrition 312H and 312R or Biology 315H and 325 H are exempt from Nutrition 326 and 126L; students must complete each course with a grade of at least $C$-before progressing to other upper-division nutrition courses.
b. One of the following four-semester-hour sequences: Nutrition 307 and 107L; Biology 326M and 226L; 326R and 226L.
c. Nutrition 338 W or 338 H , and 342 .
12. Nutrition 316, 218, 118L, 321, 331, and 353.
13. At least nine semester hours, three of which must be upper-division, chosen from one of the following areas:
a. Health professions: Chemistry 220C, 320N, Biology 206L, 311D, 326M, 346, Nutrition 337, Nutrition 365 (Topic 1: Vitamins and Minerals; Topic 2: Nutrition and Genes; or Topic 4: Obesity and Metabolic Health); Biology 326M may not be counted toward both requirement 11b and requirement 13a.
b. Dietetics: Nutrition 315, 330, 332, 370, 371.
c. Behavioral science: Human Development and Family Sciences 304 or $304 \mathrm{H}, 313$ or $313 \mathrm{H}, 113 \mathrm{~L}$, Psychology 308, 319K, Sociology 308D, 319, 320K, 324K.
14. Enough additional coursework to make a total of 126 semester hours.

## Special Requirements

Students in all options must fulfill both the University's General Requirements ( p .17 ) for graduation and the college requirements ( p . 539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under option IV, students must remain in good standing with an overall grade point average of at least 3.30 and an overall grade point average of 3.50 in all nutritional sciences courses. In addition, student research conducted in courses described in requirement 10 must be presented in an approved public forum, such as the college's annual Undergraduate Research Forum (http://cns.utexas.edu/research-experience/undergraduate-research/undergraduate-research-forum). Students who fail to maintain the required grade point average may be subject to dismissal from the program. Under special circumstances and at the discretion of the nutritional sciences honors adviser, a student may be allowed to continue under academic review.

To graduate under option V , students must remain in good standing in the Dean's Scholars Honors Program, must earn grades of at least $A$ - in the departmental research and thesis courses described in requirement 10, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum.

## Note:

Nutritional Sciences courses with numbers ending in H are intended for students in option IV, Honors in Advanced Nutritional Sciences and in option V, Nutrition Honors. Students outside these options may enroll in these courses with the consent of the nutritional sciences honors adviser.

To be eligible to apply for a dietetic internship or to practice as a Registered Dietetic Technician, additional coursework would be required for students earning a degree in options $\mathrm{II}-\mathrm{VI}$.

## Bachelor of Science in Physics

All aspects of the physical universe are of interest to the physicist, who seeks to understand not only the smallest forms of matter and the rich phenomena present in our everyday lives but also the universe itself. Physics has played a critical role in human technological and intellectual development during the twentieth century. The tools of the physicistobservation, imagination, model building, prediction, and deductionwill enable physics to continue this influence into the new century. The Bachelor of Science in Physics degree program is designed to provide
the skills, understanding, and outlook required for participation in the discovery of new knowledge about nature.

The Bachelor of Science in Physics program is balanced and broad. It is designed to give the student a strong foundation for graduate study or work in physics and, with additional training, for work in a variety of other areas, such as astronomy, astrophysics, biophysics, chemical physics, computer science, engineering, geophysics, mathematics, medicine, physics teaching, and space sciences. Students who end their formal training with the bachelor's degree may seek employment in industry, in national laboratories, or in teaching; they should consider the options in computation, radiation physics, space sciences, biophysics, and teaching, which augment the broad instruction provided by the basic Bachelor of Science in Physics. For those who plan to teach physics in secondary school, the teaching option provides the courses needed for certification.

Students who plan to follow option VI, physics honors, must be admitted to the Dean's Scholars Honors Program (p. 536).

## Prescribed Work Common to All Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Physics must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule (http:// registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. Options I-IV and VII: One of the following foreign language/ culture choices. Students in options V and VI are exempt from this requirement.
a. Second-semester-level proficiency, or the equivalent, in a foreign language
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area
c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers
4. Thirty-six semester hours of upper-division coursework
5. At least twenty-one semester hours of upper-division coursework, including at least twelve semester hours of upper-division coursework in physics, must be completed in residence at the University

## Prescribed Work Common to All Options for Each <br> Option I: Physics

This option is designed to give the student a strong foundation for graduate study or work in physics and for further study or work in a variety of other areas.
6. Chemistry 302 or 302 H .
7. Six semester hours in biology, geological sciences, or astronomy; a course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it.
8. Physics 301, 101L, 316, 116L, 315, and 115L.
9. Mathematics 408 C and 408 D or the equivalent, 427 K and 427 L , and six additional semester hours of upper-division coursework in mathematics; the following courses are recommended: Mathematics $340 \mathrm{~L}, 361$, and 362 K . Only courses at the level of calculus and above may be counted toward the total number of hours required for the degree.
10. Physics 336K , 352K, 353L , 355, 362K , 362L , 369, 373, and 474, or their equivalents.
11. Enough additional coursework to make a total of 126 semester hours.

## Option II: Computation

This option is designed to provide the necessary foundation and handson skill in computation for the student who plans a career or further study in computational physics or computer science. Students who complete this option may simultaneously fulfill some of the requirements of the Certificate in Scientific Computation (p. 541).
6. Chemistry 302 or 302 H .
7. Six semester hours in biology, geological sciences, or astronomy; a course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it.
8. Physics 301, 101L, 316, 116L, 315, and 115L.
9. Mathematics 408 C and 408D or the equivalent, 427 K and 427 L , and six additional semester hours of upper-division coursework in mathematics or statistics and data sciences; Statistics and Data Sciences 329C and Mathematics 362K are recommended; only courses at the level of calculus and above may be counted toward the total number of hours required for the degree.
10. Physics 329, 336K, 338K, 352K, 353L, 355, 369, and 373, or their equivalents.
11. One of the following scientific computation options:
a. Statistics and Data Sciences 222, Computer Science 303E, and two of the following courses; the student must complete coursework from at least two of the following areas:
i Numerical methods: Chemical Engineering 348, Computer Science 323E, 323H, 367, Mathematics 348, Statistics and Data Sciences 335.
ii Statistical methods: Biomedical Engineering 335, Mathematics $358 \mathrm{~K}, 378 \mathrm{~K}$.
iii Other computing topics: Computer Science 324E, 327E, 329E, 377, Mathematics 346, 362M, 368K, 372K, 376C, Mechanical Engineering 367S, Statistics and Data Sciences 329D, 374C, 374D, 374E.
b. Twelve semester hours chosen from Electrical Engineering 306, $312,316,319 \mathrm{~K}$, and 422C.
12. Enough additional coursework to make a total of 126 semester hours.

## Option III: Radiation Physics

This option is designed to provide the necessary foundation for the student who plans a career or further study in nuclear engineering, radiation engineering, or health physics.
6. Chemistry 302 or 302 H .
7. Six semester hours in biology, geological sciences, or astronomy; a course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it.
8. Physics 301, 101L, 316, 116L, 315, and 115L.
9. Mathematics 408 C and 408 D or the equivalent, 427 K and 427 L , and six additional semester hours of upper-division coursework in mathematics; the following courses are recommended: Mathematics 340L, 361, and 362K. Only courses at the level of calculus and above
may be counted toward the total number of hours required for the degree.
10. Twenty-four semester hours of upper-division coursework in physics, including Physics 336K, 352K, 353L, 355, 362L, 369, and 373, or their equivalents.
11. Sixteen semester hours of upper-division coursework in mechanical engineering, consisting of Mechanical Engineering 136N, 337C, 337F, 337G, 361E, and 361F.
12. Enough additional coursework to make a total of 126 semester hours.

## Option IV: Space Sciences

This option is designed to provide the necessary foundation for the student who plans a career or further study in space sciences.
6. Chemistry 302 or 302 H .
7. Six semester hours in biology, geological sciences, or astronomy; a course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it.
8. Physics 301, 101L, 316, 116L, 315, and 115L.
9. Mathematics 408 C and 408D or the equivalent, 427 K and 427 L , and six additional semester hours of upper-division coursework in mathematics; the following courses are recommended: Mathematics 340L, 361, and 362K. Only courses at the level of calculus and above may be counted toward the total number of hours required for the degree.
10. Physics 329, 336K, 352K, 353L, 355, 362K, 369, and 373, or their equivalents.
11. Either fifteen semester hours of upper-division coursework in aerospace engineering or thirteen hours in aerospace engineering and three additional hours of upper-division coursework in physics.
12. Enough additional coursework to make a total of 126 semester hours.

## Option V: Teaching

This option is designed to fulfill the course requirements for certification as a middle grades or secondary school science teacher in Texas; the student chooses composite science certification with physics as the primary teaching field, physical sciences certification, physics/ mathematics certification, or mathematics, physical science, and engineering certification. However, completion of the course requirements does not guarantee the student's certification. For information about additional requirements, students should consult the UTeach-Natural Sciences academic adviser.
6. Physics 301, 101L, 316, 116L, 315, and 115L.
7. Mathematics 408C and 408D or the equivalent, 427K, and 427L.
8. At least eighteen semester hours of upper-division coursework in physics, consisting of Physics 341 (Topic 7: Research Methods: UTeach), 353L, 355, and three of the following courses: Physics 329, 333, 336K, 338K, 352K, 373, Science 360 (Topic 4: Physics by Inquiry). With the consent of the UTeach-Natural Sciences undergraduate adviser, an upper-division physics course that includes a substantial research component may be substituted for Physics 341 .
9. History 329U or Philosophy 329U.
10. The requirements of one of the following certification areas:
a. For composite science certification:
i Biology 311C and 311D.
ii Chemistry 301 or 301 H and 302 or 302 H .
iii Six hours of coursework in geological sciences; courses intended for non-science majors may not be counted toward this requirement.
iv Enough additional approved coursework in biology, chemistry, or geological sciences to provide the required twelve hours in a second field.
b. For physical sciences certification:
i Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204$ or 317, 353, 153K, $154 \mathrm{~K}, 354 \mathrm{~L}$, and 455 or 456.
ii Three additional hours of upper-division coursework in physics.
c. For physics/mathematics certification: Mathematics 315C, 325K, $333 \mathrm{~L}, 341$ or $340 \mathrm{~L}, 358 \mathrm{~K}, 362 \mathrm{~K}, 360 \mathrm{M}$ or 375 D .
d. For mathematics, physical science, and engineering certification:
i Mathematics 315C, 325K, 333L, 358K, and 362K.
ii Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204.
iii Chemical Engineering 379 (Topic: Fundamentals of Engineering and Design), 379 (Topic: Engineering Energy Systems), and Mechanical Engineering 379M (Topic: Design of Machines and Systems).
11. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 650S.
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350.
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355.
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360.
e. UTeach-Natural Sciences 101, 110, and 170.
12. Students seeking middle grades certification must complete the following courses: Educational Psychology 363M (Topic 3: Adolescent Development), or Psychology 301 and 304; and Curriculum and Instruction 339E.
13. Enough additional coursework to make a total of at least 126 semester hours.

## Option VI: Physics Honors

6. Breadth requirement: Biology 315 H and 325 H , Chemistry 301 H and 302 H , and Mathematics 427K and 427L; at least one of the math courses must be a designated honors section; credit earned by examination may not be counted toward this requirement.
7. Mathematics 340 L and 361 .
8. Physics 301, 101L, 316, 116L, 315, and 115L.
9. Physics 336K, 352K, 353L, 355, 362K, 362L, 369, 373, and 474.
10. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
11. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program.
12. Physics 379 H and a three-semester-hour upper-division research course approved by the departmental honors adviser.
13. Ten additional semester hours of coursework approved by the departmental honors adviser.
14. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
15. Enough additional coursework to make a total of 120 semester hours.

## Option VII: Biophysics

6. Chemistry 301 or 301 H and 302 or 302 H .
7. Either Biology 311C, 311D, and 325 or Biology 315H and 325H; Biology 206L.
8. Physics 301, 101L, 316, 116L, 315, and 115L.
9. Mathematics 408C and 408D or the equivalent, 427K and 427L, and six additional semester hours of upper-division coursework in mathematics; the following courses are recommended: Mathematics $340 \mathrm{~L}, 361$, and 362 K .
10. Physics 336K, 345, 352K, 353L, 355, 369, and 373 or their equivalents.
11. Either Chemistry 320M or 328M, and Biochemistry 369.
12. Complete one of the following areas:
a. Cell Biology: Biology 320.
b. Microbiology: Biology 326R.
c. Developmental Biology: Biology 349.
d. Neurobiology: Either Neuroscience 365R or Biology 371M.
e. Virology: Biology 330.
f. Computation: Statistics and Data Sciences 335 and Biology 337J or Statistics and Data Sciences 339 (Topic: Computational Biology) or (Topic: Computational Chemistry).

A list of recommended biology laboratory courses that complement the lecture courses listed in 12a through 12e are available in the advising center and the dean's office.
13. Enough additional coursework to make a total of 126 semester hours.

## Special Requirements

Students in all options must fulfill both the University's General Requirements ( p .17 ) for graduation and the college requirements ( p . 539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate and be recommended for certification, students who follow the teaching option must have a University grade point average of at least 2.50. They must earn a grade of at least $C$-in the supporting course in requirement 9 and in each of the professional development courses listed in requirement 11 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least $C$ - in each of the courses listed in requirement 12. Information about the portfolio review and additional teacher certification requirements is available from the UTeach-Natural Sciences academic adviser.

To graduate under option VI , students must remain in good standing in the Dean's Scholars Honors Program, must earn grades of at least $A$ - in the departmental research and thesis courses described in requirement 8 above, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum.

## Bachelor of Science in Public Health

The Bachelor of Science in Public Health prepares graduates for entrylevel positions in public health and equips them to pursue certificate and graduate degrees in the field. All of the options offer broad-based training in the five core areas of public health. Option I offers a choice of six areas of specialization.

Students for whom the degree is appropriate include those interested in health careers and in dual graduate degree programs in medicine and public health. The degree is administered by the Department of Molecular Biosciences.

Students who plan to follow option I must be admitted. Students who plan to follow option III must first gain admission to option I, and then apply for admission to option III. Students who plan to follow option II must be
admitted to the Dean's Scholars Honors Program (p. 536). Admission requirements for option I and II are given in The Major in Public Health (p. 534).

## Prescribed Work Common to All Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Public Health must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Foundation courses:
a. Public health: Public Health 317.
b. Microbiology: Biology 326M and 226L.
c. Nutrition and physiology: Nutrition 312 or 312 H and Biology 365S.
d. Social and behavioral sciences: One of the following: Economics 304K, 304L, Psychology 301, Sociology 319, 354K.
e. Political science/government: Government 358 or Management 320F.
2. Public health core*:
a. Biostatistics: Statistics and Data Sciences 328M.
b. Environmental health sciences: Public Health 338.
c. Epidemiology: Public Health 354.
d. Global health: Public Health 334.
e. Health policy and management: Public Health 358D.
f. Social and behavioral sciences: Public Health 368D.
3. Two courses with a writing flag. One of these courses must be upperdivision.
4. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
5. At least twenty-one semester hours of upper-division coursework must be completed in residence at the University. All students must complete at least thirty-six semester hours of upper-division coursework.

## Additional Prescribed Work for Each Option

## Option I: Public Health

6. Mathematics 408C or 408 N .
7. Biology 311C, 311D, and 325 or Biology 315H and 325H. These courses must be completed before the student progresses to other upper-division biology and upper-division public health courses.
8. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}$, and Biochemistry 369.
9. At least nine hours from one of the following areas of specialization; courses counted toward requirement 1 may not be used to fulfill this requirement.
a. Biostatistics and public health informatics: Biology 321G, 353, 337 (Topic: Fundamentals of Health Information Technology), Computer Science 303E, 313E, 327E, 329E (Topic: Elements of Computing in Society), Geography 360G, Mathematics 408D, $408 \mathrm{M}, 408 \mathrm{~S}, 340 \mathrm{~L}, 358 \mathrm{~K}, 362 \mathrm{~K}, 362 \mathrm{M}, 378 \mathrm{~K}$, Public Health 341R, Statistics and Data Sciences 332.
b. Environmental health sciences: Biology 373, 373L, 375, Civil Engineering 341, 342, 346, 369L, Geological Sciences 302C, 346C, 476K, 476M, Geography 307C, 334C, 339K, 344K, 357,

360G, Marine Science 307, 320, 354Q, Public Health 341R, Urban Studies 315.
c. Health policy and management: Economics $304 \mathrm{~K}, 304 \mathrm{~L}$, Government 357M (Topic 3: Supreme Court and Public Policy; Topic 4: Civil Liberties; Topic 7: Constitutional Structure of Power, Topic 8: Structure of Individual Liberties), 358, 360N (Topic 10: Introduction to International Relations), 370L (Topic 23: Politics of Health Care), Health and Society 320, 330, Human Development and Family Sciences 362, Management 320F, Philosophy 325L or 325M, 347, Public Affairs 325 (Topic : Advanced Seminar in Ethical Leadership), Public Health 341R, Sociology 354K.

Economics 304 K and 304 L may not count toward both requirement 1d and requirement 8c. Government 358 may not count toward both requirement 1 e and requirement 8 c . Management 320F may not count toward both requirement 1e and requirement 8c. Sociology 354K may not count toward both requirement 1d and 8c.
d. Infectious diseases and public health microbiology: Biology 330, 230L, 327D, 336, 347 or 360K, 160L, 361, 361L, 361P, Public Health 341R.
e. Nutrition: Nutrition 312R, 315, 321, 331, 337, 338W or 338H, 342, 365 (Topic 1: Vitamins and Minerals; Topic 4: Obesity and Metabolic Health), Public Health 341R.
f. Social and behavioral sciences: Only one advertising, communication, or public relations course may be counted: Advertising 305, 319, 334, Communication Studies 306M, 315M, 332, 332K, 355K, Health Education 329K, 335, 352K (Topic 2: Psychological Issues in Women's Health), 370K (Topic 1: Foundations of Health Promotion I; Topic 2: Adolescent Health Risk Behavior), 371K, 373, Health and Society 301, 320, Marketing 320F, Pharmacy 350K, Public Health 341R, Public Relations 305, Social Work 310, Sociology 319, 321K (Topic: Global Health; Topic: Sociology of HIV/AIDS), 329, 336D, 354K, 369K.

Sociology 319 and 354 K may not count toward both requirement 1d and requirement $8 f$.
10. One of the following foreign language/culture choices:
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers.
11. Enough additional coursework to make a total of 126 semester hours.

## Option II: Public Health Honors

6. Breadth requirement: An honors mathematics course; Biology 315 H and 325 H ; Chemistry 301 H and 302 H ; credit by examination may not count toward this requirement.
7. In fulfilling requirement 2 a , students must complete an honors statistics course.
8. Chemistry 204, 320M, and Biochemistry 369.
9. A section of Undergraduate Studies 302 or 303 that is approved by the program honors adviser.
10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program.
11. Two semesters of Biology 379H.
12. Nine additional hours of coursework approved by the departmental honors adviser.
13. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
14. Enough additional coursework to make a total of 120 semester hours.

## Option III: Advanced Program

This program provides students with a foundation in the natural sciences applied to public health and advanced specialist training in preparation for a leadership position in public health practice. This program leads to the completion of the Bachelor of Science in Public Health and the Master of Public Health, awarded by the School of Public Health at the University of Texas Health Sciences Center at Houston. During the senior year, students complete the first year of the Master of Public Health at the Austin Regional Campus. The second year of the Master of Public Health is completed at one of the five regional campuses in Austin, Brownsville, Dallas, El Paso, Houston, and San Antonio. Upon completion of the first year of the Master of Public Health, coursework is applied toward option III requirements. Option III students may apply to graduate upon completion of the undergraduate degree requirements and prior to the completion of the Master of Public Health, or may apply to graduate to receive both degrees in the same semester.
6. Mathematics 408C or 408 N .
7. Biology 311C, 311D, and 325; or 315H and 325H; these courses must be completed before the student progresses to other upper-division biology and upper-division public health courses.
8. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}$, and Biochemistry 369.
9. Eighteen hours of approved upper-division elective coursework in public health; graduate coursework completed at the School of Public Health at the University of Texas Health Sciences Center may be applied toward this requirement ${ }^{*}$
10. One of the following foreign language/culture choices:
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area. The courses must be chosen from an approved list available in the dean's office and the college advising centers.
11. Enough additional coursework to make a total of 126 semester hours.

* Graduate coursework may not be applied toward the public health core requirements $2 a$ through $2 f$.


## Special Requirements

Students must fulfill both the University's General Requirements ( $p$. 17) for graduation and the college requirements (p.539). They must also earn a grade of at least $C$ - in each foundation course, public health core course, and mathematics and science course required by the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

## Bachelor of Science in Textiles and Apparel

The Division of Textiles and Apparel is a place to get a broad-based education, well suited for career opportunities. Students in the Division of Textiles and Apparel enjoy a wide range of academic programs
and career opportunities. They study the art of design, the science of chemistry and physics, and the application of retail and management principles, through the lens of history. Majors come in three packages: merchandising and consumer sciences; apparel, functional, and technical design; and textile conservation and museum studies. Each program provides hands-on experience with rapidly evolving retail environments, intercultural practices and customs, consumer behavior, apparel and fashion design, computer-aided design, fashion show production and event organization, garment conservation and museum management, and fiber and fabric testing. Capstone retail merchandising and apparel design programs take students to high-profile venues and provide rich opportunities in honors programs. Internships are available to enhance the educational experience and ensure strong career opportunities. Basic research is being conducted in bio-based fibers and specialized fabrics, and 3D technology to address basic human needs. Research is also conducted involving the effects of change and new technologies on the development and distribution of creative textile products. The Division of Textiles and Apparel is a marvelous place to get a broadbased education, well suited for rewarding career opportunities.

## Prescribed Work Common to All Options

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 20).

In addition, students seeking the Bachelor of Science in Textiles and Apparelmust complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upperdivision.
2. One course with a quantitative reasoning flag.

Courses that carry flags are identified in the Course Schedule (http:// registrar.utexas.edu/schedules). They may be used simultaneously to fulfill other requirements, unless otherwise specified.

## Prescribed Work for Each Option

## Option I: Apparel, Functional, and Technical Design

1. Mathematics $408 \mathrm{C}, 408 \mathrm{~N}$ or Statistics and Data Sciences 332.
2. One of the following: Mathematics 316, Statistics and Data Sciences 302, 303, 304, 305, 306, or Educational Psychology 371.
3. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204; and Biology 311 C .
4. The following textiles and apparel courses:
a. Core Courses: Textiles and Apparel 301, 205, 105L, 313, 214K, $214 \mathrm{~L}, 328,331,260 \mathrm{~L}$, and 260M; and two of the following courses: Textiles and Apparel 325L, 325M, and 327.
b. Option courses: Textiles and Apparel 316L, 126, 226L, 350, 352D, 355C, 164K (Topics 1: Flat Pattern, 2: Draping, and 3: Advanced Apparel Design), and 264L (Topic 1: Flat Pattern, 2: Draping, and 3: Advanced Apparel Design).
5. Thirty-six semester hours of upper-division coursework, of which at least eighteen must be within at least twelve must be outside the School of Human Ecology. At least twenty-one semester hours of upper-division coursework must be taken in residence at the University.
6. Enough additional coursework to make a total of 126 semester hours.

## Option II: Merchandising and Consumer Sciences

In addition, students following the merchandising option must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Mathematics 408C, 408N, or Statistics and Data Sciences 332.
2. One of the following: Mathematics 316, Statistics and Data Sciences 302, 303, 304, 305, 306, or Educational Psychology 371.
3. Chemistry 301 or $301 \mathrm{H}, 302$ or 302H, and 204; and Biology 311C.
4. Economics 304 K .
5. The following textiles and apparel courses:
a. Core courses: Textiles and Apparel 301, 205, 105L, 313, 214K, $214 \mathrm{~L}, 328,331,260 \mathrm{~L}$, and 260M; and two of the following courses: Textiles and Apparel 325L, 325M, and 327.
b. Option courses: Textiles and Apparel 316Q, 219C, 119L, 151, 352M, 315K, 355P, 361, 376, and 377.
6. Thirty-six semester hours of upper-division coursework, of which at least eighteen must be within and at least twelve must be outside the School of Human Ecology. At least twenty-one semester hours of upper-division coursework must be taken in residence at the University.
7. Enough additional coursework to make a total of 126 semester hours.

## Option III: Textiles and Apparel Honors

1. Mathematics 408C, 408N, or Statistics and Data Sciences 332.
2. Breadth Requirement: An approved calculus course and an approved statistics course (one of these must be honors); Chemistry 301H and 302 H ; Biology 315H and 325H. Credit earned by examination may not be counted toward this requirement.
3. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
4. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program.
5. Textiles and Apparel 105L, 205, 327, 328, 260L, and 260M.
6. Twenty-two semester hours selected from the three streams of textiles and apparel courses with at least three semester hours in each of the streams: apparel, technical, and functional design; merchandising and consumer science; and textile conservation and museum studies, as well as Human Development and Family Sciences 322 with consent of the honors adviser.
7. Six hours of textiles and apparel, including Textiles and Apparel 379H. In all cases, students will be required to conduct research and write a thesis. In some cases, this thesis will be accompanied by a portfolio of work.
8. Six additional semester hours from biology, chemistry, computer science, engineering, mathematics or physics. Courses designed for non-science majors may not be counted toward this requirement.
9. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
10. Thirty-six semester hours of upper-division coursework. At least twenty-one semester hours of upper-division coursework must be taken in residence at the University.
11. Twelve additional semester hours of coursework approved by the departmental honors adviser.
12. Enough additional coursework to make a total of 120 semester hours.

## Option IV: Textile Conservation and Museum Studies

1. Mathematics 408C, 408N, or Statistics and Data Sciences 332.
2. One of the following: Mathematics 316, Statistics and Data Sciences 302, 303, 304, 305,306, or Educational Psychology 371.
3. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204$, and 320 M .
4. Anthropology 302 and 304.
5. The following textiles and apparel courses:
a. Core courses: Textiles and Apparel 301, 205, 105L, 313, 214K, $214 \mathrm{~L}, 328,331,260 \mathrm{~L}$, and 260M; and two of the following courses: Textiles and Apparel 325L, 325M, and 327.
b. Option courses: Textiles and Apparel 219C, 119L, 151, 652C, 354C, 354D, 354E, 354F, and 355D.
6. Thirty-six semester hours of upper-division coursework, of which at least eighteen must be within and at least twelve must be outside the School of Human Ecology.
7. Enough additional coursework to make a total of 126 semester hours.

## Special Requirements

Students must fulfill both the University's General Requirements (p. 17) for graduation and the college requirements (p.539). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog (http://catalog.utexas.edu/ general-information/academic-policies-and-procedures/computation-of-the-grade-point-average).

To graduate under option III, students must remain in good standing in the Dean's Scholars Honors Program (p. 536) must earn grades of at least $A$-in the departmental research and thesis courses described in requirement 8 above, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum.

## Order and Choice of Work

The student should consult the faculty adviser each semester about order and choice of work and balancing the laboratory load. Students should also check prerequisite requirements carefully.

## Courses

The faculty has approval to offer the following courses in the academic years 2013-2014 and 2014-2015; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule (http://registrar.utexas.edu/schedules) to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in the General Information Catalog. In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits 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; if 80 through 99 , of graduate rank.

## Natural Sciences

## Natural Sciences: NSC

## Lower-Division Courses

## NSC 301C. Freshman Seminar.

Restricted to first-semester freshmen. 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. Two lecture hours and one discussion hour a week for one semester.

## NSC 001D. Practicum in Clinical Laboratory Science.

Restricted to clinical laboratory science majors. Students participate in a twelve- to fifteen-month off-campus training program. Forty laboratory hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Completion of all organized coursework for the Bachelor of Science in Clinical Laboratory Science degree and consent of the program director.

## NSC 001S. Natural Sciences Seminar.

Restricted to students in special programs in the College of Natural Sciences. Seminars may include study sessions, career and networking events, student and community speakers, and other topics related to issues for students in science. Emphasis on student participation. May be repeated for credit.

## NSC 302. Texas Interdisciplinary Plan: Critical Thinking Seminar.

Restricted to students in the Texas Interdisciplinary Plan or in the Gateway Program. 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. Three lecture hours a week for one semester, with additional hours to be arranged. Liberal Arts 302 and Natural Sciences 302 may not both be counted. May not be repeated for credit.

## NSC 306J. Hands-On Science I.

Restricted to applied learning and development majors. The first of an integrated sequence of laboratory-based courses. Subjects include energy and motion, electrical circuits, atomic theory, waves, and sound. Two lecture hours and four laboratory hours a week for one semester. Natural Sciences 306J and 309 (Topic: Science for the Twenty-First Century I) may not both be counted. May not be counted toward a degree in the College of Natural Sciences.

## NSC 306K. Hands-On Science II.

Restricted to applied learning and development majors. 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, and weathering. Two lecture hours and four laboratory hours a week for one semester. Natural Sciences 306K and 309 (Topic: Science for the Twenty-First Century II) may not both be counted. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Natural Sciences 306 J with a grade of at least C-.

## NSC 306L. Hands-On Science III.

Restricted to applied learning and development majors. The third of an integrated sequence of laboratory-based courses. Subjects include properties of life, compartments of living organisms, inheritance, adaptations, variations, and disease. Two lecture hours and four laboratory hours a week for one semester. Natural Sciences 306L and 309 (Topic: Science for the Twenty-First Century III) may not both be
counted. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Natural Sciences 306J and 306K with a grade of at least C - in each.

## NSC 306M. Hands-On Science IV.

The fourth of an integrated sequence of laboratory-based courses. Subjects include astronomy and the earth's climate. Two lecture hours and four laboratory hours a week for one semester. Natural Sciences 306 M and 309 (Topic: Science for the Twenty-First Century IV) may not both be counted. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Natural Sciences 306J and 306K with a grade of at least C- in each.

## NSC 108, 208, 308, 408, 508, 608, 708, 808, 908 . Topics in Natural Sciences.

Restrictions vary with the topic. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Varies with the topic.

Topic 1: Capstone Prospectus Seminar. Restricted to students enrolled in the Evidence and Inquiry Certificate program or in the Health Science Honors Program. 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. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the pass/fail basis only.
Topic 2: Evidence and Inquiry Proposal Seminar. Enrollment restricted to the Evidence and Inquiry Certificate program.
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. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the pass/fail basis only.

## NSC 109, 209, 309. Topics in Natural Science.

Restrictions vary with the topic. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic.

Topic 3: Natural Sciences Ethics Seminar. Offered on the lettergrade basis only.

## NSC 209P. Topics in Calculus for Emerging Scholars.

Restricted to students in the Emerging Scholars Program. 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. Three lecture hours a week for one semester. Mathematics 210T (Topic: Topics for Emerging Scholars) and Natural Sciences 209P may not both be counted. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in an approved calculus course.

## NSC 110E. Internship in the Sciences.

Restricted to students in the College of Natural 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. Individual instruction conducted on the Web. May be repeated for credit.

Offered on the pass/fail basis only. Prerequisite: Completion of fifteen semester hours of coursework and consent of instructor.

NSC 110H. Topics in Natural Sciences Honors Seminar.
Restricted to students in honors programs in the College of Natural Sciences. Emphasis on student participation. Format may include student speakers, outside speakers, discussions, visits to laboratories, or other enrichment activities. The equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

## Topic 1: Dean's Scholars First-Year Seminar. Restricted to students

 in the Dean's Scholars Program. The equivalent of one lecture hour a week for one semester. Offered on the pass/fail basis only.Topic 2: Health Science Scholars First-Year Seminar. Restricted to students in the Health Science Scholars Program. The equivalent of one lecture hour a week for one semester. Offered on the pass/fail basis only.
Topic 3: Polymathic Scholars First-Year Seminar. Restricted to students in the Polymathic Scholars Program. The equivalent of one lecture hour a week for one semester. Offered on the pass/fail basis only.

## NSC 311. Critical Reasoning.

Restricted to students in the Texas Interdisciplinary Plan program. An examination of the fundamental concepts in critical reasoning, including the analysis of argument, application of intellectual standards, and the role of intellectual virtues. Three lecture hours a week for one semester, with additional hours to be arranged.

## NSC 115. Women in Natural Sciences Seminar.

The work and lives of women scientists in a sociocultural context. One lecture hour a week for one semester.

NSC 118C, 218C, 318C. Forum Seminar Series.
Restricted to freshmen and sophomores. Lectures and discussions on various contemporary issues. Emphasis on multidisciplinary perspectives and critical discourse. For 118C, two lecture hours a week for eight weeks; for 218C, two lecture hours a week for one semester; for 318C, three lecture hours a week for one semester, or two lecture hours and one hour of supervised research a week for one semester. May be repeated for credit when the topics vary.

## NSC 119, 219, 319, 419, 519, 619. International Learning

 Seminars.Restricted to students participating in a Maymester Abroad course. Discussion of various issues related tot he academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Natural Sciences 119, 219, 319, 419, 519, 619 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic.

## Upper-Division Courses

NSC 120E. Internship in the Sciences.
Restricted to students in the College of Natural 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. Individual instruction conducted on the Web. May be repeated for credit.

Offered on the pass/fail basis only. Prerequisite: Upper-division standing and consent of instructor.

## NSC 321. Introduction to Peer Mentoring and Leadership.

Restricted to students in the College of Natural Sciences. 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. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor.

NSC 122, 222, 322, 422, 522, 622, 722, 822, 922. Natural Science Topics.
Restrictions vary with the topic. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

NSC 123, 223, 323, 423, 523, 623, 723, 823, 923. Natural Sciences Topics.
Restrictions vary with the topic. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

NSC 129, 229, 329, 429, 529, 629. International Learning Seminars.
Restricted to students participating in a Maymester Abroad course. Discussion of various issues related tot he academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Natural Sciences 129, 229, 329, 429, 529, 629 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic.

## NSC 371. Capstone Thesis Seminar.

Restricted course; contact the College of Natural Sciences Honors Center for permission to register. Directed reading, research, and discussion followed by the writing of a substantial thesis. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## Department of Astronomy

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p.675).

## Astronomy: AST

## Lower-Division Courses

AST 301 (TCCN: ASTR 1303). Introduction to Astronomy.
General introduction to astronomy for nonscience majors. The solar system, stars, galaxies, and cosmology. Three lecture hours a week for one semester. Only one of the following may be counted: Astronomy 301, 302, 303, 307. May not be counted toward a degree in the College of Natural Sciences.

## AST 101L. Astronomy Discovery Laboratory.

For nonscience majors. Hands-on projects in observational astronomy and related laboratory disciplines. Students work in small groups.

Three laboratory hours a week for one semester. May not be counted by students with credit for Astronomy 103L. Prerequisite: Credit or registration for Astronomy 301.

## AST 302. Self-Paced Introduction to Astronomy.

General, self-paced introduction to astronomy for nonscience majors. The solar system, stars, galaxies, and cosmology. Self-paced. Only one of the following may be counted: Astronomy 301, 302, 303, 307. May not be counted toward a degree in the College of Natural Sciences.

## AST 303. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Astronomy 301, 302, 303, 307. May not be counted toward a degree in the College of Natural Sciences.

## AST 103L (TCCN: ASTR 1103). Astronomical Observations.

For nonscience majors. Observations of the night sky with the naked eye and small telescopes; indoor laboratory activities. Two laboratory hours a week for one semester. May not be counted by students with credit for Astronomy 101L, 302, or 303. Prerequisite: Credit or registration for Astronomy 301 or 307.

## AST 104. Undergraduate Astronomy Seminar.

Designed for astronomy majors. Discussions about current astronomical research, with different topics emphasized each semester. One lecture hour a week for one semester. May be repeated twice for credit when the topics vary. Offered on the pass/fail basis only.

## AST 307. Introductory Astronomy.

Introduction to astronomy for science and engineering students. The solar system, stars, galaxies, and cosmology. Three lecture hours a week for one semester. Only one of the following may be counted: Astronomy 301, 302, 303, 307. Prerequisite: Mathematics 305G or the equivalent or consent of instructor; high school trigonometry and physics are recommended.

## AST 309 (TCCN: ASTR 1304). Topics in Astronomy for Nonscience Students.

Selected topics in modern astronomy: solar system, galaxies, peculiar stars, cosmology, and others. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences. May be repeated for credit when the topics vary. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

Topic 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 309G. Popular Astronomy for Nonscience Students.

Restricted to non-College of Natural Science majors. Survey of topics of interest to the public and the media, including new planets, neutron stars, supernovae, gamma-ray bursts, black holes, dark matter, dark energy, and the origin of the universe. Three lecture hours a week for one semester. Only one of the following may be counted: Astronomy 309 (Topic 1), 309G. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: One of the following: Astronomy 301, 302, 303, or consent of instructor.

## AST 309L. Search for Extraterrestrial Life.

For nonscience majors. Origin of life in the solar system, existence of other planetary systems, possibilities and techniques for detection of and
communication with other intelligences. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Astronomy 301, 302, 303, or consent of instructor. Students must register for this course with the coordinator in the department's Student Office.

## AST 309N. Lives and Deaths of Stars.

For nonscience majors. 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 topics may vary with instructor. Three lecture hours a week for one semester. Astronomy 309N and 309Q may not both be counted. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

## AST 309P. 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. Three lecture hours a week for one semester. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

## AST 309Q. Time and the Cosmos.

For nonscience majors. 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. Three lecture hours a week for one semester. Astronomy 309N and 309Q may not both be counted; Astronomy 309Q and 309R may both be counted. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

## AST 309R. Galaxies, Quasars, and the Universe.

For nonscience majors. Galaxies, quasars, giant black holes; cosmic evolution; the origin and future of the universe. Three lecture hours a week for one semester. Astronomy 309Q and 309R may not both be counted. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

## AST 309S. The Solar System.

For nonscience majors. The nature, origin, and evolution of our solar system, including planets, moons, and other bodies. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

## AST 309T. The Milky Way Galaxy.

Our spiral system of stars, gas, and dust; star formation. Three lecture hours a week for one semester. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

## AST 110C, 210C, 310C. Conference Course in Astronomy.

Restricted enrollment; contact the department for permission to register. Independent research course with supervision by astronomy faculty member or research scientist. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; hours to be arranged. May be repeated for credit.

## AST 110K, 210K, 310K. Topics in Astronomy Research.

Designed for science and engineering majors. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor or adviser.

AST 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## AST 321. Current Problems in Astronomy.

For nonscience majors. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upperdivision standing; and Astronomy 301, 302, 303, or consent of instructor.

## AST 324. Origins: The Universe, Stars, Planets, and Life.

For nonscience majors. Cosmic origins from the Big Bang to life, and the connections among the origins of stars, planets, and life. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Astronomy 301, 302, 303, or consent of instructor.

AST 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## AST 350L. History and Philosophy of Astronomy.

Historical influence of astronomical concepts on social, economic, literary, and scientific life; the place of astronomy in society. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Astronomy 301, 302, 303, or consent of instructor.

## AST 351. 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. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing in the College of Natural Sciences or the Cockrell School of Engineering, or consent of instructor.

## AST 352K. 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. Three lecture hours a week for one semester. Prerequisite: Physics 316 and 116 L .

## AST 352L. Positional, Dynamical, and Kinematical Astronomy.

Coordinate systems and time; stellar positions and motions; the kinematics and dynamics of star clusters and galaxies. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Mathematics 427 K .

## AST 152M. 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. Three laboratory hours a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Physics 316 and 116L; credit or registration for Astronomy 352 K is recommended.

## AST 353. Astrophysics.

Survey of the physics of stellar and nonstellar radiation laws, stellar atmospheres and interiors; high-energy astrophysics. Three lecture hours a week for one semester. Prerequisite: Physics 316 and 116L.

## AST 358. 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. Three lecture hours a week for one semester. Prerequisite: A major in science or engineering, or consent of instructor; and Physics 316 or the equivalent. Astronomy 307 or 352 K is recommended.

## AST 364. Solar System Astronomy.

Modern studies of the solar system, including properties of the planets and smaller bodies, and the origin of planetary systems. Three lecture hours a week for one semester. Prerequisite: Physics 316 and 116L.

## AST 367M. Physical Science: Methods of Astronomy.

Same as Physical Science 367M. An introductory, self-paced course in the methods of astronomy that emphasizes learning astronomical principles through observations. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Arts, Plan I, degree with a major in astronomy. Prerequisite: Upper-division standing and nine semester hours of coursework in mathematics and/or science, including one of the following: Physical Science 303, 304, Astronomy 301, 302, 303. Equivalent preparation in mathematics, physics, chemistry, or earth sciences may be substituted with written approval of the instructor.

## AST 175, 275, 375. Topics in Astronomy Research.

Designed for science and engineering majors. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor or adviser.

## AST 175C, 275C, 375C. Conference Course in Astronomy.

Restricted enrollment; contact the department for permission to register. Independent research course with astronomy faculty member or research scientist. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; hours to be arranged. May be repeated for credit.

## AST 376. Special Topics in Advanced Astronomy.

Designed for science majors. Three lecture hours a week for one semester. Up to six semester hours may be counted toward the major requirement for the Bachelor of Arts with a major in astronomy. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor. Additional prerequisites vary with the topic.

## AST 376R. A Practical Introduction to Research Methods.

Restricted to science and engineering majors. Practical exercises including analysis of imaging data, visualization, programming exercises with IDL, statistical analyses, and training for papers and oral presentations. Three lecture hours a week for one semester. Astronomy 376 (Topic: Practical Intro to Research) and 376R may not both be
counted. Prerequisite: Upper-division standing, or consent of adviser, or participation in the College of Natural Sciences Freshman Research Initiative program; and Mathematics 305G, or the equivalent, or consent of instructor; prior computing experience and an introductory astronomy course are recommended.

## AST 379H. Honors Tutorial Course.

Restricted to science majors approved to graduate with honors. Research project and thesis for students electing to take the honors program in astronomy. Conference course. May be repeated once for credit. Prerequisite: Consent of the departmental honors adviser.

## School of Biological Sciences

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Biology: BIO

## Lower-Division Courses

## BIO 101C, 301C, 401C, 601C. Topics in Biology.

Topics in biology that are especially relevant to current issues and problems in modern society. For each semester hour of credit earned, one lecture hour a week for one semester. Some topics require one additional discussion hour or three or four additional laboratory hours a week; these are identified in the Course Schedule. May not be counted toward a degree in biology. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: The Biology of Being Human. Introductory biology course that covers human evolution, genetics and genomics, behavior, population growth and environmental issues. May not be counted toward a degree in the College of Natural Sciences.

## BIO 301D. Biology for Business, Law, and Liberal Arts.

Designed for nonscience majors. The scientific method and the social uses of scientific information. Topics include diet and chronic disease, radiation biology, DNA fingerprinting, the biology of learning, conservation of biotic diversity, and the biology of reproduction. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences.

## BIO 301E. 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. Three lecture hours and one discussion hour a week for one semester. Biology 301E and 301L may not both be counted; Biology 301E and 301M may not both be counted. May not be counted toward a degree in biology. Prerequisite: Admission to the Plan II Honors Program.

## BIO 301L (TCCN: BIOL 1308). Molecules to Organisms.

Designed for nonscience majors. Introduction to the structure and function of organisms from the molecular to the organ system level; an integrated approach to cell and molecular biology, genetics, development, and physiology of organisms. Three lecture hours and one discussion hour a week for one semester. Biology 301L and 311C may not both be counted; Biology 301L and 311D may not both be counted. Biology 301E and 301L may not both be counted. May not be counted toward a degree in the College of Natural Sciences.

BIO 301M (TCCN: BIOL 1309). Ecology, Evolution, and Society.
Designed for nonscience majors. Introduction to environmental adaptations, diversity of organisms, species interactions, organization and processes of communities, population growth and limitations, evolution and population genetics, origin of life, and human impact on the environment. Three lecture hours and one discussion hour a week for one semester. Biology 301M and 311D may not both be counted. Biology 301 E and 301 M may not both be counted. May not be counted toward a degree in the College of Natural Sciences, except for the Bachelor of Science in Human Development and Family Sciences.

## BIO 102C, 202C, 302C, 402C. Conference Course.

Supervised study of selected topics in biology, by individual arrangement with the instructor. Conference course. Some sections are offered on the pass/fail basis only. May be repeated for credit. Prerequisite: Varies with the topic.

## BIO 305E. Plants, Environment, and Human Affairs.

Designed for nonscience majors. Plants and the environment, including basic ecological principles and major issues such as global warming and the biodiversity crisis; plants and society, including foods, beverages, medicines, drugs, and other plant products. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences.

## BIO 305F. How Plants Sense and Respond to Stimuli.

Designed for nonscience majors. Exploration of the ways plants sense information about their environment and adapt their growth accordingly; similarities between plant and animal sensory physiology. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences.

## BIO 406D. Native Plants.

Designed for nonscience majors. Introduction to the flora of central Texas. Involves plant identification, distribution, and consideration of edible and useful wild plants. Two lecture hours and six laboratory hours a week for one semester, including field trips. May not be counted toward a degree in the College of Natural Sciences.

## BIO 206L (TCCN: BIOL 1106, BIOL 1107). 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. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Credit or registration for Biology 311C or 311D.

## BIO 307D. Biology of AIDS.

Designed for nonscience majors. Introduction to organs, cells, genes, viruses, infectious diseases, and the immune system. Basic biology of HIV, AIDS, and epidemiology. Three lecture hours and one discussion hour a week for one semester. May not be counted toward a degree in the College of Natural Sciences.

## BIO 208L. Field Biology.

Field projects, laboratory exercises, field trips, and computer simulation exercises to acquaint students with the principles and applications of ecology and some of the experimental and descriptive methods of ecological investigations. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Credit or registration for Biology 311D.

BIO 309D. The Human Body.
Designed for nonscience majors. Introduction to the anatomical systems of the human body, their physiological functions and interrelationships. Three lecture hours and one discussion hour a week for one semester. Biology 309D and 365R may not both be counted. May not be counted by students with credit for Biology 365S. May not be counted toward a degree in the College of Natural Sciences, except for the Bachelor of Science in Human Development and Family Sciences.

## BIO 309F. Heredity, Evolution, and Society.

Designed for nonscience majors. An elementary course in human genetics and its social impact. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 309F, 346. May not be counted toward a degree in the College of Natural Sciences, except for the Bachelor of Science in Human Development and Family Sciences.

## BIO 311C (TCCN: BIOL 1306). Introductory Biology I.

Introduction to biological energy transformation, cell structure and physiology, and gene expression. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 301L, 211, 311C. Biology 311C and 212 may not both be counted. Prerequisite: Credit or registration for Chemistry 301 or 301H.

## BIO 311D (TCCN: BIOL 1307). Introductory Biology II.

Introduction to mechanisms of inheritance, evolution, physiology, and species interactions. Three lecture hours and one discussion hour a week for one semester. Biology 301L and 311D may not both be counted. Biology 301M and 311D may not both be counted. Prerequisite: Biology 311C with a grade of at least C-.

## BIO 315H. 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. Three lecture hours and one discussion hour a week for one semester. Prerequisite: A score of 5 on the College Board Advanced Placement Examination in Biology and credit or registration for Chemistry 301 or 301H.

## BIO 317. Introduction to Public Health.

Same as Public Health 317. 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. Three lecture hours a week for one semester.

BIO 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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 School of Biological 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. May be repeated for credit when the topics vary.

## Upper-Division Courses <br> BIO 320. Cell Biology.

Principles of eukaryotic cell structure and function; macromolecules, energetics, membranes, organelles, cytoskeleton, gene expression, signaling, division, differentiation, motility, and experimental methodologies. Three lecture hours and one discussion hour a week for
one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 320L. Cell Biology Laboratory.

Explores the complex structures and functions of cells through direct observation and experimentation. Subjects may include regulation of gene transcription and translation, protein sorting, organelles and membrane trafficking, cytoskeletal dynamics, and cell division. Students use a combination of modern molecular biology, biochemistry, and microscopy techniques, with a strong emphasis placed on hypothesisdriven approaches, proper experimental design, and clear scientific writing and presentation. One lecture hour and five laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and credit with a grade of at least C- or registration for Biology 320.

## BIO 321G. Principles of Computational Biology.

Introduces computational methods used in molecular, cellular, organismal, and population biology. Subjects include molecular bioinformatics, modeling and simulation, and network analysis. Three lecture hours and two computer laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biology 325 or 325 H ; Computer Science 303E, 305J, and 307 or Statistics and Data Sciences 222 (or Statistics and Scientific Computation 222); and Mathematics 408C, or 408 K and 408 L , or 408 N and 408 S .

## BIO 321L. Aquatic Entomology.

The taxonomy of aquatic insects; the use of aquatic insects in biomonitoring. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Biology 321L, 370C (Topic: Applied Aquatic Entomology), 384K (Topic 13: Aquatic Entomology). Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 322. Structure, Physiology, and Reproduction of Seed Plants.

The principles of structure and functioning of higher plants; special attention to the dynamics of growth and development and reproduction. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, Chemistry 302 or 302 H , and concurrent enrollment in Biology 122L.

## BIO 122L. Structure, Physiology, and Reproduction of Seed Plants Laboratory.

Observation of structure and reproduction in seed plants and employment of experimental techniques that demonstrate physiological processes, especially processes of growth and development. Two laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Biology 322.

## BIO 323L. Laboratory Studies in Cell Biology.

Research exercises involving light/electron microscopy, image processing, autoradiography, chromatography, fractionation, flow cytometry, spectroscopy, diffraction, antibody labeling, cell growth, and kinetics. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and credit or registration for Biology 320.

## BIO 324. Survey of the Plant Kingdom.

Review of the groups of living and fossil plants, emphasizing their organization, reproduction, and evolution. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and concurrent enrollment in Biology 124L.

## BIO 124L. Survey of the Plant Kingdom Laboratory.

Demonstration of members of various plant groups, using cultures and prepared materials, to emphasize organization, reproduction, and evolution. Two laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Biology 324.

## BIO 325. Genetics.

Basic principles of Mendelism, molecular genetics, structure and function of genes and chromosomes, populations and evolution. Three lecture hours and one discussion hour a week for one semester. Biology 325 and 325 H may not both be counted. Prerequisite: Biology 311C and 311D with a grade of at least C - in each.

## BIO 325H. 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. Three lecture hours and one discussion hour a week for one semester. Biology 325 and 325 H may not both be counted. Prerequisite: Biology 315 H with a grade of at least C-

## BIO 325L. Laboratory Experience in Genetics.

Experimentation and direct observation in fundamental aspects of transmission genetics. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 325T. Human Genetics.

Genomics, cancer genetics, identification and analysis of human disease genes, and monogenic and multifactorial traits in humans. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 226L. General Microbiology Laboratory.

Introduction to microbiology laboratory techniques and experimental demonstration of principles of microbiology. One lecture and three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biology 326M or 326R (or 226R).

## BIO 326M. Introductory Medical Microbiology and Immunology.

Designed primarily for nursing and prepharmacy students. Overview of the structure, function, and genetics of bacteria, viruses, and fungi, with emphasis on the interactions between micro-organisms and the human host. Includes principles of microbial pathogenesis, the host's innate and adaptive immune responses to infection, epidemiology, laboratory diagnosis, and antimicrobial chemotherapy and vaccines. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 311C; Biology 325 or 325 H with a grade of at least C-; Chemistry 301 with a grade of at least C-; and one of the following with a grade of at least C-: Mathematics 408C, 408K, 408N, 408R, Statistics and Scientific Computation 302.

## BIO 326R. General Microbiology.

Overview of the major areas of microbiological study, including cell structure and function, genetics, host-microbe interactions, physiology, ecology, diversity, and virology. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Chemistry 302 or 302 H with a grade of at least C-

## BIO 327. General Phycology.

A general survey of the algae and of their biology. Three lecture hours a week for one semester. Biology 327 and 388J may not both be counted.

Prerequisite: Biology 324, 124L, and 325 or 325 H , with a grade of at least C- in each, and concurrent enrollment in Biology 127L.

## BIO 327D. Emerging Infectious Diseases.

Genomic and proteomic tools used to understand the causes of human infectious diseases. Covers 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. Also includes extensive coverage of the molecular and clinical biology of these diseases. Three lecture hours a week for one semester. Biology 327D and 337 (Topic: Emerging Infectious Diseases) may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 327E. Epigenetics.

A study of epigenetic modifications, the covalent modifications of DNA or histones that cause changes in gene expression. Particular attention is given to how experience or environmental factors epigenetically modify health or behavior in animals. Three lecture hours a week for one semester. Biology 327E and 337 (Topic: Epigenetics) may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 327G. Genomics.

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. Three lecture hours a week for one semester. Biology 327G and 337 (Topic: Genomics) may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 127L. Laboratory in General Phycology.

Survey of various algal groups, including direct observations of their biology, exposure to research techniques, and instruction in culture procedures. Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biology 327.

## BIO 328. Introductory Plant Physiology.

General principles of the mineral nutrition, water relations, metabolic activities, growth and development of green plants. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Chemistry 302 or 302 H .

## BIO 328D. Discovery Laboratory in Plant Biology.

Learning methods of experimental design, data gathering, data interpretation, and data presentation, including original experiments relating to questions of current interest in plant physiology. Five lab hours a week for one semester. Biology 328D and 337 (Topic: Discovery Laboratory in Plant Biology) may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 128L. 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. Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biology 328.

## BIO 328M. Biostatistics.

Introduction to methods of statistical analysis of biological data. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 318M, 328M, Statistics and Scientific Computation 318M, 328M. Prerequisite: Mathematics 408D,

408L, or 408S with a grade of at least C-, and four semester hours of coursework in biology.

## BIO 329. Medical Mycology.

A basic introduction to medical mycology and an overview of research involving both the fungal zoopathogen and its host. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 326R (or 226R) with a grade of at least C-.

## BIO 129L. Medical Mycology Laboratory.

Basic techniques for the identification and manipulation of fungi of medical importance. Three laboratory hours a week for one semester. Prerequisite: Biology 126L with a grade of at least C-, and credit with a grade of at least C- or registration for Biology 329.

BIO 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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 student abroad adviser in the School of Biological 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. May be repeated for credit when the topics vary.

## BIO 330. Animal Virology.

Mechanisms by which viruses replicate and kill or transform cells. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 326R (or 226R) with a grade of at least C-.

## BIO 230L. Virology Laboratory.

Basic experimental techniques applied to selected bacteriophages and animal viruses. Four laboratory hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325 H , and 126 L with a grade of at least C - in each, and credit with a grade of at least C - or registration for Biology 330 or 333.

## BIO 331L. Laboratory Studies in Molecular Biology.

The methods and principles of molecular biology in a research laboratory context. Students conduct a research project directed by a faculty member. One lecture hour and four and one-half laboratory hours a week for one semester. Prerequisite: Biology 205L, 206L, 208L, or 126L; and Biology 325 or 325 H with a grade of at least C -.

## BIO 332. Yeast Cell Biology.

Yeast is used as a model to teach some of the more actively researched areas of cell biology, such as chromosome structure, mating type, cell-cell interaction, DNA replication, mitosis, cytoskeletal motors, cell polarity, signal transduction, cell cycle, checkpoints, secretion, protein modification, yeast genetics, and yeast technology. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 126L and 326R (or 226R) with a grade of at least C- in each.

## BIO 333. Molecular Genetics of Bacteriophages and Plasmids.

Mechanisms of the phage infection cycle and of plasmid replication and gene expression; transposons and transposition. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 326R (or 226R) with a grade of at least C-.

## BIO 334. Global Health.

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. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Public Health 354, and Biology 328M or Statistics and Scientific Computation 328M.

## BIO 335. 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; separations of biological products. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 335, Biomedical Engineering 339, Chemical Engineering 339, 379 (Topic: Introduction to Biochemical Engineering). Prerequisite: Biology 311C with a grade of at least C-, and either Chemistry 339 K and 339L, or 369.

## BIO 336. Tumor Biology.

Natural history and causal mechanisms of cancer; viral and chemical carcinogens. Three lecture hours a week for one semester. Biology 336 and 391 M may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 330 or 360 K with a grade of at least C-.

## BIO 137, 237, 337, 437. Selected Topics in Biology.

Recent developments and research methods in the biological sciences. For each semester hour of credit earned, one lecture hour a week for one semester. Some topics may require additional hours; these are identified in the Course Schedule. Some topics are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Biology 325 or 325 H with a grade of at least C-. Additional prerequisites vary with the topic and are given in the Course Schedule.

Topic 1: Seminar in Human Biology. One lecture hour a week for one semester. Only offered as Biology 137. Offered on the pass/fail basis only. Prerequisite: Biology 346 with a grade of at least C-.
Topic 2: Research Methods: UTeach. Restricted to students in the UTeach-Natural Sciences program. Students perform independent inquiries and use skills from mathematics and science to solve research problems.
Topic 3: Natural History of Protists. A study of protista, a wide variety of eukaryotic organisms which are either unicellular or phylogenetically closely allied to unicellular organisms. Description of the basic taxonomic and ecological groups, and description of the natural history of the major groups of organisms.
Topic 4: Computational Neuroscience and Neural Networks.

## BIO 337J. Computational Biology Laboratory.

Overview of computational biology, with emphasis on nucleic acid sequence analysis and databases. Class projects and self-learning exercises. Two lecture hours and three computer laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 338. Environmental Health.

Introduction to the major areas of environmental health, including hazards in the environment, the effects of environmental contaminants, and various approaches to addressing major environmental health problems. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C-in each: Public Health 354, and Biology 328M or Statistics and Scientific Computation 328M.

## BIO 438L. Animal Communication.

Animal communication from a multidisciplinary perspective, with emphasis on quantitative analysis, sensory processing, and evolution of signals. Three lecture hours and three laboratory hours a week for one semester,
with computer laboratory hours as required. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 359 K or 370 with a grade of at least C-.

## BIO 339. Metabolism and Biochemistry of Microorganisms.

A study of the metabolic processes of microorganisms, using a biochemical approach. Three lecture hours a week for one semester. Biology 339 and 391R may not both be counted. Prerequisite: Biology 326 R with a grade of at least C-, and Chemistry 310 M and 310 N .

BIO 339M. Bacterial Behavior and Signaling Mechanisms.
Advanced studies in how bacteria perceive their environment and communicate with each other. Subjects may include chemotaxis and motility, morphogenesis and development, and secretion and virulence. Taught entirely through reading and discussion of original articles. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 326R with a grade of at least C-.

## BIO 340L. Biology of Birds.

Anatomy, physiology, classification, and ecology of birds. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 341R. Public Health Research.

Same as Public Health 341R. Students conduct public health research, mentored by professionals at public health practice agencies or faculty at graduate schools of public health throughout Texas. An average of twelve hours of fieldwork a week for a total of at least 180 hours. May be repeated for credit. Prerequisite: Biology 325 or 325 H with a grade of at least C-; students must also submit a proposal to the instructor.

## BIO 343M. Transmembrane Signaling Mechanisms.

Mechanisms by which hormones, light, and other stimuli trigger changes in plant and animal cell metabolism. Three lecture hours a week for one semester. Biology 343M and 388C may not both be counted. Prerequisite: Biology 325 or 325 H , and Chemistry 339 K with a grade of at least C- in each.

## BIO 344. Molecular Biology.

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. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 345. Cell Physiology.

An integrated approach to basic processes in physiology: metabolism, transport, energetics, molecular and cellular control mechanisms. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Chemistry 310M.

## BIO 345E. Endocrinology.

Vertebrate endocrinology (primarily mammalian), with a focus on human pathophysiology. Three lecture hours and one discussion hour a week for one semester. Biology 337 (Topic: Endocrinology) and 345E may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 346. Human Biology.

Introduction to human evolution, genetics, sexuality, senescence, and population growth. Three lecture hours and one discussion hour a week for one semester. Biology 309F and 346 may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 446L. Human Microscopic and Gross Anatomy.

Designed for students preparing for biomedical research and the health professions. Focuses on microscopic and gross anatomy of human tissues and organs, with an emphasis on structure function relationships. Subjects include the effects of disease and aging in addition to normal human anatomy. Three lecture hours and four laboratory hours a week for one semester. Biology 416K and 446L may not both be counted. Prerequisite: Biology 311C; Biology 325 or 325 H with a grade of at least C-; Chemistry 301 with a grade of at least C-; and one of the following courses with a grade of at least C-: Mathematics $408 \mathrm{C}, 408 \mathrm{~K}, 408 \mathrm{~N}$, 408R, Statistics and Scientific Computation 302.

BIO 347. Biology and Genetics of Immune Disorders.
Immune disorders in mammals, including humans, used as models for examining basic immunological and immunogenetic principles; emphasis on immune disorders of vertebrates. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 448L. Invertebrate Biology.

A study of the diversity and evolution of multicellular invertebrate animals, with emphasis on common themes in animal body construction and function. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 349. Developmental Biology.

Principles of animal development, with emphasis on developmental mechanisms. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C -.

## BIO 349L. Experiments in Developmental Biology.

An investigation of methods and principles of developmental biology in a laboratory context, with emphasis on animal embryology using molecular techniques and microscopy. One lecture hour and six laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-; and credit with a grade of at least C- or registration for Biology 349.

## BIO 350M. Plant Molecular Biology.

Fundamentals of plant molecular biology, including structure and expression of the chloroplast and mitochondrial genomes. Three lecture hours a week for one semester. Biology 350M and 388M may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 351. Economic Botany.

An in-depth analysis of the origin of domesticated plant species, the role in nature of plant products, and the ways natural products have been altered through artificial selection. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 352. Reproductive Biology of Flowering Plants.

Pollination biology, breeding systems, reproductive strategies, and fruit and seed dispersal from evolutionary and ecological vantage points.
Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C -

## BIO 353. Introduction to Health Informatics.

Examines the clinical aspects of information science, and the nature of information in healthcare. Subjects include conceptual models of data and information and how data and information are delivered throughout the continuum of healthcare; the information requirements for specific issues in healthcare and how those requirements are addressed; and issues surrounding healthcare data storage, access, and retrieval. Biology

337 (Topic: Introduction to Health Informatics) and 353 may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C -

## BIO 353F. Field Entomology.

A field course on insects, with emphasis on field study techniques, visual identification of species, collecting techniques, and curation in the field. Meets five days a week for one hour a day during a summer-session term; additional fieldwork to be arranged, including extended field trips. Biology 353F and Biology 337 (Topic: Field Entomology) may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C -

## BIO 453L. Entomology.

Characteristics, importance, and biology of the major groups of insects. Two lecture hours and three laboratory hours a week for one semester, with additional fieldwork hours to be arranged. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 354. Epidemiology.

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. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-; Public Health 317 with a grade of at least B-; and credit or registration for Biology 328M, or Statistics Scientific Computation 328M.

## BIO 354C. Cell Biology of Human Birth Defects.

Explores the link between basic cell biology, human genetics, and human birth defects using current scientific literature exposing students to critical thinking and the scientific method, as well as the application of these tools to the study of biology. Three lecture hours a week for one semester. Biology 337 (Topic: Developing Biology) and Biology 354C may not both be counted. Prerequisite: Biology 349 with a grade of at least C-.

## BIO 354L. Ichthyology.

Overview of the evolution, biology, and ecology of fishes, emphasizing freshwater fishes. Three lecture hours and three hours of laboratory or fieldwork a week for one semester, with field trips to be arranged. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 455L. Vertebrate Natural History.

Phylogeny, taxonomy, life histories, habits, and distribution. Two lecture hours and three hours of laboratory or fieldwork a week for one semester, with field trips to be arranged. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 456L. Limnology and Oceanography.

Same as Marine Science 440. An introduction to the study of the interactions between aquatic organisms and their environments. Two lecture hours and six laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C -, and Chemistry 302 or 302 H .

## BIO 357. Evolutionary Ecology.

Principles of modern ecology, particularly as they relate to natural selection and evolutionary theory. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 359J. Behavioral Ecology.

Advanced topics in behavioral ecology, with detailed consideration of animal communication, altruism, sexual selection, plant-animal interactions. Three lecture hours and one discussion hour a week for one
semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 359K or 370 with a grade of at least C-.

## BIO 359K. Principles of Animal Behavior.

An 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. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 359R. Animal Sexuality.

The biology of sexuality, including genetics, morphology, physiology, and psychology of sex. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 360K. Immunology.

The basic concepts of humoral and cell-associated immune phenomena. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 326R (or 226R) with a grade of at least C-

## BIO 160L. Immunology Laboratory.

Current techniques in experimental cellular and humoral immunology. Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biology 360K.

## BIO 360M. Molecular Immunology.

An advanced immunology course with an emphasis on molecular models and medical relevance. Three lecture hours a week for one semester. Biology 337 (Topic: Molecular Immunology) and 360M may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C -, and Biology 360 K with a grade of at least B -.

## BIO 361. Human Infectious Diseases.

Etiology, pathogenesis, diagnosis, and immunobiology of the major microbial diseases, with emphasis on their prevention. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 326R with a grade of at least C-.

## BIO 361L. Public Health Bacteriology Laboratory.

Training in techniques required for independent work in diagnostic and epidemiological bacteriology. Two lecture hours and five laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 126L and 326R (or 226R) with a grade of at least $C$ - in each.

## BIO 361P. Public Health Internship.

Students conduct a public health research project off campus at a public health practice agency or a graduate school of public health. The equivalent of twelve lecture hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: The following coursework with a grade of at least B- in each: Biology 226 L , and Biology 326M or 326R; and completion of an internship application, available online at the Portal of Public Health page.

## BIO 361T. Comparative Animal Physiology.

Physiology of organ systems in animal phyla, with special emphasis on physiological adaptations of organisms to their environment. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 364. Microbial Ecology.

The ability of microbes to adapt to and change their environment. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-, and Biology 326R with a grade of at least C-.

## BIO 364E. Current Topics in Advanced Microbial Ecology.

Development and structure of microbial communities, microbial phylogeny, endosymbiont and symbiont relationships, biogeochemistry, elemental cycling by microbes, and the microbial ecology of disease. Emphasis on active research areas in these topics. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H , and 364 with a grade of at least C - in each.

## BIO 365N. Development and Plasticity of the Nervous System.

An introduction to the principles by which the neural tube (brain and spinal cord) develops during embryogenesis, including regionalization of the brain into forebrain, midbrain, hindbrain, and spinal cord. Particular emphasis will be given to the mechanisms that govern how neurons acquire their identity and form neuronal circuits and synapses. Developmental and congenital diseases and possible therapies, including stem cell based therapy or gene therapy. Three lecture hours a week for one semester. Prerequisite: Biology 349 with a grade of at least C -, and Biology 365R or 371 M with a grade of at least C-

## BIO 365S. Systems Physiology.

Overview of human physiology, including body fluids, the cardiovascular system, respiration, digestion, metabolism, and endocrinology. Three lecture hours and one discussion hour a week for one semester. May not be counted by students with credit for Biology 416L. Prerequisite: Biology 311 C ; Biology 325 or 325 H with a grade of at least C-; Chemistry 301 with a grade of at least $\mathrm{C}-$; and one of the following with a grade of at least C -: Mathematics 408C, 408K, 408N, 408R, Statistics and Data Sciences 302, (or Statistics and Scientific Computation 302).

## BIO 165U. Systems Physiology Laboratory.

Using an inquiry-based approach, provides students with an opportunity for hands-on experience in human physiology. Students read primary scientific literature; collect, analyze, and present data; and write detailed reports on laboratory activities. Four laboratory hours a week for one semester. May not be counted by students with credit for Biology 416L. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and credit or registration for Biology 365S.

## BIO 366. Microbial Genetics.

Molecular biology of nucleic acids; biosynthesis of macromolecules, transfer of genetic material from cell to cell, recombination, mutagenesis, and regulatory mechanisms. Three lecture hours a week for one semester. Biology 366 and 391S may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 326R with a grade of at least C-

## BIO 366R. Molecular Genetics.

Techniques used for studying molecular biology and transgenic organisms. Includes advanced genetics and the molecular genetics used in clinical applications. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## BIO 367W. Laboratory in Behavioral Neuroscience.

Behavioral experiments with rodents aimed at elucidating the neural mechanisms of psychological processes such as memory, anxiety, and incentive motivation. One lecture hour and five laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at
least C-; and Biology 365R, or Neuroscience 330 and 335 with a grade of at least C -

## BIO 368L. Techniques in Molecular Genetics.

Laboratory experience in mutagenesis, transformation, transduction, isolation of plasmid and bacteriophage DNA, in vitro recombinant DNA procedures, and DNA base sequencing. One lecture hour and seven laboratory hours a week for one semester. Biology 368L and 390P may not both be counted. Prerequisite: Biology 325 or 325 H , and 126 L with a grade of at least C- in each.

## BIO 369F. Field Herpetology.

Species identification by sight and sound, and research techniques such as sampling populations, data collection, and analysis. One lecture hour and five laboratory hours a week for one semester, with additional field hours to be arranged. Prerequisite: Biology 325 or 325 H with a grade of at least C-; and credit or registration for Biology 369L.

## BIO 369L. Herpetology.

Biology of amphibians and reptiles, including evolution, ecology, behavior, physiology, life history, and identification. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C-in each: Biology 325 or 325 H , and 370.

## BIO 370. Evolution.

Introduction to modern evolutionary biology, focusing on the evolution of molecular, developmental, morphological, and behavioral traits. Genetic and ecological bases of evolutionary changes within populations and of evolutionary divergence in animals and plants. Three lecture hours and one discussion hour a week for one semester. Biology 370 and 385K (Topic 2: Evolution) may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 170C, 270C, 370C, 470C. Conference Course.

Supervised study of selected topics in biology, by individual arrangement with the instructor. Conference course. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Biology 325 or 325 H with a grade of at least C-. Additional prerequisites vary with the topic and are given in the Course Schedule.

## BIO 471G. Natural History Museum Science.

An introduction to curatorial practices in natural history museums. Three lecture hours and one discussion hour a week for one semester; students also complete a twenty- to thirty-hour curatorial project. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 371L. Experimental Physiology.

Experimental approach to physiological mechanisms by which animals adapt to their environment. One lecture hour, four laboratory hours, and two hours of computer work a week for one semester. Prerequisite: Biology 205L, 206L, 208L, or 126L with a grade of at least C-; and Biology 325 or 325 H with a grade of at least C-

## BIO 371M. Neuronal Basis of Brain and Behavior.

The nervous system, with emphasis on vertebrate neurobiology. Three lecture hours and one discussion hour a week for one semester. Biology 365R and 371M may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 472L. Taxonomic Plant Anatomy.

An advanced course emphasizing those aspects of plant anatomy that are most reliable and useful for systematic purposes. Three lecture hours and two laboratory hours a week for one semester. Biology 472L and 487G
may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 374 and 174L with a grade of at least C- in each.

## BIO 373. Ecology.

An introduction to ecology, the study of relationships among organisms and between organisms and their environment; adaptations, population, communities, and ecosystems. Includes both plants and animals and both terrestrial and aquatic ecosystems. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## BIO 373L. Ecology Laboratory.

Intensive field ecology. Includes group field experiment and observation, independent projects, and field trips to other vegetation zones. Students complete weekly write-ups of observation and data analysis, reports of independent projects, and an oral presentation on an independent project. Four laboratory hours and two workshop/lecture hours a week for one semester. Prerequisite: Credit or registration for Biology 373.

## BIO 374. Plant Anatomy with Histological Techniques.

Tissue organization and cellular details of stems, roots, and leaves of seed plants, with emphasis on development and function. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and concurrent enrollment in Biology 174L.

## BIO 174L. Laboratory in Plant Anatomy and Histological Techniques.

Demonstration of cellular details and tissue systems of plant organs; instruction in the preparation of plant materials for histological examination. Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C - or registration for Biology 374.

## BIO 375. Conservation Biology.

Application of principles of ecology to the preservation of wild plant and animal species and to the preservation, management, and restoration of natural and seminatural ecosystems. Emphasis on scientific, biological aspects of issues such as endangered species protection, preserve design, and forest management. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Biology 357, 359J, or 373 with a grade of at least C-.

## BIO 177, 277, 377. Undergraduate Research.

Laboratory or field research in the various fields of biological science under the supervision of one or more faculty members. Supervised individual research. Up to three semester hours may be counted toward the major requirement for the Bachelor of Arts degree with a major in biology. May be repeated for credit. Prerequisite: Biology 325 or 325H with a grade of at least C -, and written consent of instructor.

## BIO 478L. Comparative Vertebrate Anatomy.

Study of vertebrate morphology from developmental anatomy to the function, biomechanics, and phylogenetic relationships of living and fossil taxa. Three lecture hours and four laboratory hours a week for one semester. Biology 478L and Kinesiology 324K may not both be counted. Prerequisite: Biology 325 or 325 H with a grade of at least C -

## BIO 379G. Advanced Mammalian Genetics.

Molecular developmental genetics and review of classical genetics. Possible topics include but are not limited to cancer, AIDS, forensic genetics, genomics, and gene therapy. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least B-.

## BIO 379H, 679H. 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. The equivalent of three or six lecture hours a week for one semester. May be repeated for credit, but no more than six hours may be counted toward a degree in biology. Prerequisite: Consent of the student's research supervisor and the departmental honors adviser.

## Department of Chemistry

Students seeking the degree of Bachelor of Science in Chemical Engineering, Bachelor of Science in Chemistry, or Bachelor of Science in Physics must take the University of Texas at Austin Test for Credit in Chemistry 301 if they were admitted to the University with high school credit in chemistry. Engineering majors in areas other than chemical engineering are also encouraged to take the test. Students with three semesters or more of high school chemistry that included laboratory experience, or credit for Chemistry 301 or 301 H , are encouraged to take the University of Texas at Austin Test for Credit in Chemistry 302. These tests are offered only in Austin. Information about them is available at http://ctl.utexas.edu/programs-and-services/student-testing-services.

Each student planning to register for a chemistry course should consult an adviser in his or her major area to determine whether specific courses are required.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Chemistry: CH

## Lower-Division Courses

## CH 301 (TCCN: CHEM 1311). Principles of Chemistry I.

Three lecture hours a week for one semester. Some sections also require one enrichment/discussion hour a week; these are identified in the Course Schedule. Chemistry 301 and 301H may not both be counted. Prerequisite: Credit with a grade of at least C - or registration for one of the following: Mathematics 305G, 408C, 408D, 408K, 408L, 408M, 408N, 408S, Statistics and Scientific Computation 302; and an appropriate score on the ALEKS chemistry placement examination.

## CH 301H. Principles of Chemistry I: Honors.

Three lecture hours a week for one semester. Chemistry 301 and 301H may not both be counted. Prerequisite: Credit with a grade of at least Cor registration for one of the following: Mathematics 408C, 408D, 408K, 408L, 408M, 408N, 408S; an appropriate score on the ALEKS chemistry placement examination; and consent of the departmental honors adviser.

## CH 302 (TCCN: CHEM 1312). Principles of Chemistry II.

Development and application of concepts, theories, and laws underlying chemistry. Three lecture hours a week for one semester. Some sections also require one enrichment/discussion hour a week; these are identified in the Course Schedule. Chemistry 302 and 302H may not both be counted. Prerequisite: Chemistry 301 or 301 H with a grade of at least C-; and credit with a grade of at least C- or registration for one of the following: Mathematics 408C, 408D, 408K, 408L, 408M, 408N, 408 S.

## CH 302H. Principles of Chemistry II: Honors.

Three lecture hours a week for one semester. Chemistry 302 and 302H may not both be counted. Prerequisite: Chemistry 301 or 301 H with a grade of at least C -; credit with a grade of at least C - or registration for
one of the following: Mathematics 408C, 408D, 408K, 408L, 408M, 408N, 408S; and consent of the departmental honors adviser.

CH 303. Mathematical Introduction to Theories of Matter. Introduction to the quantum theoretic description of atoms, molecules, solids, nuclei, elementary particles, and cosmology. Matrix mechanics and group theory. Three lecture hours a week for one semester. Chemistry 303 may be used instead of either Chemistry 302 or Chemistry 301 and 302 in fulfilling the prerequisites of other chemistry courses, except by students seeking the Bachelor of Science in Chemistry degree. Chemistry 303 may be counted in addition to Chemistry 301 and 302. Not recommended by the Health Professions Office for Medical College Admission Test preparation.

## CH 204 (TCCN: CHEM 1111, CHEM 1112). 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. Four laboratory hours and one hour of discussion a week for one semester. Some sections may also require one hour of computer laboratory a week. Chemistry 204 and 317 may not both be counted. Prerequisite: Credit or registration for Chemistry 302 or 302 H .

## CH 304K. Chemistry in Context I.

Designed for nonscience majors. Chemistry 304 K and 305 form a two-semester sequence designed to fulfill the science requirement for students not majoring in science or engineering. Issues of contemporary interest and importance, such as ozone depletion and global warming, motivate the discussion; the underlying chemistry is developed as needed. Social, political, economic, and ethical implications of scientific developments and science policy are considered. Chemistry 304K addresses the nature of matter, energy, chemical reactions, and chemical thermodynamics. Not intended as preparation for Chemistry 301. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences. May not be counted by students with credit for Chemistry 301 with a grade of at least C-.

## CH 305. Chemistry in Context II.

Designed for nonscience majors. Chemistry 304 K and 305 form a two-semester sequence designed to fulfill the science requirement for students not majoring in science or engineering. Chemistry 305 addresses water chemistry, acids and bases, elementary organic chemistry, polymers, pharmaceuticals, nutrition, and genetics. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences. May not be counted by students with credit for Chemistry 302 with a grade of at least C-. Prerequisite: Chemistry 301 or 304 K .

## CH 206K. Undergraduate Research.

Introduction to research practices; supervised individual undergraduate research in chemistry. Six to ten laboratory hours a week for one semester. May be repeated for credit, but no more than four semester hours may be counted toward a degree in chemistry or biochemistry. Hours beyond four must be taken on the pass/fail basis. May be repeated for credit. Prerequisite: Consent of the undergraduate adviser in chemistry.

## CH 107, 207. Conference Course.

Supervised study in chemistry. One discussion hour a week for one semester, with additional hours to be arranged. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. May not be counted toward a major or minor in chemistry or biochemistry.

May be repeated for credit when the topics vary. Prerequisite: Written consent of instructor.

## CH 207K. 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. The equivalent of five lecture hours a week for one semester, with field hours to be arranged. May be counted as an elective only.

## CH 207L. Peer Teaching.

Students act as peer teaching assistants in other University chemistry courses, mainly large general chemistry lecture sections. Two hours of lecture and training a week for one semester, and two to three hours a week leading student group discussions. May not be counted toward any degree in chemistry or biochemistry. Prerequisite: Chemistry 301 and consent of the coordinator of the Peer Teaching Assistant Program.

## CH 108, 208, 308, 408. Topics in Chemistry.

For each semester hour of credit earned, one lecture hour a week for one semester; some topics may require additional discussion hours. Some sections are offered on the pass/fail basis only. May not be counted toward a major or minor in chemistry or biochemistry. May be repeated for credit when the topics vary.

## CH 110K (TCCN: CHEM 2123). Organic Chemistry Laboratory.

Primarily for premedical, predental, life sciences, and pharmacy majors. One lecture hour and three laboratory hours a week for one semester. May not be counted by students with credit for Chemistry 210C. Chemistry 110 K and 118 K may not both be counted. Prerequisite: Chemistry 302 and 204 with a grade of at least C- in each, and credit or registration for Chemistry 310M.

## CH 110L (TCCN: CHEM 2125). Organic Chemistry Laboratory.

Primarily for premedical, predental, life sciences, and pharmacy majors. One lecture hour and three laboratory hours a week for one semester. Only one of the following may be counted: Chemistry 210C, 110L, 118L. Prerequisite: Chemistry 310 M with a grade of at least C-, 110K, and credit or registration for Chemistry 310N.

## CH 317. Descriptive Inorganic Chemistry for Chemistry and Biochemistry Majors.

Synthesis and properties of inorganic, bioinorganic, and organometallic compounds. One lecture hour and six laboratory hours a week for one semester. Chemistry 204 and 317 may not both be counted. Prerequisite: Credit or registration for Chemistry 302 or 302H.

## CH 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## CH 220C. Organic Chemistry Laboratory.

One lecture hour and five laboratory hours a week for one semester. Only one of the following may be counted: Chemistry 210C, 110L, 118L, 220C, 128L. Prerequisite: Credit or registration for Chemistry 310N or 320N; and
the following coursework with a grade of at least C- in each: Chemistry 204 or 317; and 310M, 318M, 320M, or 328M.

## CH 320M. Organic Chemistry I.

Primarily for premedical, predental, life sciences, and pharmacy majors. Development of organic chemical structure, nomenclature, and reactivity. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 610A, 310M, 618A, 318M, 320M, 328M. Prerequisite: Chemistry 302 or 302 H with a grade of at least C-, and credit or registration for Chemistry 204 or 317.

## CH 320N. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 610B, 310N, 618B, 318N, 320N, 328N. Prerequisite: Credit of registation for Chemistry 210C or 220C; and the following coursework with a grade of at least C - in each: Chemistry 204 or 317; and 310M, 318M, 320M, or 328M.

## CH 128K. Organic Chemistry Laboratory.

One lecture hour and three laboratory hours a week for one semester. May not be counted by students with credit for Chemistry 210C or 220C. Only one of the following may be counted: Chemistry 110K, 118K, 128K. Prerequisite: Credit or registration for Chemistry 318M or 328M; and the following coursework with a grade of at least C-: Chemistry 302 or 302H; and 204 or 317.

## CH 128L. Organic Chemistry Laboratory.

One lecture hour and three laboratory hours a week for one semester. May not be counted by students with credit for Chemistry 210C or 220C. Only one of the following may be counted: Chemistry 110L, 118L, 128L. Prerequisite: Credit or registration for Chemistry 318N or 328N; and the following coursework with a grade of at least C- in each: Chemistry 118 K or 128 K ; and 318 M or 328 M .

## CH 328M. Organic Chemistry I.

Primarily for chemistry and chemical engineering majors. The development of organic chemical structure, nomenclature, and reactivity. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 610A, 310M, 618A, 318M, 320M, 328M. Prerequisite: Credit or registration for Chemistry 118 K or 128 K ; and the following coursework with a grade of at least C - in each: Chemistry 302 or 302 H ; and 204 or 317.

## CH 328N. Organic Chemistry II.

Primarily for chemistry and chemical engineering majors. The development of organic chemical reactivity, with an emphasis on synthesis and polymers. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 610B, 310N, 618B, $318 \mathrm{~N}, 320 \mathrm{~N}, 328 \mathrm{~N}$. Prerequisite: Credit or registration for Chemistry 118L or 128 L ; and the following coursework with a grade of at least C - in each: Chemistry 318 M or 328 M , and 118 K or 128 K .

CH 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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 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. May be repeated for credit when the topics vary.

## CH 329W. Cooperative Chemistry/Biochemistry.

This course covers the work period of chemistry and biochemistry students in the Cooperative Education program, which provides supervised work experience by arrangement with the employer and the supervising instructor. Forty laboratory hours a week for one semester. The student must repeat the course each work period and must take it twice to receive credit toward the degree; at least one of these registrations must be during a long-session semester. No more than three semester hours may be counted toward the major requirement; no more than six semester hours may be counted toward the degree. The student's first registration must be on the pass/fail basis. Prerequisite: Chemistry 310 N or 318 N with a grade of at least C-, application to become a member of the Cooperative Chemistry/ Biochemistry Program, and consent of the Department of Chemistry and Biochemistry undergraduate adviser.

## CH 431. 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. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following courses with a grade of at least C-: Chemistry 302 or 302 H , Chemistry 204 or 317, and Chemistry 320M or 328M.

## CH 341. Special Topics in Laboratory Chemistry.

Examples of topics are physical measurements techniques; electronics for scientists; advanced synthetic chemistry (organic or inorganic); separation techniques. One lecture hour and six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Eight semester hours of coursework in organic chemistry and consent of the undergraduate adviser.

## CH 644. Chemical Education: Secondary School.

Issues and techniques in secondary school teaching of chemical sciences. Three lecture hours a week for two semesters. For students seeking the Bachelor of Science in Chemistry: Teaching Option degree. May not be counted toward any other degree in chemistry or biochemistry. Prerequisite: For 644A, eight semester hours of coursework in organic chemistry and credit or registration for Chemistry 144K; for 644B, Chemistry 644A, 144K, and credit or registration for Chemistry 144L.

## CH 144K. Chemical Education Laboratory I.

Development of classroom demonstrations, laboratory experiments, and teaching aids for secondary school teaching of the chemical sciences. Two laboratory hours a week for one semester. For students seeking the Bachelor of Science in Chemistry: Teaching Option degree. May not be counted toward any other degree in chemistry or biochemistry. Prerequisite: Credit or registration for Chemistry 644A.

## CH 144L. Chemical Education Laboratory II.

Development of classroom demonstrations, laboratory experiments, and teaching aids for secondary school teaching of the chemical sciences. Two laboratory hours a week for one semester. For students seeking the Bachelor of Science in Chemistry: Teaching Option degree. May not be counted toward any other degree in chemistry or biochemistry. Prerequisite: Credit or registration for Chemistry 644B.

## CH 353. Physical Chemistry I.

For chemistry and chemical engineering majors. Equations of state, laws of thermodynamics, ideal and nonideal solutions, phase equilibria, thermodynamics of chemical reactions. Three lecture hours a week for one semester. Chemistry 353 and 353M may not both be counted.

Prerequisite: Mathematics 408C and 408D, or two of the following: Mathematics $408 \mathrm{~K}, 408 \mathrm{~L}, 408 \mathrm{M}, 408 \mathrm{~N}, 408 \mathrm{~S}$; Chemistry 302 or 302 H with a grade of at least C-; and Physics 316 and 116L, 303L and 103N, or 317 L and 117 N .

## CH 153K. Physical Chemistry Laboratory.

Three laboratory hours a week for one semester. Prerequisite: Chemistry 353 or 353M with a grade of at least C-.

## CH 353M. Physical Chemistry I for Life Sciences.

For biochemistry and biology majors. Thermochemistry and kinetics of reactions in cells, enzyme catalysis, electrical and transport properties of membranes. Three lecture hours a week for one semester. Chemistry 353 and 353M may not both be counted. Prerequisite: Mathematics 408C and 408D, or two of the following: Mathematics $408 \mathrm{~K}, 408 \mathrm{~L}, 408 \mathrm{M}, 408 \mathrm{~N}$, 408 S ; Chemistry 302 or 302 H with a grade of at least C-; and Physics 316 and $116 \mathrm{~L}, 303 \mathrm{~L}$ and 103 N , or 317 L and 117 N .

## CH 354. Quantum Chemistry and Spectroscopy.

Fundamental principles of quantum mechanics, exactly soluble model problems, electronic structure of atoms and molecules, spectroscopy. Three lecture hours a week for one semester. Prerequisite: Mathematics 408C and 408D, or two of the following: Mathematics 408K, 408L, 408M, 408N, 408S; and Physics 316 and 116L.

## CH 154K. Physical Chemistry Laboratory.

Three laboratory hours a week for one semester. Prerequisite: Chemistry 353 or 353 M with a grade of at least C-, and credit or registration for Chemistry 354 or 354 L .

## CH 354L. 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. Three lecture hours a week for one semester. May be counted toward a biochemistry or chemistry degree. Chemistry 354, rather than this course, is recommended for students planning graduate study in chemistry. Prerequisite: Chemistry 353 or 353 M with a grade of at least C-

## CH 354S. Elements of Spectroscopy.

Primarily for chemistry and biochemistry majors. 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. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 353 or 353 M , and 354 or 354 L .

## CH 455. Fundamentals of Analytical Chemistry.

For biochemistry, engineering, and clinical laboratory science majors. Chemical and instrumental methods in analytical chemistry. Three lecture hours and three laboratory hours a week for one semester. Chemistry 455 and 456 may not both be counted. Prerequisite: Chemistry 302 or 302H, and Chemistry 204 or 317, with a grade of at least C- in each.

## CH 456. Analytical Chemistry.

For chemistry majors. Three lecture hours and three laboratory hours a week for one semester. Chemistry 455 and 456 may not both be counted. Prerequisite: Chemistry 302 or 302 H with a grade of at least C-, and Chemistry 204 or 317 with a grade of at least C-

## CH 367C. Materials Chemistry.

Restricted to chemistry majors. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and Chemistry 302 and 353 with a grade of at least C- in each. Chemistry 431 or 354 L with a grade of at least $C$ - is recommended.

## CH 367L. Macromolecular Chemistry.

Designed for chemistry and chemical engineering students. Occurrence, preparation, structure, and properties of macromolecular substances. Three lecture hours a week for one semester. Prerequisite: Chemistry 310 M and 310 N or Chemistry 318 M and 318 N ; Chemistry 210 C , or 118 K and 118L; and Chemistry 353 or 353M with a grade of at least C-.

## CH 368. Advanced Topics in Chemistry.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: 310 M and 310 N or Chemistry 318 M and 318 N ; Chemistry 353 or 353 M with a grade of at least C-; and Chemistry 354 or 354 L with a grade of at least C-.

Topic 1: Research Methods: UTeach. Restricted to students in the UTeach-Natural Sciences program. Students use mathematics and science skills to solve research problems.

## CH 369K. Techniques of Research.

Advanced laboratory practice and introduction to research. One lecture hour and six laboratory hours a week for one semester. May be taken for a letter grade no more than twice. No more than six semester hours may be counted toward a degree in chemistry or biochemistry. May be repeated for credit. Prerequisite: Eight semester hours of coursework in organic chemistry; and six semester hours of upper-division chemistry courses approved by the undergraduate adviser's office, or consent of the undergraduate adviser in chemistry.

## CH 371K. 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 handson, discovery learning approach to science is emphasized. One class hour and six hours of fieldwork a week for one semester. May be taken for a letter grade no more than twice. No more than six semester hours may be counted toward a degree in chemistry or biochemistry. May be repeated for credit. Prerequisite: Upper-division standing, at least six hours of upper-division coursework in the College of Natural Sciences, and consent of the UTeach adviser in the College of Natural Sciences.

## CH 372C. Chemistry Peer Mentors in Research and Teaching.

Students work as peer mentors and assistants in the teaching of chemistry, with emphasis on developing instructional materials and laboratories that teach fundamental chemistry with real world data. Students mentor students for at least six hours a week in addition to other weekly meetings. meetings. May be taken for a letter grade no more than twice. No more than six semester hours may be counted toward a degree in chemistry or biochemistry. May be repeated for credit. Prerequisite: Chemistry 301 or 301 H and 302 or 302 H with a grade of at least B in each, and consent of the undergraduate adviser.

## CH 375K, 475K. Individual Study in Chemistry and Biochemistry.

Supervised reading or individual tutorial sessions on advanced topics in chemistry and biochemistry. Three or four class hours a week for one semester. No more than six semester hours may be counted toward a degree in chemistry or biochemistry. May be repeated for credit. Prerequisite: Eight semester hours of coursework in organic chemistry, Chemistry 353, and consent of the undergraduate adviser.

## CH 376K. Advanced Analytical Chemistry.

Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Chemistry 353 and 456 with a grade of at least C - in each.

## CH 379H. Chemistry Honors Tutorial Course.

Laboratory research project in a specific field of chemistry under the supervision of one or more faculty members. Conference course. May be repeated once for credit. Must be taken in addition to the required hours for the Bachelor of Science in Chemistry degree. Students must enter no later than the first semester of the year of graduation. Prerequisite: Consent of the student's research supervisor and the departmental honors adviser.

## Department of Computer Science

An undergraduate may not enroll in any computer science course more than once without written consent of an undergraduate adviser in computer science. No student may enroll in any computer science course more than twice. No student may take more than three upper-division computer science courses in a semester without written consent of an undergraduate adviser in computer science.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p.675).

## Computer Science: C S <br> Lower-Division Courses

## C S 301K. Foundations of Logical Thought.

Introductory logic in the context of computing; introduction to formal notations; basic proof techniques; sets, relations, and functions. Three lecture hours a week for one semester. Some sections also require one discussion hour a week; these are identified in the Course Schedule.

## C S 302. 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. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Credit for Computer Science 302 may not be earned after a student has received credit for Computer Science 303E, 305J, 307, 312, 312H, 314, or 314H. May not be counted toward a degree in computer science.

## C S 303E. 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. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 303E, 305J, 312, 312H. Credit for Computer Science 303E may not be earned after a student has received credit for Computer Science 307, 314, or 314H. May not be counted toward a degree in computer science.

## C S 105. Computer Programming.

An introduction to programming in a particular computer language. Students design and implement programs. One lecture hour a week for one semester. May be repeated for credit when the languages vary. Prerequisite: Computer Sciences 307, 313E, 314, 314H, or Electrical Engineering 422C (or 322C), with a grade of at least C-.

## C S 108. Software Systems.

Introduction to the use of a particular software system. Students build applications that exploit the system being studied. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Computer Science 307, $313 \mathrm{E}, 314,314 \mathrm{H}$, or Electrical Engineering 422C (or 322C), with a grade of at least C -

## C S 109, 209, 309. Topics in Computer Science.

For each semester hour of credit earned, one lecture hour a week for one semester. Some sections are offered on the pass/fail basis only. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## C S 311. Discrete Mathematics for Computer Science.

Restricted to computer science majors. 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. Topics include proof by induction, introduction to graph theory, recurrences, sets, functions, and an introduction to program correctness. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 311, $311 \mathrm{H}, 313 \mathrm{H}, 313 \mathrm{~K}, 336,336 \mathrm{H}$. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Computer Science 312 or 312H; and Mathematics 408C, 408 K or 408N, or registration for Mathematics 408C.

## C S 311H. Discrete Mathematics for Computer Science: Honors.

Restricted to honors computer science majors. 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. Topics include proof by induction, graph theory, number theory, combinatorics, recurrences, sets, functions, an introduction to program correctness, and discrete probability. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 311, 311H, 313H, 313K, 336, 336H. Offered on the letter-grade basis only. Prerequisite: For computer science majors, the following coursework with a grade of at least C -: Mathematics 408C, 408 K , or 408 N , or registration for Mathematics 408 C ; for others, consent of instructor.

## C S 312. Introduction to Programming.

First part of a two-part sequence in Java 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. Three lecture hours and one discussion hour a week for one semester. Only one of the following courses may be counted: Computer Science 303E, 305J, 312, 312H. Credit for Computer Science 312 may not be earned after a student has received credit for Computer Science 314 or 314H. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 408C, 408K, or 408 N .

## C S 312H. Introduction to Programming: Honors.

Restricted to computer science majors. First part of a two-part sequence in Java 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. Three lecture hours and one discussion hour a week for one semester. Only one of the following courses may be counted: Computer Science 303E, 305J, 312, 312H. Credit for Computer Science 312H may not be earned after a student has received credit for Computer Science 314 or 314 H . Prerequisite: Credit with a grade of at least C- or registration for Mathematics 305G, or a passing score on the College of Natural Sciences mathematics placement examination; and consent of the honors director.

## C S 313E. Elements of Software Design.

Object-oriented design of software in a modern high-level language, using software library packages. Introduction to elementary data structures and complexity of algorithms. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Prerequisite: Computer Science 303E, 305J, 312, or 312H with a grade of at least C-.

## C S 314. Data Structures.

Second part of a two-part sequence in Java programming. Introduction to specifications, simple unity testing, and debugging; building and using canonical data structures; algorithm analysis and reasoning techniques such as assertions and invariants. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Computer Science 307, 314, 314H, 315, 315H. Prerequisite: Computer Science 312 or 312 H with a grade of at least C-.

## C S 314H. Data Structures: Honors.

Second part of a two-part sequence in Java programming. Introduction to specifications, simple unity testing, and debugging; building and using canonical data structures; algorithm analysis and reasoning techniques such as assertions and invariants. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Computer Science 307, 314, 314H. Only one of the following may be counted: Computer Science 314, 314H, 315, 315H. Prerequisite: Computer Science 312 or 312 H with a grade of at least C-, and consent of the honors director.

C S 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## C S 120N, 220N, 320N. Topics in Computer Science for Nonmajors.

For each semester hour of credit earned, one lecture hour a week for one semester. May not be counted toward a degree in computer science. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## C S 321H. Functional and Symbolic Programming: Honors.

An introduction to functional and symbolic programming and to the use of these concepts throughout computer science. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313K, or 313H; 307, $314,314 \mathrm{H}, 315$, or 315 H ; and consent of the honors director.

## C S 323E. Elements of Scientific Computing.

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. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Computer Science 323E and 323H may not both be counted. Prerequisite: The following coursework with a grade of at least C-: Computer Science 303E and 313 E , or Computer Science 307, 312, 312H, 314, 314H, 315, or 315 H ; Electrical Engineering 322C or 422C; Mathematics 408D, 408M, or 427L; and credit with a grade of at least C- or registration for Mathematics 340L, 341, or Statistics and Scientific Computation 329C.

## C S 323H. 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. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Computer Science 323E and 323H may not both be counted. Prerequisite: Computer Science 303E, 305J, 307, 312, 312H, 315, or 315 H with a grade of at least C-; credit with a grade of at least C- or registration for Mathematics 340L, 341, or Statistics and Scientific Computation 329C; and consent of the honors director.

## C S 324E. 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. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Prerequisite: One of the following with a grade of at least C-: Computer Science 303E, 305J, 307, 312, 312H, 314, 314H, 315, 315 H , Electrical Engineering 322C, or 422C.

## C S 326E. 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. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Prerequisite: One of the following with a grade of at least C-: Computer Science 303E, 305J, 307, 312, 312H, 314, 314H, 315, 315H, Electrical Engineering 322C, or 422C.

## C S 327E. 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. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Prerequisite: One of the following with a grade of at least C-: Computer Science 303E, 305J, 307, 312, 312H, 314, 314H, 315, 315H, Electrical Engineering 322C, or 422C.

## C S 429. Computer Organization and Architecture.

Restricted to computer science majors. 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. Four lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Computer Science 310, 310H, 429, 429H. Prerequisite: The following courses with a grade of at least C-: Computer Science 311, $311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## C S 329E. Topics in Elements of Computing.

Three lecture hours a week for one semester. May not be counted toward a degree in computer science. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor; additional prerequisites vary with the topic.

## C S 429H. Computer Organization and Architecture: Honors.

Restricted to computer science majors. 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. Four lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Computer Science 310, 310H, 429, 429H. Prerequisite: The following coursework with a grade of at least C - in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 314, 314H, 315, or 315 H ; and consent of the honors director.

C S 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## C S 329W. 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. Forty laboratory hours a week for one semester. The student must repeat the course each work period and must take it twice to receive credit toward the degree; at least one of these registrations must be during a long-session semester. However, no more than three semester hours may be counted toward the major requirement. The student's first registration must be on the pass/fail basis; the second must be on the letter-grade basis. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; 307, $314,314 \mathrm{H}, 315$, or $315 \mathrm{H} ; 310,310 \mathrm{H}, 429$, or 429 H ; and consent of the undergraduate adviser.

## C S 331. 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. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Computer Science 331, 331H, 357, 357H, 378 (Topic: Algorithms and Complexity). Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Computer Science 311, or 311 H , (or 313 H or 313K); Computer Science 314, or 314H, (or 307, 315, or 315H); Computer Science 429, or 429H, (or 310 or 310H); Mathematics 362K, or Statistics
and Data Sciences 321, (or Statistics and Scientific Computation 321); and credit with a grade of at least C - or registration for Mathematics 340 L , or Statistics and Data Sciences 329C, (or Statistics and Scientific Computation 329C).

## C S 331H. 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. Three lecture hours and one hour of discussion a week for one semester. Only one of the following may be counted: Computer Science 331, 331H, 357, 357H, 378 (Topic: Algorithms and Complexity). Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Computer Science 311, or 311H, (or 313H or 313K); Computer Science 314 , or 314 H , (or 307, 315, or 315H); Computer Science 429, or 429H, (or 310 or 310 H ); Mathematics 362 K , or Statistics and Data Sciences 321, (or Statistics and Scientific Computation 321); and credit with a grade of at least C- or registration for Mathematics 340L, or Statistics and Data Sciences 329C, (or Statistics and Scientific Computation 329C); and consent of the honors director.

## C S 234. 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. Two lecture hours a week for one semester. Computer Science 234 and 178 (Topic: Technical Writing) may not both be counted. May not be counted toward the number of hours in computer science required for the Bachelor of Science in Computer Science degree. Prerequisite: Computer Science 310, 310H, 429, or 429H with a grade of at least C-

## C S 337. 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. Three lecture hours and one discussion hour a week for one semester. Computer Science 337 and 337H may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429H; Computer Science 331 or 331H; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## C S 337H. 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. Three lecture hours and one discussion hour a week for one semester. Computer Science 337 and 337H may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, $311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429H; Computer Science 331, 331H, 341, $341 \mathrm{H}, 357$, or 357 H ; Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N ; and consent of the honors director.

## C S 439. Principles of Computer Systems.

Restricted to computer science majors. An introduction to low-level software abstractions with an emphasis on the connection of these abstractions to underlying computer hardware. Key abstractions include threads, dynamic memory allocation, protection, and IO. Requires writing of synchronized multithreaded programs. Four lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Computer Science 439, 439H, 352, 352H. Only one of the following may be counted: Computer Science 439, 439H, 372, 372H.

Prerequisite: Computer Science 310, 310H, 429, or 429H with a grade of at least C-.

## C S 439H. Principles of Computer Systems: Honors.

Restricted to computer science majors. An introduction to low-level software abstractions with an emphasis on the connection of these abstractions to underlying computer hardware. Key abstractions include threads, dynamic memory allocation, protection, and IO. Requires writing of synchronized multi-threaded programs. Four lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Computer Science 439, 439H, 352, 352H. Only one of the following may be counted: Computer Science 439, 439H, 372, 372H. Prerequisite: Computer Science 310, 310H, 429, or 429 H with a grade of at least C -; and consent of the honors director.

## C S 341. Automata Theory.

An introduction to the formal study of automata and of related formal languages with applications in computer science. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 341, 341H, Linguistics 340. Prerequisite: Computer Science 429 or 429 H with a grade of at least C-

## C S 341H. Automata Theory: Honors.

An introduction to the formal study of automata and of related formal languages with applications in computer science. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 341, 341H, Linguistics 340. Prerequisite: Computer Science 429 or 429 H with a grade of at least C-.

## C S 342. Neural Networks.

Biological information processing; architectures and algorithms for supervised learning, self-organization, reinforcement learning, and neuroevolution; hardware implementations and simulators; applications in engineering, artificial intelligence, and cognitive science. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science $311,311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, $310 \mathrm{H}, 429$, or 429 H ; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408N.

## C S 342C. 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. Three lecture hours a week for one semester Computer Science 342C and 378 (Topic: Computational Brain) may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C - in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307, $314,314 \mathrm{H}, 315$, or 315 H ; Computer Science 310, 310H, 429, or 429H; and Mathematics 362K or Statistics and Scientific Computation 321.

## C S 343. Artificial Intelligence.

A survey of current artificial intelligence issues, including search, production systems, knowledge representation, knowledge-based systems, planning, natural language processing, and machine learning. Artificial intelligence programming projects are required. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 343, 343H, 378H (Topic: Artificial Intelligence: Honors). Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, $310 \mathrm{H}, 429$, or 429 H ; and Mathematics 362 K or Statistics and Scientific Computation 321.

## C S 343H. 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 Al topics such as knowledge-based systems, planning, machine learning, probabilistic reasoning, intelligent agents (including for games), natural language processing, robotics, computer vision, and philosophical foundations. Programming projects are required. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 343, 343H, 378H (Topic: Artificial Intelligence: Honors). Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307, 314, 314H, 315, or 315H; Computer Science $310,310 \mathrm{H}, 429$ or 429 H ; Mathematics 362 K or Statistics and Scientific Computation 321; and consent of the honors director.

## C S 344M. 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. Three lecture hours a week for one semester. Computer Science 344M and 378 (Topic: Autonomous Multiagent Systems) may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, $311 \mathrm{H}, 313 \mathrm{~K}$, or 313 H ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429H; and Mathematics 362 K or Statistics and Scientific Computation 321.

## C S 344R. 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. Three lecture hours a week for one semester. Computer Science 344 R and 378 (Topic: Robotics) may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science $311,311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, $310 \mathrm{H}, 429$, or 429 H ; and Mathematics 362 K or Statistics and Scientific Computation 321.

## C S 345. 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. Three lecture hours a week for one semester. Computer Science 345 and 345 H may not both be counted. Prerequisite: The following coursework with a grade of at least C - in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307, $314,314 \mathrm{H}, 315$, or 315 H ; Computer Science $310,310 \mathrm{H}, 429$, or 429 H ; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## C S 345H. 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. Three lecture hours a week for one semester. Computer Science 345 and 345 H may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307,

314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429H; Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N ; and consent of the honors director.

## C S 346. Cryptography.

A theoretical introduction to cryptography. Subjects include private key cryptosystems, public key cryptosystems, digital signatures, secret sharing schemes, and the necessary mathematical background. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, $311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429H; Computer Science 331, $331 \mathrm{H}, 341,341 \mathrm{H}, 357$, or 357 H ; Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N ; and credit with a grade of at least C- or registration for Mathematics 340L or Statistics and Scientific Computation 329C.

## C S 347. Data Management.

Concepts of database design and database system implementation. Data models, query processing, database design theory, crash recovery, concurrent control, and distributed databases. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, $311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, $310 \mathrm{H}, 429$, or 429 H ; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## C S 349. 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. Three lecture hours a week for one semester. Computer Science 349 and 378 (Topic: Contemporary Issues in Computer Science) may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, $311 \mathrm{H}, 313 \mathrm{H}$, or 313K; Computer Science 307, 314, 314H, 315, or 315H; and Computer Science 310, 310H, 429, or 429H.

## C S 350C. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 350C, 352, 352 H . Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 307, $314,314 \mathrm{H}, 315$, or 315 H ; and Computer Science 439 or 439 H .

## C S 350F. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 350F, 372, 372H. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 307, 314, 314H, 315, or 315H; and Computer Science 439 or 439 H .

## C S 351. LISP and Symbolic Computation.

Subjects include symbolic computation for artificial intelligence, such as pattern-matching, unification, frames, flavors, semantic networks, deductive retrieval, rule-based and constraint-based inference.
Substantial programming projects in LISP. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; Computer

Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429 , or 429 H ; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## C S 353. Theory of Computation.

A survey of the theoretical bases of computation: computational complexity (including the classes $P$ and NP) and formal models of the semantics of programming languages. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429 , or 429 H ; Computer Science 331, 331H, 341, 341H, 357, or 357H; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## C S 354. 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. Three lecture hours a week for one semester. Prerequisite: The following courses with a grade of at least C-: Computer Science 429 or 429H; Computer Science 105 (Topic: Computer Programming: C++), 371P, 373, or 378 (Topic: Generic Programming in the STL); Mathematics 408D, 408M, or 427L; and Mathematics 340L, 341, or Statistics and Data Sciences 329C (or Statistics and Scientific Computation 329C).

## C S 354R. Game Technology.

An examination of major technological components of computer games and their integration, modeling and animation, physics simulation, networking for games, interface and interaction techniques, and special effects. Three lecture hours a week for one semester. Computer Science 354R and 378 (Topic: Game Technology) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Computer Science 354 with a grade of at least C-.

## C S 354S. 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. Three lecture hours a week for one semester. Computer Science 354S and 378 (Topic: Game Development Capstone: 2D Games) may not both be counted. Prerequisite: Computer Science 429 or 429 H with a grade of at least C -, and consent of instructor.

## C S 354T. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Computer Science 429 or 429 H with a grade of at least C -, and consent of instructor.

## C S 356. Computer Networks.

Introduction to computer networks, including common terminology, basic design issues, and types of networks and protocols. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429H; Computer Science 439, 439H, 352, $352 \mathrm{H}, 372$, or 372 H ; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## C S 356R. 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. Three lecture hours a week for one semester. Computer Science 356R and 378 (Topic: Introduction to Wireless Networks) may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Computer Science 311, $311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307 , $314,314 \mathrm{H}, 315$, or 315 H ; Computer Science 310, 310H, 429, or 429H; and Mathematics 408C, 408 K or 408 N .

## C S 361. 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. Three lecture hours a week for one semester. Computer Science 361 and 378 (Topic: Introduction to Security) may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science $311,311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, $314 \mathrm{H}, 315$, or 315 H ; Computer Science $310,310 \mathrm{H}, 429$, or 429 H ; and Mathematics 408C, 408 K , or 408 N .

## C S 361C. Information Assurance and Security.

Selected subjects from the broad area of information assurance, including computer security, communications security, operations security, and risk assessment. Three lecture hours a week for one semester. Computer Science 361C and 378 (Topic: Information Assurance and Security) may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307, 314, $314 \mathrm{H}, 315$, or 315 H ; Computer Science 310, 310H, 429, or 429H; and Mathematics 408C, 408 K , or 408 N .

## C S 361S. 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. Three lecture hours a week for one semester. Computer Science 361S and 378 (Topic: Network Security and Privacy) may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science $311,311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 310, 310H, 429, or 429H; Mathematics 408C, 408 K or 408 N ; and two of the following courses with a grade of at least Cin each: Computer Science 346, 356, 361, 375, and 439 or 439H.

## C S 363D. Introduction to Data Mining.

Introduction to the topic of data mining: data preprocessing regression, classification, clustering, dimensionality reduction, association analysis and anomaly detection. Three lecture hours a week for one semester. Computer Science 363D and 378 (Topic: Introduction to Data Mining) may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-in each: Computer Science $311,311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315 , or 315 H ; Computer Science $310,310 \mathrm{H}, 429$, or 429 H ; Mathematics 362K or Statistics and Scientific Computation 321; and Mathematics 340L or Statistics and Scientific Computation 329C.

## C S 367. 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. Three lecture hours a week for one semester. Only one of the following may
be counted: Computer Science 367, Mathematics 368K, Physics 329. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429H; Mathematics 408D, 408M, or 427L; and Mathematics 340L, 341, or Statistics and Scientific Computation 329C.

## C S 369. Systems Modeling.

Introduction to performance modeling, with emphasis on computer systems. Modeling methodology, queueing network models, simulation, analysis of results. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C - in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307, $314,314 \mathrm{H}, 315$, or 315 H ; Computer Science 310, 310H, 429, or 429H; and Mathematics 362 K or Statistics and Scientific Computation 321.

## C S 370. Undergraduate Reading and Research.

Supervised study of selected problems in computer science, by individual arrangement with supervising instructor. The equivalent of three lecture hours a week for one semester. No more than three semester hours may be counted toward a degree in computer science. Prerequisite: The following coursework with a grade of at least C - in each: Computer Science 311 , 311H, 313H, or 313 K ; Computer Science 307, 314, 314H, 315 , or 315 H ; Computer Science 310, 310H, 429, or 429H; Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N ; and consent of the undergraduate adviser.

## C S 371D. Distributed Computing.

Investigation of models, principles, and fundamental protocols, including event ordering and global predicate detection, atomic commit, statemachine replication, rollback recovery, primary backup, consensus for synchronous and asynchronous systems, and byzantine fault-tolerance. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C-in each: Computer Science 311, $311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429H; Computer Science 439, $439 \mathrm{H}, 352,352 \mathrm{H}, 372$, or 372 H ; and Mathematics 408 C , 408 K , or 408 N .

## C S 371M. Mobile Computing.

Overview of mobile computing. Emphasis on mobile application development. Use of mobile capabilities: sensors, location, telephony, and multimedia. Three lecture hours a week for one semester Computer Science 371 M and 378 (Topic: Mobile Computing) may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C - in each: Computer Science $311,311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315 , or 315 H ; Computer Science 310, 310H, 429, or 429H; Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N ; and credit with a grade of at least C- or registration for Computer Science 439 or 439 H .

## C S 371P. Object-Oriented Programming.

Programming using class derivation, inheritance, and dynamic polymorphism. Application of a simple object-oriented design methodology to several software development problems. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313 K ; Computer Science 307, 314, $314 \mathrm{H}, 315$, or 315 H ; Computer Science $310,310 \mathrm{H}, 429$, or 429 H ; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408N.

## C S 371R. 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. Three lecture hours a week for one semester. Computer Sciences 371R and 378 (Topic: Intelligent Information Retrieval and Web Search) may not
both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429 , or 429 H ; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## C S 371S. 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. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science $311,311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, $310 \mathrm{H}, 429$, or 429 H ; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## C S 373. Software Engineering.

Introduction to current knowledge, techniques, and theories in large software system design and development. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429 , or 429 H ; and Mathematics 408 C , 408 K , or 408 N .

## C S 373S. Software Design.

Examination of reflection, UML, metamodels and constraints, 3-tiered architectures, model-driven engineering, UML-to-source-code mappings, classical and ad hoc refactorings, event-based programming, design patterns, object-oriented frameworks and plug-ins, architectural styles, layered designs, map-reduce parallel software architecture, case studies, and service-oriented computing. Three lecture hours a week for one semester Computer Science 373S and 378 (Topic: Software Design) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Computer Science 373 with a grade of at least C-; and credit with a grade of at least C- or registration for Computer Science 347 or 375.

## C S 375. 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. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, $311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429H; and Mathematics 408C, 408 K , or 408 N ; Computer Science $439,439 \mathrm{H}, 352,352 \mathrm{H}, 372$, or 372 H is recommended.

## C S 376. 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. Three lecture hours a week for one semester. Computer Science 376 and 378 (Topic: Computer Vision) may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science $311,311 \mathrm{H}, 313 \mathrm{H}$, or 313 K ; Computer Science 307, 314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429H; Mathematics 340L or Statistics and Scientific Computation 329C; and Mathematics 362K or Statistics and Scientific Computation 321.

## C S 377. 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. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C - in each: Computer

Science 311, 311H, 313H, or 313K; Computer Science 314, 314H, 315, or 315 H ; Computer Science 310, 310H, 429, or 429H; Computer Science $439,439 \mathrm{H}, 352,352 \mathrm{H}, 372$, or 372 H ; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## C S 178, 378. Undergraduate Topics in Computer Science.

One or three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Computer Science $178,378,178 \mathrm{H}, 378 \mathrm{H}$. Some sections offered on the credit/no credit basis only. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

## C S 178H, 378H. Undergraduate Topics in Computer Science: Honors.

For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted unless the topics vary: Computer Science 178, 378, 178H, 378H. Some sections offered on the pass/fail basis only. May be repeated for credit when the topics vary. Prerequisite: The following coursework with a grade of at least C-in each: Computer Science 311, 311H, 313K, or 313H; 307, 314, 314H, 315, or 315 H ; and $310,310 \mathrm{H}, 429$, or 429 H .

## C S 379H. Computer Science Honors Thesis.

Directed reading, research, and/or projects in areas of computer science, under supervision of a faculty member, leading to an honors thesis. The thesis must be approved by a committee of three readers. The equivalent of three lecture hours a week for one semester, by arrangement with a faculty member. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, 311H, 313H, or 313K; Computer Science 314, 314H, 315, or 315H; Computer Science 310, 310H, 429, or 429 H ; Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N ; nine additional semester hours of upper-division coursework in computer science; and consent of the student's research supervisor and the departmental honors adviser.

## School of Human Ecology

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Human Development and Family Sciences: HDF

## Lower-Division Courses

HDF 304 (TCCN: TECA 1303). Family Relationships.
Same as Women's and Gender Studies 301 (Topic 4: Family Relationships). The process of family interaction over the life cycle. Application of research findings to the understanding of relationships. Only one of the following may be counted: Human Development and Family Sciences 304, 304H, Women's and Gender Studies 301 (Topic 4).

## HDF 304H. Family Relationships: Honors.

The process of family interaction over the life cycle. Application of research findings to the understanding of relationships. Three lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 304, 304H, Women's and Gender Studies 301 (Topic 4). Offered on the letter-grade basis only. Prerequisite: Consent of the department.

## HDF 312. Family Resource Management.

Management concepts and theory in resource allocation used to meet family and life demands. Three lecture hours a week for one semester.

Prerequisite: Credit or registration for Human Development and Family Sciences 304.

## HDF 313 (TCCN: TECA 1354). Child Development.

Same as Women's and Gender Studies 313. Motor, language, cognitive, social, and emotional development in the family context. Three lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 313, 313H, Women's and Gender Studies 301 (Topic 5), 313. Prerequisite: Credit or registration for Human Development and Family Sciences 113L, and Psychology 301 with grade of at least C -

## HDF 313H. Child Development: Honors.

Motor, language, social, and emotional development of children in the family context, with an emphasis on research findings and evaluations. Three lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 313, 313H, Women's and Gender Studies 301 (Topic 5: Child Development). Offered on the letter-grade basis only. Prerequisite: Psychology 301 with a grade of at least B-, credit or registration for Human Development and Family Sciences 113L, and consent of the department.

## HDF 113L. Child Development Laboratory.

Students observe children at the University Child and Family Laboratory and relate their observations to the issues discussed in Human Development and Family Sciences 313 and 313H. One and one-half laboratory hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C - and credit or registration for Human Development and Family Sciences 313 or 313H.

## HDF 315L. Research Methods in Human Development and Family Sciences.

Survey of research methods, including observational and experimental techniques. Three lecture hours a week for one semester. Prerequisite: Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302); credit or registration for Human Development and Family Sciences 304, 313, 113L.

HDF 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

HDF 322. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

HDF 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## HDF 335. Adult Development.

Adulthood and the development, changes, and maturation that occurs, including the impact of relationships in adulthood. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Human Development and Family Sciences 313 and 113L.

## HDF 337. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and Human Development and Family Sciences 304 and 315L with a grade of at least C- in each.

## HDF 338. 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. Three lecture hours a week for one semester, with an additional three to six hours of fieldwork sometime during the semester. Prerequisite: Upper-division standing; and Human Development and Family Sciences 313 and 113L, or Psychology 304.

## HDF 340. Ethical, Philosophical, and Professional Development Issues.

Restricted to human development and family sciences majors. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Human Development and Family Sciences 312 with a grade of at least C -

## HDF 342. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 339, 342, Psychology 339. Prerequisite: Upper-division standing; Human Development and Family Sciences 313 and 113L.

## HDF 343. 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. Three lecture hours a week for one semester. Human Development and Family Sciences 343 and 378K (Topic: Child Development in Minority and Immigrant Families) may not both be counted. Prerequisite: Upper-division standing and Human Development and Family Sciences 313, 113L, and 315L with a grade of at least C- in each.

## HDF 345. Peer Relationships.

Children's peer relationships from toddlerhood to adolescence. Three lecture hours a week for one semester. Human Development and Family Sciences 345 and 378 K (Topic: Peer Relationships) may not both be
counted. Prerequisite: Upper-division standing; and Human Development and Family Sciences 313, 113L, and 315L with a grade of at least C- in each.

## HDF 347. Socioeconomic Problems of Families.

An analysis of socioeconomic factors affecting the economic wellbeing of families and individuals. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and six semester hours of coursework in anthropology, economics, education, human development and family sciences, psychology, social work, or sociology.

## HDF 351. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Human Development and Family Sciences 313, 113L, and 315L with a grade of at least $C$ - in each.

## HDF 352. Field Experience: Community.

Practicum in applied settings concerning human development and family sciences. One lecture hour and ten to twelve hours of fieldwork a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.00; the following coursework with a grade of at least C- in each course: Human Development and Family Sciences $304,313,113 L$, and 315L, Mathematics 408C or 408N, Psychology 301, and Statistics and Scientific Computation 302; Human Development and Family Sciences 312 and 340; nine additional semester hours of upper-division coursework in human development and family sciences; six semester hours of coursework from the list of approved supporting courses available from the School of Human Ecology; and consent of instructor. Admission by application only, filed with the Department of Human Development and Family Sciences by May 1 for enrollment in the following spring semester, or by December 1 for enrollment in the following fall semester.

## HDF 652F. Field Practicum: Community.

Designed for students in their last semester. Practicum in settings concerning human development and family sciences. One lecture hour and at least twenty laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.00; the following coursework with a grade of at least C - in each course: Human Development and Family Sciences 304, 313, 113L, and 315L, Mathematics 408C or 408N, Psychology 301, and Statistics and Scientific Computation 302; Human Development and Family Sciences 312 and 340; nine additional semester hours of upper-division coursework in human development and family sciences; six semester hours of coursework from the list of approved supporting courses available from the School of Human Ecology; and consent of instructor. Admission by application only, filed with the Department of Human Development and Family Sciences by May 1 for enrollment in the following spring semester, or by December 1 for enrollment in the following fall semester.

## HDF 352L. 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. One lecture hour and ten to twelve hours of fieldwork a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.00; the following coursework with a grade of at least C- in each course: Human Development and Family Sciences 304, 313, 113L, and 315L, Mathematics 408C or 408N, Psychology 301, and Statistics
and Scientific Computation 302; Human Development and Family Sciences 312, 338, 340, and 366; three additional semester hours of upper-division coursework in human development and family sciences; six semester hours of coursework from the list of approved supporting courses available from the School of Human Ecology; and consent of instructor. Admission by application only, filed with the Department of Human Development and Family Sciences by May 1 for enrollment in the following spring semester, or by December 1 for enrollment in the following fall semester.

## HDF 652P. Field Practicum: Early Childhood.

Designed for students in their last semester. 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. One lecture hour and at least twenty laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.00 ; the following coursework with a grade of at least C- in each course: Human Development and Family Sciences 304, 313, 113L, and 315L, Mathematics 408C or 408N, Psychology 301, and Statistics and Scientific Computation 302; Human Development and Family Sciences $312,338,340$, and 366 ; three additional semester hours of upper-division coursework in human development and family sciences; six semester hours of coursework from the list of approved supporting courses available from the School of Human Ecology; and consent of instructor. Admission by application only, filed with the Department of Human Development and Family Sciences by May 1 for enrollment in the following spring semester, or by December 1 for enrollment in the following fall semester.

## HDF 354. Advanced Personal Financial Planning.

Overview from the individual and family perspectives of financial planning and decision-making with regard to home ownership, tax planning, investment alternatives, retirement planning, and estate transfer. Includes application of knowledge to hypothetical situations and case studies. Three lecture hours a week for one semester. Prerequisite: Human Development and Family Sciences 322 with a grade of at least C-.

## HDF 355. Problems Course: Research Practicum.

Intensive study of selected problems of a transdisciplinary nature. One lecture hour and nine research hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.00; the following coursework with a grade of at least C-in each course: Human Development and Family Sciences 304, 313, 113L, and 315L, Mathematics 408C or 408N, Psychology 301, and Statistics and Scientific Computation 302; and consent of instructor. Admission by application only, filed with the Department of Human Development and Family Sciences by May 1 for enrollment in the following spring semester, or by December 1 for enrollment in the following fall semester; or consent of instructor. For nonmajors, the application process and prerequisites may be waived by consent of instructor.

## Topic 1: Research in Human Development and Family Sciences.

Offered on the letter-grade basis only.

## HDF 355H. Problems Course: Honors.

Intensive study of selected research problems. One lecture hour and nine research hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade-point average of at least 3.00; Human Development and Family Sciences 315L with a grade of at least B-; Mathematics 316, Statistics and Scientific Computation 303, 304, 305, or 306 with a grade of at least $B$-; and consent of the department.

## HDF 356. The Evolution of Relationships.

Reviews the scientific literature on the evolution and function of adult romantic relationships. Three lecture hours a week for one semester. Prerequisite: Human Development and Family Sciences 304 or 304H.

## HDF 358. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Human Development and Family Sciences $313,113 \mathrm{~L}$, and 315 L with a grade of at least C - in each.

## HDF 360. Methods of Family Life Education.

An examination, integrating theory and applied knowledge, of the best practices for working with families. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Human Development and Family Sciences 304 and 315L with a grade of at least C- in each.

## HDF 362. 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. Three lecture hours a week for one semester. Prerequisite: Six semester hours of upper-division coursework in human development and family sciences, anthropology, education, psychology, sociology, or social work.

## HDF 466. Guidance in Adult-Child Relationships.

Same as Women's and Gender Studies 466. Theory and implementation of positive child and adult interactions, communication, and guidance strategies. Two lecture hours and four laboratory hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 466, Women's and Gender Studies 345 (Topic 4: Guidance in Adult-Child Relationships), 466. Prerequisite: Human Development and Family Sciences 313 and 113L; and three semester hours of upper-division coursework in human development and family sciences, education, psychology, or sociology.

## HDF 371. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Human Development and Family Sciences 313, 113L, and 315 L with a grade of at least C - in each.

## HDF 372K. Families in Transition.

Analysis of interaction, transitions, and crises over the family life span. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and the following courses with a grade of at least C - in each: Human Development and Family Sciences 304 or 304H, and 315L and 337.

## HDF 375. Economic Issues of the Family.

Economic issues experienced by families through the various stages of the life span. Three lecture hours a week for one semester. Prerequisite: Human Development and Family Sciences 304, and 312 or 322.

## HDF 378K. Advanced Child and Family Development.

Concepts, theories, and issues in human development and family sciences. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upperdivision coursework in human development and family sciences (or child development), anthropology, education, psychology, sociology, or social work, and consent of instructor.

Topic 5: Media and the Family.

Topic 6: Introduction to Early Childhood Intervention.
Topic 8: Advanced Early Childhood Intervention. Additional prerequisite: Human Development and Family Sciences 378K (Topic 6).

## HDF 378L. Theories of Child and Family Development.

Study and analysis of major theories in human and family development. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; Human Development and Family Sciences 313, 113L, and 315L with a grade of at least C - in each; and three additional semester hours of upper-division coursework in human development and family sciences with a grade of at least $C$ - in each course.

## HDF 379H. 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. Conference course. May be repeated once for credit. Prerequisite: Upper-division standing, a University grade point average of at least 3.00 , admission to the human development and family sciences honors program, and consent of the honors adviser. Name of honors adviser and application procedure are available in the division office.

## Human Ecology: H E

## Lower-Division Courses

## H E 115H. Freshman Honors Seminar.

Research presentations by students, faculty, and invited scientists on current issues in human ecology, human development and family sciences, and nutrition. One lecture hour a week for one semester. Prerequisite: Admission to the honors degree option in human development and family sciences or nutrition; three semester hours of honors-designated coursework in chemistry, biology, or mathematics with a grade of at least B-; and Human Development and Family Sciences 313 and 113L, or Nutrition 312 and 112L, with a grade of at least B- in each course.

## Upper-Division Courses

## H E 225H. Sophomore Honors Seminar.

Students plan, conduct, write, and present research on a current topic in human ecology. Two lecture hours a week for one semester. Prerequisite: Six semester hours of honors-designated coursework in chemistry, biology, or mathematics; concurrent enrollment in a course chosen from a list maintained in the departmental office; and consent of instructor and the departmental honors adviser.

## H E 355. Problems Course.

Intensive study of selected problems of a transdisciplinary nature. The equivalent of three lecture hours a week for one semester. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Research in Family Economics.

## Nutrition: NTR

## Lower-Division Courses

NTR 306 (TCCN: BIOL 1322, HECO 1322). Fundamentals of Nutrition.
Essential food components and their functions in life processes. Three lecture hours a week for one semester. Only one of the following may be counted: Nutrition 306, 312, 312H. Nutrition 306 may not be counted toward a nutritional sciences degree.

## NTR 307. Introductory Food Science.

Application of the principles of food chemistry to processing and preparation techniques. Three lecture hours a week for one semester. Prerequisite: For nutrition majors: Nutrition 312 or 312 H with a grade of at least C-, and credit or registration for 107L; for others: Nutrition 306, 312, or 312 H with a grade of at least C-

## NTR 107L. Introductory Food Science Laboratory.

Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 307.

## NTR 312. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Nutrition 306, 312, 312H. Prerequisite: Chemistry 301 with a grade of at least C-; credit or registration for Biology 311C and Chemistry 302; and one of the following with a grade of at least C-: Mathematics 408C, 408D, 408N, Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 304 (or Statistics and Scientific Computation 304), 306 (or Statistics and Scientific Computation 306), 325H (or Statistics and Scientific Computation 325H), or 328M (or Statistics and Scientific Computation 328M).

## NTR 312H. Introduction to Nutritional Sciences: Honors.

Restricted to honors eligible majors in nutritional sciences, biology, biochemistry, and students in the Dean's Scholars Honors Program. Biochemical, molecular, and cellular functions of nutrients with emphasis on primary scientific literature and current methodology. Three lecture hours a week for one semester. Only one of the following may be counted: Nutrition 306, 311, 312, 312H. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 301 or 301 H ; and Mathematics 408 C or 408 n , or the equivalent; and credit or registration for Biology 311C or 315H, and Chemistry 302 or 302 H .

## NTR 112L. Introduction to Nutritional Science Laboratory.

Collection and evaluation of dietary intake data, nutrient composition of food, and survey of dietetic practice. Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 312.

## NTR 312R. Research in Nutritional Sciences.

Restricted to honors eligible majors in nutritional sciences, biology, biochemistry, and students in the Dean's Scholars Honors Program. 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. One lecture hour and six laboratory hours a week for one semester. Nutrition 112L and 312R may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 301 or 301 H ; and Mathematics 408C or 408 N , or the equivalent; and credit or registration for Biology 311C or 315 H , Chemistry 302 or 302 H , and Nutrition 312H.

## NTR 315. Nutrition through the Life Cycle.

Adapting nutrition recommendations to physiological changes throughout the life span. Three lecture hours a week for one semester. Prerequisite: Nutrition 306,312 , or 312 H with a grade of at least C-.

## NTR 316. Culture and Food.

Influence of culture on foodways around the world. Three lecture hours a week for one semester. Prerequisite: Nutrition 306, 312, or 312 H with a grade of at least C-.

## NTR 218. 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. Two lecture hours a week for one semester. Nutrition 218 and 318 may not both be counted. Prerequisite: Nutrition 312 and 112 L , or 312 H and 312 R with a grade of at least C - in each; and credit or registration for Nutrition 118L.

## NTR 118L. Assessment of Nutritional Status Laboratory.

Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 218.

NTR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## NTR 321. 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. Three lecture hours a week for one semester. Prerequisite: Nutrition 306, 312, or 312 H with a grade of at least C-

## NTR 324. Advanced Food Science.

Application of the principles of food chemistry to the development of food products. Three lecture hours a week for one semester. Offered in the spring semester only. Prerequisite: Chemistry 320M, Nutrition 307, 107L, and 326 with a grade of at least C- in each; and credit or registration for Nutrition 124L.

## NTR 124L. Advanced Food Science Laboratory.

Individual research project on food product development and evaluation. Three laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Credit or registration for Nutrition 324.

## NTR 326. Cellular and Molecular Nutrition.

Integration of nutrition, genetics, cell biology, and molecular biology. Focuses on the cellular and molecular basis of nutrition-related diseases and nutrient-gene interactions. Three lecture hours and one discussion hour a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each course: Biology 311C, and Nutrition 312 or 312 H ; and credit or registration for Chemistry 320M, and Nutrition 112L or 312R.

## NTR 126L. Nutritional Sciences Laboratory.

Basic laboratory techniques in nutritional sciences. Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 326.

NTR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## NTR 330. Nutrition Education and Counseling.

Application of counseling and learning theories to the care of individuals and groups in community and clinical settings. Three lecture hours and one additional class hour a week for one semester. Prerequisite: Nutrition 315 and 326 with a grade of at least C- in each.

## NTR 331. 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. Three lecture hours a week for one semester. Nutrition 331 and 360 (Topic: International Nutrition: Social and Environmental Policies) may not both be counted. Prerequisite: Upperdivision standing, and Nutrition 306, 312, or 312 H with a grade of at least C-

## NTR 332. Community Nutrition.

National and international issues in public health and nutrition programs. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each course: Nutrition 312 or 312 H ; 315; and 326.

## NTR 334. Foodservice Systems Management.

Procurement, production, and service delivery in foodservice systems. Three lecture hours a week for one semester. Prerequisite: For nutrition majors: Nutrition 307, 107L, and 326 with a grade of at least C- in each, and credit or registration for Nutrition 234L; for others: Nutrition 307 with a grade of at least C -, and one of the following with a grade of at least C -: Nutrition 306, 312, or 312H.

## NTR 234L. Laboratory in Foodservice Systems.

Six laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 334.

## NTR 337. 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. Three lecture hours per week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C- or registration for Nutrition 312H or 326, and one of the following with a grade of at least C-: Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 304 (or Statistics and Scientific Computation 304), 306 (or Statistics and Scientific Computation 306), 325H (or Statistics and Scientific Computation 325H), or 328M (or Statistics and Scientific Computation 328M).

## NTR 338H. Issues in Nutrition and Health: Honors.

Restricted to honors majors in biology, biochemistry, and nutritional sciences, and students in the Dean's Scholars honors program. 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. Three lecture hours a week for one semester. Nutrition 338 H and 338 W may not both be counted. Prerequisite: Biology 325 or 325H; Nutrition 312H and 312R; one of the following: Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), or 325H (or Statistics and Scientific

Computation 325 H ); and credit or registration for Biology 365S and Chemistry 369, or Chemistry 339K and 339L.

## NTR 338W. Issues in Nutrition and Health.

Identifying, reading, analyzing, writing, and presenting scientific research on selected topics in nutrition and human health. Three lecture hours a week for one semester. Nutrition 338 H and 338 W may not both be counted. Prerequisite: The following with a grade of at least C-: Biochemistry 369 (or Chemistry 369), or Biochemistry 339F (or Chemistry 339 K and 339L); Biology 325 and 365S (or 416L); Nutrition 312H or 326; and one of the following with a grade of at least C-: Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 304 (or Statistics and Scientific Computation 304), 306 (or Statistics and Scientific Computation 306), 325H (or Statistics and Scientific Computation 325H), or 328M (or Statistics and Scientific Computation 328M).

## NTR 342. Advanced Nutritional Sciences.

Biochemical and molecular biological aspects of carbohydrate, fat, and amino acid metabolism. Three lecture hours and one discussion hour a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each course: Biology 325 and 365S (or 416L), Chemistry 369, or 339K and 339L, and Nutrition 326.

## NTR 144M. Advanced Nutrition II Laboratory.

Advanced laboratory techniques in nutrition assessment and research. Three laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Concurrent enrollment in Nutrition 344 or consent of instructor.

## NTR 245C. Clinical Practice in Medical Nutrition Therapy I.

Application of principles of medical nutrition therapy to the care of clients in the practice setting. Nine hours of supervised practice a week for one semester. Prerequisite: Nutrition 370 with a grade of at least C-, credit or registration for Nutrition 371, and admission to the Coordinated Program in Dietetics.

## NTR 345M. Clinical Practice in Medical Nutrition Therapy II.

Application of principles of medical nutrition therapy to the care of patients in health care facilities. Forty hours of supervised practice a week for four weeks. Prerequisite: Nutrition 245C and 371 with a grade of at least C- in each. Students must register for Nutrition 372C in the same semester.

## NTR 152, 252, 352. Field Experience in Nutrition.

For each semester hour of credit earned, three field placement hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Approval of application for field experience. Applications are available in the department office.

## NTR 353. 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. Five lecture hours and ten field hours a week for five weeks. Prerequisite: Nutrition 306, 312, or 312H with a grade of at least C-; and approval of an application to study abroad.

## NTR 155, 255, 355, 455. Undergraduate Research in Nutrition.

Supervised individual undergraduate research in nutrition. For each semester hour of credit earned, at least three laboratory hours a week for one semester. May be repeated for credit, but no more than four semester hours may be counted toward a degree in nutrition. Any additional hours must be taken on the pass/fail basis. Nutrition 355 and 355 H may not both be counted. Prerequisite: Consent of instructor.

## NTR 355H. Honors Research.

Restricted to honors eligible majors in nutritional sciences, biology, biochemistry, and students in the Dean's Scholars Honors Program. 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. Nutrition 355 and 355 H may not both be counted. May be repeated for credit, but no more than nine semester hours may be counted toward the major in nutrition. Any additional hours must be taken on the pass/fail basis. Prerequisite: Biology 325 or 325 H ; Nutrition 312H and 312R; and approval of research supervisor.

## NTR 355M. 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. Three lecture hours and four hours of supervised practice a week for one semester. Prerequisite: Accounting 310F or 311, and Nutrition 334 and 234L, with a grade of at least $C$ - in each.

## NTR 360. Selected Topics in Applied Nutrition.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## NTR 162. Standards, Ethics, and Credentialing for Dietetic Practice.

Identification of standards and discussion of current issues in ethics and credentialing for dietetics practice. One lecture hour a week for one semester. Prerequisite: Credit or registration for Nutrition 218 and 118L.

## NTR 365. Selected Topics in Nutritional Sciences.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Vitamins and Minerals. Biomedical, cellular and molecular, and clinical aspects of vitamins, minerals, and water. Nutrition 344 and 365 (Topic 1) may not both be counted. Prerequisite: Biology 325, 365S (or 416L), and Nutrition 342, with a grade of at least C- in each.
Topic 2: Nutrition and Genes. Interactions between nutrients and gene expression, including heredity, gene regulation, metabolic disease, developmental abnormalities, and molecular techniques. Prerequisite: Biology 325, 365S (or 416L), and Nutrition 342, with a grade of at least C- in each.
Topic 4: Obesity and Metabolic Health. Examines the prevalence, prevention, and treatment of adult and childhood obesity, and the metabolic disorders related to obesity. Offered on the letter-grade basis only. Additional prerequisite: Biology 365S, and Nutrition 312 or 312 H with a grade of at least C-

## NTR 366L. 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. One lecture hour and six laboratory hours a week for one semester. Prerequisite: Nutrition 126L with a grade of at least C-

## NTR 167. Undergraduate Seminar in Nutritional Sciences.

One lecture hour a week for one semester. Prerequisite: Upper-division standing.

## NTR 370. Medical Nutrition Therapy I.

The role of nutrition in prevention and treatment of chronic disease such as diabetes and heart disease. Three lecture hours a week for one
semester. Prerequisite: The following coursework with a grade of at least C- in each course: Nutrition 326, Biology 325 or Nutrition 218 and 118L; and credit with a grade of at least C- or registration for Biology 365S (or credit for 416 L ) and Chemistry 369.

## NTR 371. Medical Nutrition Therapy II.

Nutritional care of critically ill patients, including techniques of nutrition support. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each course: Nutrition 326 , Biology 325 or Nutrition 218 and 118L; and credit with a grade of at least C- or registration for Biology 365S (or credit for 416L) and Chemistry 369.

## NTR 372C. Practicum in Clinical Dietetics.

Supervised practice in health care facilities. Forty hours of supervised practice a week for four weeks. Prerequisite: Admission to the Coordinated Program in Dietetics. Students must register for Nutrition 345M in the same semester.

## NTR 372F. Practicum in Food Services Systems Management.

Supervised practice in food service facilities. Forty hours of supervised practice a week for four weeks. Prerequisite: Nutrition 245C and 355M with a grade of at least $C$ - in each, and admission to the Coordinated Program in Dietetics. Students must register for Nutrition 373S in the same semester.

## NTR 373S. Practicum in Dietetic Administration.

Supervised practice in the administration of food and nutrition programs. Forty hours of supervised practice a week for three weeks. Prerequisite: Admission to the Coordinated Program in Dietetics. Students must register for Nutrition 372F in the same semester.

## NTR 374C. Practicum in Community Dietetics.

Supervised practice in one or more community-based nutrition programs. Forty hours of supervised practice a week for five weeks. Prerequisite: Nutrition 345M, 372C, 372F, and 373S with a grade of at least C- in each; and admission to the Coordinated Program in Dietetics.

## NTR 374P. Advanced Practicum in Dietetics.

Culminating experience in the practice of administrative, clinical, or community dietetics. Forty hours of supervised practice a week for five weeks. Prerequisite: Nutrition 345M, 372C, 372F, and 373S with a grade of at least C-in each; and admission to the Coordinated Program in Dietetics.

## NTR 379H. 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. Conference course. May be repeated once for credit. Prerequisite: Consent of the student's research supervisor and the departmental honors adviser.

## Textiles and Apparel: TXA Lower-Division Courses

## TXA 301. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

## TXA 103, 203, 303. Topics in Textiles and Apparel.

For each semester hour of credit earned, the equivalent of one hour a week for one semester. May be repeated for credit when the topics vary.

## TXA 205. Textiles.

Chemical and physical properties of fibers and yarns, fabric construction, and finishes. Two lecture hours a week for one semester. Prerequisite: Credit or registration for Textiles and Apparel 105L.

## TXA 105L. Textiles Laboratory.

Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Textiles and Apparel 205.

## TXA 212K. Apparel Industry.

Introduction to the integrated apparel design industry from the creative and merchandising perspective. Two lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Textiles and Apparel 212L; and the following coursework with a grade of at least C- in each course: Textiles and Apparel 316L or 316Q; and 319, or 219 C and 119 L .

## TXA 212L. Apparel Product Development and Design Laboratory.

Six laboratory hours a week for one semester. Prerequisite: Credit or registration for Textiles and Apparel 212K.

TXA 313. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

## TXA 214K. Product Development.

Introduction to all stages of product development involved in fashion and functional design. Emphasis on target market identification, cost analysis, material selection, and the organization of product development within the industry structure. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Concurrent registration for Textiles and Apparel 214L.

## TXA 214L. 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. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Concurrent registration for Textiles and Apparel 214K.

## TXA 315K. Field Experience I.

Application of merchandising strategic planning in a professional environment with faculty and site director supervision. At least 154 hours of supervised fieldwork for one semester. Prerequisite: Admission to the Retail Merchandising Internship Program.

## TXA 316L. Apparel I.

Industrial techniques of pattern design and garment construction. One lecture hour and six laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C - or registration for Textiles and Apparel 319, or 219C and 119L.

## TXA 316Q. Sewn Products Analysis.

Evaluation of soft goods, including materials, quality of work, and costs. Three lecture hours a week for one semester. Prerequisite: Textiles and Apparel 205 and 105 L with a grade of at least C - in each.

## TXA 219C. Applied Art in Visual Presentation.

Introduction to the principles and elements of design as related to merchandising presentation, display planning, execution, and coordination. Two lecture hours a week for one semester. Students with credit for Textiles and Apparel 319 may not earn credit for Textiles and Apparel 219C or 119L.

## TXA 119L. Applied Art in Visual Presentation Laboratory.

Application of the principles and elements of design as related to merchandise presentation, display planning, execution, and coordination. Three laboratory hours a week for one semester. Students with credit for Textiles and Apparel 319 may not earn credit for Textiles and Apparel 119L. Prerequisite: Credit with a grade of at least C- or registration for Textiles and Apparel 219C.

TXA 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## TXA 325K. Culture, Gender, and Appearance.

Social, economic, aesthetic, and political aspects of historic costume and of the evolution of modern dress. Three lecture hours a week for one semester. Prerequisite: Textiles and Apparel 219C and 119L with a grade of at least C- in each, or Art History 301.

## TXA 325L. History of Dress and Cultural Change I.

Social, economic, aesthetic, and political aspects of costume evolution from ancient times through the Renaissance. Three lecture hours a week for one semester. Textiles and Apparel 325K and 325L may not both be counted. Prerequisite: Upper-division standing.

## TXA 325M. History of Dress and Cultural Change II.

Social, economic, aesthetic, and political aspects of costume evolution from the Baroque period through modern times. Three lecture hours a week for one semester. Textiles and Apparel 325 K and 325 M may not both be counted. Prerequisite: Upper-division standing.

## TXA 126. Apparel II.

Advanced apparel construction techniques using industry standards and portfolio development. One lecture hour a week for one semester. Prerequisite: Textiles and Apparel 316L with a grade of at least C- and credit or registration for Textiles and Apparel 226L.

## TXA 226L. Apparel II Laboratory.

Advanced apparel construction techniques using industry standards and portfolio development. Six laboratory hours a week for one semester. Prerequisite: Credit or registration for Textiles and Apparel 126.

## TXA 327. Clothing and Human Behavior.

The social, psychological, and nonverbal significance of clothing and the influence of clothing on behavior. Three lecture hours a week for
one semester. Prerequisite: Three semester hours of coursework in psychology, sociology, or the School of Human Ecology.

## TXA 328. Research Methods in Textiles and Apparel.

Basic research methodology and academic writing. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, completion of an introductory statistics course, and Textiles and Apparel 205 and 105 L with a grade of at least C- in each.

TXA 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## TXA 331. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

## TXA 350. 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. The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upperdivision standing; Textiles and Apparel 164K (Topic 1) and 264L (Topic 1); and admission to the Apparel Design Internship Program.

## TXA 151. 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. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Textiles and Apparel 301, 205, 105L, 214K, 214L, 316Q, 219C, 119L, and 376.

## TXA 352C, 652C. Field Experience in Textile Conservation.

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. For Textiles and Apparel 352C, a minimum of 150 hours of supervised fieldwork for one semester. For Textiles and Apparel 652C, a minimum of 225 hours of supervised
fieldwork for one semester. Prerequisite: Upper-division standing; and Admission to the Conservation Certificate Program, or Textiles and Apparel 219C, 119L, 354C, 354D, 354E, 354F, and 355D, and admission to the Conservation Internship Program for Conservation Science, Option IV major.

## TXA 352D. Field Experience in Apparel Design.

Application of apparel design techniques and principles in a professional environment. At least 154 hours of fieldwork for one semester. Prerequisite: Admission to the Apparel Design Internship Program, and Textiles and Apparel 164K (Topic 1: Flat Pattern) and 264L (Topic 1: Flat Pattern) with a grade of at least C - in each.

## TXA 352M. Field Experience in Retail Merchandising.

Application of merchandising techniques and principles in a professional environment. At least 154 hours of supervised fieldwork for one semester. Prerequisite: Admission to the Retail Merchandising Internship Program.

## TXA 354C. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Chemistry 320M, Textiles and Apparel 260L, and 260M.

## TXA 354D. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Chemistry 320M, Textiles and Apparel 260L, and 260M.

## TXA 354E. 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. One lecture hour and four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Chemistry 320M, Textiles and Apparel 354C, 354D, 260L, and 260M.

## TXA 354F. 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. This course serves as a pre-internship/capstone course for conservation science majors. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Textiles and Apparel 325L, 325M, and 355D.

## TXA 155, 355. Problems Course.

Intensive study of selected problems of an interdisciplinary nature. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

## TXA 355C. Computer-Aided Design for Apparel.

Computer technology used to create textile prints, weaves, illustrations, flat patterns, promotional pieces, and pattern markers. One lecture hour and six laboratory hours a week for one semester. Prerequisite: Textiles and Apparel 205 and 105L with a grade of at least C-in each; and credit with a grade of at least C- or registration for Textiles and Apparel 164K (Topic 1: Flat Pattern) and 264L (Topic 1: Flat Pattern).

TXA 355D. Textiles Artifact Management and Conservation.
Principles and techniques in the identification, documentation, conservation, and exhibition of textile-based artifacts. Six laboratory hours a week for one semester. Prerequisite: Textiles and Apparel 325M.

## TXA 355K. Textile and Apparel Economics.

Economic and regulatory aspects of the textile and apparel industries. Three lecture hours a week for one semester. Prerequisite: Textiles and Apparel 205 and 105L with a grade of at least C-in each, and Economics 304 K and 304 L with a grade of at least C-in each.

## TXA 355N. History of Textiles.

Role of textiles in the social, economic, aesthetic, and technological development of society; including production and design of textiles throughout history. Three lecture hours a week for one semester. Prerequisite: Textiles and Apparel 205 and 105L and three semester hours of coursework in art history, with a grade of at least $C$ - in each course.

## TXA 355P. Problems in Retail Merchandising.

Intensive study of selected problems related to field experience; development of analytical and problem-solving skills for retailing. At least 154 hours of supervised fieldwork for one semester. Prerequisite: Admission to the Retail Merchandising Internship Program.

## TXA 359H. Honors Reading Course.

Supervised individual reading on special subjects. Conference course. Prerequisite: Upper-division standing, a University grade point average of at least 3.00 , and consent of the undergraduate adviser.

## TXA 260L. Advanced Textiles.

Composition, structure, and properties of textile products; contributions of textile research. Two lecture hours a week for one semester. Prerequisite: Textiles and Apparel 205 and 105L; Chemistry 301, 302, and 204; six semester hours of upper-division coursework in textiles and apparel with a grade of at least $C$ - in each course; and credit with a grade of at least Cor registration for Textiles and Apparel 260M.

## TXA 260M. Advanced Textiles Laboratory.

Analysis and evaluation of textile performance. Six laboratory hours a week for one semester. Prerequisite: Credit or registration for Textiles and Apparel 260L.

## TXA 361. 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. Three lecture hours a week for one semester. Human Ecology 361 and Textiles and Apparel 361 may not both be counted. Prerequisite: Upper-division standing and three semester hours of coursework in economics.

## TXA 164K. Advanced Problems in Clothing.

Creative application of flat pattern or draping processes. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Textiles and Apparel 212K, 212L, 316L, 126, and 226L, with
a grade of at least C - in each; and credit with a grade of at least C - or registration for the same topic of Textiles and Apparel 264L.

Topic 1: Flat Pattern.
Topic 2: Draping.
Topic 3: Advanced Apparel Design.

## TXA 264L. Advanced Problems in Apparel Laboratory.

Six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Credit with a grade of at least C- or registration for the same topic of Textiles and Apparel 164K.

Topic 1: Flat Pattern.
Topic 2: Draping.
Topic 3: Advanced Apparel Design.
TXA 165, 265, 365. Advanced Topics in Textiles and Apparel.
For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing. Additional prerequisites vary with the topic.

## TXA 376. Principles of Retail Merchandising.

Retail strategic planning and implementation for soft goods and apparel. Three lecture hours a week for one semester. Prerequisite: Marketing 320F and six semester hours of upper-division coursework in textiles and apparel, business, studio art, or journalism.

## TXA 377. 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. Web-based instruction; no class meetings. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Textiles and Apparel 301, 205, 105L, 214K, 214L, 316Q, 219C, 119L, 151, and 376; and admission to the Retail Merchandising Internship Program.

## TXA 378H. Honors Seminar in Textiles and Apparel.

The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, a University grade point average of at least 3.00, and consent of the honors adviser.

## TXA 379H. 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. Conference course. May be repeated once for credit. Prerequisite: Upperdivision standing, admission to the Textiles and Apparel Honors Program, Textiles and Apparel 359 H with a grade of at least B-, and consent of the honors adviser.

## Department of Marine Science

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p.675).

[^6]semester. Marine Science 307 and Geological Sciences 307 may not both be counted. Offered on the letter-grade basis only.

## MNS 308. Humans and a Changing Ocean.

The consequences of human-induced alteration of the marine environment including the impact on fisheries, marine mammals, foodweb changes, and changes in species composition and ecological function will be explored. Designed for non-science majors. Two lecture hours and two laboratory hours a week for one semester. Marine Science 309 (Topic: Humans and a Changing Ocean) and 308 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Marine Science 307.

## MNS 309. Topics in Marine Science.

Designed for nonscience majors. Selected topics in marine science, including marine biology, marine chemistry, and physical oceanography. Two lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in marine science. May be repeated for credit when the topics vary. Prerequisite: Marine Science 307.

## MNS 310. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Biology 311D and Chemistry 302 or 302H.

## Upper-Division Courses

## MNS 320. Marine Ecology.

Study of ecological processes at different levels of integration in marine ecosystems. Three lecture hours a week for one semester. Prerequisite: Biology 311D, and Chemistry 302 or 302H.

## MNS 120L. 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. Two weekend field trips, with pre- and post-field trip laboratory hours required. Prerequisite: Credit or registration for Marine Science 320.

## MNS 440. Limnology and Oceanography.

Same as Biology 456L. An introduction to the study of the interactions between aquatic organisms and their environments. Two lecture hours and six laboratory hours a week for one semester. Prerequisite: Biology 325 or 325 H with a grade of at least C-, and Chemistry 302 or 302H.

## MNS 344K. Marine Mining and Minerals.

Same as Geological Sciences 344K. Overview of seafloor mineral deposits, their exploration, and mining. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Geological Sciences or the Bachelor of Science in Environmental Sciences degrees. Prerequisite: Geological Sciences 401 or $303,416 \mathrm{~K}$, and 416M.

## MNS 148, 348. Training Cruise(s).

May be repeated for credit when the topics vary. Offered on the lettergrade basis only.

Topic 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. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; consent of instructor; and the
following coursework with a grade of at least C-in each: Biology 325, and Chemistry 302 or 302H.
Topic 2: Marine Geology and Geophysics Field Course. Marine Science 348 (Topic 2) is same as Geological Sciences 348 K . Handson, team-based instruction in the collection and processing of marine geological and geophysical data along the Gulf of Mexico coast. Includes classroom, laboratory, and field components in Austin and at sea. Offered between the spring semester and the summer session; limited class meetings may begin in the spring semester. Geological Sciences 397F and Marine Science 348 (Topic 2) may not both be counted. Fulfills the field experience requirement for some geological sciences degree programs. Students should contact the Department of Geological Sciences before registering. Prerequisite: For geological sciences majors, Geological Sciences 420K or 320L with a grade of at least C-, and consent of instructor; Geological Sciences 416 M and 465K are recommended; for others, Marine Science 307 and 354 F with a grade of at least C - in each, and consent of instructor.

## MNS 352. Principles of Marine Science.

Lectures, laboratory, and fieldwork. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Topic 9: Endocrinology. Endocrinology, with special reference to lower vertebrates and evolution of control systems. Marine Science 352 (Topic 9) and 382 (Topic 9: Endocrinology) may not both be counted. May count as zoology. Prerequisite: Previous courses in physiology and consent of instructor.
Topic 12: Adaptive Physiology of Marine Organisms. Selected topics in the comparative physiology of marine organisms and their environmental adaptations. Prerequisite: Previous course in cell physiology or consent of instructor.
Topic 13: Microclimatology. Physical and thermal characteristics of the atmospheric surface layer, with particular reference to coastal environments.
Topic 16: Ocean Engineering. Description of ocean waves and tides, methods of wave forecasting, classroom and field exercises. Prerequisite: Consent of instructor.
Topic 18: Marine Atmospheric Chemistry. Atmospheric particle chemistry; sea-surface films, atmospheric organic matter; air-sea chemical fractionation; carbon, nitrogen, sulfur cycles. Prerequisite: Consent of instructor.
Topic 20: General Marine Phycology. Survey of benthic algae and phytoplankton of the Texas coast; systematics, morphology, life history and culturing techniques.
Topic 21: Ecology of Marine Fungi. Biology of the fungi with emphasis on ecological, morphological, and developmental aspects and culturing techniques.
Topic 22: Oceanography. Consideration of current understanding of the chemistry and biology of the oceans.

## MNS 352C. Estuarine Ecology.

General ecological principles of estuarine environments in Texas, including physiography, hydrography, and plant and animal community structure and productivity. Requires several field trips in addition to lecture hours, including one weekend trip. Marine Science 352 (Topic 8: Estuarine Ecology) and 352C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and six semester hours of coursework in biology, chemistry, geological sciences, or physics.

## MNS 352D. Marine Botany.

Exploration of the marine algae and seagrasses of the south Texas coast, with emphasis on their taxonomy, physiology, and ecology; field trips to representative coastal habitats. Requires several field trips in addition to lecture hours, including one weekend trip. Offered on the letter-grade
basis only. Prerequisite: Upper-division standing; one of the following courses: Biology 322, 324, 325 or 325H, 328, Marine Science 352C; and three additional semester hours of coursework in biology.

## MNS 152L, 252L. 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. For each semester hour of credit earned, three or four field/laboratory sessions, scheduled throughout the semester. May be counted toward the Bachelor of Science in Biology (Option III: Marine and Freshwater Biology) and toward other undergraduate degrees in biology. May be repeated for credit when the topics vary. Prerequisite: Credit or registration for Marine Science 352

## MNS 152S, 252S. 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. For each semester hour of credit earned, one lecture/discussion a week for one semester. May be counted toward the Bachelor of Science in Biology (Option III: Marine and Freshwater Biology) and toward other undergraduate degrees in biology. May be repeated for credit when the topics vary.

## MNS 152T, 252T. Principles of Marine Science: Special Topics.

Advanced research topics in marine science relevant to critical habitats, organisms, or processes. A field oriented course with weekend field trips on the Texas coast, including pre- and post-field trip laboratory hours. For each semester hour of credit earned, two weekend field trips, scheduled throughout the semester. May be counted toward the Bachelor of Science in Biology (Option III: Marine and Freshwater Biology) and toward other undergraduate degrees in biology. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and six semester hours of coursework in biology, chemistry, geological sciences, and/or physics.

## MNS 353. Topics in Marine Science.

Two lecture hours and one laboratory hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

Topic 2: Fish Adaptations to Coastal Ecosystems. Quantitative ecological comparisons of zoogeographical abundance and distribution with population, metabolic, and growth parameters. Additional prerequisite: Fifteen semester hours of coursework in biology and/or zoology.
Topic 4: Current Research. Research instruction/participation in marine science. Laboratory and field activity with emphasis on faculty contact.
Topic 5: Seafloor Mining. Study of seafloor mineral resources, including problems and policies related to exploration, mining, environmental concerns, assessment, and industrial development.
Topic 6: Marine Ecology. Independent study in marine ecology, literature research, and comprehensive writing. Report required. Additional prerequisite: Upper-division standing in a natural science, engineering, or education.
Topic 7: Marine Sedimentology. Selected topics and problems concerning the depositional processes, controls, and distribution of marine sediments.
Topic 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.

Topic 14: Marine Isotope Geochemistry. The use of isotopes (stable, radiogenic, uranium series, and anthropogenic) in the study of marine science.
Topic 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.
Topic 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. Additional prerequisite: Biology 311D, and Chemistry 302 or 302H.

## MNS 354. Marine Invertebrates.

Study of invertebrate taxonomy, structure, behavior, and ecology, with emphasis on field sampling and laboratory studies of invertebrate habitats of the Texas coast. One lecture hour and four laboratory/field hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and six semester hours of biology coursework.

## MNS 354C. Biology of Fishes.

Anatomy, physiology, behavior, life history, taxonomy, and distribution of fishes, with emphasis on field sampling and laboratory studies of the coastal biota. Requires several field trips in addition to lecture hours, including one weekend trip. Prerequisite: Upper-division standing, six semester hours of coursework in biological sciences, or consent of instructor.

## MNS 354E. Aquatic Microbiology

Ecology, physiology, distribution, and growth of heterotrophic and autotrophic bacteria and fungi in waters and sediments. Three lecture hours a week for one semester. Marine Science 354E and 384E may not both be counted. Prerequisite: Biology 311D, Chemistry 302 or 302H, and consent of instructor.

## MNS 354F. Marine Geology.

Survey of the origin, structure, stratigraphy, and sedimentology of marine basins and continental margins. Three lecture hours a week for one semester. Marine Science 354F and 384F may not both be counted. Prerequisite: Upper-division standing; and six semester hours of coursework in chemistry, marine science, or geological sciences, or consent of instructor.

## MNS 354J. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and Chemistry 301 and 302; or consent of instructor.

## MNS 354Q. Marine Environmental Science.

Application of the principles of marine science to the study of environmental issues: toxicology, biogeochemical cycles, and biological and ecological impacts of zenobiotic materials in the coastal zone. One lecture hour and four laboratory/field hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Biology 311D; and Chemistry 302 or 302H.

## MNS 354T. Biological Oceanography.

Introduction to the organisms in the sea, their adaptations to the environment, and the factors that control their distribution and abundance. The course emphasizes laboratory and field work with organisms found
in the coastal waters of Texas. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Biology 311D.

MNS 354U. Biology of Sharks, Skates, and Rays.
Ecology, anatomy, and physiology of elasmobranch fishes. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Biology 354L, 361T, or Marine Science 354C and three additional upperdivision biology or marine science hours or consent of instructor.

## MNS 355C. Physiology of Fishes.

Physiology of major organ systems of both marine and freshwater fishes. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Biology 311D, and Chemistry 302 or 302 H , or consent of instructor.

## MNS 356. 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 and students will directly investigate linkages among agricultural landscapes, rivers, estuaries, and the open ocean through a variety of hands-on field and laboratory activities. One lecture hour and four laboratory/field hours a week for one semester. Marine Science 352 (Topic: Ecosystem Oceanography) and 356 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upperdivision standing; Biology 311D; and Chemistry 302 or 302H

## MNS 357. Marine Phytoplankton Diversity.

The taxonomy of the major phytoplankton groups, their physiology, and their role in marine ecosystems will be explored. Investigating the composition and distribution of planktonic algae and how they respond to environmental change through combination of field sampling, lectures, and practical laboratory exercises. An introduction to sampling regimes, identification techniques, counting methods, and a variety of modern analytical tools used to study phytoplankton. One lecture hour and four lab/field hours a week for one semester. Marine Science 353 (Topic: Diversity Marine Phytoplankton) and 357 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Biology 311D; and Chemistry 302 or 302 H .

## MNS 367K. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Marine Science 307 with a grade of at least B-.

## MNS 170, 270, 370. Special Studies in Marine Science.

Supervised individual instruction and research in marine science field and laboratory techniques. The equivalent of one, two, or three class hours a week for one semester, at the Marine Science Institute at Port Aransas. May be repeated for credit. Prerequisite: Six semester hours of upperdivision coursework in science, a University grade point average of at least 3.00, and written consent of instructor.

## Department of Mathematics

The Department of Mathematics offers a wide variety of courses both for math majors and for non-majors. Students interested in mathematics as a first or second major should consult the advisers in the Mathematics, Physics, and Astronomy Advising Center, in RLM 4.101.

Course prerequisites are enforced. Most entry-level mathematics courses have an appropriate score on the mathematics placement exam as a prerequisite. In such courses, students must be prepared to present proof of their score immediately after classes have begun; those unable to meet the score will be dropped.

Students may check the current Course Schedule or go to the Department of Mathematics Web site (http://www.ma.utexas.edu) for details about the prerequisite required for their course.

Students who plan to use transfer credit to meet the prerequisite of a mathematics course must submit an official transcript to the Office of Admissions so that the credit may be added to their official university record. In addition to sending a transcript, students are encouraged to retain hard copies of their grade reports for proof of prerequisite until their transcripts are processed.

Students who wish to enroll in conference courses in the Department of Mathematics must submit consent of instructor forms to the department before registering. Forms are available in the Advising Center.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p.675).

## Actuarial Foundations: ACF

## Lower-Division Courses

ACF 110, 210, 310, 410. Conference Course.
Supervised study of selected topics, by individual arrangement with department and instructor. Conference course. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Written consent of instructor.

## ACF 110T. Conference Course: Texas Department of Insurance Internship.

Supervised internship at the Texas Department of Insurance. Conference course. May be repeated for credit. Admission by application only. Students must apply to the director of the concentration in actuarial studies the semester before they take the course.

## ACF 112M. 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. Three laboratory hours a week for one semester. Prerequisite: Mathematics 362 K , credit or registration for Mathematics 378 K , and consent of the director of the concentration in actuarial studies.

## Upper-Division Courses

ACF 329. Theory of Interest.
Measurement of interest, present and accumulated value, amortization, sinking funds, bonds, duration, and immunization. Covers the interesttheory portion of an exam of the Society of Actuaries and the Casualty Actuarial Society. Three lecture hours a week for one semester. Actuarial Foundations 329 and Mathematics 389F may not both be counted. Prerequisite: Mathematics 408D, 308L, 408L, or 408S with a grade of at least C-

## ACF 129D. 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. One lecture hour a week for one semester. Offeredon the pass/fail basis only. Prerequisite: Credit with a grade of at least Cor registration for Actuarial Foundations 329.

## Mathematics: M

## Lower-Division Courses

M 301 (TCCN: MATH 1314). College Algebra.
Topics include a brief review of elementary algebra; linear, quadratic, exponential, and logarithmic functions; polynomials; systems of linear equations; applications. Three lecture hours a week for one semester. Usually offered only in the summer session. May not be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in mathematics or toward the Bachelor of Science in Mathematics degree. Credit for Mathematics 301 may not be earned after a student has received credit for any calculus course with a grade of C - or better. Prerequisite: A passing score on the mathematics section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

## M 302 (TCCN: MATH 1332). 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. Three lecture hours a week for one semester. Mathematics 302 and 303F may not both be counted. A student may not earn credit for Mathematics 302 after having received credit for any calculus course. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Texas Success Initiative (TSI) exemption or a TSI Mathematics Assessment score of 350 or higher

## M 303D (TCCN: MATH 1324). 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. Three lecture hours a week for one semester. Mathematics 303D and 303F may not both be counted. A student may not earn credit for Mathematics 303D after having received credit for Mathematics 305G or any calculus course. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: An appropriate score on the mathematics placement exam.

## M 303F. Mathematics of Investment.

Simple and compound interest, equivalent rates, equivalent values, annuities, amortization, sinking funds, bonds, depreciation. Three lecture hours a week for one semester. Mathematics 302 and 303F may not both be counted; Mathematics 303D and 303F may not both be counted. May not be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in mathematics or toward the Bachelor of Science in Mathematics degree. Prerequisite: Three units of high school mathematics at the level of Algebra I or higher.

## M 403K (TCCN: MATH 1425). Calculus I for Business and Economics.

Differential and integral calculus of algebraic, logarithmic, and exponential functions with applications. Three lecture hours and two discussion sessions a week for one semester. Only one of the following may be counted: Mathematics 403K, 408C, 408K, 408N. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: An appropriate score on the mathematics placement exam.

## M 403L. 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. Three lecture hours and two discussion sessions a week for one semester. Mathematics 403L and 408L (or 308L) may not both be counted. May not be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in mathematics or toward the Bachelor of Science in Mathematics degree. Prerequisite: Mathematics $403 \mathrm{~K}, 408 \mathrm{C}, 308 \mathrm{~L}$, or 408 N with a grade of at least C-.

## M 305E. Analytic Geometry.

Combines development of methods (including adequate treatment of theory) and acquisition of skills with applications. Three lecture hours a week for one semester. Mathematics 305E and 305K may not both be counted. Mathematics 305E and 305G may not both be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in Mathematics or towards the Bachelor of Science in Mathematics degree. Prerequisite: Mathematics 301.

## M 305G (TCCN: MATH 2312). Preparation for Calculus.

Study of advanced functions and their graphs and applications, including exponential, logarithmic, and trigonometric functions. Introduction to rates, slopes, and derivatives. Three lecture hours a week for one semester. Mathematics 305 G (or 505 G ) and any college-level trigonometry course may not both be counted. A student may not earn credit for Mathematics 305G (or 505G) after having received credit for any calculus course with a grade of at least C-. Mathematic 301, 305G (or 505G), and equivalent courses may not be counted toward a degree in mathematics. Prerequisite: An appropriate score on the mathematics placement exam.

## M 408 C (TCCN: MATH 2417). 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. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403K, 408C, 408K, 408N. Prerequisite: An appropriate score on the mathematics placement exam.

## M 408D (TCCN: MATH 2419). Sequences, Series, and Multivariable Calculus.

Certain sections of this course are designated as advanced placement or honors sections; they are restricted to students who have scored well on the AP/BC exam, are in the Engineering Honors Program, or have the consent of the mathematics adviser. Such sections and their restrictions are identified in the Course Schedule. Introduction to the theory and applications of sequences and infinite series, including those involving functions of one variable, and to the theory and applications of differential and integral calculus of functions of several variables; topics include parametric equations, sequences, infinite series, power series, vectors, vector calculus, functions of several variables, partial derivatives, gradients, and multiple integrals. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403L, 408D, 408M (or 308M). Prerequisite: Mathematics $408 \mathrm{C}, 408 \mathrm{~L}$, or 408 S with a grade of at least C-.

## M 408K (TCCN: MATH 2413). 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. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics $403 \mathrm{~K}, 408 \mathrm{C}, 408 \mathrm{~K}, 408 \mathrm{~N}$. Prerequisite: An appropriate score on the mathematics placement exam.

## M 308L, 408L. 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. For Mathematics 308L, three lecture hours a week for one semester; for 408L, three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403L, 408L (or 308L), 408S. Prerequisite: Mathematics 408C, 408K, or 408 N with a grade of at least C-

## M 308M, 408M. 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. For Mathematics 308M, three lecture hours a week for one semester; for 408M, three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403L, 408D, 408M (or $308 \mathrm{M})$. Prerequisite: Mathematics 408 L or 408 S with a grade of at least C-

## M 408N (TCCN: MATH 2413). Differential Calculus for Science.

Restricted to students in the College of Natural Sciences. 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. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403K, 408C, 408K, 408N. Prerequisite: An appropriate score on the mathematics placement exam.

## M 408R. 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. Three lecture hours and two discussion hours a week for one semester. May not be counted by students with credit for Mathematics 408C, 408K, or 408N. Prerequisite: An appropriate score on the mathematics placement exam.

## M 408S (TCCN: MATH 2414). Integral Calculus for Science.

Restricted to students in the College of Natural Sciences. 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. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403L, 408L (or 308L), 408 S . Prerequisite: Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N with a grade of at least C -.

## M 110, 210, 310, 410. Conference Course.

Supervised study in mathematics, with hours to be arranged. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. Some sections may not be counted toward any mathematics or science degree requirement; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Written consent of instructor. Forms are available in the department office or in the Mathematics, Physics, and Astronomy Advising Center.

## M 210E. Emerging Scholars Seminar.

Restricted to students in the Emerging Scholars Program. Supplemental problem-solving laboratory for precalculus, calculus, or advanced calculus courses for students in the Emerging Scholars Program. Three or four laboratory hours a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

## M 310P. Modern Mathematics: Plan II.

Restricted to Plan II students. Significant developments in modern mathematics. Topics may include fractals, the fourth dimension, statistics and society, and techniques for thinking about quantitative problems. Three lecture hours a week for one semester. May not be counted toward a degree in mathematics.

## M 110T, 210T, 310T, 410T. Topics in Mathematics.

One, two, three, or four lecture hours a week for one semester. May be repeated for credit when the topics vary.

## M 315C. 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. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Mathematics 408C and enrollment in a teaching preparation program, or consent of instructor.

## M 316 (TCCN: MATH 1342, MATH 2342). Elementary Statistical Methods.

Graphical presentation, frequency functions, distribution functions, averages, standard deviation, variance, curve-fitting, and related topics. Three lecture hours a week for one semester. Only one of the following may be counted: Mathematics 316, Statistics and Scientific Computation 303, 304, 305, 306. Prerequisite: An appropriate score on the mathematics placement exam.

## M 316K (TCCN: MATH 1350). Foundations of Arithmetic.

Restricted to students in a teacher preparation program. 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. Three lecture hours a week for one semester. May not be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in mathematics or toward the Bachelor of Science in Mathematics degree. Credit for Mathematics 316K may not be earned after the student has received credit for any calculus course with a grade of $C$ - or better, unless the student is registered in the College of Education. Prerequisite: Mathematics 302, 303D, 305G (or $505 \mathrm{G})$, or 316 with a grade of at least C-

## M 316L (TCCN: MATH 1351). Foundations of Geometry, Statistics, and Probability.

Restricted to students in a teacher preparation program. 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. Three lecture hours a week for one semester. May not be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in mathematics or toward the Bachelor of Science in Mathematics degree. Credit for Mathematics 316L may not be earned after the student has received credit for any calculus course with
a grade of C - or better, unless the student is registered in the College of Education. Prerequisite: Mathematics 316 K with a grade of at least C.

M 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

## M 325K. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-

## M 326K. Foundations of Number Systems.

Restricted to students in a teacher preparation program or who have consent of instructor. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-

## M 427K. Advanced Calculus for Applications I.

Ordinary and partial differential equations and Fourier series. Five class hours a week for one semester. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-

## M 427L. 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. Five class hours a week for one semester. Prerequisite: Mathematics 408D or 408M with a grade of at least C-.

## M 328K. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 341 with a grade of at least C-

M 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, $929 S$. 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. May be repeated for credit when the topics vary.

## M 329W. 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. Forty laboratory hours a week for one semester. The student must repeat the course each work period and must take it twice to receive credit toward the degree; at least one of these registrations must be during a long-session semester. No more than three semester hours may be counted toward the major requirement; no more than six semester hours may be counted toward the degree. The student's first registration must be on the pass/fail basis. Prerequisite: Application through the College of Natural Sciences Career Services Office; Mathematics 408D, 408L, or 408S with a grade of at least C-; a grade of at least C- in two of the following courses: Mathematics $325 \mathrm{~K}, 427 \mathrm{~K}, 341,362 \mathrm{~K}$, or 378 K ; and consent of the undergraduate adviser.

## M 333L. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-; or upperdivision standing and consent of instructor.

## M 339D. 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. Three lecture hours a week for one semester. Prerequisite: Actuarial Foundations 329 and Mathematics 362 K with a grade of at least C-

## M 339J. Probability Models with Actuarial Applications.

 Introductory actuarial models for life insurance, property insurance, and annuities. With Mathematics 349P, covers the syllabus for the professional actuarial exam on model construction. Three lecture hours a week for one semester. Prerequisite: Mathematics 358 K or 378 K with a grade of at least C-
## M 139S. Seminar on Actuarial Practice.

Presentations by working actuaries on current issues in actuarial practice. One lecture hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Actuarial Foundations 329; Mathematics 339J or 339 U with a grade of at least C-; and credit with a grade of at least C- or registration for one of the following: Mathematics 339J, 339U, 339V, 349P (or 449P).

## M 339U. Actuarial Contingent Payments I.

Intermediate actuarial models for life insurance, property insurance, and annuities. Three lecture hours a week for one semester. Prerequisite: Mathematics 362 K with a grade of at least C-; credit with a grade of at least C- or registration for Actuarial Foundations 329; and credit with a grade of at least C- or registration for Mathematics 340L or 341.

## M 339V. Actuarial Contingent Payments II.

Advanced actuarial models for life insurance, property insurance, and annuities. Three lecture hours a week for one semester. Prerequisite: Actuarial Foundations 329 and Mathematics 339 U with a grade of at least $C$ - in each.

## M 339W. Financial Mathematics for Actuarial Applications.

Pricing, stock price, and interest rate models for actuarial applications. Tools include lognormal distribution, Brownian motion, Black-Scholes, and
delta hedging. Three lecture hours a week for one semester. Prerequisite: Mathematics 339D with a grade of at least C-.

## M 340L. Matrices and Matrix Calculations.

Restricted to nonmathematics majors. Techniques of matrix calculations and applications of linear algebra. Three lecture hours a week for one semester. Mathematics 340 L and 341 may not both be counted. Prerequisite: Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N with a grade of at least C-

## M 341. Linear Algebra and Matrix Theory.

Restricted to mathematics majors. Vector spaces, linear transformations, matrices, linear equations, determinants. Some emphasis on rigor and proofs. Mathematics 340 L and 341 may not both be counted. Prerequisite: Mathematics 408D or 408M with a grade of at least C-.

## M 343K. Introduction to Algebraic Structures.

Elementary properties of groups and rings, including symmetric groups, properties of the integers, polynomial rings, elementary field theory. Three lecture hours a week for one semester. Students who have received a grade of C- or better in Mathematics 373K may not take Mathematics 343K. Prerequisite: Consent of the undergraduate adviser, or two of the following courses with a grade of at least C- in each: Mathematics 325 K or Philosophy 313K, Mathematics 328K, Mathematics 341.

## M 343L. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 328 K or 343 K with a grade of at least C-.

## M 343M. Error-Correcting Codes.

Introduction to applications of algebra and number theory to errorcorrecting codes, including finite fields, error-correcting codes, vector spaces over finite fields, Hamming norm, coding, and decoding. Three lecture hours a week for one semester. Prerequisite: Mathematics 328 K or 341 with a grade of at least C-.

## M 344K. Intermediate Symbolic Logic.

Same as Philosophy 344K. 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. Three lecture hours a week for one semester. Prerequisite: Philosophy 313, 313K, or 313Q.

## M 346. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 341 or 340L with a grade of at least C -

## M 348. 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. Three lecture hours a week for one semester. Prerequisite: Computer Science 303E or 307, and Mathematics 341 or 340 L with a grade of at least C-.

## M 349P. Actuarial Statistical Estimates.

Statistical estimation procedures for random variables and related quantities in actuarial models. With Mathematics 339J, covers the syllabus for the professional actuarial exam on model construction. Three lecture hours a week for one semester. Prerequisite: Mathematics 339J, and 341 or 340 L , with a grade of at least C - in each.

## M 349R. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 358 K or 378 K with a grade of at least C-, or an introductory statistics course and consent of the director of the concentration in actuarial studies.

## M 349T. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 339 U , 341 or 340 L , and 358 K or 378 K .

## M 358K. Applied Statistics.

Exploratory data analysis, correlation and regression, data collection, sampling distributions, confidence intervals, and hypothesis testing. Three lecture hours a week for one semester. Prerequisite: Mathematics 362 K with a grade of at least C-

## M 360M. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-; and written consent of instructor.

## M 361. Theory of Functions of a Complex Variable.

Elementary theory and applications of analytic functions, series, contour integration, and conformal mappings. Three lecture hours a week for one semester. Prerequisite: Mathematics 427 K or 427 L with a grade of at least C-

## M 361K. 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. Three lecture hours a week for one semester. Students who have received a grade of C- or better in Mathematics 365C may not take Mathematics 361 K . Prerequisite: Consent of the undergraduate adviser, or two of the following courses with a grade of at least C- in each: Mathematics 325K or Philosophy 313K, Mathematics 328K, Mathematics 341.

## M 362K. 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. Three lecture hours a week for one semester. Mathematics 362 K and Statistics and Scientific Computation 321 may not both be counted. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-.

## M 362M. Introduction to Stochastic Processes.

Introduction to Markov chains, birth and death processes, and other topics. Three lecture hours a week for one semester. Prerequisite: Mathematics 362 K with a grade of at least C-

## M 364K. Vector and Tensor Analysis I.

Invariance, vector algebra and calculus, integral theorems, general coordinates, introductory differential geometry and tensor analysis, applications. Three lecture hours a week for one semester. Prerequisite: Mathematics 427 K or 427 L with a grade of at least C-.

## M 364L. Vector and Tensor Analysis II.

Continuation of Mathematics 364 K , with emphasis on tensor and extensor analysis. Riemannian geometry and invariance. Three lecture hours a week for one semester. Prerequisite: Mathematics 364 K with a grade of at least C-.

## M 365C. 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. Three lecture hours a week for one semester. Students who have received a grade of C- or better in Mathematics 365C may not take Mathematics 361 K . Prerequisite: Consent of the undergraduate adviser, or two of the following courses with a grade of at least C- in each: Mathematics 325 K or Philosophy 313K, Mathematics 328K, Mathematics 341. Students who receive a grade of C - in one of the prerequisite courses are advised to take Mathematics 361 K before attempting 365 C . Students planning to take Mathematics 365 C and 373 K concurrently should consult a mathematics adviser.

## M 365D. Real Analysis II.

Recommended for students planning to undertake graduate work in mathematics. A rigorous treatment of selected topics in real analysis, such as Lebesgue integration, or multivariate integration and differential forms. Three lecture hours a week for one semester. Prerequisite: Mathematics 365 C with a grade of at least C -

## M 365G. 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. Three lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 365C.

## M 367K. Topology I.

An introduction to topology, including sets, functions, cardinal numbers, and the topology of metric spaces. Three lecture hours a week for one semester. Prerequisite: Mathematics 361 K or 365 C or consent of instructor.

## M 367L. Topology II.

Various topics in topology, primarily of a geometric nature. Three lecture hours a week for one semester. Prerequisite: Mathematics 367 K with a grade of at least C - or consent of instructor.

## M 368K. 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. Three lecture hours a week for one semester. Only one of the following may be counted:

Computer Science 367, Mathematics 368K, Physics 329. Prerequisite: Mathematics 348 with a grade of at least C-.

## M 372. Fourier Series and Boundary Value Problems.

Discussion of differential equations of mathematical physics and representation of solutions by Green's functions and eigenfunction expansions. Three lecture hours a week for one semester. Prerequisite: Mathematics 427 K with a grade of at least C-.

## M 372K. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 427 K with a grade of at least C-

## M 373K. Algebraic Structures I.

A study of groups, rings, and fields, including structure theory of finite groups, isomorphism theorems, polynomial rings, and principal ideal domains. Three lecture hours a week for one semester. Students who have received a grade of C - or better in Mathematics 373 K may not take Mathematics 343K. Prerequisite: Consent of the undergraduate adviser, or two of the following courses with a grade of at least C- in each: Mathematics 325K or Philosophy 313K, Mathematics 328K, Mathematics 341. Students who receive a grade of C - in one of the prerequisite courses are advised to take Mathematics 343K before attempting 373K. Students planning to take Mathematics 365 C and 373 K concurrently should consult a mathematics adviser.

## M 373L. Algebraic Structures II.

Recommended for students planning to undertake graduate work in mathematics. Topics from vector spaces and modules, including direct sum decompositions, dual spaces, canonical forms, and multilinear algebra. Three lecture hours a week for one semester. Prerequisite: Mathematics 373 K with a grade of at least C-.

## M 374. Fourier and Laplace Transforms.

Operational properties and application of Laplace transforms; some properties of Fourier transforms. Three lecture hours a week for one semester. Prerequisite: Mathematics 427 K with a grade of at least C-.

## M 374G. Linear Regression Analysis.

Fitting of linear models to data by the method of least squares, choosing best subsets of predictors, and related materials. Three lecture hours a week for one semester. Prerequisite: Mathematics 358 K or 378 K with grade of at least C-, Mathematics 341 or 340 L , and consent of instructor.

## M 374K. Fourier and Laplace Transforms.

Continuation of Mathematics 374 . Introduction to other integral transforms, such as Hankel, Laguerre, Mellin, Z. Three lecture hours a week for one semester. Prerequisite: Mathematics 374 with a grade of at least C-.

## M 374M. 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. Three lecture hours a week for one semester. Prerequisite: Mathematics 427 K , and 340 L or 341, with a grade of at least C- in each; and some basic programming skills.

## M 175, 275, 375, 475. Conference Course.

Supervised study in mathematics, with hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing.

## M 375C. Conference Course (Computer-Assisted).

Supervised study in mathematics on material requiring use of computing resources, with hours to be arranged. Conference course. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

## M 375D. 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. Three lecture hours a week for one semester. Mathematics 375D and 375T (Topic: Discovery: An Introduction to Advanced Study in Mathematics) may not both be counted. Prerequisite: Two proof-based mathematics courses with a grade of at least C -, or consent of instructor.

## M 175S. 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. One lecture hour a week for one semester. Mathematics 175 S and 175 T may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and consent of instructor.

M 175T, 275T, 375T, 475T. Topics in Mathematics.
One, two, three, or four lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic and are given in the Course Schedule.

## M 376C. 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. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Mathematics 427K, and Mathematics 341 or 340 L , with a grade of at least C-in each.

## M 378K. Introduction to Mathematical Statistics.

Same as Statistics and Data Sciences 378. 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 (pvalues, power, likelihood ratio tests), and other topics. Three lecture hours a week for one semester. Only one the following may be counted: Mathematics 378 K , Statistics and Data Sciences 378, Statistics and Scientific Computation 378. Prerequisite: Mathematics 362 K with a grade of at least C-.

## M 379H. Honors Tutorial Course.

Directed reading, research, and/or projects, under the supervision of a faculty member, leading to an honors thesis. Conference course.

Prerequisite: Admission to the Mathematics Honors Program; Mathematics $365 \mathrm{C}, 367 \mathrm{~K}, 373 \mathrm{~K}$, or 374G with a grade of at least A -, and another of these courses with a grade of at least B-; and consent of the honors adviser.

# Department of Molecular Biosciences 

Biochemistry: BCH

## Lower-Division Courses

BCH 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

BCH 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## BCH 339F. Foundations of Biochemistry.

Restricted to biochemistry majors. Metabolism of carbohydrates, lipids, amino acids, and nucleotides; structure and function of proteins. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 339F, 369, Biology 337 (Topic: Foundations of Biochemistry), Chemistry 339K, 369. Prerequisite: One of the following with a grade of at least C-: Chemistry 310M, 318M, 320M, or 328M.

## BCH 339J. Chemical and Synthetic Biology.

Designed for students pursuing pharmaceutical and biotechnology careers. Topics include enzymatic reaction mechanisms and how they can be manipulated using tools from both chemistry and molecular biology. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 339J, Chemistry 339J, Systems and Synthetic Biology 339J. Prerequisite: Biochemistry 339F or Chemistry 339 K with a grade of at least C-.

## BCH 339M. 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. Three lecture hours per week for one semester. Prerequisite: Biochemistry 339F or Chemistry 339K with a grade of at least C-.

## BCH 339N. Systems Biology and Bioinformatics.

Restricted to biochemistry majors. 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. Three lecture hours a
week for one semester. Prerequisite: Biochemistry 339F or Chemistry 339 K with a grade of at least C-.

## BCH 364C. Bioinformatics.

Restricted to biochemistry majors. Subjects include physical methods for the study of macromolecules, chemistry of proteins, enzyme chemistry, regulatory mechanisms for gene expression, and protein-nucleic acid interactions. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 364C, Chemistry 364C, Systems and Synthetic Biology 364C. Prerequisite: Biochemistry 339F or Chemistry 339 K with a grade of at least B , and consent of instructor.

## BCH 364D. Macromolecular Structure Determination.

Restricted to biochemistry majors. Emphasis on X-ray crystallography and nuclear magnetic resonance (NMR) spectroscopy of proteins. Investigation of theories and practices of the most relevant techniques in macromolecular structure determination. Use of the X-ray and NMR facilities to collect data that is used to solve protein structures. Three lecture hours a week for one semester. Biochemistry 364D and Chemistry 364D may not both be counted. Prerequisite: The following with a grade of at least B in each: Biochemistry 339F or Chemistry 339K, Biochemistry 370 or Chemistry 370, and consent of instructor.

## BCH 364E. Systems Biology.

Restricted to biochemistry majors. 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. Three lecture hours a week for one semester. Biochemistry 364E and Chemistry 364E may not both be counted. Prerequisite: Biochemistry 339 or Chemistry 339 K with a grade of at least B , and consent of instructor.

## BCH 364F. Astrobiology.

Restricted to biochemistry majors. An overview of the science used in the search for extraterrestrial life, life origins, earth history, evolution, metabolism of extremophiles, biochemistry, and astronomy. Three lecture hours a week for one semester. Biochemistry 364F and Chemistry 364F may not both be counted. Prerequisite: Biochemistry 339F or Chemistry 339 K with a grade of at least B , and consent of instructor.

## BCH 365D. Structure and Function of Proteins and Nucleic Acids.

Restricted to biochemistry majors. 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. Three lecture hours a week for one semester. Biochemistry 365D and Chemistry 365D may not both be counted. Prerequisite: The following with a grade of at least B: Biochemistry 339F or Chemistry 339K, Biochemistry 370 or Chemistry 370, and consent of instructor.

## BCH 369. Fundamentals of Biochemistry.

The basics of protein structure and function, carbon and nitrogen metabolism, and molecular biology of macromolecules. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 339F, 369, Biology 337 (Topic: Foundations of Biochemistry), Chemistry 339K, 369. May not be counted toward a degree in biochemistry. Prerequisite: One of the following with a grade of at least C-: Chemistry 310M, 318M, 320M, or 328M.

## BCH 369K. Techniques of Research.

Advanced laboratory practice and introduction to research. One lecture hour and six laboratory hours a week for one semester. May be taken for a letter grade no more than twice. No more than six semester hours
may be counted toward a degree in biochemistry. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in biochemistry or chemistry, or five semester hours of coursework in organic chemistry, or consent of the undergraduate faculty adviser in biochemistry.

## BCH 369L. Biochemistry Laboratory.

An introduction to modern fundamental techniques of biochemistry. Two lecture hours and seven laboratory hours a week for one semester. Biochemistry 369L and Chemistry 369L may not both be counted. Prerequisite: Biochemistry 339F or Chemistry 339K with a grade of at least C-.

## BCH 369T. Biotechnology Laboratory.

Advanced techniques in biotechnology. Nine laboratory hours a week for one semester. Biochemistry 369T and Chemistry 369T may not both be counted. Prerequisite: Consent of instructor.

## BCH 370. Physical Methods of Biochemistry.

Theory of electrophoresis, ultracentrifugation, spectroscopy, electron microscopy, and diffraction as applied to biological macromolecules. Three lecture hours a week for one semester. Biochemistry 370 and Chemistry 370 may not both be counted. Prerequisite: Biochemistry 339F or Chemistry 339K with a grade of at least C-.

## BCH 379H. Biochemistry Honors Tutorial Course.

Laboratory research project in a specific field of biochemistry under the supervision of one or more faculty members. Conference course. May be repeated once for credit. Must be taken in addition to the required hours for a degree in biochemistry. Students must enroll no later than the first semester of the year of graduation. May be repeated for credit. Prerequisite: Consent of the research supervisor and the departmental honors adviser.

## Public Health: PBH Lower-Division Courses

## PBH 317. Introduction to Public Health.

Same as Biology 317. 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. Three lecture hours a week for one semester.

## Upper-Division Courses

PBH 334. 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. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Public Health 354; and Biology 328M or Statistics and Scientific Computation 328M.

## PBH 137, 237, 337, 437. Selected Topics in Public Health.

Recent developments and research methods in the field of public health will be explored. For each semester hour of credit earned, one lecture hour a week for one semester. Some topics may require additional hours. May be repeated for credit when the topics vary. Prerequisite: Bio 325 or 325 H with a grade of at least C-.

## PBH 338. Environmental Health.

Introduction to the major areas of environmental health, including hazards in the environment, the effects of environmental contaminants, and various approaches to addressing major environmental health problems.

Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C-in each: Public Health 354; and Biology 328M or Statistics and Scientific Computation 328M.

## PBH 341R. Public Health Research.

Same as Biology 341R. Students conduct public health research, mentored by professionals at public health practice agencies or faculty at graduate schools of public health throughout Texas. An average of twelve hours of fieldwork a week for a total of at least 180 hours. May be repeated for credit. Prerequisite: Biology 325 or 325 H with a grade of at least C -; students must also submit a proposal to the instructor.

## PBH 354. Epidemiology.

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. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325 H , and Public Health 317 with a grade of at least C- in each; and credit or registration for Biology 328M or Statistics and Data Sciences 328M (or Statistics and Scientific Computation 328M).

## PBH 358D. Health Policy and Health Systems.

Covers the essentials of health policy and law, including the ways that policy and legal issues impact health care and public health systems. Three lecture hours a week for one semester. Public Health 358D and Sociology 358D may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Public Health 354; and Biology 328M or Statistics and Scientific Computation 328M.

## PBH 368D. Social Context of Public Health.

An introduction to the social and behavioral theories that inform the discipline of public health, including practical examples of the ways that these theories are used to understand health-related behaviors and health promotion. Includes data on population distributions of mortality and morbidity, health inequalities, and how underlying social structures impact the health of individuals and communities. Three lecture hours a week for one semester. Public Health 368D and Sociology 368D may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Public Health 354; and Biology 328M or Statistics and Scientific Computation 328M.

## Neuroscience Program

## Neuroscience: NEU

Lower-Division Courses
Upper-Division Courses

## NEU 330. Neural Systems I.

Introduction to the nervous system with an emphasis on brain organization, neuron physiology, perceptual systems, and motor systems. Intended for neuroscience majors and those considering neuroscience as a major. Three lecture hours a week for one semester. Biology 337 (Topic: Neural Systems I) and Neuroscience 330 may not both be counted.

## NEU 335. 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. Intended for neuroscience majors and those considering neuroscience as a major. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 335, 337 (Topic: Neural Systems II), Neuroscience 335. Prerequisite: One of
the following with a grade of at least B-: Neuroscience 330 or 365 R (or Biology 365R).

## NEU 137, 237, 337, 437. Selected Topics in Neuroscience.

Topics include recent developments and research methods in the field of neuroscience. For each semester hour of credit earned, one lecture hour a week for one semester. Some topics may require additional hours; these are identified in the Course Schedule. Some topics are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Biology 365 R or Neuroscience 330 with a grade of at least B-; additional prerequisites vary with the topic and are given in the Course Schedule.

## NEU 365D. 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. Three lecture hours a week for one semester. Biology 365D (Topic: Principles of Drug Action) and Neuroscience 365D may not both be counted. Prerequisite: One of the following with a grade of at least C -: Neuroscience 330 or 365R (or Biology 365R).

## NEU 365L. 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. Four laboratory hours and one discussion hour a week for one semester. Biology 365L (Topic: Neurobiology Laboratory) and Neuroscience 365L may not both be counted. Prerequisite: The following with a grade of at least C-: Biology 206L or 226L, and Neuroscience 330 or 365R (or Biology 365R).

## NEU 365R. Vertebrate Neurobiology.

Introduction to the nervous system and other excitable tissues. Subjects may include membrane potentials, ion channels, synaptic transmission, learning and memory, skeletal and cardiac muscle, and how systems of neurons lead to sensation and motor output. Human diseases are used to illustrate perturbation of normal function. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 309D, 365R, Neuroscience 365R. Only one of the following may be counted: Biology 365R, 371M, Neuroscience 365 R. Biology 365 R and Neuroscience 365R may not both be counted by students with credit for Biology 416K with a grade of at least C-. Prerequisite: Biology 325 or 325 H with a grade of at least C-.

## NEU 365T. 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. Three lecture hours a week for one semester. Biology 365T and Neuroscience 365T may not both be counted. Prerequisite: Neuroscience 330 or 365R (or Biology 365R) with a grade of at least C-.

## NEU 365W. Neurobiology of Addiction.

Study of the neurobiology of neurotransmitters, and the influence of alcohol and drugs of abuse on neurotransmitters. Three lecture hours a week for one semester. Biology 365W and Neuroscience 365W may not both be counted. Prerequisite: Neuroscience 330 or 365R (or Biology 365R) with a grade of at least C-.

## NEU 366C. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 337 (Topic: Ion Channels and the Molecular Physiology of Neuronal Signaling), Biology 366C, Neuroscience 366C. Prerequisite: The following courses with a grade of at least C-: Mathematics 408D, 408L, or 408S; and Physics 303L, 316, or 317L.

## NEU 366D. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 337 (Topic: Synaptic Physiology and Plasticity in the Central Nervous System), 366D, Neuroscience 366D. Prerequisite: The following courses with a grade of at least C- in each: Mathematics 408D, 408L, or 408S; Neuroscience 330, 365R (or Biology 365R), or 366C; and Physics 303L, 316, or 317L.

## NEU 366E. Visual Neuroscience.

Physiology of the eye, the retina, and the visual pathways; prospects for nutritional prevention of blinding eye diseases; functional and ecological adaptations of primate vision. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 337 (Topic: Visual Neuroscience), 366E, Neuroscience 366E. Prerequisite: One of the following with a grade of at least C-: Biomedical Engineering 365R, Neuroscience 330, or 365R (or Biology 365R).

## NEU 466G. Functional and Synaptic Neuroanatomy.

Neuroanatomy and functional connectivity as a basis for brain function and behavior examined from gross structure, cytology, and nanoscale synaptic connectivity in the somatosensory, motor, visual, auditory, olfactory, taste, limbic, vestibular, hypothalamus, and other symptoms. Examination of the synaptic basis of learning and memory, fear, sleep, stress, and synaptic changes during development, aging, mental retardation, and neurological diseases. Laboratory projects involve threedimensional reconstructions from serial section electron microscopy. Three lecture hours and one and one half laboratory hours a week for one semester. Only one of the following may be counted: Biology 337 (Topic: Neurobiology of Synaptic Circuits), 337 (Topic: Human Neuroanatomy), 366F, or Neuroscience 466G. Prerequisite: Neuroscience 330 or 365R (or Biology $365 R$ ) with a grade of at least $B$-.

## NEU 366L. 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 functional MRI. One lecture hour and four laboratory hours a week for one semester. Only one of the following may be counted: Biology 337 (Topic: Microscopy and Fluorescence Imaging Laboratory), 366L, Neuroscience 366L. Prerequisite: Neuroscience 330 or 365R (or Biology 365R) with a grade of at least $B$.

## NEU 366M. Quantitative Methods In Neuroscience I.

Overview of the basic mathematical and computational tools central to the analysis of neural systems in a laboratory setting. Subjects include linear algebra, differential equations, filtering, correlation, probability, and inference, with an emphasis on quantitative methodology and applications to neuroscience. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Mathematics 408D or 408M with a grade of at least C-, and a grade of at least C- or registration in Neuroscience 330 or 365R (or Biology 365R).

## NEU 366N. Quantitative Methods in Neuroscience II.

Continuation of Neuroscience 366M. Introduction to basic mathematical and computational tools for the analysis of neural systems. Subjects
include computational and quantitative methods, with an emphasis on their applications to neuroscience. Three lecture hours and one laboratory hour a week for one semester. Biology 366 N and Neuroscience 366 N may not both be counted. Prerequisite: The following courses with a grade of at least C-: Mathematics 408D or 408M; Neuroscience 330 or 365R (or Biology 365R); and Neuroscience 366M.

## NEU 366P. Laboratory in Psychophysics.

Studies the principles of experimental design, execution, and interpretation by having students measure their own perceptual and behavioral responses to visual and auditory tests. Includes data analysis, statistical significance, and interpretation. Five laboratory hours a week for one semester. Biology 366P and Neuroscience 366P may not both be counted. Prerequisite: Neuroscience 330 or 365R (or Biology 365R) with a grade of at least C-.

## NEU 366S. 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. Six laboratory hours a week for one semester Biology 366S and Neuroscience 366S may not both be counted. Prerequisite: The following courses with grades of at least C-: Biology 206L; 311C and 311D or 315H and 325H; and Neuroscience 330 or 365 R (or Biology 365R).

## NEU 367F. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 337 (Topic: Foundations of Human Neuroimaging), 367F, Neuroscience 367F. Prerequisite: Neuroscience 330 or 365 R (or Biology 365 R) with a grade of at least C-

## NEU 367V. Evolutionary Neurobiology.

Examination of the nervous system in an evolutionary context. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 337 (Topic: Evolutionary Neurobiology), 367V, Neuroscience 367V. Prerequisite: Biology 325 or 325 H with a grade of at least C-

## NEU 177, 277, 377, 477. Undergraduate Research.

Laboratory or research in the various fields of neuroscience under the supervision of one or more faculty members. Supervised individual research. Up to three semester hours may be counted toward the major requirement for the Bachelor of Science in Neuroscience. May be repeated for credit. Prerequisite: Neuroscience 330 or Biology 365R with a grade of at least B-; and written consent of the instructor.

## NEU 179H, 279H, 379H. Honors Tutorial Course.

Restricted to students in the honors program in neuroscience. Original laboratory research project under the direction of a faculty mentor leading to a thesis or research presentation. The equivalent of one, two, or three lecture hours a week for one semester. May be repeated for credit, but no more than six hours may be counted toward a degree in neuroscience. Prerequisite: Consent of student's research supervisor and the departmental honors adviser.

## Department of Physics

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Physical Science: P S

## Lower-Division Courses

P S 303. Introductory Physical Science I: Mechanics and Heat.
Designed for students with minimum prior preparation in mathematics and physics. Especially appropriate for prospective elementary school teachers. Inquiry laboratory approach to basic concepts of measurement, forces, motion, energy, temperature, and heat. Four hours of integrated laboratory and lecture a week for one semester. May not be counted toward a degree in the College of Natural Sciences.

## P S 304. Introductory Physical Science II: Electricity, Light, and Optics.

Inquiry laboratory approach to electricity, magnetism, waves, light, and optical instruments. Four hours of integrated laboratory and lecture a week for one semester. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Physical Science 303.

## Upper-Division Courses

P S 350. Physical Science for Elementary and Middle School Teachers.
Designed for kindergarten through sixth grade teachers with minimal preparation in mathematics (college algebra) and no preparation in physics. An inquiry laboratory in the basic concepts of light, electricity, and magnetism. Three hours of integrated laboratory and lecture a day for three weeks.

## P S 367M. Physical Science: Methods of Astronomy.

Same as Astronomy 367M. An introductory, self-paced course in the methods of astronomy that emphasizes learning astronomical principles through observations. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Arts, Plan I, degree with a major in astronomy. Prerequisite: Upper-division standing and nine semester hours of coursework in mathematics and/or science, including one of the following: Physical Science 303, 304, Astronomy 301, 302, 303. Equivalent preparation in mathematics, physics, chemistry, or earth sciences may be substituted with written approval of the instructor.

## P S 375. Individual Study in Physical Science.

Intended primarily for preservice and in-service teachers. Guided inquiry reading or laboratory research in physical science. Meets three times a week for one semester, for one hour each meeting. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and written consent of instructor.

## Physics: PHY

## Lower-Division Courses

PHY 301. Mechanics.
Designed for students who intend to major in science or mathematics. Three lecture hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 301, 302K, 303K, 309K, 317K. Prerequisite: High school physics or consent of the undergraduate adviser; credit with a grade of at least C - or registration
for Physics 101L; Mathematics 408C, 408K, and registration for 408L, or Mathematics 408 N and registration for 408S.

## PHY 101L. Laboratory for Physics 301.

Three laboratory hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 101L, 102M, 103M, 117M. May not be counted toward a degree unless prerequisite is observed. Prerequisite: Credit with a grade of at least C- or registration for Physics 301.

## PHY 302K (TCCN: PHYS 1301). General Physics--Technical Course: Mechanics, Heat, and Sound.

Noncalculus technical course in physics. Three lecture hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 301, 302K, 303K, 309K, 317K. Prerequisite: High school trigonometry or Mathematics 305 G ; and credit with a grade of at least C- or registration for Physics 102M.

PHY 302L (TCCN: PHYS 1302). General Physics--Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics.
Noncalculus technical course in physics. Three lecture hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 302L, 303L, 309L, 316, 317L. Prerequisite: Physics 302K and 102M with grades of at least C-; and credit with a grade of at least C- or registration for Physics 102N.
PHY 102M (TCCN: PHYS 1101). Laboratory for Physics 302K.
Two laboratory hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 101L, 102M, 103M, 117M. May not be counted toward a degree unless prerequisite is observed. Prerequisite: Credit with a grade of at least C - or registration for Physics 302K.

## PHY 102N (TCCN: PHYS 1102). Laboratory for Physics 302L.

Two laboratory hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 102N, 103N, 116L, 117N. May not be counted toward a degree unless prerequisite is observed. Prerequisite: Credit with a grade of at least C- or registration for Physics 302L.

## PHY 303K (TCCN: PHYS 2325). Engineering Physics I.

A general survey of physics; primarily laws of motion, heat, and wave phenomena. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 301, 302K, 303K, 309K, 317K. Prerequisite: High school physics or consent of the undergraduate adviser; Mathematics 408C with a grade of at least C-; Mathematics 408 K with a grade of at least C- and registration for 408L, or Mathematics 408 N with a grade of at least C- and registration for 408S; and credit with a grade of at least C- or registration for Physics 103M.

## PHY 303L (TCCN: PHYS 2326). Engineering Physics II.

Electricity and magnetism, optics, and atomic phenomena. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 302L, 303L, 309L, 316, 317L. Prerequisite: The following coursework with a grade of at least C- in each: Mathematics 408D, Physics 303K, and 103M; Mathematics 408L with a grade of at least Cand registration for 408 M , or Mathematics 408 S with a grade of at least C- and registration for 408 M ; and credit with a grade of at least C- or registration for Physics 103N.

## PHY 103M (TCCN: PHYS 2125). Laboratory for Physics 303K.

Two laboratory hours a week for one semester. Only one of the following may be counted: Physics 101L, 102M, 103M, 117M. May not be counted toward a degree unless prerequisite is observed. Prerequisite: Credit with a grade of at least C- or registration for Physics 303K.

## PHY 103N (TCCN: PHYS 2126). Laboratory for Physics 303L.

Two laboratory hours and one discussion hour a week for one semester. Only one of the following may be counted: Physics 102N, 103N, 116L, 117 N . May not be counted toward a degree unless prerequisite is observed. Prerequisite: Credit with a grade of at least C- or registration for Physics 303L.

## PHY 104. Introductory Physics Seminar.

Suggested for beginning physics majors. Discussion of the development of important ideas in physics, with emphasis on their relevance to contemporary research. One lecture hour a week for one semester. Offered on the pass/fail basis only.

## PHY 306. 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.
Three lecture hours a week for one semester. May not be counted toward any degree. Prerequisite: High school trigonometry or Mathematics 305G.

## PHY 108. Introduction to Research.

Introductory laboratory experience; use of tools and test equipment; beginning apprenticeship in active physics research. One class hour a week for one semester. May be repeated for credit. Offered on the pass/ fail basis only. Prerequisite: Consent of instructor and approval of an undergraduate adviser.

## PHY 308F. Introduction to Research.

Introductory laboratory experience; use of tools and test equipment; beginning apprenticeship in active physics research. One lecture hour and eight laboratory hours a week for one semester. Prerequisite: Consent of instructor and the undergraduate adviser.

## PHY 309K (TCCN: PHYS 1305). Elementary Physics for Nontechnical Students.

Designed for students who do not intend to do further work in natural sciences, engineering, mathematics, or medicine. Mechanics, heat, and sound. Three lecture hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 301, 302K, 303K, 309K, 317K. May not be counted toward a degree in the College of Natural Sciences.

## PHY 309L (TCCN: PHYS 1307). 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. Three lecture hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 302L, 303L, 309L, 316, 317L. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Physics 309 K with a grade of at least C-.

## PHY 110C. Conference Course.

Supervised study of selected topics in physics, by individual arrangement with department and instructor. Conference course. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Written consent of instructor.

## PHY 315. Wave Motion and Optics.

Study of general properties of waves; examples include sound, electromagnetic, and mechanical waves; special emphasis on light and optics. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least $C$ - in each: Mathematics 427K, Physics 316, and 116L; and credit with a grade of at least C- or registration for Physics 115L.

## PHY 115L. Laboratory for Physics 315.

Three laboratory hours a week for one semester. May not be counted toward a degree unless prerequisite is observed. Prerequisite: Credit with a grade of at least C- or registration for Physics 315.

## PHY 316. Electricity and Magnetism.

Three lecture hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 302L, 303L, 309L, 316, 317L. Prerequisite: The following coursework with a grade of at least C- in each: Mathematics 408D, Physics 301 and 101L; Mathematics 408L with a grade of at least C- and registration for 408M, or Mathematics 408S with a grade of at least C- and registration for 408M; and credit with a grade of at least $C$ - or registration for Physics 116L.

## PHY 116L. Laboratory for Physics 316.

Three laboratory hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics $102 \mathrm{~N}, 103 \mathrm{~N}, 116 \mathrm{~L}, 117 \mathrm{~N}$. May not be counted toward a degree unless prerequisite is observed. Prerequisite: Credit with a grade of at least C - or registration for Physics 316.

## PHY 317K. 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. Three lecture hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 301, 302K, 303K, 309K, 317K. May not be counted toward the Bachelor of Science in Astronomy or Bachelor of Science in Physics. Satisfies most medical and dental school requirements for physics. Prerequisite: High school physics or consent of the undergraduate adviser; Mathematics 408C with a grade of at least C-; Mathematics 408K with a grade of at least C- and registration for 408L, or Mathematics 408 N with a grade of at least C- and registration for 408S; and credit with a grade of at least C- or registration for Physics 117M.

## PHY 317L. 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. Three lecture hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 302L, 303L, 309L, 316, 317L. May not be counted toward the Bachelor of Science in Astronomy or the Bachelor of Science in Physics. Satisfies most medical and dental school requirements for physics. Prerequisite: Physics 317 K and 117 M with grades of at least C -; and credit with a grade of at least C- or registration for Physics 117N.

## PHY 117M. Laboratory for Physics 317K.

Three laboratory hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 101L, 102M, 103M, 117M. Prerequisite: Credit with a grade of at least C- or registration for Physics 317K.

## PHY 117N. Laboratory for Physics 317L.

Three laboratory hours a week for one semester. Only one of the following may be counted without prior approval of the department: Physics 102N, 103N, 116L, 117N. Prerequisite: Credit with a grade of at least C- or registration for Physics 317L.

PHY 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

## Upper-Division Courses

PHY 321. Modern Physics: Plan II.
Restricted to Plan II students. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## PHY 329. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 367, Mathematics 368K, Physics 329. Prerequisite: The following coursework with a grade of at least C- in each: Physics 315 and 115L; a programming course at the level of Computer Science 303E with a grade of at least C- or consent of instructor; and credit with a grade of at least C- or registration for Mathematics 341 or 340L.

PHY 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929 S. 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. May be repeated for credit when the topics vary.

## PHY 329W. 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. Forty laboratory hours a week for one semester. The student must repeat the course each work period and must take it twice to receive credit toward the degree; at least one of these registrations must be during a long-session semester. No more than three semester hours may be counted toward the major requirement; no more than six semester hours may be counted toward the degree. The student's first registration must be on the pass/fail basis. Prerequisite: Membership application to the Cooperative Physics Program, Physics 316 with a grade of at least C-, and consent of the undergraduate adviser.

## PHY 333. Modern Optics.

Review of geometrical optics, polarization, interference, and optical instruments. Subjects include Fourier optics, light propagation in fibers, quantum optics, and coherence. Three lecture hours a week for one
semester. Prerequisite: The following coursework with a grade of at least C- in each: Mathematics 427K, Physics 315, and 115L.

## PHY 133L. Laboratory for Physics 333.

Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Physics 333.

## PHY 336K. Classical Dynamics.

Elementary linear vector algebra, Newtonian mechanics, Lagrangian mechanics, central force motion, dynamics of rigid bodies, and theory of small oscillations. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least $C$ - in each: Mathematics 427L or 364K, Physics 315, and 115L.

## PHY 336L. 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. Three lecture hours a week for one semester. Prerequisite: Physics 336K with a grade of at least C-

## PHY 338K. Electronic Techniques.

Elementary circuit theory, amplifiers, feedback, pulse and digital techniques, signal processing, and microprocessors as applied to physics instrumentation. One and one-half lecture hours and three laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Mathematics 427K, Physics 316, and 116L.

## PHY 341. Selected Topics in Physics.

Three lecture hours a week for one semester. An additional one-hour problem session is required for some sections; these are identified in the Course Schedule. May not be counted toward the Bachelor of Science in Physics degree without prior approval of the department. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, three semester hours of coursework in a natural science, and three semester hours of coursework in mathematics.

Topic 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. May be repeated for credit when the topics vary.
Topic 2: Great Men, Moments, and Ideas. How our views of matter, energy, and the universe developed. May be repeated for credit when the topics vary.
Topic 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. May be repeated for credit when the topics vary.
Topic 4: The Nature of Things. A qualitative survey of all of physics, from falling bodies to quarks, making heavy use of classroom demonstrations. May be repeated for credit when the topics vary.
Topic 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. May be repeated for credit when the topics vary.
Topic 6: Writing. May be repeated for credit when the topics vary.
Topic 7: Research Methods: UTeach. May be repeated for credit when the topics vary.

## PHY 345. 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. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and the following coursework with a grade of at least C- in each: Biology 311D, Chemistry 302, and Physics 355.

## PHY 352K. Classical Electrodynamics I.

Electrostatic fields, magnetostatic fields, derivation of Green's theorems and functions and of Maxwell's equations. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Mathematics 427 L or 364 K , Physics 315 , and 115 L .

## PHY 352L. Classical Electrodynamics II.

A continuation of Physics 352 K , 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Physics 352 K with a grade of at least C-.

## PHY 353L. 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. Four and one-half laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C-in each: Physics 315 and 115L.

## PHY 355. 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. Three lecture hours a week for one semester. Physics 319 and 355 may not both be counted. Prerequisite: Physics 303L or 316 with a grade of at least C-.

## PHY 362K. Quantum Physics II: Atoms and Molecules.

The two-electron atom; spin and statistics; coupling schemes for manyelectron 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. Three lecture hours a week for one semester. Prerequisite: Physics 373 with a grade of at least C-

## PHY 362L. 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. Three lecture hours a week for one semester. Prerequisite: Physics 373 with a grade of at least C-; Physics 362 K is recommended.

## PHY 369. Thermodynamics and Statistical Mechanics.

Basic concepts of thermal physics; entropy, enthalpy, free energy, phase transitions, equilibrium distribution functions, applications. Three lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Physics 373.

## PHY 370C. Individual Study in Physics.

Supervised reading or research in physics. Hours to be arranged. Some sections are offered on the pass/fail basis only. May be repeated for credit when the topics vary. Prerequisite: Physics 336 K with a grade of at least

C-, credit with a grade of at least C- or registration for Physics 352K, and consent of the undergraduate adviser.

## PHY 670T. Senior Thesis.

Individual research with faculty supervision. First half involves preparation of proposal; second involves completion of written thesis. Six hours of work a week for one semester, or three hours of work a week for two semesters. Only three semester hours may be counted toward the Bachelor of Science in Physics degree. Prerequisite: Upper-division standing and nine semester hours of upper-division coursework in physics.

## PHY 373. 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. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Physics 336K, 353L, and 355 (or 453).

## PHY 474. 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. Three lecture hours and eight laboratory hours a week for one semester, with additional laboratory hours to be arranged. With consent of instructor, may be repeated for credit. Prerequisite: Physics 352K, 353L, and 355 (or 453); or consent of the undergraduate adviser. Physics 338 K is recommended.

## PHY 375P. Introductory Plasma Physics.

Orbit theory and drifts, introduction to plasma stability and waves, applications to plasma confinement and heating. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Physics 352 K and 369.

## PHY 375R. Introduction to Relativity.

Overview of the special and general theories of relativity, with emphasis on recent developments in gravitation. Three lecture hours a week for one semester. Prerequisite: Physics 352 K with a grade of at least C-.

## PHY 375S. Introductory Solid-State Physics.

Crystal structure, classification of solids, cohesion, thermal and electrical properties of solids, magnetic properties of solids, imperfections. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Physics 369 and 373.

## PHY 379H. Honors Tutorial Course.

Research project, resulting in a thesis, for outstanding students electing to take the honors program in physics. Conference course. Prerequisite: A University grade point average of at least 3.00, a grade point average in physics of at least 3.50, twelve semester hours of upper-division coursework in physics, and consent of the student's research supervisor and the departmental honors adviser.

## Division of Statistics and Data Sciences

## Statistics and Data Sciences: SDS

## Lower-Division Courses

SDS 302. Data Analysis for the Health Sciences.
Basic probability and data analysis for the sciences. Subjects include randomness, sampling, distributions, probability models, inference, regression, and nonlinear curve fitting. The equivalent of four lecture
hours a week. Statistics and Data Sciences 302 and Statistics and Scientific Computation 302 may not both be counted; may not be counted by students with credit for Educational Pyschology 371, Mathematics 316, Statistics and Data Sciences 303, 304, 305, 306, Statistics and Scientific Computation 303, 304, 305, 306. Prerequisite: An appropriate score on the College of Natural Sciences mathematics placement examination.

## SDS 303. Statistics in Experimental Research.

An introduction to the fundamental concepts and methods of statistics, with emphasis on applications in experimental science. Includes exploratory data analysis, correlation and regression, descriptive statistics, sampling distributions, confidence intervals, and hypothesis testing. Three lecture hours a week for one semester. Only one of the following may be counted: Mathematics 316, Statistics and Data Sciences 303, 304, 305, 306, Statistics and Scientific Computation 303, 304, 305, 306. Prerequisite: An appropriate score on the College of Natural Sciences mathematics placement examination.

## SDS 304. Statistics in Health Care.

An introduction to the fundamental concepts and methods of statistics, with emphasis on applications in the health sciences. Includes exploratory data analysis, correlation and regression, descriptive statistics, sampling distributions, confidence intervals, and hypothesis testing. Three lecture hours a week for one semester. Only one of the following may be counted: Mathematics 316, Statistics and Data Sciences 303, 304, 305, 306, Statistics and Scientific Computation 303, 304, 305, 306. Prerequisite: An appropriate score on the College of Natural Sciences mathematics placement examination.

## SDS 305. Statistics in Policy Design.

An introduction to the fundamental concepts and methods of statistics, with emphasis on applications in policy evaluation and design. Includes exploratory data analysis, correlation and regression, descriptive statistics, sampling distributions, confidence intervals, and hypothesis testing. Three lecture hours a week for one semester. Only one of the following may be counted: Mathematics 316, Statistics and Data Sciences 303, 304, 305, 306, Statistics and Scientific Computation 303, 304, 305, 306. Prerequisite: An appropriate score on the College of Natural Sciences mathematics placement examination.

## SDS 306. Statistics in Market Analysis.

An introduction to the fundamental concepts and methods of statistics, with emphasis on applications in the analysis of personal and group behaviors. Includes exploratory data analysis, correlation and regression, descriptive statistics, sampling distributions, confidence intervals, and hypothesis testing. Three lecture hours a week for one semester. Only one of the following may be counted: Mathematics 316, Statistics and Data Sciences 303, 304, 305, 306, Statistics and Scientific Computation 303, 304, 305, 306. Prerequisite: An appropriate score on the College of Natural Sciences mathematics placement examination.

## SDS 110T, 210T, 310T, 410T. Topics in Statistics and Computation.

For each semester hour of credit earned, one lecture hour a week for one semester. Statistics and Data Sciences 110T and Statistics and Scientific Computation 110 T may not both be counted. May be repeated for credit when the topics vary.

## SDS 318. Introduction to Statistical and Scientific Computation.

An introduction to quantitative analysis using fundamental concepts in statistics and scientific computation. Includes probability, distributions, sampling, interpolation, iteration, recursion, and visualization. Three lecture hours and one laboratory hour a week for one semester. Statistics
and Data Sciences 318 and Statistics and Scientific Computation 318 may not both be counted.

## Upper-Division Courses

## SDS 321. 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. The equivalent of four lectures hours a week. Only one of the following may be counted: Mathematics 362K, Statistics and Data Sciences 321, Statistics and Scientific Computation 321. Prerequisite: The following with a grade of at least C-: Computer Science 311, 313K, Mathematics 325K, or the equivalent; and Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## SDS 222, 322. Introduction to Scientific Programming.

Introduction to programming using both the C and Fortran (95/2003) languages, with applications to basic scientific problems. Covers common data types and structures, control structures, algorithms, performance measurement, and interoperability. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Statistics and Data Sciences 222, 322, 292, 392, Statistics and Scientific Computation 222, 322, 292, 392. Prerequisite: Credit or registration for Mathematics 408C, 408K, or 408N.

## SDS 323. Statistical Learning and Inference.

An introduction to statistical influence, broadly construed as the process of drawing conclusions from data, and to quantifying uncertainty about said conclusions. Covers the major schools of thought that influence modern scientific practice, including classical frequentist methods, machine learning, and Bayesian inference. Three lecture hours a week for one semester. Statistics and Data Sciences 323 and Statistics and Scientific Computation 323 may not both be counted. Prerequisite: Statistics and Data Sciences 321 (or Statistical and Scientific Computation 321) or the equivalent.

## SDS 325H. 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. Three lecture hours a week for one semester. Statistics and Data Sciences 325H and Statistics and Scientific Computation 325H may not both be counted. Prerequisite: Admission to the Dean's Scholars Honors Program in the College of Natural Sciences or consent of instructor.

## SDS 328M. Biostatistics.

Introduction to methods of statistical analysis of biological data. Includes data analysis, basics of experimental design, statistical inference, interval estimation, and hypothesis testing. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 318M, 328M, Statistics and Data Sciences 328M, Statistics and Scientific Computation 318M, 328M. Prerequisite: An appropriate score on the College of Natural Sciences mathematics placement examination, and six semester hours of coursework in biology.

## SDS 329C. Practical Linear Algebra I.

Matrix representations and properties of matrices; linear equations, eigenvalue problems and their physical interpretation; and linear least squares and elementary numerical analysis. Emphasis on physical interpretation, practical numerical algorithms, and proofs of fundamental principles. Three lecture hours a week for one semester. Statistics and Data Sciences 329C and Statistics and Scientific Computation 329C may
not both be counted. Prerequisite: Credit or registration for Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N .

## SDS 329D. Practical Linear Algebra II.

Iterative solutions to linear equations and eigenvalue problems; properties of symmetric and nonsymmetric matrices, exploitation of parsity and diagonal dominance; introduction to multivariate nonlinear equations; numerical analysis; and selected applications and topics in the physical sciences. Three lecture hours a week for one semester. Statistics and Data Sciences 329D and Statistics and Scientific Computation 329D may not both be counted. Prerequisite: Mathematics 340L, 341, or Statistics and Data Sciences 329C (or Statistics and Scientific Computation 329C).

## SDS 332. Statistical Models for the Health and Behavioral Sciences.

Follow up to introductory statistics with an overview of advanced statistical modeling topic. Subjects may include multiple regression, ANOVA, logistic regression, random and mixed effects models including longitudinal data, time series analysis, survival analysis, factor analysis, and SEM. Use of statistical software is emphasized. Three lecture hours a week for one semester. Prerequisite: Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 304 (or Statistics and Scientific Computation 304), 306 (or Statistics and Scientific Computation 306), 328M (or Statistics and Scientific Computation 328M), or the equivalent.

## SDS 335. Scientific and Technical Computing.

A comprehensive introduction to computing techniques and methods applicable to many scientific disciplines and technical applications. Covers computer hardware and operating systems, systems software and tools, code development, numerical methods and math libraries, and basic visualization and data analysis tools. Three lecture hours a week for one semester. Statistics and Data Sciences 335 and Statistics and Scientific Computation 335 may not both be counted. Prerequisite: Mathematics 408D or 408M, and prior programming experience.

## SDS 339. Applied Computational Science.

Concentrated study in a specific area or areas of application, with an emphasis on modeling and visualization. Areas may include computational biology, computational chemistry, computational applied mathematics, computational economics, computational physics, or computational geology. Three lecture hours a week for one semester. Statistics and Data Sciences 339 and Statistics and Scientific Computation 339 may not both be counted unless topics vary. May be repeated for credit when the topics vary.

## SDS 348. Computational Biology and Bioinformatics.

Computational-based data sorting, data transformation, and data analysis; programming in Python and R. Three lecture hours and one laboratory hour per week. Prerequisite: Statistics and Data Sciences 328M (or Statistics and Scientific Computation 328M) with a grade of at least C-.

## SDS 150K. Data Analysis Applications.

Introduction to the use of statistical mathematical applications for data analysis. Two lecture hours a week for eight weeks. Statistics and Data Sciences 150K and Statistics and Scientific Computation 150K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Varies with the topic.

Topic 1: SPSS Software. Statistics and Data Sciences 150K (Topic 1) and Statistics and Scientific Computation 150K (Topic 1) may not both be counted. Offered on the pass/fail basis only. Additional prerequisite: Upper-division standing.
Topic 2: SAS Software. Statistics and Data Sciences 150K (Topic 2) and Statistics and Scientific Computation 150K (Topic 2) may not both
be counted. Offered on the pass/fail basis only. Additional prerequisite: Upper-division standing.
Topic 3: Stata Software. Statistics and Data Sciences 150K (Topic 3) and Statistics and Scientific Computation 150K (Topic 3) may not both be counted. Offered on the pass/fail basis only. Additional prerequisite: Upper-division standing.
Topic 4: The R Software Environment. Statistics and Data Sciences 150K (Topic 4) and Statistics and Scientific Computation 150K (Topic 4) may not both be counted. Offered on the pass/fail basis only. Additional prerequisite: Upper-division standing.

## SDS 352. Statistical Methods.

Study of simple and multiple regression, fundamentals of experimental design, and analysis of variance methods. May include logistic regression, Poisson regression, resampling methods, introduction to Bayesian methods, and probability models. Includes substantial use of statistical software. Three lecture hours and one laboratory hour a week for one semester. Statistics and Data Sciences 352 and Statistics and Scientific Computation 352 may not both be counted. Prerequisite: One of the following: Mathematics 316, Statistics and Data Sciences 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), or 306 (or Statistics and Scientific Computation 306).

## SDS 353. Advanced Multivariate Modeling.

Advanced topics in statistical modeling, including models for categorical and count data; spatial and time-series data; and survival, hazard, and hierarchical models. Extensive use of statistical software to build on knowledge of introductory probability and statistics, as well as multiple regression. Three lecture hours a week for one semester Statistics and Data Sciences 353 and Statistics and Scientific Computation 353 may not both be counted. Prerequisite: Mathematics 408D or 408M; and Statistics and Data Sciences 325H (or Statistics and Scientific Computation 325H) or 352 (Statistics and Scientific Computation 352).

## SDS 358. Special Topics in Statistics.

Three lecture hours a week for one semester. Statistics and Data Sciences 358 and Statistics and Scientific Computation 358 may not both be counted unless topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic.

## SDS 367S. Simulation Modeling.

Basic concepts of discrete-event simulation. Statistical input and output analysis; application of simulation software; modeling of systems under uncertainty. Three lecture hours a week for one semester. Only one of the following may be counted: Statistics and Data Sciences 367S, Statistics and Scientific Computation 358 (Topic: Simulation Modeling), 367S. Prerequisite: Upper-division standing and the following with a grade of at least C-: Mathematics 408C, 408K, or 408N; and Statistics and Data Sciences 321 (or Scientific Computation 321) or an equivalent introductory statistics course.

## SDS 374C. 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. Three lecture hours a week for one semester. Statistics and Data Sciences 374C and Statistics and Scientific Computation 374C may not both be counted. Prerequisite: Mathematics 408D or 408M, 340L, and prior programming experience using C or Fortran on Linux or Unix systems.

## SDS 374D. Distributed and Grid Computing for Science and

 Engineering.Distributed and grid computing principles and technologies. Covers common modes of grid computing for scientific applications, development of grid-enabled applications, and future trends in grid computing. Three lecture hours a week for one semester. Statistics and Data Sciences 374D and Statistics and Scientific Computation 374D may not both be counted. Prerequisite: Mathematics 408D or 408M, 340L, and prior programming experience using C or Fortran on Linux or Unix systems.

## SDS 374E. 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. Three lecture hours a week for one semester. Statistics and Data Sciences 374E and Statistics and Scientific Computation 374E may not both be counted. Prerequisite: Mathematics 408D or 408M, 340, and prior programming experience using C or Fortran on Linux or Unix systems.

## SDS 375. Special Topics in Scientific Computation.

Three lecture hours a week for one semester. Statistics and Data Sciences 375 and Statistics and Scientific Computation 375 may not both be counted unless topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic.

## SDS 378. Introduction to Mathematical Statistics.

Same as Mathematics 378 K . 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. Three lecture hours a week for one semester. Only one the following may be counted: Mathematics 378 K , Statistics and Data Sciences 378, Statistics and Scientific Computation 378. Prerequisite: Mathematics 362 K with a grade of at least C-.

SDS 179R, 279R, 379R, 479R. Undergraduate Research.
Students work on an individual research project under the supervision of one or more faculty members. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## UTeach-Natural Sciences

## UTeach-Natural Sciences: UTS

## Lower-Division Courses

UTS 101. 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 planning and teaching four inquiry-based lessons to students in grades three to six in local elementary schools. One and one-half class hours a week for one semester; at least ten hours of fieldwork a semester are also required. Chemistry 107 (Topic: STEP 1--UTeach) and UTeach-Natural Sciences 101 may not both be counted. Prerequisite: A University grade point average of at least 2.20.

## UTS 110. 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. One and one-half class hours a week for one semester; at least twenty hours of fieldwork a semester are also required. Biology 101C (Topic: STEP 2) and UTeach-Natural Sciences 110 may not both be counted. Prerequisite: UTeach-Natural Sciences 101 with a grade of at least C-, and a University grade point average of at least 2.20.

## Upper-Division Courses

UTS 350. Knowing and Learning in Math and Science.
Same as Curriculum and Instruction 365C. Restricted to students in the UTeach-Natural Sciences program. 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. Three lecture hours a week for one semester; additional hours may be required. Only one of the following may be counted: Curriculum and Instruction 365C, 371 (Topic 21: Knowing and Learning in Math and Science), UTeach-Natural Sciences 350. Prerequisite: Credit with a grade of at least C- or registration for UTeach-Natural Sciences 101.

## UTS 355. Classroom Interactions.

Same as Curriculum and Instruction 365D. Restricted to students in the UTeach-Natural Sciences program. 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. Three lecture hours a week for one semester; additional hours may be required. Only one of the following may be counted: Curriculum and Instruction 365D, 371 (Topic 20), UTeach-Natural Sciences 355. Prerequisite: The following courses with a grade of at least C-: Curriculum and Instruction 365C or UTeach-Natural Sciences 350, and UTeachNatural Sciences 110; and a University grade point average of at least 2.75.

## UTS 360. Project-Based Instruction.

Same as Curriculum and Instruction 365E. Restricted to students in the UTeach-Natural Sciences program who have earned a passing score on the preliminary portfolio. Foundations of project-based, casebased, and problem-based learning environments; principles of projectbased curriculum development in mathematics and science education; classroom management and organization of project-based learning classrooms. Three lecture hours a week for one semester with additional fieldwork hours to be arranged. Only one of the following may be counted: Curriculum and Instruction 365E, 371 (Topic 22: Project-Based Instruction), UTeach-Natural Sciences 360. Prerequisite: Curriculum and Instruction 365D or UTeach-Natural Sciences 355 with a grade of at least C-, and a University grade point average of at least 2.75.

## UTS 170. Student Teaching Seminar.

Restricted to students in the UTeach-Natural Sciences program who have earned a passing score on the preliminary portfolio. Discussions include student teaching experiences, contemporary critical issues in education, and preparation for the state certification exam. One lecture hour a week for one semester. Chemistry 107 (Topic: Special Topics Seminar) and UTeach-Natural Sciences 170 may not both be counted. Prerequisite: Credit or registration for Curriculum and Instruction 650S, and a University grade point average of at least 2.75.

## UTS 675. 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. Twenty hours of fieldwork a week for one semester. Offered on the
pass/fail basis only. Prerequisite: A University grade point average of at least 2.50 , approval of the preliminary portfolio by the College of Natural Sciences UTeach Program, consent of the UTeach adviser in the College of Natural Sciences, and concurrent enrollment in UTeachNatural Sciences 170.

# School of Nursing 

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## General Information

## Mission

The purpose of the School of Nursing is to achieve excellence in undergraduate and graduate education, research, public service, and to advance the missions of the University of Texas at Austin through:

1. Preparing students at the baccalaureate level to assume roles in professional nursing practice.
2. Preparing students at the graduate level to assume roles in advanced nursing practice, public health, administration, education, and research.
3. Promoting excellence in nursing scholarship.
4. Advancing the health of the public through developing and disseminating new knowledge about health, health care, and health care delivery through scholarly inquiry.
5. Providing consultation, health care programs, and health care services in response to emerging and urgent public health needs.

## History

The University of Texas School of Nursing, established in Galveston in 1890 as the John Sealy Hospital Training School for Nurses, is one of the oldest schools of nursing in the Southwest. In 1896 it was transferred to the University of Texas and became the School of Nursing, a division of the Medical Branch, with the diploma granted by the University. In addition to the diploma course, a curriculum leading to the degree of Bachelor of Science in Nursing was established in 1923 in cooperation with the College of Arts and Sciences of the Main University in Austin. In 1932 the School of Nursing was renamed the John Sealy College of Nursing. The degree program was transferred to the college in 1943.

With the financial support of the Texas Graduate Nursing Association, graduate courses in nursing were first offered in 1930 in the Department of Physical and Health Education at the Main University. In 1940, a complete curriculum was established leading to the degree of Bachelor of Science in Nursing Education. In 1945, the curriculum was transferred to the Medical Branch administration, bringing the John Sealy College of Nursing and the new Department of Nursing Education together to form the School of Nursing with its own dean. In 1949, a curriculum leading to the degree of Bachelor of Science in Nursing was established for graduates of diploma programs. The last class of students enrolled in the diploma program was admitted to the School of Nursing in 1957; since that time the school has offered a single program leading to the Bachelor of Science in Nursing.

Funding from the W. K. Kellogg Foundation provided for a program leading to the Master of Science in Nursing with a major in nursing administration, first offered in 1952. Participating in the program of the Southern Regional Education Board for graduate education in nursing, the School of Nursing offered additional specialization in 1955. At that time
the name of the school was changed to the University of Texas Medical Branch School of Nursing.

In the fall of 1960, the University of Texas at Austin became an extension campus of the School of Nursing, which was still located in Galveston, and nursing courses were offered on the Austin campus for the first time. The School of Nursing was reorganized in 1967 as The University of Texas Nursing School (System-wide) and administrative offices were moved to Austin. The school was renamed The University of Texas System School of Nursing in 1972. Junior- and senior-level nursing courses were offered in Austin, El Paso, Fort Worth, Galveston, Houston, and San Antonio.

On March 26, 1976, the Board of Regents of The University of Texas System voted to reorganize the schools of nursing in the system and to place each school under the administration of the president of the health science center or academic institution nearest it. On September 1, 1976, the School of Nursing at Austin became a part of the University of Texas at Austin.

A program leading to the Doctor of Philosophy degree in nursing was initiated in 1974. Nursing faculty members conduct research on a wide variety of topics. Since 2002, the School of Nursing has been ranked among the top institutions in research funding received from the National Institutes of Health.

## Facilities

The 110,008-square-foot, five-story Nursing School building houses administrative, faculty, staff, and research offices, as well as large and small classrooms and seminar and conference rooms. Also located in the building are the Cain Center for Nursing Research, the St. David's Center for Health Promotion and Disease Prevention Research in Underserved Populations, and the School of Nursing Learning Center, with an audiovisual library and a staff who provide technical assistance for clinical simulation and skills, instructional design, and production.

Learning experiences in the health field are numerous and varied. The School of Nursing has ongoing clinical placement agreements with more than two hundred agencies. These include the Austin State Hospital, University Medical Center at Brackenridge, St. David's Medical Center, and Seton Medical Center Austin. Other community settings used for student field experiences include nursing homes, neighborhood health centers, day-care centers, state and local health departments, physicians' offices, and clinics, including our Family Wellness Center (located in the University's Development Building), and our Children's Wellness Center (located in Del Valle).

## Financial Assistance Available through the School

Application forms for the following scholarships are available from the Office of Student Financial Services and from the School of Nursing (http://www.utexas.edu/nursing/about/contact.html), 1710 Red River Street, Austin TX 78701-1499. The School of Nursing Scholarship Committee selects the recipients for endowed nursing scholarships.

## Endowed Scholarships

The Rita Willner Atlas Endowed Presidential Scholarship provides support for undergraduate and graduate students. At the donor's request, recipients of the awards are designated Rita Willner Atlas Scholars or Rita Willner Atlas Fellows.

The Jerry N. Blaylock, RN, EdD, FAAN, Endowed Scholarship in Nursing provides support to an upper division undergraduate student with a GPA of at least 3.5, who is a U.S. citizen or permanent resident.

Donor's strong preference is that the recipient be a graduate of a Texas high school or has resided in Texas.

The Betty J. Bomar Endowed Presidential Scholarship in Nursing provides scholarship support to an outstanding student pursuing a degree in nursing and a career in providing quality health care. Financial need is a priority in selecting the recipient.

The Boudreaux Endowed Scholarship in Nursing provides support for undergraduate students with financial need.

The Dr. Louis Edward and Virginia Steele Brenz Scholarship provides support to graduate and undergraduate students.

The Edith Blanche Jennings Burns, RN, Endowed Scholarship in Nursing provides support to a full-time or part-time undergraduate or graduate student. The recipient must show excellent promise for a career in nursing and must have a grade point average of at least 2.5 if he or she has been a college or university student. Preference is given first to graduates of Moran High School, Shackelford County, Texas, and then to South Carolina residents, with preference to residents of Lancaster County. If such a recipient cannot be found, a resident of Travis County, Texas, who also graduated from a Travis County high school, is preferred. Financial need is considered.

The Carol Diane Cave Memorial Endowed Presidential Scholarship in Nursing is awarded annually to an undergraduate student pursuing a career in nursing. The student must be a Texas resident in the professional nursing sequence and must maintain a grade point average of at least 3.3.

The Hilda B. Cavell Memorial Endowed Scholarship in Nursing provides support for undergraduate and graduate nursing students who commit to the service of public health and who demonstrate financial need.

The Joe and Tana Christie Endowed Presidential Scholarship in Nursing is awarded annually to an outstanding upper-division or graduate student pursuing a degree in nursing and a career in providing quality health care outside a hospital setting for people with AIDS or other terminal illnesses. The recipient must have a grade point average of at least 3.5.

The Steven and Alexandra Cocavessis Endowed Scholarship in Nursing provides support for undergraduate students in the School of Nursing. Preference is given to students who exhibit financial need and demonstrate academic merit.

The Fred J. and Jann Curry Endowed Scholarship provides awards to deserving nursing students.

The Mitzi I. Nuhn Dreher Endowed Presidential Scholarship provides an award to a full-time undergraduate or graduate student. Preference is given to students who participate in a broad range of extracurricular activities or professional nursing organizations.

The Endowment for Excellence provides scholarship support to graduate nursing students, with preference given to those planning to pursue a career in cardiovascular study and research.

## The School of Nursing Faculty-Staff Endowed Presidential

Scholarship is awarded to a full-time undergraduate or graduate student. Preference is given to residents of Texas. The award is made to a nursing student who has shown academic achievement by maintaining a 3.0 or better grade point average, who has shown interest in the community through a record of community involvement, and who has shown a special dedication to nursing by participating in nursing organizations.

The Eugene R. Fant Endowed Scholarship Fund provides scholarships to nursing and pre-nursing students with financial need.

The Girling Health Care Undergraduate Scholarship in Nursing is awarded to undergraduate students in the RN-BSN program with an interest in home health nursing.

The Martha C. Gooding Endowed Presidential Scholarship in Nursing is available to senior level undergraduate students under the guidelines of the Endowed Presidential Scholarship program, in memory of alum Martha Gooding.

The Kathryn Gurley Scholarship Endowment provides scholarships for students at all levels. There is no grade point average requirement.

The Jewel R. Hagan Endowed Scholarship in Nursing provides undergraduate scholarships for students in the School of Nursing, with priority given to those students enrolled in the ADN to BSN program with high academic achievement. It is the donor's preference that the recipients be U.S. military veterans who are parents of dependent children.

The Alda R. Hilliard, RN, Memorial Endowed Presidential Scholarship in Nursing is awarded to an undergraduate or graduate student pursuing a degree in nursing and a career in providing quality health care.

The Jens Jacobsen Memorial Endowed Scholarship in Nursing provides support for nursing students. Financial need and merit are strong considerations in the selection of recipients; preference is given to students from disadvantaged backgrounds.

The Lee Hage and Joseph D. Jamail Endowed Scholarship in Nursing provides support to students of average academic merit who show promise of success in their chosen field and who demonstrate evidence of financial need.

The Mary Gibbs Jones Endowed Presidential Scholarship in Nursing provides awards to full-time nursing students. Financial need is emphasized in the selection of recipients.

The Kristi Kana Endowed Presidential Scholarship in Nursing is awarded to a full-time undergraduate or graduate nursing student in good academic standing with demonstrated financial need. Preference is given to students involved in community activities for the good of others.

The Dorothy C. Luther Scholarship in Nursing provides support to deserving graduate students in the School of Nursing.

The Lillie S. Matthews Endowed Scholarship provides scholarships for students in the School of Nursing.

The Lucy May Maxey Scholarship Fund in Nursing provides scholarships to nursing students with an interest in the treatment of cancer.

The Nancy Francis and William Arnold McMinn Endowed Presidential Scholarship is awarded to an undergraduate or graduate student pursuing a degree in nursing and a career in providing quality health care. The student must be a Texas resident in the professional nursing sequence and must maintain a grade point average of at least 3.3.

## The Jode and Julie Fincher Moore Endowed Presidential

Scholarship in Nursing is available to those classified as junior or senior undergraduate students in the School of Nursing, under the guidelines of the University's Endowed Presidential Scholarship Program.

The Rose M. Morris Memorial Endowed Scholarship in Nursing provides scholarships to undergraduate, graduate, or doctoral students in the School of Nursing.

The Florence Nightingale Memorial Scholarship provides scholarships to deserving undergraduate students in the School of Nursing.

The Endowed Fellowship in Nursing Systems awards fellowships to deserving graduate students enrolled in the nursing systems concentration.

The PCA Health Plans Endowed Presidential Scholarship provides awards to incoming freshmen on the basis of academic merit. Preference is given to students who are graduates of the Austin Independent School District and then to students from the counties served by PCA Health Plans. Extracurricular activities and interests are also considered.

The S. Allison Starr Pendergras Endowed Memorial Scholarship in Nursing is awarded to an undergraduate and a graduate student with a grade point average of at least 2.50 . Financial need is a priority in selecting the recipients.

The Ella Kate and Wallace Ralston Nursing Students Scholarship Fund provides assistance for a number of students each year.

The Louis W. Rase and Sophie Braun Rase Nursing Scholarship Fund provides an award annually to a nursing student who demonstrates outstanding scholarship. The recipient is chosen on the basis of grade point average and must rank in the top 10 percent of his or her class.

The Alice R. Redland Endowed Presidential Scholarship in Nursing is awarded to a full-time undergraduate or graduate student planning to pursue a career in gerontological nursing.

The Cynthia Lubocki Riley Memorial Scholarship in Nursing provides scholarships to deserving undergraduate students who demonstrate the greatest financial need.

The Dolores and Arthur Sands Endowed Presidential Scholarship in Nursing provides scholarship support for promising graduate students pursuing a degree in nursing and a career in providing quality health care. Financial need is a priority in the selection of the recipient.

The M. Elizabeth Sands, MD, and Arthur T. Sands, MD, PhD, Endowed Scholarship in Nursing provides an award to a graduate or undergraduate nursing student planning to pursue a career in oncology.

The Santa Rosa Children's Hospital Scholarship Fund in Memory of Taylor Andrew Marceau provides an award to a nursing student who has demonstrated financial need, exemplary moral character, and good academic standing. Preference is given to students who intend to practice in the field of pediatric nursing. At the donor's request, recipients are designated Santa Rosa Scholars.

The Shivers Cancer Foundation Endowed Excellence Fund in Oncology Nursing provides awards to students focused on the care of cancer patients.

The Susanne Spencer Skaggs Endowed Scholarship in Nursing provides support to graduate and undergraduate nursing students.

The Leila Tannous Memorial Endowed Scholarship recognizes and supports outstanding graduate or undergraduate students pursuing a degree in nursing and a career in providing quality health care.

The Texas Graduate Nurses Association Scholarship provides awards to registered nurses, either undergraduates in public health nursing or graduate students.

The Travis County Medical Auxiliary and Society Endowed Presidential Scholarship in Nursing is awarded to a full-time junior or senior with a grade point average of at least 3.3 and with excellent promise for a career in nursing. Preference is given to Travis County high school graduates.

The Margaretta Turpin Endowed Scholarship in Nursing provides scholarship assistance to outstanding undergraduate students pursuing a degree in nursing and a career providing quality health care. Special consideration is given to students pursuing the study of geriatric care.

The Carlo and Angeline Visco Endowed Scholarship is awarded to a promising student pursuing a degree in nursing and a career in providing quality health care. The recipient must be a full-time student with a grade point average of at least 3.0.

The Dusky Chionsini Waters Endowed Scholarship in Nursing provides support for junior-and-senior-level nursing students who do not already hold a professional licensure in nursing. Preference is given to students from educationally and financially disadvantaged backgrounds.

The Marlene H. Weitzel, PhD, RN, Endowed Student Scholarship in Nursing recognizes and supports promising students pursuing a degree in nursing and a career in providing quality health care. Financial need is a priority in the selection of the recipient.

The Norma White, RN, Endowed Scholarship provides support to a fulltime undergraduate or graduate student who has a grade point average of at least 2.5 . Financial need is a priority in selecting the recipient.

The Lola B. Wright Foundation Centennial Scholarship enables the School of Nursing to assist several students each year with individual financial aid.

The Carolyn J. and John H. Young Endowed Presidential Fellowship in Nursing provides support to an outstanding graduate student identified by the School of Nursing as having outstanding potential to contribute to the field of nursing.

## Nonendowed Scholarships

Other scholarships are frequently available through the generosity of groups such as the University of Texas at Austin School of Nursing Alumni Network, area civic organizations, and several nursing student organizations. Information is available in the Student Affairs Office (http:// www.utexas.edu/nursing/academics/services_sa.html) each semester.

## Other Financial Aid Programs ROTC Nursing Scholarships

To be eligible for an ROTC scholarship, an applicant must be a United States citizen and must be less than twenty-five years old on June 30 of the calendar year during which commissioning is scheduled.

Air Force ROTC Nursing Scholarships. These scholarships provide for payment of tuition and fees and for textbooks and a monthly allowance during the school year. For additional information, contact The University of Texas at Austin, Department of Air Force Science, 1 University Station C3600, Austin TX 78712.

Army ROTC Nursing Scholarships. These scholarships provide for payment of tuition and fees, a flat rate for textbooks, and a monthly allowance during the school year. Students must attend the Nursing Advanced Camp during the summer between the junior and senior years and work individually with a licensed BSN preceptor. Students may apply to the dean for independent study credit; applications are considered on a case-by-case basis. For additional information, contact The University
of Texas at Austin, Department of Military Science, 1 University Station C3606, Austin TX 78712.

Navy ROTC Nursing Scholarships. These scholarships provide for payment of tuition and fees and for textbooks and a monthly allowance during the school year. For additional information, contact The University of Texas at Austin, Department of Naval Science, 1 University Station C3604, Austin TX 78712.

## Vocational Rehabilitation

The Texas Department of Assistive and Rehabilitative Services (DARS) offers assistance in payment of tuition to students who have certain disabling conditions, provided their vocational objectives are approved by a DARS counselor. Services are also available to help students with disabilities find or keep employment. More information is available at http://www.dars.state.tx.us/drs/vr.shtml.

## Academic Advising

All nursing students must come to the School of Nursing before registration each semester for academic advising. Individualized academic advising is managed by the academic advisers in the Office of Student Affairs. In addition, group advising is offered during the final semesters of the program to assist students with clinical schedules and particular requirements of the upcoming semester.

## Student Organizations

Undergraduate students interested in nursing are eligible for membership in The University of Texas Nursing Students Association. Through the association, nursing students are represented on campus committees and in campus activities involving all students. The local association is affiliated with the Texas Nursing Students' Association and the National Student Nurse Association. In addition, students can join the Longhorn Association for Men in Nursing, the African American Nursing Students Association, the Hispanic Nursing Students Association, and the Student Community of Asian Nurses.

Qualified students in the School of Nursing are also eligible for membership in Epsilon Theta Chapter of Sigma Theta Tau International Honor Society of Nursing.

## Admission and Registration

## Admission

## Admission to the University

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. Information about admission to the University is given in the General Information Catalog (http://catalog.utexas.edu/general-information/admission).

## Admission to the Professional Sequence in Nursing

Application to the School of Nursing is made concurrently when applying to the University. Acceptance into the School of Nursing is based on (1) the strength of the student's academic background; (2) participation in extracurricular and work activities, especially related to community service and health care; and (3) the quality of the essay.

## Internal Transfer

University of Texas at Austin students currently enrolled in other departments who want to change majors to nursing must attend a School of Nursing Internal Transfer Information Session (http://www.utexas.edu/ nursing/academics/ud_info.html). To be considered for change of major admission, the student must have completed Chemistry 301, Principles
of Chemistry I, Statistics and Data Sciences 302, Data Analysis for the Health Sciences, and Biology 311C, Introductory Biology I. Additionally, students should be on schedule to graduate within four years and have a University grade point average of at least 3.00. Internal transfer requests are usually very competitive and admission is offered only on a spaceavailable basis. Interested students should consult the University of Texas at Austin policy for Transfer from One Division to Another within the General Information Catalog (http://catalog.utexas.edu/general-information/registration-tuition-and-fees/transfer-from-one-division-to-another-within-the-university), as well as the School of Nursing Web site (http://www.utexas.edu/nursing) for current details about the transfer process and available information sessions.

## External Transfer

All students who wish to transfer to the University from another institution must apply to the University Office of Admissions as described in the General Information Catalog (http://catalog.utexas.edu/general-information/admission/undergraduate-admission/transfer-admission). Transfer students must meet the same requirements as University students seeking admission to the School of Nursing and select nursing as their first choice major. To be considered for transfer admission to the School of Nursing prior to nursing clinical or lab work, students must have completed thirty semester hours of transferable coursework and are advised to attend an information session. Transfer admission to the School of Nursing is competitive. Transfer applications are competitively reviewed, and admission is offered on a space-available basis. Since space is limited, applicants are strongly encouraged to indicate a second choice of major in case they are not admitted to the School of Nursing.

A student who wishes to transfer into the upper-division nursing coursework from another nursing school after starting nursing clinical or lab work must make an appointment with the School of Nursing Office of Student Affairs (http://www.utexas.edu/nursing/academics/ services_sa.html) for academic advising and transcript review. Students are encouraged to consult an adviser in the School of Nursing before applying for admission to the University. In addition to meeting the regular University admission requirements, the student must apply for admission to the School of Nursing. He or she must submit an official transcript from each institution attended, letters of recommendation from faculty members at the previous nursing school, and course information for all completed nursing courses. Requests to transfer into upper division at the School of Nursing are approved on a limited, space-available basis.

Transfer students must meet the same requirements as University students seeking admission to the professional sequence; however, they are considered for admission to the School of Nursing only if they are admitted to the University.

## Registration

The General Information Catalog gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule (http:// registrar.utexas.edu/schedules), published before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and the General Information Catalog are published on the University Registrar's Web site (http://registrar.utexas.edu).

## Academic Policies and Procedures

## Student Responsibility

1. It is the student's responsibility to be informed of general and special notices posted in the School of Nursing building and on the listserv.
2. The student must make arrangements for the completion of all work, including makeup examinations and requirements for removal of conditional and incomplete grades.
3. Because the curriculum is demanding, students are urged to limit work hours while in the program. A student's combined employment and semester-hour load (including clinical laboratory hours) should not exceed forty hours a week in either a long-session semester or a summer term. During the final month of the last semester of the program, students are enrolled in a full-time preceptorship and are unable to have outside employment.
4. Students may be employed in area hospitals and clinics as nursing assistants, performing functions for which they have been trained by the employing institution and for which the institution has a clearly discernible policy, either in writing or by precedent, defining the scope of these functions. It is illegal for unlicensed students to practice as professional nurses.
Students should be aware that (1) the School of Nursing assumes no responsibility for their activities as employees of an agency; (2) they are personally responsible and liable for any activity they participate in while employed; (3) professional liability insurance purchased by students is valid only in their student role, not in their employment role; (4) individuals who practice illegally may jeopardize their future careers, since those who are convicted of violating the Nurse Practice Act may not be eligible to write state board examinations and subsequently to be licensed.

Students employed in an agency are personally and professionally responsible for engaging only in those activities that fall within their job descriptions as non-licensed workers (such as aides). They have a responsibility to refuse to participate in activities that they have not been legally licensed to perform, such as giving medications and assuming total responsibility for a nursing unit.
5. Students should be familiar with the Student Standards of Conduct given in subchapter 11-800, Appendix C, "Institutional Rules on Student Services and Activities," General Information (http:// registrar.utexas.edu/catalogs), as well as the University Honor Code (http://www.utexas.edu/about-ut/mission-core-purpose-honor-code) and the School of Nursing Honor Code. Students are expected to read and sign a pledge to abide by the Code of Honor.

## School of Nursing Honor Code

The profession of nursing has a legacy of public respect and trust. We provide specialized care for the health needs of individuals and the community with integrity, honesty, compassion, and state-of-the-art knowledge and skills. Learning and practicing responsible and ethical professional behavior is a vital part of professional education.

As a student in the University of Texas at Austin's School of Nursing, I pledge myself to be honest in all of my student activities including, but not limited to, all of my scholastic work and interactions with patients, members of the community, faculty, and peers. Furthermore, I will not use any substance prior to or during my interaction with patients that could alter my judgment or ability to render safe care: this includes but is not limited to any use of alcohol, illegal drugs, and prescription or over-thecounter drugs that may impair my mental and/or physical abilities required
to perform safe patient care. I will disclose to my instructor any violations of the above standards of conduct.

## Standards of Nursing Performance and Progress

## Progression Requirements for Nursing Majors Prior to Nursing Clinical or Lab Courses

Students must maintain an University grade point average of at least 2.80 in required nursing degree coursework prior to taking nursing courses with a clinical or lab component. In addition, students must attain a grade of at least $C$ - in each natural science course or must repeat the course in residence to resume progression toward completing the degree. Students may not enroll more than twice in any one natural science course (including $Q$ or $W$ ) and should take a full academic load of at least twelve semester hours of coursework when repeating a course. For the student to continue in the nursing major, no more than two natural science courses may be repeated. A student may not repeat for credit a course in which a grade of $C$ - or better was awarded.

Students must meet all progression requirements prior to taking nursing courses with a clinical or lab component. Students who do not meet these requirements will not be permitted to continue in the nursing major. Students are advised every semester about the coursework needed to complete the degree in four academic years.

Students are placed on academic probation in the School of Nursing if they receive a grade of $D+, D, D$-, or $F$ in any nursing or natural science course. Students are subject to dismissal from the nursing major if they receive more than one $D+, D, D-$, or $F$ during a semester or receive a second $D+, D, D$-, or $F$ while on academic probation.

## Progression Requirements and Performance Standards for Upper Division Nursing Courses

Patient safety is a critical element in every clinical course. Clinical errors related to patient care, including those intercepted by the faculty, may interfere with a student's progression in the course and in the program. The standards of performance are described in course syllabi and clinical evaluation tools for clinical practicum courses.

A student must earn a grade of at least $C$ in each nursing course for the course to be counted toward degree requirements. Concurrent or sequential enrollment is required as stated in each course description.

If the student is not on scholastic probation at the University, permission may be granted to repeat a required nursing course in which he or she failed to earn a grade of $C$ or better. To receive credit, the student must repeat the course at the University of Texas at Austin School of Nursing. The semester in which a course is repeated is at the discretion of the dean and is dependent on the space available.

A student may repeat a nursing course only once. If the student does not earn a grade of at least $C$ upon repeating the course, he or she cannot continue in the School of Nursing. If, while repeating the course, the student drops the course or withdraws from the University at a time when the student's performance in the course is considered to be inferior to that required for a grade of $C$, he or she may not re-enroll in the course or continue in the School of Nursing.

No more than two nursing courses may be repeated.

A student may not repeat for credit a course in which a grade of $C$ or better was awarded.

As a prerequisite to medication administration in clinical nursing courses, students are required to pass a medications and calculations test with a grade of at least 90 .

## Compliance Requirements for Clinical Courses

Students must provide documentation confirming completion of compliance requirements prior to participating in clinical nursing courses. Log in to the School of Nursing Web site (http://www.utexas.edu/nursing/ current) for more information.

## Medical Clearance Requirements

Clinical experiences for nursing students are provided in hospitals and other health care agencies with which the School of Nursing is affiliated. A number of these facilities require that nursing students assigned to them have evidence of immunity to certain diseases. Students must provide evidence of compliance with immunization requirements before they begin clinical nursing courses.

## Criminal Background Checks

Students are required to submit to Board of Nursing criminal background checks before beginning the program. Information about the process is available on the School of Nursing Web site. Students with concerns about eligibility are urged to seek official determination from the Texas Board of Nursing (http://www.bon.state.tx.us). Further, we urge students with concerns to seek the background check six months in advance of enrollment to allow sufficient time for investigation and Texas Board of Nursing approval.

## Employment Background Check

Agencies in which nursing students are placed for clinical work require an employment background check. Directions to complete this requirement are on the School of Nursing Web site listed with other compliance requirements.

## Drug Screen

Clinical agencies require that a drug screen be completed prior to participating in patient care. Students are to follow directions for the drug screen shown with the compliance requirements on the School of Nursing website.

## CPR and First Aid Requirements

Current certification in cardiopulmonary resuscitation and first aid are required for participation in clinical nursing courses. The CPR course must be the Basic Life Support for Healthcare Providers and include Automatic External Defibrillator from the American Heart Association. Online courses for CPR are not acceptable. The basic first aid certification must be acquired from the American Heart Association (Heartsaver First Aid) or from a local emergency medical services agency (National Safety Council First Aid). Students must provide evidence of current certification before they begin clinical courses. Students who are registered nurses, licensed vocational nurses, or emergency medical technicians are not required to provide evidence of first aid certification.

## Professional Liability Insurance

Professional liability insurance is required of all students enrolled in the professional sequence in the School of Nursing. Students will be billed through the "What I Owe" system for liability insurance each semester
they are participating in clinical courses. All student policies expire on the date of graduation.

## Training Modules

All students must complete the following modules on the School of Nursing Intranet Site (http://www.utexas.edu/nursing/current) before participating in clinical nursing coursework: online orientation, facilities training, and training on the Health Insurance Portability and Accountability Act (HIPAA).

## Health and Hospitalization Insurance

Students are strongly encouraged to purchase health insurance. The cost of personal health care, including care required as the result of clinical practicum experiences, is not covered by either the University, the School of Nursing, or clinical agencies. Information about low-cost group health insurance is available through University Health Services (http:// healthyhorns.utexas.edu). The liability insurance students buy as a part of compliance for participating in clinical courses does not cover health care expenses.

## Uniforms and Other Expenses

Students must purchase uniforms, shoes, name badges, and other supplies before taking the first clinical nursing course. Specific requirements and information about suggested equipment are distributed as a part of orientation and will be available in course syllabi.

## Transportation

Upper-division clinical courses require students to go to various clinical facilities and community sites at varied hours. Students must have their own transportation.

## Honors

## University Honors

The designation University Honors, awarded at the end of each longsession semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered. Criteria for University Honors are given in General Information.

## Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in General Information.

## Nursing Honors Program

The Nursing Honors Program is designed to enhance the educational experience of high-achieving undergraduate nursing majors by focusing on the development of scholarship. Students must apply to this competitive honors program, which begins in the sophomore year. Admission to the program requires approval of the Honors Program Committee.

Students in the program must complete Nursing $321 \mathrm{H}, 117 \mathrm{H}, 264 \mathrm{H}$, and 377 H . These courses provide students with enhanced mentorship experiences. Students must complete an honors project with a focus on research, ethics, or leadership. Students are also required to take Nursing 337, Independent Study with their mentor with the focus on their honors project. The statement "Special Honors in Nursing" appears on the transcript of each student who completes the honors program.

## Sigma Theta Tau International

Epsilon Theta Chapter of Sigma Theta Tau International Honor Society of Nursing, was chartered at the University on May 16, 1980. Membership in Sigma Theta Tau is an honor conferred by active chapters on students who demonstrate academic excellence and on nursing leaders who advance the scientific base of the profession. The society recognizes superior achievement in many areas, facilitates the development of leadership qualities, fosters high professional standards, encourages creative work, and strengthens commitment to the ideals of nursing.

Each year qualified students in the undergraduate and graduate programs may apply for consideration for membership. Invitations to membership are extended to students who are in the top 35 percent of their graduating class. Undergraduates must have a grade point average of at least 3.00; graduate students must have a grade point average of at least 3.50. Qualified community nursing leaders may also be invited to membership. Applications for membership in Epsilon Theta Chapter are available from the Office of Student Affairs in the School of Nursing (http:// www.utexas.edu/nursing/academics/services_sa.html).

At the induction ceremony each spring, Epsilon Theta Chapter announces its awards, grants, and scholarship recipients. A scholarship is awarded to an upper-division nursing student who has demonstrated leadership potential and outstanding scholastic achievement. The chapter also awards start-up grants annually to Epsilon Theta Chapter members and/or students to fund research projects.

Sigma Theta Tau International, with active chapters on more than four hundred campuses in the United States and in several other countries, offers opportunities for involvement at the chapter, regional, national, and international levels.

## Credit by Examination

The faculty believes that each educational experience should build on previous achievements to encourage fulfillment of each student's potential. Therefore, all students and registered nurses are urged to seek advice on arranging a logical sequence of work. The faculty subscribes to the principle that a candidate's competence should be validated and that credit should be awarded on the basis of satisfactory achievement on examinations as well as in the classroom. Twenty-four of the last thirty semester hours of credit presented for the degree must be earned in residence, rather than by examination, correspondence, or transfer.

An examination for credit may not be taken in a course in which the student is enrolled, which the student has completed, or which the student has dropped with either a passing or a failing grade.

University policies regarding credit by examination are given in General Information (http://registrar.utexas.edu/catalogs).

## Graduation

## Special Requirements of the School

All students must fulfill the General Requirements ( p .17 ) for graduation. Students in the School of Nursing must also fulfill the following requirements:

1. All University students must have a grade point average of at least 2.0 to graduate. In the School of Nursing, students must also have a grade point average of at least 2.0 in the coursework used to fulfill the upper-division requirement.
2. A candidate must complete the prescribed curriculum and must meet all other requirements of the School of Nursing.
3. A student must supply the School of Nursing with transcripts of courses taken outside the school as the courses are completed.

## Degree Audit

A degree audit is prepared when the student begins the junior year of nursing courses. The student is then notified of the courses he or she must take and the requirements he or she must fulfill to receive the degree. The degree audit is normally done according to the catalog in effect when the student was admitted to the School of Nursing, but the student may choose to have it done according to any catalog under which he or she is eligible to graduate. Rules on graduation under a particular catalog are given in Graduation Under a Particular Catalog (p. 18).

In advising and in registering students, the dean and advisers try to prevent errors. Avoidance of errors is the main purpose of the degree audit, but it remains the responsibility of the student to fulfill all catalog requirements.

## Graduation Application Form

In the long-session semester or summer session in which the degree is to be awarded, the candidate must be registered at the University and must file a Graduation Application Form in the School of Nursing Office of Student Affairs. The form must be filed by the deadline to apply for an undergraduate degree, which is given in the official academic calendar (http://registrar.utexas.edu/calendars).

## Licensure as a Professional Nurse

Upon graduation from the BSN program, students seeking licensure as a registered nurse must register to take the National Council Licensure Examination (NCLEX). To ensure eligibility, the Board of Nursing will rerun the criminal background check that was conducted prior to beginning the nursing program. In addition, students' answers to the following questions may determine eligibility:

1. Have you been convicted, adjudged guilty by a court, plead guilty, no contest or nolo contendere to any crime in any state, territory, or country, whether or not a sentence was imposed, including any pending criminal charges or unresolved arrests (excluding minor traffic violations)? This includes expunged offenses and deferred adjudications with or without prejudice of guilt. Please note that DUls, DWIs, and PIs must be reported and are not considered minor traffic violations. (One-time minor in possession (MIP) or minor in consumption (MIC) violations do not need to be disclosed. However, if you have two or more MIPs or MICs, you must answer "yes" to this question.)
2. Do you have any criminal charges pending, including unresolved arrests?
3. Has any licensing authority refused to issue you a license or ever revoked, annulled, canceled, accepted surrender of, suspended, placed on probation, or refused to renew a professional license, certificate, or multistate privilege held by you now or previously, or ever fined, censured, reprimanded, or otherwise disciplined you?
4. Within the past five years have you been addicted to and/or treated for use of alcohol or any other drug?
5. Within the past five years have you been diagnosed with, treated, or hospitalized for schizophrenia and/or psychotic disorders, bipolar disorder, paranoid personality disorder, antisocial personality disorder, or borderline personality disorder?

Students with questions or concerns are encouraged to contact the Board of Nursing prior to enrollment in the nursing program and consult with the Assistant Dean for Student Affairs at the School of Nursing. More
information can be found at the Texas Board of Nursing Web site (http:// www.bon.state.tx.us).

## Degrees and Programs

## Programs in the School of Nursing

The School of Nursing offers an undergraduate program leading to the degree of Bachelor of Science in Nursing and graduate programs leading to the Master of Science in Nursing degree and the Doctor of Philosophy degree with a major in nursing. The undergraduate program is designed for students who wish to enter the profession of nursing. Students who have earned an associate's degree or a diploma in nursing and wish to obtain the baccalaureate degree may apply to the accelerated track, the RN-BSN program. The master's and doctoral degree programs are designed to prepare professionals for advanced nursing practice and research in nursing.

The baccalaureate program is accredited by the Commission on Collegiate Nursing Education (CCNE) and the Texas Board of Nursing.

## Objectives of the Bachelor's Degree Program

The graduate of the baccalaureate program in nursing is expected to

1. Use critical thinking to integrate knowledge from nursing, biological and behavioral sciences, and the humanities in planning, implementing, and evaluating nursing care.
2. Use critical thinking and clinical judgment within a problem-solving process to meet the health care needs of individuals, families, aggregates, and communities in a variety of settings.
3. Accept responsibility and accountability for one's own actions as a health care professional.
4. Participate in the delivery of health care through case management, interdisciplinary collaboration, delegation, supervision, coordination, and consultation.
5. Participate in nursing and interdisciplinary efforts to improve the delivery of safe, high-quality health care to diverse individuals, families, aggregates, and communities.
6. Demonstrate core professional values to complement continued personal and professional growth.
7. Practice nursing according to professional and ethical standards.
8. Critically appraise and apply research findings to demonstrate evidence-based nursing practice.
9. Examine health policy and its effects on individuals, families, aggregates, communities, and health agencies.
10. Integrate the appropriate use of information and health care technology in nursing practice, administration, education, and research.
11. Utilize leadership skills to advance the profession of nursing and promote continuous improvement of the health care delivery system.

## Applicability of Certain Courses ROTC Courses

The dean has the authority to substitute an equivalent air force science, military science, or naval science course or courses for a course or courses prescribed by the School of Nursing; core curriculum courses cannot be substituted. The dean can also make adjustments to compensate for any differences in semester hour value. The total number of semester hours required for the degree remains unchanged.

## Correspondence and Extension Courses

Credit earned by correspondence or extension from the University or elsewhere will be counted toward a Bachelor of Science in Nursing degree if approved by either the assistant dean for student affairs or the assistant dean for undergraduate programs. A student planning to meet pre-professional course requirements with correspondence or extension courses should consult the Office of Student Affairs to ensure enrollment in appropriate courses. Credit for professional sequence courses may not be earned by correspondence or extension.

## Bachelor of Science in Nursing

This program consists of 125 to 126 semester hours of coursework. All students must complete the University's Core Curriculum (p. 20). In some cases, a course that is required for the Bachelor of Science in Nursing may also be used to fulfill a requirement of the core curriculum. In order to meet prerequisites, students must take most of the nursing courses in a specific sequence. Upon completion of the program, students are awarded the Bachelor of Science in Nursing degree and have fulfilled the prescribed course of study and clinical practice required to take the National Council Licensure Examination (NCLEX) for licensure as a registered nurse.

## Foreign Language Requirement

Students may fulfill the foreign language component of the University's basic education requirements by completing two years of a single foreign language in high school, by earning an appropriate score on one of the placement examinations administered by the University, or by completing two semesters of college coursework in a single foreign language in addition to the degree requirements given below. If the foreign language requirement will be fulfilled by transfer credit, credit by examination, or extension or correspondence courses, it must be fulfilled before the first semester of the student's senior year. Nursing 354 may not be counted toward the foreign language requirement. For students who take college coursework to complete the foreign language requirement, Spanish is recommended.

## Flag Requirements

In the process of fulfilling the requirements for the Bachelor of Science in Nursing degree, students must fulfill flag requirements. Students must earn credit for one flag in ethics and leadership, one flag in global cultures, one flag in cultural diversity, one flag in independent inquiry, one flag in quantitative reasoning, and three flags in writing.

Courses with flags are identified in the Course Schedule. For additional information about flag requirements, see Additional Basic Education Requirements (p. 22).

## Suggested Arrangement of Courses

## First Year

| First Term | Hours Second Term | Hours Summer Term | Hours |
| :--- | :---: | :---: | ---: |
| RHE 306 | 3 BIO 311C | 3 GOV 310L | 3 |
| CH 301 | 3 NTR 306 | 3 American History Core <br> Course | 3 |
| SDS 302 | 3 E 316L, 316M, 316N, | 3 |  |


| Second Year |  |  |
| :---: | :---: | :---: |
| First Term | Hours Second Term | Hours |
| American History | 3 N 320 | 3 |
| Core Course |  |  |
| BIO 446L | 4 N 224 | 2 |
| BIO 326M | 3 N 127P | 1 |
| N 310 | 3 N 321 | 3 |
| PSY 304 | 3 BIO 365S | 3 |
| or | BIO 165 U | 1 |
| HDF 313 <br> \& HDF 113L | 4 GOV 312L or 312P | 3 |
|  | 20 | 16 |
| Third Year |  |  |
| First Term | Hours Second Term | Hours |
| N 356 | 3 N 265 | 2 |
| N 256P | 2 N 365P | 3 |
| N 325 | 3 N 255C | 2 |
| N 325P | 3 N 157P | 1 |
| N 264 | 2 N 223 | 2 |
|  | N 278 | 2 |
|  | PHR 338 | 3 |
|  | 13 | 15 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| N 266 | 2 N 275 | 2 |
| N 366P | 3 N 375P | 3 |
| N 255D | 2 N 274 | 2 |
| N 355P | 3 N 377 | 3 |
| N 354 | 3 N 277P | 2 |
| N 250 | 2 N 279 P | 2 |
|  | 15 | 14 |

Total credit hours: 129

## BSN for Registered Nurses

The Accelerated Track, designed for registered nurses with associate's degrees or diplomas in nursing, builds on individuals' backgrounds while offering preparation in areas such as public health nursing, genetics, decision making, leadership, and management. The BSN degree provides the basis for graduate preparation at the MSN and PhD levels.

Students should call the RN-BSN/MSN adviser at (512) 471-8246 for an appointment before registering for prerequisite courses and for help in planning a program of study.

## Courses

The faculty has approval to offer the following courses in the academic years 2014-2015 and 2015-2016; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in General Information (http://catalog.utexas.edu/general-information). In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits indicate the rank of the course: if they are 01 through 19, the course is of lower-division rank; if 20 through 79 , of upperdivision rank; if 80 through 99 , of graduate rank.

## Nursing: N

## Lower-Division Courses

## N 107, 207, 307. Topics in Nursing.

One, two, or three lecture hours a week for one semester, with one discussion hour a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Women's Reproductive Health for Nonscience Majors.
Same as Sociology 310S and Women's and Gender Studies 301
(Topic 7). 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. Three lecture hours a week for one semester. Only one of the following may be counted: Nursing 307 (Topic 1), Sociology 308 (Topic 2), 310S, Women's and Gender Studies 301 (Topic 7). Prerequisite: One year of high school biology, or Biology 301L or 309D.

## N 309. 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. Three lecture hours a week for one semester.

## N 310. 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. Three lecture hours a week for one semester. Required for nursing majors.

## N 117H. 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. One lecture hour a week for one semester. Prerequisite: Admission to the School of Nursing Honors Program.

## N 119, 219, 319, 419, 519, 619. International Learning Seminars.

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Nursing 119, 219, 319, 419, 519, 619 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## Upper-Division Courses

## N 320. Introduction into Patient-Centered Nursing Care.

This course 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. Three lecture hours a week for one semester. Only one of the following may be counted: Nursing 227 or Nursing 320. Offered on the letter-grade basis only. Prerequisite: Upper division standing or Biology 326M, 446L, Nutrition 306, Psychology 301; credit or registration in Biology 365S and 165U.

## N 321. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Nursing 311, 311H, 321, 321H. Prerequisite: Rhetoric and Writing 306.

## N 321H. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Nursing 311, 311H, 321, 321H. Prerequisite: Admission to the School of Nursing Honors Program, or consent of instructor.

## N 322. Transition to Professional Nursing.

Restricted to students in the RN-BSN accelerated track. Designed to provide the RN student with a transition into the baccalaureate and professional nursing roles. Explores professional socialization in the work and education settings; develops professional career goals and career plans; and includes discussion of role transition in nursing practice, with attention to expanded and advanced nursing practice roles. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

## N 223, 323. Genetics in Health Care.

The integration of genetic information into nursing practice, including ethical, legal, psychological, and social issues. For each semester hour of credit earned, one lecture hour a week for one semester. Nursing 223 and 323 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Nursing 325 or consent of instructor.

## N 224. Health Assessment Skills.

Discussion, application, and documentation of health assessment skills needed to provide data for health promotion and nursing interventions. One and one-half lecture hours and one laboratory hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration in Nursing 320; and upper-division standing or Nursing 310.

## N 325. Adult Health Nursing I.

For nursing majors admitted to the professional sequence. Discussion of the concepts and theories necessary to promote and restore the health of adults with biological problems; related physiological and psychological responses. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing or Nursing 320,224 , and 127P.

## N 325P. Adult Health Nursing I (Practicum).

For nursing majors admitted to the professional sequence. Application of the concepts and theories necessary to promote and restore health of adults with biological problems; related physiological and psychological responses. Nine laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Nursing 325.

## N 227. Conceptual Bases of Aging.

An examination of the theories of aging, the developmental tasks of families, and the physical, psychological, social, economic, ethical, legal, and spiritual needs of aging persons. Responsibilities and needs of caregivers. Two lecture hours a week for one semester. Nursing 320 and 227 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing or consent of instructor.

## N 127P. Clinical Nursing Skills I (Practicum).

Laboratory instruction and practice in clinical nursing skills. Two laboratory hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Nursing 320 or 325P.

## N 129M, 229M, 329M, 429M, 529M, 629M. International Learning Seminars.

Restricted to students participating in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Nursing 129M, 229M, 329M, 429M, 529M, 629M and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

## N 137, 237, 337. Independent Study.

Study in a specific area; topic and mode of study are agreed upon by student(s) and instructor. The equivalent of one, two, or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: A University grade point average of at least 2.80 and consent of instructor.

## N 147, 247, 347. Specialized Topics in Nursing.

The equivalent of one, two, or three lecture hours a week for one semester; some topics require up to thirty-nine hours of fieldwork a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Enrollment in the upper-division sequence. Some topics also require consent of instructor; these are identified in the Course Schedule.

Topic 1: Informatics in Health Care and Nursing.
Topic 2: Acute Care Pediatrics.
Topic 3: Cardiovascular Nursing.
Topic 4: Childbearing Nursing Elective.
Topic 5: Critical Care Nursing.
Topic 6: High-Risk Maternity.
Topic 7: Pediatrics.
Topic 8: Perioperative Nursing.
Topic 9: Special Topics in Pediatrics.
Topic 10: Child Wellness Center (Practicum).
Topic 11: Children with Chronic Illness in the Community.
Topic 12: Clinical Nursing Preceptorship.
Topic 13: Community-Oriented Ambulatory Nursing.
Topic 14: Genetics in Clinical Nursing (Practicum).
Topic 15: Home Health Nursing.
Topic 16: Pediatrics in the Community.
Topic 17: Well Children in the Community.

## N 250. 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. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 321 or 321 H , and 278 ; credit or registration in Nursing 355P.

## N 354. Spanish for Health Care Professionals.

Basic Spanish language skills and phrases related to nursing activities. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 310 or consent of instructor.

## N 455. Adult Health Nursing II.

Advanced concepts and theories to promote and restore health of adults with biological problems and related physiological and psychological responses. Four lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 325 and 325P.

## N 255C. 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. Two lecture hours a week for one semester. Nursing 455 and 255C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Nursing 325 and 325P.

## N 255D. 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 Two lecture hours a week for one semester. Nursing 455 and 255D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Nursing 255C.

## N 355P. 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. Nine laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 325P and Pharmacy 338; credit or registration for Nursing 157P and 455 or 255D.

## N 356. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 224; credit or registration in Nursing 325.

## N 256P, 356P. Problems in Mental Health Nursing (Practicum).

Application of strategies for the care of individuals, groups, and families experiencing mental health problems. For 256P, six laboratory hours a week for one semester; for 356P, nine laboratory hours a week for one semester. Nursing 256P and 356P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Nursing 356.

## N 157P. Clinical Nursing Skills II Practicum.

Laboratory instruction and practice in clinical nursing skills. Two laboratory hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Nursing 325P.

## N 264. Nursing Research.

Basic components of the research process; interpreting descriptive and inferential statistics in research. Critical examination of research studies in nursing. Two lecture hours a week for one semester. Nursing 264 and 264 H may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

## N 264H. Nursing Research: Honors.

Examination of the research process and methods, along with interpretation of descriptive and inferential statistics in research. Critical
examination of research studies in nursing and research skills through participation in a research project. One and one-half lecture hours and one laboratory hour a week for one semester. Nursing 264 and 264H may not both be counted. Prerequisite: Admission to the School of Nursing Honors Program and an introductory statistics course, or consent of instructor.

## N 265. Nursing Care of Childbearing Families.

Concepts, theories, and processes essential to understanding the health concerns and problems of women and their families during the childbearing years. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 325, 325P, 356, and 256P or 356P; credit or registration in Nursing 157P and 455 or 255C.

## N 365P. Nursing Care of Childbearing Families Practicum.

The application of concepts, theories, and processes pertinent to care of women and their families during the childbearing years. Nine laboratory hours a week for one semester. Prerequisite: Credit or registration for Nursing 265.

## N 266. 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. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Human Development and Family Sciences 313 and 113L or Psychology 304, Nursing 356, 356P or 256P, 157P, Pharmacy 338; and credit or registration in Nursing 355P and 255D or 455.

## N 366P. 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. Nine laboratory hours a week for one semester. Prerequisite: Credit or registration for Nursing 266.

## N 274. 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. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 255D (or 455), 355P, 266, 366P; credit or registration in Nursing 277P.

## N 275. Public Health Nursing.

Public health nursing models and the nursing process as they are used to plan for the health of aggregates and communities. Description and analysis of formal and informal community systems and health care delivery systems. Major emphasis on the concepts of community building and collaboration. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 455 or 255D, 355P, 356, and 256P or 356P; or consent of instructor.

## N 375P. Public Health Nursing Practicum.

Provides opportunities for students to apply public health nursing concepts, theories, and processes to the care of aggregates and the total community. Assigned clinical experiences are designed to develop student skills in the practice of public health nursing. Emphasis is on interdisciplinary health care with at-risk aggregates in the community. and high-risk families and aggregates in the community. Nine laboratory hours a week for one semester. Prerequisite: Credit or registration for Nursing 275.

## N 377. Leadership and Management of Nursing Care.

Selected concepts and theories of management in the context of the delivery of dynamic nursing care. Use of management concepts in working with a health care team to provide high-quality patient care. Historical development of the health care system, current issues, contemporary trends, standards of professional practice, management and leadership roles, political and cultural influences on health care, and professional career development. Three lecture hours a week for one semester. Nursing 377 and 377 H may not both be counted. Prerequisite: Nursing 325 or consent of instructor.

## N 377H. Leadership and Management of Nursing Care: Honors.

Examination of selected concepts and theories of management and leadership in the context of the delivery of dynamic nursing care. The use of management concepts in working with a health care team to provide high-quality patient care. Current economic, social, and political factors that influence health care. Three lecture hours a week for one semester. Nursing 377 and 377 H may not both be counted. Prerequisite: Admission to the School of Nursing Honors Program or consent of instructor.

## N 277P, 377P. Clinical Care Management Practicum.

Application of selected concepts and theories of management in the planning and delivery of health care. For 277P, six laboratory hours a week for one semester; for 377P, nine laboratory hours a week for one semester. Nursing 277P and 377P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Nursing 265, 365P, 266, and 366P; and credit or registration in Nursing 377 or 377H.

## N 278. Contemporary Nursing Practice.

Designed to evolve the student's professional nursing practice and expand its application in the clinical setting. Provides opportunities for analysis and synthesis of theoretical, evidence-based, and clinical knowledge with emphasis on the awareness and knowledge of contemporary nursing practice. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 321 or 321 H and credit or registration in Nursing 264, or consent of instructor.

## N 279P. 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. Thirty to forty hours a week for three to four weeks for a total of 120 clinical hours. Additional preparation time to assure clinical competence may be required. Offered on the pass/fail basis only. Prerequisite: Nursing 377 or 377H, and 277P or 377P.

# College of Pharmacy 

M. Lynn Crismon, PharmD, Dean<br>Patrick J. Davis, PhD, Senior Associate Dean Carlton K. Erickson, PhD, Associate Dean William McIntyre, PharmD, Associate Dean Diane B. Ginsburg, MS, Assistant Dean Jennifer L. Ridings-Myhra, BSPhr, Assistant Dean Richard E. Wilcox, PhD, Assistant Dean<br>http://www.utexas.edu/pharmacy/

## General Information

## Accreditation

The College of Pharmacy has been a member of the American Association of Colleges of Pharmacy since 1927. The Doctor of Pharmacy degree program is accredited by the Accreditation Council for Pharmacy Education (ACPE); ACPE does not accredit master's and PhD degrees in pharmacy.

## Mission

The University offers the six-year program leading to the Doctor of Pharmacy (Pharm.D.) as the sole entry-level practice degree. This program offers a course of study in the pharmaceutical and clinical sciences designed to provide the state and the nation with pharmacists who are scientifically trained and clinically competent to deliver a full spectrum of pharmaceutical services in all areas of practice. In meeting its teaching obligation, the college provides a curriculum and faculty that offer students an educational experience beyond training solely for the practice of pharmacy.

The profession of pharmacy is evolving rapidly from a role primarily in distribution of medication toward a patient-oriented, pharmaceutical care model. Pharmaceutical care is a process through which a pharmacist interacts with the patient and other health care professionals in the design, implementation, and monitoring of a patient-specific therapeutic plan that will produce the desired therapeutic outcomes. To ensure that graduates have the necessary tools to practice in this complex, patient-oriented environment, the pharmacy curriculum has evolved from traditional discipline-specific coursework to a discipline-integrated approach of disease state management and a case-based, team approach to the design of the patient-specific therapeutic plan.

The professional curriculum is designed to prepare pharmacy graduates to provide patient-oriented pharmaceutical care in a contemporary setting, whether a community pharmacy, an ambulatory clinic, a hospital, or a long-term care facility, as well as to work in the pharmaceutical industry. In addition, the curriculum aims to inculcate an understanding of the basic sciences sufficient to prepare the student for graduate study in the pharmaceutical sciences. These objectives are pursued through a balanced program of study in pharmaceutics, medicinal chemistry, pharmacology, therapeutics, pharmacy administration, social and behavioral sciences, and the humanities, as well as a structured clinical and professional practice experiential program. The holder of a professional degree from the University of Texas at Austin has received an education and training as sophisticated as any available in the health professions.

The College of Pharmacy has conducted a joint Pharm.D. degree program with the University of Texas Health Science Center at San Antonio since 1974. Students who complete their P3 and P4 experiential
courses at the Health Science Center are considered part of this program and receive a degree awarded jointly by the two institutions.

The college has cooperative programs with the University of Texas at El Paso and the University of Texas - Pan American, and educational affiliations with several other academic health institutions, including Scott \& White Hospital in Temple, the University of Texas M. D. Anderson Cancer Center in Houston, the University of Texas Medical Branch at Galveston, and the University of Texas Southwestern Medical Center at Dallas; and with other University of Texas System academic components. The college also has cooperative practice arrangements with medical centers and other health care facilities throughout the state as part of the experiential program.

The college seeks to encourage the belief that education is ongoing and lifelong and that all levels of professional education must form a continuum with professional practice and patient care. To meet this objective, the college provides postgraduate educational programs and develops innovative programs of training through continuing education for the roles pharmacists may be called on to fill as a result of changes in the patterns of delivery of pharmaceutical services.

In addition to the Pharm.D. degree, the University offers the Master of Science in Pharmacy and the Doctor of Philosophy with a major in pharmacy. Both graduate programs offer qualified students the opportunity to complete specialty practice residencies. These programs are described in the Graduate Catalog.

## History

For more than a century, the University's College of Pharmacy has provided education and training for men and women as pharmacy practitioners, scientists, professional leaders, and responsible citizens. Eleven students constituted the first class when a school of pharmacy was created in the fall of 1893 at the University of Texas Medical Branch at Galveston. In 1927, the program was reorganized as the College of Pharmacy and moved to the Austin campus. The college shared quarters with other University programs until 1952, when the first pharmacy building was opened. Instruction now takes place in facilities designed for the pharmacy program and located near the center of the Austin campus, and on the campuses of the University of Texas Health Science Center at San Antonio, the University of Texas at El Paso, and the University of Texas - Pan American in Edinburg.

The first undergraduate program consisted of two sessions, each seven months in length. The current Pharm.D. degree program requires six years in pre-professional subjects, biomedical and pharmaceutical sciences, and professional experience courses. Graduate study became available in 1948 with the institution of a Master of Science in Pharmacy degree program. Today programs are also available that lead to the Doctor of Philosophy in the pharmaceutical, administrative, and clinical sciences. More than eight thousand students have graduated from the programs offered by the college; many have achieved state, national, and international prominence in pharmacy or in related health fields.

Academic leadership for pharmaceutical education at the University has been provided by eleven prominent educators, beginning with James Kennedy of San Antonio, who was appointed as a pharmacy professor and director of the Galveston program in 1893 . He was succeeded by R. R. D. Cline, who for almost thirty years guided pharmaceutical education in Texas. When the school was moved to Austin in 1927, W. F. Gidley was named the first dean of the college. In 1947, Henry M. Burlage succeeded Professor Gidley as dean. He was succeeded in 1962 by Lee F. Worrell, who served until 1966. Carl C. Albers was acting dean until Joseph B. Sprowls was appointed dean in 1967. William J. Sheffield became acting dean upon the death of Professor Sprowls in 1971. He was succeeded in 1973 by James T. Doluisio, who served the college for
twenty-five years. Steven Leslie served as dean from 1998 until 2007, when M. Lynn Crismon assumed the leadership of the college.

University pharmacy students receive instruction in the basic biomedical sciences, the pharmaceutical sciences, pharmacy administration, and pharmacy practice in state-of-the-art academic and health care facilities. Pharmacy interns expand their professional practice knowledge and skills at clinical education sites in the Austin/Temple/Waco area, El Paso, and the Lower Rio Grande Valley, and at the University of Texas Health Science Center at San Antonio, the University of Texas Southwestern Medical Center at Dallas, the Texas Medical Center in Houston, and the University of Texas Medical Branch at Galveston.

## Facilities

## The Pharmacy Building

In addition to well-equipped classrooms, laboratories, and offices, the pharmacy building provides a learning resource computer center and laboratory, a television production laboratory and classrooms, and pharmaceutical technology laboratories with facilities for product development, pilot manufacturing, sterile production and quality control, and stability testing. The University Health Services Pharmacy also serves as a teaching laboratory for second-year pharmacy students while providing comprehensive pharmaceutical services to the student community. Space assigned to the college in the Biomedical Engineering Building and the Dell Pediatric Research Institute expands pharmacology, medicinal chemistry, and pharmaceutics research space.

## Pharmacy Facilities in San Antonio

The University of Texas Health Science Center at San Antonio has provided facilities for the education and training of pharmacy students, residents, and fellows since 1972. The McDermott Clinical Sciences Building on the Health Science Center campus, which houses the pharmacotherapy division of the college and the Pharmacotherapy Education and Research Center, provides a state-of-the-art distance education classroom, a student computer laboratory, research laboratories, and offices for faculty and staff members. The Division of Pharmacotherapy maintains a broad range of affiliation agreements with institutions in San Antonio that provide extensive training opportunities in a variety of practice settings. Research opportunities exist in the areas of infectious disease, oncology, anticoagulation, stroke prevention, and psychiatry.

## Pharmacy Facilities in El Paso

The Cooperative Pharmacy Program with UT El Paso provides classrooms and conference rooms equipped for high-quality interactive telecommunications and satellite reception, as well as a complex of offices for faculty and staff members. Facilities can also accommodate intravenous admixture, patient assessment, and drug information. These accommodations supplement the physical facilities, student computer laboratories, libraries, and other services available on the University of Texas at El Paso campus.

## Pharmacy Facilities in Edinburg

The Cooperative Pharmacy Program with UT - Pan American is located within the Edinburg Regional Academic Health Center (ERAHC), an educational and biomedical research facility. The building provides research laboratories, computer and library facilities, staff and faculty offices, and conference rooms. The classrooms are equipped for both on-site and distance education and can accommodate instruction for intravenous admixture and patient assessment courses. The library, computer facilities, and health services on the UT - Pan American campus are also available to students in the cooperative program.

## Office of Pharmacy Continuing Education

As part of a state university, the College of Pharmacy recognizes obligations to the profession of pharmacy on a state, national, and international level. The college began providing continuing education to pharmacists in 1953 in cooperation with the University's Division of Extension (http://www.utexas.edu/ce/uex). Today, the college is an ACPE-approved provider of continuing pharmaceutical education. A primary goal of the Office of Pharmacy Continuing Education is to advance the pharmacist's knowledge and provide the skills necessary to adapt to a changing practice. Toward this end, the office offers a variety of programs, including home-study courses, seminars, multiday conferences, and certificate programs addressing the most current practice issues. Programs are conducted both on and off campus and by correspondence and distance learning. Annually, the office provides about 350 contact hours of continuing education programming to more than sixty-five hundred pharmacists across the United States.

## Learning Resource Center

The college's Learning Resource Center (https://www.utexas.edu/ pharmacy/resources/lrc) (LRC) offers a variety of instructional resources to students and faculty members. The LRC provides state-of-the-art digital video teleconferencing transmission of courses among the Austin campus, the Health Science Center at San Antonio, UT EI Paso, UT - Pan American, and other sites in The University of Texas System, so that faculty members can teach students at two or more locations simultaneously. Most courses are recorded and made available by video streaming. The LRC also operates the Delgado Library, a multipurpose, nontraditional facility with computer support, individual and small-group study spaces, and seminar rooms.

The staff of the LRC provides faculty members and students with computer hardware and software consulting as well as advice on the use of media in the classroom. Facilities and equipment are available for video and data projection. The College of Pharmacy's Web site (http://www.utexas.edu/pharmacy) provides additional information and curriculum support for students and faculty members.

In the Delgado Library, students have access to desktop computers with removable media and CD drives, professional business software, and Internet client software. The electronic classrooms feature desktop computers with projection equipment and a full suite of software. The large distance-learning classroom supports notebook computer ports. Wireless high-speed Internet is available throughout the Pharmacy Building.

The goal of the Learning Resource Center is to provide the highest quality learning technology infrastructure and support services to students and faculty members.

## Libraries

The Life Science Library supports the teaching and research missions of the College of Pharmacy by providing access to an extensive array of print and electronic information resources. The library maintains extensive holdings in pharmacology, pharmaceutics, pharmacy administration, and medicinal chemistry, with supporting materials in medicine and nutrition. Biochemistry and medicinal chemistry material is complemented by the collections of the Mallet Chemistry Library. Medical material is supplemented by additional material in nursing, pediatrics, and psychiatry at the Perry-Castañeda Library. Extensive collections in the social sciences and business provide additional support for the interdisciplinary interests of health outcomes and pharmacy practice. Current journal holdings are primarily online, while books are acquired in print or digitally as eBooks.

The online Clinical Information Center (ClinIC), sponsored by the Life Science Library, provides electronic access to the complete resources of a drug information center. The center gives users access to significant electronic resources such as Micromedex, Access Pharmacy, PharmacyLibrary, AHFS Drug Information, Clinical Pharmacology Online, Facts \& Comparisons, LexiComp online, and the Cochrane Library of evidence-based reviews, in addition to databases such as Medline, International Pharmaceutical Abstracts, Web of Science, and SciFinder Scholar. These electronic resources are available for remote access through the University Libraries Web site (http://www.lib.utexas.edu), which offers a full range of databases, access to electronic journals, and links to other digital information sources. The libraries collaborate with the College of Pharmacy to select and integrate electronic resources into the pharmacy curriculum. Access to print information resources for students on rotation and at College of Pharmacy Cooperative Program campuses is provided through the UT Libraries InterLibrary Services.

All units of the University Libraries offer reference service, circulation and reserve services, and interlibrary loan. Instruction in the use of information resources is provided in required pharmacy classes and by individual consultation.

## Financial Assistance Available through the College

Students entering the first year of the professional curriculum may be eligible to apply for certain college-based scholarships, and information is provided to students concerning these scholarships upon matriculation. Students who have completed the first year of the professional curriculum are eligible to apply for all scholarships and loans offered through the College of Pharmacy. Eligibility and application information is available at http://www.utexas.edu/pharmacy/students/finaid/ and in the Office of Student Affairs, Pharmacy Building 5.112.

## Endowed Presidential Scholarship

To be eligible to receive an Endowed Presidential Scholarship, students must meet the college's eligibility requirements and must have maintained a 3.75 grade point average in required pharmacy courses. Students must also show evidence of active involvement in college, university, and other extracurricular activities. The minimum Endowed Presidential Scholarship is $\$ 2,500$.

## Other Endowed Scholarships

To be eligible to receive an endowed scholarship, students must meet the college's eligibility requirements. For some awards, students must meet additional criteria. The minimum endowed scholarship is $\$ 1,500$.

## Other Scholarships

Additional college scholarships are funded by various pharmacy associations, individuals, employers, and organizations. These scholarships are awarded, as they become available, through The University of Texas College of Pharmacy at the direction of the college's Financial Aid Committee.

## Loan Funds

## The Klinck Family Loan Funds

These loan funds were established by the Klinck family of McAllen, Texas, to assist students in need of financial assistance. Emergency loans, for a maximum of $\$ 1000$ are available; they normally are repayable within ninety days. Long-term loans of up to $\$ 2,500$ are available to pharmacy students who demonstrate financial need. The interest rate for these loans is six percent. Repayment begins three months after the student's graduation from pharmacy school, or once the student is no longer
enrolled in the pharmacy program. Students may apply for more than one loan, but except in unusual circumstances the loans will total no more than $\$ 5,000$. Additional information is available in the Office of Student Affairs, Pharmacy Building 5.112.

## Other Loan Funds

Other loan funds may be available to pharmacy students. Information about these loans is available from the Office of Student Affairs, Pharmacy Building 5.112.

## Student Services

## Academic Advising

Academic and career advising are ongoing activities of the Office of Student Affairs, Pharmacy Building 5.112. Because advising is not restricted to the time just before registration, all students are strongly encouraged to seek advice whenever they need it about degree requirements, the availability of course offerings each semester, and taking courses in proper sequence.

Advising for University pre-pharmacy students is provided by assigned academic advisers in their colleges and by Health Professions Advising in the College of Natural Sciences. University students interested in the profession of pharmacy should contact that office early in their college careers. Pre-pharmacy students from outside the University should seek information from the College of Pharmacy Web site (http:// www.utexas.edu/pharmacy), from their institutional academic advisers/ Health Professions Office, and from the Office of Student Affairs of the College of Pharmacy.

## Career Services

The college provides career counseling to students in the professional sequence of courses. Throughout the year, career counselors are available in the Office of Student Affairs to assist students in examining the career options available to them upon graduation.

In addition, a systematic exploration of professional career options is conducted as part of the professional development convocation series of courses. Guest lecturers include successful pharmacists representing a variety of pharmacy practice models, other health care and regulatory settings, and careers in professional organizations, education, research, and the pharmaceutical industry.

The College of Pharmacy, under the supervision of the assistant dean for experiential and professional affairs, conducts a P4 senior interview day for graduating seniors. This event gives seniors an opportunity to interview for professional practice positions with major employers of pharmacists in Texas and throughout the nation. A career workshop to prepare students for interviews is held prior to the P 4 senior interview day as a part of Senior Conference. A college-wide Career Day each spring, featuring major employers, allows students in all years of the curriculum to interact with numerous pharmacist employers.

The college also facilitates interaction between employers and professional students interested in obtaining internships. More information on this process is provided to all students during the first professional year.

A limited number of competitive internships both in and outside of Texas are available by application only. Information is available in the Office of Student Affairs, Pharmacy Building 5.112; from individual faculty members; and via the student's own internship search.

As a complement to the assistance available from the college, the University's Vick Center for Strategic Advising and Career Counseling in the School of Undergraduate Studies provides comprehensive career
services to all students. The center offers professional assistance to students in choosing or changing their majors or careers, seeking an internship, and planning for a job search or graduate study.

The University makes no promise to secure employment for each graduate.

## Student Organizations

## American Association of Pharmaceutical Sciences (AAPS)

The University of Texas at Austin Student Chapter of AAPS was initiated in 2003 with the primary goal of increasing awareness of educational and career opportunities in the pharmaceutical sciences among UT College of Pharmacy students. The organization fosters participation at the national AAPS Annual Meeting and Exposition.

## American Pharmaceutical Association Academy of Students of Pharmacy (UT-APhA-ASP)

In December, 1951, the Longhorn Pharmaceutical Association was organized as an association jointly representing the student branches of the American Pharmaceutical Association and the Texas Pharmaceutical Association. Renamed in 1998, the association sponsors service projects and social events and serves to develop professionalism in pharmacy students.

## Asian Pharmacy Students Association (APSA)

The mission of the Asian Pharmacy Students Association, established at the University in 1999, is to promote unity among pharmacy students who have common interests, values, and backgrounds, in order to help them achieve educational, professional, and personal excellence.

## Christian Pharmacists Fellowship International (CPFI)

This group seeks to identify and enroll all Christian pharmacists, wherever they practice, and to assist them in creating opportunities for fellowship. CPFI is the first international organization of evangelical Christian pharmacists established with a focus on integrating the spiritual and vocational dimensions of the pharmacist's role.

## El Paso Student Pharmacist Association (EPSPA)

The El Paso Student Pharmacist Association is a UT/UTEP sponsored student organization established for returning and transferring students to the El Paso region. The organization provides networking and community service opportunities in order to promote the profession.

## Kappa Epsilon (KE)

Kappa Epsilon is a national professional fraternity established to promote careers for women in pharmacy, but membership is open to women and men. Xi chapter, established in 1943, sponsors service and professional projects, including a city-wide Poison Prevention program in elementary schools each March, as well as social events and other extracurricular activities.

## Hispanic Association of Pharmacists (HAP)

The primary goals of the Hispanic Association of Pharmacists are to assist in the recruitment and retention of qualified students in the College of Pharmacy, to provide health care education to the community, and to maintain open communication channels between students and the college. Membership is open to prepharmacy and professional students.

## Pharmacy Council

The Pharmacy Council is composed of officers and representatives of the sponsored student organizations in the College of Pharmacy and
elected student representatives from each of the professional pharmacy classes. The president, financial director, and senate representative of the council are also members of the Senate of College Councils, and a member of the council serves as the college's representative to Student Government. Acting as liaison between the student body and the Office of the Dean, the Pharmacy Council works to ensure the equitable consideration of student concerns and problems. The council sponsors orientation programs for new pharmacy students, college and Universitywide programs, and events that promote student and faculty interaction.

## Pharmacy Graduate Students' Association (PGSA)

This association conducts activities that promote the general welfare of pharmacy graduate students. Its chief purposes are to encourage and facilitate graduate student communication and interaction; to gather and disseminate information important to pharmacy graduate students; to represent pharmacy graduate students to the University community; and to promote pharmaceutical education at the undergraduate level.

## Phi Delta Chi (PDC)

Lambda chapter of Phi Delta Chi, established at the University in 1905, was reactivated in 1956. Phi Delta Chi is a professional pharmaceutical fraternity of national standing. Membership is open to qualified professional students who are interested in promoting leadership, scholarship, and professional ethics in the field of pharmacy.

## Phi Lambda Sigma (PLS)

Psi chapter of Phi Lambda Sigma, the national pharmacy leadership society, was established at the University in 1989. Students selected for membership must be of high moral and ethical character, must have demonstrated dedication, service, and leadership in the advancement of pharmacy, must have completed at least ninety semester hours of scholastic work, and must be in good academic standing as defined by the College of Pharmacy.

## Rho Chi

Nu chapter of Rho Chi, the national pharmaceutical honor society, was established at the University in 1930. Charters for chapters of this organization are granted only to groups in colleges that are members in good standing of the American Association of Colleges of Pharmacy. Eligibility for membership in the society is based on scholarship, character, personality, and leadership. Students selected for membership must have a pharmacy grade point average of at least 3.20 , must be in the top 20 percent of their class, and must have completed the first professional year of the pharmacy curriculum. All candidates must be approved by the dean of the College of Pharmacy.

## San Antonio Student Pharmacists Association (SASPA)

The San Antonio Student Pharmacists Association (SASPA) was formed in the spring semester of 2010. This organization serves as a venue to bring UT College of Pharmacy students located in the San Antonio region together to impact the community and to promote the profession of pharmacy.

## Student Pharmacist Recovery Network (SPRN)

The Students of Pharmacy Recovery Network (SPRN) is a program for pharmacy students at the University of Texas designed by conscientious students, faculty members, and staff members of the College. The purpose of the SPRN is to act as a concerned intermediary by assisting pharmacy students having personal problems including emotional stress, alcohol or other drug abuse problems, or a combination of these. SPRN students, faculty, and staff members are able to refer others to
the appropriate University and Austin resources that best address their particular needs.

## UT Chapter, International Society of Pharmacoeconomics and Outcomes Research (UT-ISPOR)

This group's mission is to provide an environment in which students can share knowledge in pharmacoeconomics and health outcomes research. It brings together students of pharmacoeconomics and outcomes research and members of the pharmaceutical industry, healthrelated organizations, and academia; acts as a resource for students interested in pharmacoeconomics and outcomes research; and provides an opportunity for students to become familiar with the work of ISPOR and to be represented in its affairs.

## UT Chapter, National Community Pharmacists Association (NCPA)

NCPA is a national professional organization representing the interests of independent community pharmacists. The student chapter sponsors projects and events designed to foster the entrepreneurial spirit among future practitioners. The national association has a loan program available to student members, as well as several competitive scholarships and research grants.

## UT Chapter, National Pharmaceutical Association (SNPhA)

The purpose of the SNPhA is to plan, organize, coordinate, and execute programs geared toward the improvement of the health, educational, and social environment of the minority community.

## University of Texas Pan American Cooperative Pharmacy Student Association (CPSA)

The University of Texas Pan American Cooperative Pharmacy Student Association (CPSA) is a UT/UT Pan Am sponsored student organization established for returning and transferring students to the Rio Grande Valley region. The organization provides networking and community service opportunities in order to promote the profession.

## University of Texas Student Society of HealthSystem Pharmacists (UTSSHP)

The student chapter of the Texas Society of Health-System Pharmacists is an organization for students interested in institutional or health-system pharmacy practice. An affiliate of the American and Texas Societies of Health-System Pharmacists, the organization considers a wide range of topics of interest to health professionals and encourages the broadest possible educational introduction to institutional pharmacy and pharmaceutical care. This introduction includes presentation of programs and seminars, tours of pharmacy practice sites, and distribution of literature. The chapter publicizes job openings in hospital pharmacies across the state.

## Longhorn Prepharmacy Association (LPPA)

LPPA comprises all prepharmacy students at UT Austin. The group's chief objectives are to function as a small community of students within a large institution; to provide current information on the preprofessional and professional curricula; and to provide information about the pharmacy profession.

## Legal Requirements for Professional Practice

Upon matriculation to the first professional year in the College of Pharmacy, each student must apply to become an intern trainee with
the Texas State Board of Pharmacy (http://www.tsbp.state.tx.us). Each student must be registered as an intern trainee, and subsequently as a student-intern, in order to acquire, through pharmacy courses, the internship hours necessary for licensure upon graduation as a pharmacist in Texas. Only after completion of the first professional year (at least thirty semester hours) as certified by the College of Pharmacy may the interntrainee become a student-intern with the Texas State Board of Pharmacy.

Students should be aware that the process of registration as an intern includes a criminal history and fingerprint check. The existence of a criminal record may preclude the student from registration as an intern, completion of experiential courses in the curriculum, and/or from subsequent licensure as a pharmacist in Texas. However, the Texas State Board of Pharmacy may grant limited internship status under certain conditions to those with prior convictions. It is possible that health care facilities in which students are placed for experiential coursework may mandate an additional background check and/or drug screen. Students assigned to these facilities must comply with all such requirements. If a student cannot be placed in practice facilities because of prior convictions that appear on any background check, or because of a positive drug screen, his or her graduation may not be possible or may be significantly delayed.

After completing the first professional year (at least thirty semester hours), students registered as student-interns may earn internship hours toward licensure not only through professional sequence pharmacy courses but also outside the academic program through employment in certain practice settings. Internship hours gained outside the College of Pharmacy curriculum may not replace any portion of the experiential program required for graduation.

Students are required to inform the Student Affairs Office of any change in status that may affect intern registration or the ability to be placed in practice (experiential) sites.

Graduates of the College of Pharmacy are eligible to apply to the Texas State Board of Pharmacy for licensure as pharmacists. Licensure exams may be taken shortly after graduation. Postgraduate internship experience is not currently required for Texas licensure but may be required for licensure in other states.

Additional information about requirements for pharmacy licensure in Texas is available from the Texas State Board of Pharmacy (http:// www.tsbp.state.tx.us), William P. Hobby Building, 333 Guadalupe Street. The mailing address is PO Box 21, Austin TX 78701-3942 and the telephone number is (512) 305-8000.

Intern registration and pharmacist licensure requirements are subject to change by the Texas State Board of Pharmacy. Students and graduates must meet current requirements, even if they differ from those described above.

## Graduate Degrees

Graduate programs leading to the Master of Science in Pharmacy and the Doctor of Philosophy are offered through the Graduate School and described in the Graduate Catalog (http://catalog.utexas.edu/graduate/ fields-of-study/pharmacy/pharmacy). The graduate student may specialize in medicinal chemistry, pharmacology and toxicology, pharmaceutics, pharmacotherapy, pharmacy administration, or translational science. Faculty members in each area work closely with students and engage in research in such fields as drug synthesis, pharmacokinetics, drug mechanisms and toxicity, and clinical research.

## Admission and Registration

## Admission

## Admission to the University

For the College of Pharmacy's Pharm.D. program, admission and readmission are the responsibility of the dean of the College as delegated by the University's director of admissions. Students accepted to the Pharm.D. Program will be processed for admission to the University (if not already enrolled at the University of Texas at Austin).

## Admission to the Professional Curriculum

Admission to the University in no way implies or guarantees admission to the professional curriculum. No student may begin the professional curriculum until he or she has been admitted to the professional curriculum in pharmacy by the dean, following recommendation by the Admissions Committee of the College of Pharmacy, according to the procedures outlined in this section regarding admission. All students must meet the admission requirements given in the catalog in effect at the time of application. If the number of eligible applicants to the professiona curriculum exceeds the number that available facilities can accommodate, final selection is made by the college Admissions Committee and the dean

The College of Pharmacy uses PharmCAS, the national Pharm.D. application system. All student applications must go through PharmCAS, and those accepted for enrollment in the college will be processed for direct admission to the University

Students who are enrolled in a pharmacy program at another institution and who wish to transfer to the University should follow the normal Pharm.D. application process. Upon admission to the University and the professional curriculum, the student may request advanced standing in the pharmacy curriculum. Placement is contingent on availability of space and on transcript evaluation to determine University equivalencies for the student's coursework.

As a condition of admission to the college, each student must sign a statement that he or she agrees to accept assignment to any one of the college's experiential (internship) regions throughout the state Cooperative arrangements for pharmacy education exist with academic units and health care institutions in the following internship regions: Austin/Temple/Waco, Dallas/Fort Worth, El Paso, Galveston/Houston, the Rio Grande Valley, and San Antonio. Experiential regions may be added or deleted at any time based on the availability of resources.

Students assigned to San Antonio and students from UT EI Paso and UT - Pan American in Edinburg who are in the Cooperative Pharmacy Program must spend the last two years of the professional program in those regions. Students assigned to the other regions spend only the final year of the program (the fourth professional experiential year) in their assigned region.

Students are assigned to experiential regions through a computergenerated random assignment system that takes students' ranked preferences into account. Since most students relocate to experiential regions outside the Austin area, region assignment occurs during the latter part of the first professional year to allow students adequate time to make personal and financial arrangements. There are no exceptions to the region assignment process. If a student fails to agree to accept assignment to any region, he or she will not be admitted to the college.

The Cooperative Pharmacy Program is available to highly qualified high school seniors entering the University of Texas at El Paso or the University of Texas - Pan American. The program offers these students
an alternate pathway for admission to the University of Texas at Austin College of Pharmacy once they complete the requirements of the program at the Cooperative Pharmacy Program campus. Additional information is available from the UT EI Paso Web site (http://chs.utep.edu/cpp) or at (915) 747-8535, and from the UT - Pan American Web site (http:// portal.utpa.edu/utpa_main/daa_home/hshs_home/pharmacy_home) or at (956) 318-5255

## Admission to the First Professional Year

Admission to the professional curriculum is competitive. The application process is conducted via the national Pharm.D. admissions program, PharmCAS, as specified on the PharmCAS Web site (http:// www.pharmcas.org) and linked via the College of Pharmacy (http:// www.utexas.edu/pharmacy/admissions/pharmd.html).

## Basic Admission Criteria

1. Scholarship, as indicated by grade point average and Pharmacy College Admission Test (PCAT) scores, including writing sample scores, are submitted via PharmCAS. Scores more than three years old are not accepted.
In evaluating the applicant's academic record, the Admissions Committee pays particular attention to the courses required for admission. Ideally, the applicant will have a grade point average of at least 2.80 in prerequisite coursework. Typically, more than 90 percent of successful applicants have grade point averages greater than 3.00, and more than 50 percent of successful applicants have grade point averages greater than 3.60 . The applicant typically will have a PCAT composite score in at least the 70th percentile, a score in at least the 70th percentile in each area, and writing scores at the 70th percentile of the national mean (rubric score 0-6). Typically, more than 75 percent of successful applicants have a composite score in the 70th percentile or better, and more than 50 percent of successful applicants have a composite score in the 85th percentile or better, as specified in the PharmCAS application process.
2. Essays as specified in the PharmCAS application process.
3. Letters of recommendation submitted via PharmCAS from people who know the applicant well professionally, especially pharmacist employers.
4. Transcripts of all academic work submitted via PharmCAS.
5. A résumé submitted via PharmCAS that provides details about the applicant's professional, organizational, volunteer, and service experience.

## Additional Personal Factors

The information specified below is submitted either via PharmCAS or through the college's supplemental application.

1. Pharmacy and other related work experience
2. Organizational, service, and volunteer activities that demonstrate community involvement and leadership potential
3. Teaching, tutoring, and mentoring experience
4. Research experience
5. Honors and awards
6. Interview. Applicants are screened for interviews based on academic record, direct work experience in the profession, special life circumstances, and any other compelling factors. If the applicant is invited for an interview, then other factors are considered; these include but are not limited to the following:
a. Knowledge of and motivation for pharmacy as a career
b. Lifelong learning strategies
c. Critical thinking skills
7. Special life circumstances; these include but are not limited to the following:
a. Single parent
b. Socioeconomic status of family
c. First generation attending college
d. Overcoming adversity
e. Resident of an underserved area of the state or an area of Texas with a health professions shortage
f. Race and ethnicity
g. Cultural background

Because the University is a public institution, preference is given to applicants who are legal residents of Texas and to applicants from states without colleges of pharmacy. Applicants are strongly encouraged to examine the admission statistics published by the college on its admissions Web site (http://www.utexas.edu/pharmacy/admissions/ ad_stats.html).

## Application Deadlines

The deadline to apply for admission to the college is specified on the PharmCAS Web site (http://www.pharmcas.org) and linked via the College of Pharmacy (http://www.utexas.edu/pharmacy/admissions).

## Admission Requirements

1. The applicant must have completed at least sixty-six semester hours in total, and must have completed the following forty-five hours in prerequisite courses prior to enrolling in the professional pharmacy curriculum:
a. Nine hours of biology, including cellular and molecular biology, structure and function of organisms, and genetics
b. Eight hours of general chemistry with laboratory
c. Three hours of freshman-level rhetoric and writing
d. Three hours of sophomore-level survey of American, British, or world literature
e. Three to six hours of calculus (to include both differential and integral calculus)
f. Three hours of statistics
g. Eight hours of organic chemistry with laboratory
h. Four hours of microbiology with laboratory
i. Four hours of physics with laboratory

The remaining twenty-one semester hours should be the Core Curriculum (p. 20).
2. The applicant must remove all deficiencies in high school units by the means prescribed in General Information before seeking admission to the professional curriculum.

## Admission Procedures

1. All applications for the Pharm.D. program will be handled through the national Pharm.D. admissions system, PharmCAS. Students must adhere to the deadlines for admission specified. The PharmCAS application process will include a supplementary application to the college (with a nonrefundable supplementary application fee) necessary to acquire additional academic information for University admission. Candidates will be notified if additional information is required.
2. Selected applicants will be asked to appear for a personal interview.
3. The applicant is considered on the basis of overall academic performance, with emphasis on grades in the required Pharm.D. prerequisite courses. In accordance with University policy, courses in which the applicant earned a grade of $D+, D, D-$, or $F$ at another
institution are not transferable and may not be used to fulfill any degree requirements. However, courses in which the student earned a grade of $D+, D$, or $D$ - are considered when the student's admissibility to the professional curriculum is determined.
4. Applicants who have been offered admission to the University and to the Pharm.D. program will be asked to pay a nonrefundable enrollment deposit to the University. If the student does enroll in the program that fall, the deposit will be applied to the semester's tuition bill.
5. All students accepted for admission in the Pharm.D. program will be processed for admission to the University of Texas using the information in the PharmCAS application. Additional materials for University admission may be required:
a. A high school transcript, if the applicant's foreign language requirement was completed in high school. Official transcripts must be sent to the University's Office of Admissions (https:// www.utexas.edu/student/admissions).
b. Scores on the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test), if and only if the student is required by state law to take this test.
c. Credit earned by examination. These reports should be sent directly to the Center for Teaching and Learning-Student Testing Services (http://ctl.utexas.edu/services/student_testing_services) at the University. This would be done if and only if the student had not previously claimed credit showing on the transcript.
d. Official transcripts for all colleges/universities attended.
6. An applicant who has been admitted to the University and to the professional curriculum but fails to enroll in either, and who wishes to enter the professional curriculum in a subsequent fall semester, must reapply both to the University and to the College of Pharmacy and must meet all requirements in force at the time of reapplication.
7. An applicant who has been admitted to and enrolls in the professional curriculum but subsequently withdraws, and who wishes to reenter in a subsequent fall semester, must apply for readmission to the professional curriculum and must meet all requirements in force at the time of reapplication. A student who has been out of the University for a semester or more must also apply for readmission to the University.

## Technical Standards

"Technical standards" are the observational, communication, sensory/ motor, and intellectual skills, the behavioral and social attributes, and the ethical values required for the completion of the professional curriculum and for the practice of pharmacy. These standards are described on the College of Pharmacy's Web site (http://www.utexas.edu/pharmacy/ edutrain/technicalstandards.html). Each applicant must attest that they have read and understand the technical standards. Any applicant who believes he or she may have difficulty meeting them should contact the college's director of admission.

## Registration

General Information gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule (http://registrar.utexas.edu/ schedules) published before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and General Information are published on the registrar's Web site, http:// registrar.utexas.edu/.

## Registration as a Student Pharmacist-Intern

Upon matriculation to the first professional year, each student must register as an intern-trainee with the Texas State Board of Pharmacy. This
is accomplished through completion of the Application for Student-Intern Registration. Each student must be registered first as an intern-trainee and subsequently as a student-intern in order to complete the academic requirements for the degree.

Additional information regarding intern registration and pharmacist licensure is given in the section Legal Requirements for Professional Practice (p. 648). Requirements and regulations are subject to change by the Texas State Board of Pharmacy. Every attempt is made to inform students of changes as they occur.

## Professional Liability Insurance

Professional liability insurance is required of all students each year of the professional pharmacy curriculum. Coverage in the amount of two million dollars for each claim and six million dollars in the aggregate per year is provided through the insurance policy. The annual premium is less than $\$ 20.00$ is subject to change, and is payable by the student. The policy covers the period September 1 through August 31 and must be secured each year of the program through the University of Texas System.

## Medical Clearance Requirements

In addition to the University's immunization requirements, students must meet additional immunization requirements for students in healthcare programs as articulated in Title 25 of the Texas Administrative Code, Rule 97.64, and as mandated by the practice sites in which students participate in practicum experiences.

Immunization requirements are subject to change. Every effort is made to notify students promptly of any changes. A current list of vaccination requirements can be found on the College of Pharmacy's Web site (http://www.utexas.edu/pharmacy/general/experiential/student/ immunization.html).

Although not a College of Pharmacy requirement, students may be subject to other health clearance requirements mandated by health care facilities for practicum.

## Student Health Insurance

Students must procure health insurance to cover treatment for injuries or illness, and must provide proof of insurance each year of the curriculum. This is especially important for the experiential components of the curriculum, spanning all four professional years, when students have frequent contact with patients in a number of different health care environments.

The Student Health Insurance Plan, operated under the auspices of University Health Services, offers optional low-cost insurance for students who are not covered by other programs. Information about this plan is available through University Health Services at http:// healthyhorns.utexas.edu/.

## Academic Policies and Procedures

## Academic Standards

University regulations on scholastic probation and dismissal are given in the General Information Catalog (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/scholastic-probation-anddismissal). In addition, the following academic standards are in effect in the College of Pharmacy.

## Academic Progress

1. The student must repeat a required pharmacy course in which he or she earns a grade of $F$. The student who earns a grade of $D_{+}, D$, or $D$ - in a required pharmacy course becomes subject to the policies on academic probation and dismissal described below.
2. The student must earn a grade of at least $C$ - in each elective pharmacy course. If the student fails to earn a grade of at least $C$ - in an elective pharmacy course, he or she may repeat the course or may take another elective course in its place, but only courses in which the student has earned a grade of at least $C$-may be counted toward the professional elective requirement.
3. The student must earn an average of at least two grade points (2.00) a semester hour on all courses undertaken at the University, whether passed or failed in order to graduate. The student must also earn an average of at least two grade points (2.00) a semester hour on all required pharmacy courses undertaken, whether passed or failed.
4. The student may not repeat for credit a course in which he or she has earned a grade of $C$ - or better, except under circumstances approved by the dean.
5. Pharmacy elective courses \& and laboratory problems courses can be take on the letter-grade or pass/fail basis, unless otherwise stated in the Course Schedule. However, the student must complete the Professional Electives Course Requirement (p. 655) for elective courses taken for a letter a grade.

## Academic Probation and Dismissal

A student is placed on academic probation in the College of Pharmacy if he or she receives a grade of $D_{+}, D, D$-, or $F$ in any required pharmacy course. If the grade received is an $F$, the student must repeat the course and may not progress to courses for which it is a prerequisite until he or she has earned a grade of at least $C$ - in the failed course. If the initial grade received is a $D_{+}, D$, or $D-$, the student may progress to courses for which the course is a prerequisite. The student may choose to repeat a course in which he or she received a $D+, D$, or $D$-, if the course does not conflict with other courses the student would normally take in the same semester; however, this choice affects the student's release from academic probation as described in the following section.

If the student receives more than two incompletes in required pharmacy courses, regardless of the grades ultimately awarded, he or she is subject to review by the Academic Performance Committee. The committee may choose to place the student on academic probation.

A student is subject to dismissal from the college if he or she receives more than one $D+, D, D$-, or $F$ in required pharmacy courses in one semester. The student is also subject to dismissal if he or she receives an additional $D+, D, D$-, or $F$ while on academic probation or conditional academic probation.

Students on academic probation are expected to focus on academic improvement and thus are not allowed to hold student offices (elected or appointed) or to receive college stipends for travel to professional meetings or other college-sponsored events.

## Release from Academic Probation

After receiving a grade of $F$, the student must repeat the course and earn a grade of at least $C$-. If the failed course is a prerequisite for another course, the student must repeat the course and earn a grade of at least $C$-before taking the course for which the failed course is a prerequisite. In the semester or summer session in which he or she repeats the course, the student must complete a full academic load, including at least five hours in required pharmacy courses and/or other courses recommended by the academic adviser. A full academic load is defined for this purpose as twelve hours in a long-session semester and six hours in the summer.

The new grade is averaged with the grade of $F$ when the student's pharmacy grade point average is calculated. If the new grade is $C$ - or better, the student is released from academic probation if and only if he or she has earned no further grades of $D+, D, D$-, or $F$ while on academic probation or conditional academic probation. If the student does not earn a grade of at least $C$ - upon repeating the course, he or she is subject to academic dismissal.

After receiving a grade of $D_{+}, D$, or $D$-, the student chooses whether or not to repeat the course, if the course does not conflict with other courses the student would normally take in the same semester. He or she may progress to courses for which the course in question is a prerequisite. If the student chooses to repeat the course, he or she must earn a grade of at least $C$-. If the new grade is a $C$ - or better, the student is released from academic probation only if he or she has earned no further grades of $D+, D, D$-, or $F$ while on academic probation or conditional academic probation. If the student does not earn a grade of at least $C$ - upon repeating the course, he or she is subject to academic dismissal. The new grade is averaged with the grade of $D+, D$, or $D$ - when the student's pharmacy grade point average is calculated.

If the student chooses not to repeat the course, he or she remains on academic probation (or conditional academic probation, described below) through completion of the P 4 advanced pharmacy practice experiential courses in the final semester. To take the P4 experiential courses, the student must have a grade point average of at least 2.00 in required pharmacy courses. If the student earns the symbol $C R$ in each P 4 advanced pharmacy practice course, he or she is released from probation and graduates in good academic standing with the college.

## Conditional Academic Probation

If a student on academic probation receives no grade lower than $C$ - in required pharmacy courses during the following semester or summer session in which he or she takes a full academic load, the student may be placed on conditional academic probation. This status allows the student to hold student office (elected or appointed) and to receive college stipends for travel to professional meetings or other college-sponsored events. The student remains on conditional academic probation until graduation and is subject to dismissal if he or she receives a second grade of $D+, D, D$-, or $F$.

## Calculation of the Grade Point Average

1. The student's University grade point average includes all courses taken at the University for which a grade or symbol other than $Q, W$, $X$, or $C R$ is recorded. If the student has repeated a course, including those courses for which he or she earned a grade of $D+, D, D$-, or $F$, all grades earned are included in the University grade point average.
2. The student's College of Pharmacy grade point average includes all required professional courses (excluding ALL elective courses) taken at the University for which a grade or symbol other than $Q, W$, $X$, or $C R$ is recorded. When a student repeats a required pharmacy course, the second grade in the repeated course is averaged with the previous grade when the student's College of Pharmacy grade point average is calculated.

## The Academic Performance Committee

The College of Pharmacy Academic Performance Committee monitors the academic progress of students in the professional program. The committee makes recommendations to the dean regarding students' academic progress and academic probation and dismissal. The committee also makes recommendations to assist students who may be in academic difficulty. Any student in academic difficulty may be asked to appear before the committee for guidance. The committee hears all student appeals regarding academic progress and academic probation
and dismissal. The committee aids the Admissions Committee in the evaluation of students who wish to return to the college after having been dismissed.

## Course Load and Sequence of Work

1. To progress to the final-year experiential courses, the student must have successfully completed all basic education requirements and all required and elective pharmacy courses except those in the internship year.
2. Because final-year experiential courses are offered on the pass/fail basis only, students must have attained both the University and the College of Pharmacy grade point average of at least 2.00 required for graduation before they begin the P4 advanced pharmacy practice experiential year.
3. If a conflict arises between University requirements and a student's employment, the student must resolve the conflict in favor of the University requirements.
4. A student who is not on academic probation must take at least twelve semester hours during any long-session semester, at least six hours of which must be for a letter grade (not pass/fail).
5. A student on academic probation must take at least twelve semester hours during any long-session semester or at least six semester hours during the summer session in order to clear academic probation.
6. Students may not take courses for degree credit at another institution without prior approval from the dean of the College of Pharmacy.
7. All students seeking to reenter the College of Pharmacy after having been placed on academic dismissal must make formal application through the Admissions Committee. The application is processed through the Admissions Committee with recommendations from the Academic Performance Committee and the approval of the dean.

## Early Practice Experience

All students must participate in an early practice experience, which consists of at least two hundred hours in either a community pharmacy or a hospital pharmacy practice setting. Since the student must be registered with the Texas State Board of Pharmacy as a student-intern before gaining these hours, and since that registration requires that students have completed the first year of the professional sequence, students may not begin accruing these hours until after the first professional year. The early practice experience must be completed before the student begins the fourth professional year.

Additional information is provided to students during the first professional year.

## Standards of Ethical Conduct

Pharmacy practitioners enjoy a special trust and authority based on the profession's commitment to a code of ethical behavior in its management of client affairs. The inculcation of a sense of responsible professional behavior is a critical component of professional education, and high standards of ethical conduct are expected of pharmacy students.

Toward that end, the faculty and students of the College of Pharmacy have pledged their support to the Policy Statement on Ethical Conduct and Scholastic Integrity and the Code of Ethics that implements this Policy Statement. Upon entering the College of Pharmacy, and each academic year thereafter, students are asked to recite and sign the following pledge:
"As a student of the University of Texas College of Pharmacy, I have reviewed and hereby pledge my full support to the Honor Code. I pledge to be honest myself, and in order that the spirit and integrity of the Honor Code may endure, I pledge that I will make known to the
appropriate authorities cases of dishonesty which I observe in the College of Pharmacy."

In addition, the following oath, which students will be asked to sign, is included at the end of all class examinations: "I have neither participated in nor witnessed any acts of academic dishonesty pertaining to this assignment." At the discretion of the instructor, the oath may also be included for other assignments such as quizzes, written reports, or papers.

The entire text of the Policy Statement on Ethical Conduct and Scholastic Integrity and the Honor Code are available at http://www.utexas.edu/ pharmacy/students/handbook98/3code.html\#policy (http:// www.utexas.edu/pharmacy/students/handbook98/3code.html\#policy).

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including failure of the course involved and dismissal from the college and/or the University. Since dishonesty harms the individual, fellow students, and the integrity of the University and the College of Pharmacy, policies on scholastic dishonesty are strictly enforced.

## Attendance in Class and Laboratories

Students in the College of Pharmacy are expected to attend all scheduled class and laboratory sessions in courses for which they are registered. If attendance is a course requirement that can impact the student's grade, the criteria for assessing attendance and consequences for nonattendance must be specified in the syllabus.

## Honors

University-wide honors are described in General Information. In addition, the College of Pharmacy encourages academic excellence through Rho Chi, the national pharmaceutical honor society, described in Student Organizations (p. 647), and through the Pharmacy Honors Program.

## University Honors

The designation University Honors, awarded at the end of each longsession semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered. Criteria for University Honors are given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/honors/university-honors).

## Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/honors/graduation-with-university-honors).

## Pharmacy Honors Program

## Criteria for Admission

Students who plan to seek special honors in pharmacy should apply to the chair of the Honors Program Committee after they have completed the fall semester of the first professional year; they must apply before they begin the second professional year. Students interested in the Pharmacy Honors Program are strongly encouraged to enroll in Pharmacy 151R, Research Opportunities in the Pharmaceutical Sciences in the spring semester of their first professional year. The criteria for admission to the program are (1) admission to the professional curriculum; (2) a grade point average of at least 3.00 in all required professional coursework
completed at the time of application to the program; and (3) approval of the Honors Program Committee.

## Requirements for Completion

Requirements for the completion of the honors program are (1) a grade point average of at least 3.00 in all required professional courses; (2) a grade point average of at least 3.00 in all professional courses, including required professional elective coursework; (3) completion of Pharmacy 167 H at least twice; (4) completion of at least one honors elective; (5) completion of Pharmacy 278 H and 479 H ; and (6) completion of the regular curriculum for the degree.

The statement "Research Honors in Pharmacy" appears on the transcript of each graduate certified to have completed the honors program.

## College of Pharmacy Recognition Awards

The Highest GPA Award is given to the graduate(s) with the highest grade point average in required PharmD courses.

The Second Highest GPA Award is given to the graduate(s) with the second highest grade point average in required PharmD courses.

The College of Pharmacy Award for Outstanding Research is given to a graduate who has demonstrated outstanding ability in areas of pharmacy research.

The College of Pharmacy Award for Excellence in Patient Care is presented to a graduate who has demonstrated excellence in patient care while pursuing the PharmD degree.

The College of Pharmacy Award for Dedicated Service is presented to a graduate who has shown a commitment to service above and beyond the norm.

The College of Pharmacy Award for Exemplary Leadership is presented to a graduate who has excelled in leadership while pursuing the PharmD degree.

## The College of Pharmacy Alumni Association Mortar and Pestle

 Award for Leadership, Service, and Patient Care recognizes an exceptional graduate who has demonstrated outstanding leadership, service, and patient care in the college, the University, and the community while pursuing the PharmD degree. The award is a hand-carved mortar and pestle.College of Pharmacy Class Officers are elected by their classmates and serve as permanent officers of their class.

Students' scholarly accomplishments are also recognized through election to Rho Chi, the national pharmaceutical honor society, and through admission to the Pharmacy Honors Program. Students' leadership accomplishments are recognized through election to Phi Lambda Sigma, the national pharmacy leadership society.

## Graduation

All students must fulfill the general requirements (p.17) for graduation. In addition, students seeking the Doctor of Pharmacy (Pharm.D.) must complete in residence the courses prescribed for the third and fourth professional years.

## Degrees and Programs

The University offers the Pharm.D. as the sole entry-level pharmacy practice degree. As described in the mission (p. 644), this program emphasizes an integrated and problem-based approach to disease
management as the core of the didactic, laboratory, and experiential program of study.

The capstone of the Pharm.D. program is a series of seven six-week rotations known as the advanced pharmacy practice experiences (APPE (https://www.utexas.edu/pharmacy/general/experiential)). Each APPE course requires between forty and fifty on-site, practitioner-facultysupervised hours of internship experience a week for six weeks.

The college expects but cannot guarantee that experiential sites will include Austin/Temple/Waco, Dallas/Fort Worth (the University of Texas Southwestern Medical Center and other area health care facilities), El Paso (the University of Texas at El Paso and area health care facilities), Galveston/Houston (the University of Texas Medical Branch at Galveston, the University of Texas M. D. Anderson Cancer Center, and other area health care facilities), the Rio Grande Valley (the University of Texas - Pan American and health care facilities primarily in Harlingen and McAllen), and San Antonio (the University of Texas Health Science Center and other area health care facilities). Students in the UT EI Paso and UT - Pan American cooperative programs and students assigned to San Antonio spend two years in these regions, while students assigned to other regions spend only the final year in the APPE region.

College of Pharmacy students who complete their experiential courses at the University of Texas Health Science Center at San Antonio are considered part of a joint Pharm.D. degree program and receive a degree awarded jointly by the two institutions. The joint nature of this program is reflected on the student's diploma. Students who complete the UT El Paso or UT - Pan American cooperative program receive a diploma reflecting the cooperative nature of their programs of study.

In completing the Doctor of Pharmacy degree, students also fulfill the internship requirements of the Texas State Board of Pharmacy. The final year of APPE courses and several other practice-based experiential courses, beginning in the first professional year, make up the experiential program. The professional experience courses are currently approved by the Texas State Board of Pharmacy to meet its standards for completion of the professional internship licensure requirement. The board reassesses all programs annually.

## The Minor

While a minor is not required as part of the Pharm.D. degree program, the student may choose to complete additional coursework in a field outside of the College of Pharmacy. The minor consists of at least twelve semester hours of coursework in a single field of study or in closely related fields, including at least nine hours of upper-division work. The upper-division coursework must be completed in residence; coursework the student takes on a cooperative program campus in the third professional year may be counted. A course taken on the pass/ fail basis, unless it is offered only on that basis, may not be counted toward the minor. A course may not be counted both toward the minor and toward the 213 hours of work required for the Pharm.D. degree.

Students are encouraged to use health-care-related courses to make up the minor; lists of such courses in a variety of fields are available in the Student Affairs Office. While the College of Pharmacy allows students to minor in any field in which the University offers a major, prerequisites and other enrollment restrictions may prevent the student from minoring in some fields. Before planning to take specific courses, the student should consult a pharmacy adviser and the department that offers the courses.

Written verification that a student completed the minor is available from the dean's office.

## Applicability of Certain Courses Physical Activity Courses

Physical activity (PED) courses are offered by the Department of Kinesiology and Health Education. They may not be counted toward a degree in the College of Pharmacy. However, they are counted among courses for which the student is enrolled, and the grades are included in the University grade point average.

## ROTC Courses

Courses in air force science, military science, and naval science may be substituted for a total of nine semester hours of non-pharmacy electives by students who complete the sixteen to twenty semester hours of required air force science, military science, or naval science coursework and accept a commission in one of the services. These courses may not be counted toward the professional elective requirement.

## Correspondence and Extension Courses

Credit that a University student in residence earns simultaneously by correspondence or extension from the University or elsewhere or in residence at another school will not be counted toward a degree unless it is specifically approved in advance by the dean. No more than 30 percent of the semester hours required for any degree may be completed by correspondence, and no pharmacy courses taken by correspondence or extension may be counted toward a pharmacy degree.

## Prescribed Work

Students who enter the Doctor of Pharmacy degree program must complete a minimum of 213 semester hours of coursework in the following areas: the core curriculum, additional basic education requirements, professional electives, and pre-professional and professional coursework.

## Core Curriculum

Each student must complete the University's Core Curriculum (p. 20). Because of the intensity and structure of the professional pharmacy curriculum, and because admission to the professional curriculum is highly competitive, the College of Pharmacy strongly recommends that students complete all of the core courses before they enter the college

The following core requirements are usually met by the pre-professional and professional coursework described below: English composition with one writing flag, mathematics, science and technology (parts I and II), and humanities. Students must complete additional coursework to meet the core requirements listed below; the courses in each core area are listed in Core Curriculum (p. 20).

| Requirements | Hours |
| :--- | ---: |
| Additional Coursework |  |
| First-year signature course | 3 |
| American and Texas government | 5 |
| American history | 3 |
| Social and behavioral sciences | 20 |
| Visual and performing arts | 3 |
| Total Hours |  |
| Transfer students who complete the core curriculum at another public |  |
| Texas institution of higher education with core completion specified on |  |
| their transcript and who are then admitted to the Pharm.D. program |  |
| are considered "core complete" by the University. Core curriculum |  |
| requirements are waived for students admitted to the Pharm.D. program |  |
| who have previously earned a bachelor's degree. |  |

## Additional Basic Education Requirements

All students must also earn the following skills and experiences flags: writing, quantitative reasoning, cultural diversity in the United States, ethics and leadership, and independent inquiry. See skills and experiences for more information; courses that carry these flags are identified in the Course Schedule.

Students who enter the professional curriculum in fall 2012 or later must also fulfill the global cultures flag (https://www.utexas.edu/ugs/ccc/flags/ global-cultures) requirement as directed by the School of Undergraduate Studies. All other skills and experience flags described above are fulfilled by courses within the professional pharmacy sequence.

Flag requirements are waived for students admitted to the professional curriculum who have already earned a bachelor's degree.

All students must complete the foreign language (p. 22) requirement before they enter the professional curriculum (unless they hold a prior bachelor's degree).

## Professional Electives Course Requirement

The student must complete at least two professional elective courses, for a total of at least six semester hours, on the letter-grade basis. The student must take the courses used to fulfill the professional electives requirement after admission to the professional curriculum.

## Preprofessional and Professional Coursework

The following courses are required. The course sequence given here shows the usual order in which courses are taken to fulfill prerequisite requirements and illustrates the feasibility of completing requirements for the degree within six calendar years. Students who depart significantly from this sequence may need more time to complete their coursework, because most courses are taught only once a year and because in a given semester the scheduled meeting time of a preprofessional or professional course may conflict with the times of core courses or professional electives.

| First Preprofessional Year |  |  |
| :--- | :---: | ---: |
| First Term | Hours Second Term | Hours |
| BIO 311C | 3 U.S. history | 3 |
| CH 302 | 3 Social and behavioral | 3 |
|  | sciences core course |  |
| M 408C | 4 BIO 311D |  |
| RHE 306 | 3 M 316 | 3 |
| UGS 302 or 303 1 | 3 CH 204 | 3 |
|  | $\mathbf{1 6}$ | 2 |
|  |  | $\mathbf{1 4}$ |

Second Preprofessional Year

| First Term | Hours Second Term | Hours |
| :---: | :---: | :---: |
| CH 320M | 3 BIO 226L | 2 |
| PHY 302K | 3 U.S. and Texas government | 3 |
| PHY 102M | 1 U.S. history | 3 |
| U.S. and Texas government | 3 Visual and performing arts core course | 3 |
| BIO 325 | 3 CH 220 C | 2 |
| E 316L, 316M, 316N, or 316P | 3 CH 320 N | 3 |
|  | BIO 326M | 3 |
|  | 16 | 19 |

First Professional Year

| First Term | Hours Second Term | Hours |
| :--- | :---: | ---: |
| PHR 341C | 3 PHR 242DB | 1 |
| PHR 342C | 3 PHR 253C | 2 |
| PHR 143M | 1 PHR 253D | 2 |
| PHR 143P | 1 PHR 153M | 1 |
| PHR 252C | 2 PHR 356C | 3 |
| PHR 142H | 1 PHR 156P | 1 |
| PHR 242DA | 1 PHR 152H | 1 |
| PHR 142P | 1 PHR 244C | 2 |
| PHR 343C | 3 PHR 144P | 1 |
|  | PHR 251C | 2 |
|  | $\mathbf{1 6}$ | $\mathbf{1 6}$ |

Second Professional Year

| First Term | Hours Second Term | Hours |
| :--- | :---: | ---: |
| PHR 262D | 2 PHR 277P |  |
| PHR 163C | 1 PHR 176P |  |
| PHR 163P | 1 PHR 175P |  |
| PHR 364D | 3 PHR 172E |  |
| PHR 665E | 6 PHR 172P |  |
| PHR 266P | 2 PHR 675E |  |
| PHR 392S | 3 PHR 172H |  |
| PHR 161H | 1 PHR 371S |  |
|  | PHR 171P | 18 |
|  | PHR 176E |  |
|  | 19 |  |

Third Professional Year

| First Term | Hours Second Term | Hours |
| :--- | :---: | ---: |
| PHR 183F | 1 PHR 284E | 2 |
| PHR 183G | 1 PHR 194P | 1 |
| PHR 185P | 1 PHR 192H | 1 |
| PHR 287H | 2 Professional | 4 |
|  | elective(s) |  |
| PHR 695F | 6 PHR 394F | 3 |
| PHR 395G | 3 PHR 295R | 2 |
| PHR 182H | 1 PHR 396D | 3 |
| Professional | 2 | $\mathbf{1 6}$ |

Fourth Professional Year

| First Term | Hours Second Term | Hours Summer Term | Hours |
| :---: | :---: | :---: | :---: |
| PHR 693E | 6 PHR 693S | 6 PHR 693C | 6 |
| PHR 693N | 6 PHR 694C | 6 |  |
| PHR 693P | 6 PHR 694E | 6 |  |
|  | Note: The order in which students take the fourth-year internships is at the discretion of the College of Pharmacy. |  |  |
|  | 18 | 18 | 6 |

Total credit hours: 212

1 Students should consider enrolling in a First-Year Signature Course that also satisfies the global cultures flag requirement.

## Courses

The faculty has approval to offer the following courses in the academic years 2014-2015 and 2015-2016; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule (http://registrar.utexas.edu/schedules) to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

## Pharmacy: PHR

## University Courses

## PHR 310K. 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. Three lecture hours a week for one semester.
Pharmacy 310 K and 350 K may not both be counted. Not open to students in the professional pharmacy curriculum and may not be counted toward the professional elective requirement in pharmacy.

## PHR 119L, 219L, 319L, 419L, 519L, 619L. International Learning Seminars.

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Pharmacy 119L, 219L, 319L, 419L, 519L, 619L and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

PHR 129L, 229L, 329L, 429L, 529L, 629L. International Learning Seminars.
For each semester hour of credit earned, one lecture hour a week for one semester. Pharmacy 129L, 229L, 329L, 429L, 529L, 629L and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

## PHR 338. Introduction to Pharmacology.

Survey of basic concepts and principles in pharmacology. Three lecture hours a week for one semester. Required for all preprofessional students in the School of Nursing. May not be counted toward the professional elective requirement in pharmacy. Prerequisite: Credit or registration for Biology 365S, 446L (or 416K), or Kinesiology 324K.

## PHR 350K. 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. Three lecture hours a week for one semester. Pharmacy 310K and 350K may not both be counted. Not open to students in the professional pharmacy curriculum and may not be counted toward the professional elective requirement in pharmacy. Prerequisite: Upper-division standing.

## PHR 160J, 260J, 360J. Basic Study in Pharmaceutical Research for Nonmajors.

Original investigation in any area of the pharmaceutical sciences. For each semester hour of credit earned, three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor and the dean.

## Professional Courses

## PHR 320M. Pharmaceutical Marketing.

Concepts of marketing as they apply to the pharmaceutical industry, pharmaceutical products, and the health care environment. Three lecture hours a week for one semester. Prerequisite: Pharmacy 244C and 144P.

PHR 322H. Experimental Design and Research Methods in Health Care.
Concepts and procedures involved in designing and completing a research project. Three lecture hours a week for one semester.

Prerequisite: Admission to the Pharmacy Honors Program or consent of instructor.

## PHR 322P. New Concepts, Topics, and Issues in Pharmacy Practice.

New concerns, topics, and issues in pharmacy practice. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Pharmacy 364D.

## PHR 326C. Community Pharmacy Management.

Advanced concepts in community pharmacy management for the student who plans to become a pharmacy owner or manager. Topics include operational, personnel, and financial management; marketing; layout and design; and the delivery of pharmaceutical care in a community pharmacy setting. Three lecture hours a week for one semester. Prerequisite: Pharmacy 244C.

## PHR 326M. Applied Pharmacy Management.

Examination and application of some of the principles of pharmacy management, with an emphasis on human resource management for the student who is contemplating a career in pharmacy management. Subjects include interviewing and selection techniques, assessing job performance, improving the work environment, leadership skills, management skills, managing medication error, and quality improvement of pharmacy services. Three lecture hours a week for one semester. Prerequisite: Pharmacy 244C and 144P.

## PHR 329C. Pharmacy Association Management.

An introduction to the principles involved in managing pharmacy associations. Students gain practical experience in a community pharmacy. Nine hours of fieldwork a week for one semester. Pharmacy 329 C and 389C may not both be counted. Prerequisite: Pharmacy 244C and 144 P and consent of instructor.

## PHR 629D. Pharmacy Association Management Residency.

Experience working in a pharmacy association, including active involvement in some managerial aspect of the association. Eighteen hours of fieldwork a week for one semester. Pharmacy 629D and 689D may not both be counted. Prerequisite: Pharmacy 364D and consent of instructor.

## PHR 139H. Pharmacy Administration for Honors Students.

Each student conducts an in-depth examination of a selected issue in pharmacy administration. Three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Admission to the Pharmacy Honors Program and Pharmacy 244C and 144P.

## PHR 341C. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

## PHR 342C. Physical and Chemical Principles of Drugs.

Fundamental, introductory principles of pharmaceutics, including thermodynamics, kinetics, and other basic chemical principles related to drugs. Three lecture hours a week for one semester. Offered on the lettergrade basis only. Prerequisite: Admission to the professional pharmacy curriculum, and credit or registration for Pharmacy 142P.

## PHR 242D. Introduction to Patient Care.

Introduction to the profession of pharmacy, including the principle of service. Includes fieldwork in a local eldercare facility. One lecture hour and up to three laboratory hours a week for two semesters; and a
minimum of twelve additional hours of fieldwork to be arranged over two semesters. Pharmacy 242D and 249 may not both be counted. Offered on the letter-grade basis only. Prerequisite: For 242DA, admission to the professional pharmacy curriculum; for 242DB, Pharmacy 242DA.

## PHR 142H. Professional Development Convocation I.

Professional development issues and assessments for PharmD students in the first professional year. Includes students' professional and programspecific responsibilities, such as program evaluations, portfolios, and administrative requirements; practice opportunities in pharmacy; and expected areas and levels of professional growth as the student advances through the curriculum. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

## PHR 142P. Physical and Chemical Principles of Drugs Laboratory.

Problem-based learning exercises to reinforce the material presented in Pharmacy 342C. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum, and credit or registration for Pharmacy 342C.

PHR 343C. Function and Anatomy of Human Systems 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

## PHR 143M. Medicinal Chemistry Principles.

Introduction to medicinal chemistry principles. Topics include drug metabolism and the transition from organic to medicinal chemistry. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum, and credit or registration for Pharmacy 143P.

## PHR 143P. Basic Pharmaceutical Sciences Laboratory.

Laboratory exercises to support the basic pharmaceutical sciences courses. One hour of prelaboratory lecture and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum, and credit or registration for Pharmacy 143M.

## PHR 244C. Personnel Management and Patient Behavior.

Concepts and principles of management, and social and behavioral aspects of pharmacy practice. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum and credit or registration for Pharmacy 144P.

## PHR 144P. Personnel Management and Patient Behavior Laboratory.

Issues in pharmacy practice. Students discuss case studies, participate in group presentations, and work in small groups to enhance their communication and teamwork skills. Three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum and credit or registration for Pharmacy 244C.

## PHR 345L. Clinical Pharmacokinetics.

Application of pharmacokinetic principles to the determination of proper dosing regimens. Three lecture hours a week for one semester. Prerequisite: Pharmacy 171P and 371S.

## PHR 149H. Pharmaceutics for Honors Students.

Expanded study of the way principles covered in the pharmaceutical curriculum affect drug design, formulation, dosing, and pharmacokinetics/ pharmacodynamics. Three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Admission to the Pharmacy Honors Program and Pharmacy 252C (or 352C), 356C, and 156P.

## PHR 251C. 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. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 341C.

## PHR 151R. 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 topics such as choosing a research mentor or project. One lecture hour and three laboratory hours a week for one semester. Offered on the lettergrade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

## PHR 252C. Biopharmaceutics.

Complements the basic pharmaceutics principles covered in Pharmacy 342C. Subjects include core concepts in biopharmaceutics of drugs. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

## PHR 152H. Professional Development Convocation II.

Professional development issues and assessments for PharmD students in the first professional year. Student fulfillment of professional and program-specific responsibilities (program evaluations, portfolios, administrative requirements), practice opportunities in pharmacy, and addressing the expected areas and levels of professional growth as the student advances through the curriculum. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 142H.

PHR 253C. Function and Anatomy of Human Systems II. Continuation of Pharmacy 343C, with emphasis on blood pressure regulation, renal function, digestion, respiration, endocrinology, and reproduction. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 343C.

## PHR 253D. Principles of General Pathology.

An overview of most aspects of general pathology, including cell adaptation and injury, inflammation and tissue healing, immunopathology, neoplasia, infectious desease, cardiovascular and pulmonary diseases, and metabolic disorders. Taught via television and on-site lectures, supplemented by case presentation and specimen demonstrations in cooperation with faculty members of the University of Texas Health Science Center at San Antonio. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 343C and credit or registration for Pharmacy 253C.

## PHR 153M. Pharmacology Principles.

Introduction to pharmacology principles. Topics include pharmacology at the cellular and subcellular/receptor levels. One lecture hour a week
for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

## PHR 356C. Pharmaceutics.

General introduction to dosage forms; the technology and pharmaceutical rationale fundamental to their development. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 342C and 142P, and credit or registration for Pharmacy 156P.

## PHR 156P. Pharmaceutics Laboratory.

Laboratory course supporting the subjects discussed in Pharmacy 356C. One hour of prelaboratory lecture and three laboratory hours a week for one semester. Prerequisite: Credit or registration for Pharmacy 356C.

## PHR 256R. 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. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 356C and 156P.

## PHR 156S. 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 156S builds upon compounding skills taught in Pharmacy 156P. Three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Registration for Pharmacy 256R.

## PHR 358. Geriatric Pharmacy Practice.

Social, demographic, ethical, and therapeutic issues concerning pharmaceutical products and care of the elderly. Three lecture hours a week for one semester. Prerequisite: Pharmacy 665E.

PHR 160K, 260K, 360K. Basic Study in Pharmaceutical Research.
Basic exploration in any area of the pharmaceutical sciences. For each semester hour of credit earned, three laboratory hours a week for one semester. No more than three semester hours may be counted toward the professional pharmacy elective requirement. May be repeated for credit.
Prerequisite: Admission to the PharmD program and consent of instructor and the dean.

## PHR 161H. Professional Development Convocation III.

Professional development issues and assessments for PharmD students in the second professional year. Student fulfillment of professional and program-specific responsibilities (program evaluations, portfolios, administrative requirements), practice opportunities in pharmacy, and addressing the expected areas and levels of professional growth as the student advances through the curriculum. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 152H.

PHR 161J, 261J, 361J. Basic Studies in the Pharmaceutical Sciences.
Basic exploration in any area of the pharmaceutical and clinical sciences. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum; additional prerequisites vary with the topic.

## PHR 262D. Nonprescription Pharmacotherapy 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. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

## PHR 362L. Clinical Toxicology.

A course in toxicology that focuses on common poisons and their management; designed for pharmacy students planning to enter general practice. Three lecture hours a week for one semester. Prerequisite: Admission to the professional pharmacy curriculum.

## PHR 163C. 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. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 242D, and credit or registration for Pharmacy 262D, 163P, and 665E.

## PHR 263K. Veterinary Pharmacy.

Treatment of selected disease states of domestic and exotic animals; veterinary appliances and products, including proprietary pharmaceuticals and biologicals, with their therapeutic indications and uses. Two lecture hours a week for one semester. Prerequisite: Admission to the professional pharmacy curriculum.

## PHR 163P. Drug Information and Evidence-Based Practice Laboratory.

Practical application of the concepts presented in Pharmacy 163C. Includes assignments, projects, and oral presentations. Three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy 262D, 163C, and 665E.

## PHR 364D. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 244C and 144P.

## PHR 665E. Pharmacotherapeutics I.

An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the etiology and treatment of adrenergic-based diseases; cholinergic-based diseases; inflammatory diseases; hypertension; acute and chronic renal disease; and cardiovascular disease, including hyperlipidemia, circulatory problems, thromboembolic disease, myocardial ischemia, myocardial infarction, congestive heart failure, and arrhythmias. Six lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy 262D, 163C, 163P, and 392S.

## PHR 165P. Pharmacotherapeutics I Laboratory.

Problem-based laboratory course that integrates the pathophysiology, medicinal chemistry, pharmacology, and therapeutic aspects of various diseases in order to prepare students to make sound therapeutic
decisions. Subjects introduced in Pharmacy 665E. Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Pharmacy 665E.

## PHR 266P. Pharmacy Professional Communications.

Professional communication skills in interacting with patients and other health care professionals. One lecture hour and three laboratory hours a week for one semester, with additional hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Pharmacy 242D (or 249).

## PHR 167H. 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. At least seven research hours a week for one semester. May be repeated for credit. Prerequisite: Pharmacy 151R and admission to the Pharmacy Honors Program, or consent of the dean.

## PHR 168H. Medicinal Chemistry for Honors Students.

Expanded study of principles covered in the medicinal chemistry curriculum that concern synthetic, semisynthetic, and naturally occurring therapeutic agents. Three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Admission to the Pharmacy Honors Program, and credit or registration for Pharmacy 665E or consent of instructor.

## PHR 368T. 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. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 368T, 398T, Pharmacy Graduate Studies 398T. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy, or consent of instructor.

## PHR 169S, 269S, 369S. 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. For each semester credit hour earned, one lecture hour a week for one semester; with a minimum of two fieldwork hours a week at a service-learning site to be arranged. Pharmacy 269 S and 289 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

## PHR 370C. 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. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

## PHR 270D. 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. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy 695F and 395G.

## PHR 270M. Inpatient Adult Medicine.

Clinical therapeutic management of adult patients in an inpatient, institutional (primarily hospital) setting. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

## PHR 270N. 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). Two lecture hours a week for one semester. Prerequisite: Pharmacy 252C, 171P, and 371S; or consent of instructor.

## PHR 270R. Leadership Skills.

Development of leadership skills associated with team-based therapeutic approaches to healthcare. Designed to enhance skill sets associated with interdisciplinary and interprofessional healthcare teams. Two lecture hours a week for one semester. Prerequisite: Completion of the second professional year in the College of Pharmacy.

## PHR 370S. Interprofessional Community Service Learning.

Integration of community service with contemporary pharmacy practice, with a focus on social justice and social determinants of health care. Weekly online didactic modules, a minimum of fifty hours of service learning practicum with a community partner, and twice monthly group meetings. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

## PHR 271C. Drug Interactions.

Mechanisms, types, examples, and significance of drug interactions in pharmacy practice. Two lecture hours a week for one semester. Prerequisite: Pharmacy 665E, and credit or registration for Pharmacy 266P (or credit for 366P) or consent of instructor.

## PHR 171L. Leadership in Community Service Learning.

Designed for students enrolled in Pharmacy 370S and 381H who elect to serve in a leadership role for the community service-learning project. Involves coordination and organization of responsibilities at each phase of the project, communication with community partners, and additional outreach based on the needs of the community partner. Includes development of a plan and disseminate of the project outcomes. A minimum of six in-person meetings with the instructor, with additional meetings scheduled as needed, including online and by telephone. Prerequisite: Credit or registration for Pharmacy 370 S or 381 H .

## PHR 171P. Integrated Basic and Applied Pharmacokinetics Laboratory.

Problem-based and case-based application of pharmacokinetic principles to specific drugs and patient situations. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy 371S.

## PHR 371S. Integrated Basic and Applied Pharmacokinetics.

Introduction to pharmacokinetic principles; and the application of principles to specific drugs and patient situations. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 342C, 142p, 252c, 356C, 156P, and credit or registration for Pharmacy 171P, 675E, and 175P.

## PHR 172E. Nonprescription Pharmacotherapy and Self-Care <br> II.

A continuation of Pharmacy 262D. 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. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 262D, 392S, and credit or registration for Pharmacy 172P.

## PHR 172H. Professional Development Convocation IV.

Professional development issues and assessments for PharmD students in the second professional year. Student fulfillment of professional and program-specific responsibilities (program evaluations, portfolios, administrative requirements), practice opportunities in pharmacy, and addressing the expected areas and levels of professional growth as the student advances through the curriculum. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 161H.

## PHR 372K. Hospital Pharmacy.

Basic principles, standards, and procedures involved in providing professional pharmaceutical services in hospitals. Three lecture hours a week for one semester. Prerequisite: Admission to the professional pharmacy curriculum.

## PHR 172P. Nonprescription Pharmacotherapy 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 selfcare; includes fieldwork in a community pharmacy. One lecture hour and three laboratory or fieldwork hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy 172E, and current intern registration with the Texas State Board of Pharmacy.

## PHR 173H. Pharmacology and Toxicology for Honors Students.

Expanded study of principles covered in the pharmacology curriculum that concern mechanisms of action and toxicity of pharmacologic agents on body systems. Three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Admission to the Pharmacy Honors Program, and credit or registration for Pharmacy 665E or consent of instructor.

## PHR 274S. 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. The equivalent of two lecture hours a week for one semester. Prerequisite: Completion of the second professional year in the College of Pharmacy.

## PHR 675E. Pharmacotherapeutics II.

An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the pathogenesis and treatment of bacterial, viral, and fungal infections; immunizations against bacterial and viral diseases; and allergies, asthma, and chronic obstructive pulmonary disease. Six lecture hours a week for one semester. Offered on the lettergrade basis only. Prerequisite: Pharmacy 665E and credit or registration for Pharmacy 175P.

## PHR 175P. Pharmacotherapeutics II Laboratory.

Problem-based laboratory that integrates the pathophysiology, medicinal chemistry, pharmacology, and therapeutic aspects of various diseases in order to prepare students to make sound therapeutic decisions. Subjects introduced in Pharmacy 665E and 675E. Three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy 675E.

## PHR 176E. Interprofessional Ethics.

Explores ethical issues in pharmacy practice and health care, with a focus on the perspectives of professionals in the fields of nursing, law, social work, and medicine. One lecture hour a week for one semester. May include five additional discussion hours. Offered on the letter-grade basis only. Prerequisite: Pharmacy 244C, 144P, 364D, and credit or registration for Pharmacy 172H, 675E, and 175P.

## PHR 176P. 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. Three laboratory hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy, and credit or registration for Pharmacy 665E and 266P.

## PHR 377H. Institutional Clinical Skills.

Hands-on experience in an institutional practice care facility; examines pharmacy services, hospital management, staff interaction, and the flow of information from laboratory to bedside. Forty hours a week for two weeks. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy, and Pharmacy 242D, 244C, 144P, 163C, 163P, 364D, 266P, 171P, 371S, 172H, 675E, 175P, 176E, and 277P (or 177G and 177P).

## PHR 177K, 277K, 377K. Advanced Study in Pharmaceutical Research.

For each semester hour of credit earned, three laboratory hours a week for one semester. No more than three semester hours may be counted toward the professional pharmacy elective requirement. May be repeated for credit. Prerequisite: Second-professional-year standing and consent of instructor and the dean.

## PHR 277P. Introduction to Clinical Skills Laboratory.

Designed to develop the practical skills necessary in a pharmacy setting, with a focus on patient histories, how to read and interpret patient charts, adult immunizations (including APhA certification), and training and certification in CPR from American Heart Association facilitators. Laboratory includes practical application of pharmacy clinical skills. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy; Pharmacy 266P and 392S; and credit or registration for Pharmacy 675E and 175P.

## PHR 278H. Pharmacy Honors Proposal and Tutorial Course.

Honors seminar; development of laboratory research proposal for approval by the Honors Program Committee. One lecture hour and three hours of independent research a week for one semester. Prerequisite: Admission to the Pharmacy Honors Program.

## PHR 479H. Pharmacy Honors Thesis and Tutorial Course.

Honors seminar; laboratory research project conducted under the supervision of one or more faculty members. One lecture hour and nine laboratory hours a week for one semester. Prerequisite: Pharmacy 278H.

## PHR 280H. Landmark Studies in Cardiovascular Disease.

Evidence-based clinical studies in support of drug therapy recommendations in the treatment of cardiovascular diseases.
Two lecture hours a week for one semester. Prerequisite: Second-professional-year standing in pharmacy.

## PHR 280L, 380L. 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. For 280L, six laboratory hours a week for one semester; for 380L, nine laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 163C, 185P, 695F, and 395G.

## PHR 280U. Case Studies in Emerging Infections.

Team-based case study development addressing the assessment and control of recurring, cycling, and newly-emerging infectious diseases. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 675E and 175P.

## PHR 280W. 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. Two lecture hours a week for one semester. Prerequisite: Credit or registration for Pharmacy 695F or consent of instructor.

## PHR 381H. Interprofessional Health Care for HIV Patient Management.

Interprofessional teamwork, health literacy, treatment guidelines, patient safety, and medication reconciliation in the care of patients with the human immunodeficiency virus. Conducted at an HIV clinic in Texas. Students complete six hours of required Web-based instruction before beginning the clinical component. Six hours of online lecture and a minimum of fifty hours of fieldwork in one semester. Offered on the lettergrade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

## PHR 281U. Case Studies in Diabetes Management.

Designed to provide students with the skills and knowledge to serve as primary care providers in the area of diabetes management. Use of a case approach to discuss the management of patients with diabetes mellitus. Specific treatment modalities and management issues for the child, adolescent, adult, and elderly diabetic patient. Two lecture hours a week for one semester. Prerequisite: Credit or registration for Pharmacy 395G and consent of instructor.

## PHR 282D. 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. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 326C and completion of the second professional year in pharmacy, or consent of instructor.

## PHR 182H. Professional Development Convocation V.

Professional development issues and assessments for PharmD students in the third professional year. Student fulfillment of professional and program-specific responsibilities (program evaluations, portfolios, administrative requirements), practice opportunities in pharmacy, and
addressing the expected areas and levels of professional growth as the student advances through the curriculum. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 172H.

## PHR 282Q. 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. Two lecture hours a week for one semester. Prerequisite: Completion of the first professional year in the College of Pharmacy.

## PHR 383E. 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, and preprofessional introduction to interprofessional education competencies. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

## PHR 183F. Basic Intravenous Admixtures.

Basic principles of injectable and other sterile dosage forms; methods of preparation and evaluation that meet current pharmacy practice standards. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 356C, 156P, and credit or registration for Pharmacy 183G.

## PHR 183G. Basic Intravenous Admixtures Laboratory.

Basic laboratory principles in the preparation and evaluation of injectable and other sterile dosage forms. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 356C, 156P, and credit or registration for Pharmacy 183F.

## PHR 283H. Advanced Pharmacotherapeutics.

Advanced study of organ systems; pharmacotherapy and clinical pharmacokinetics. Two lecture hours a week for one semester. May be counted as a pharmacy honors elective. Prerequisite: Admission to the PharmD program.

## PHR 283U. 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. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

## PHR 384D. Antimicrobics: Mechanism of Action and Clinical

 Use.Mechanisms of antimicrobial activity and the development of bacterial resistance, and their relationship to clinical therapy. Three lecture hours a week for one semester. Pharmacy 384D and 484H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy 675E and 175P.

## PHR 284E. Pharmacy Law.

State and federal pharmacy laws. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

## PHR 184H. Antimicrobics: Advanced Inquiry.

Designed to give students additional insight, beyond Pharmacy 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. Conference course, with at least fifteen additional hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Registration for Pharmacy 384D

## PHR 185P. Pharmacotherapeutics III Laboratory.

Problem-based laboratory that integrates the pathology, medicinal chemistry, pharmacology, and therapeutic aspects of various diseases in order to prepare students to make sound therapeutic decisions. Subjects introduced in Pharmacy 665E, 675E, 695F, and 395G. Three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 675E and 175P, and credit or registration for Pharmacy 695F and 395G

## PHR 285Q. Fluid and Electrolyte Therapy.

Clinical management of disorders of fluid, electrolytes, and acid-base balance in patients with normal and abnormal homeostatic mechanisms; includes basic concepts of parenteral nutrition support. Two lecture hours a week for one semester. Prerequisite: Credit or registration for Pharmacy 185P, 695F, and 395G.

## PHR 285V. Mexican Drugs and Products.

Analysis of Mexican pharmacy practice, drugs, and products; implications for the pharmacist in the United States. Two lecture hours a week for one semester. Prerequisite: Credit or registration for Pharmacy 185P, 695F, and 395G.

## PHR 386G. Spanish for the Pharmacy Professional.

Intermediate communication skills in Spanish. Three lecture hours a week for one semester. Prerequisite: Completion of the second professional year in the College of Pharmacy, and one year of college-level Spanish or consent of instructor.

## PHR 287H. Community Care Clinical Skills.

Clinical work in a community-based pharmacy practice setting. Students receive medication therapy management training, participate in the development of patient care plans, and write an essay about the clinical experience. Five hours of fieldwork a week for one semester. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy, and Pharmacy 163C, 163P, 364D, 266P, 172E, 172P, 176E, 277P (or 177G and 177P), and 392S.

## PHR 187J, 287J, 387J. Advanced Problems in Pharmacy

 EducationLaboratory course examining professional education issues and techniques for students exploring an academic career. At least three, six, or nine laboratory hours a week for one semester. Prerequisite: Completion of all first-year professional coursework and consent of the dean.

## PHR 390T. 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. Forty hours of fieldwork a week for one semester. Prerequisite: Completion of the first professional year in the College of Pharmacy and consent of instructor.

## PHR 292G, 392G. Herbal and Botanical Supplements.

Examination of the scientific data underlying the use of herbs and other complementary and alternative medicine (CAM). An evidencebased approach to learning about the most commonly used herbs,
nutritional supplements, homeopathy, acupuncture, massage, and other CAM modalities, including 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. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit for Pharmacy 262D, 163C, and 172E.

## PHR 192H. Professional Development Convocation VI.

Professional development issues and assessments for PharmD students in the third professional year. Student fulfillment of professional and program-specific responsibilities (program evaluations, portfolios, administrative requirements), practice opportunities in pharmacy, and addressing the expected areas and levels of professional growth as the student advances through the curriculum. One lecture hour a week for a semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 182H.

## PHR 392S. Patient Assessment Skills Laboratory.

Introduction to patient assessment techniques and to the skills needed to provide pharmaceutical care. Two lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy, and Pharmacy 253C and 253D.

## PHR 693C. Ambulatory Care Pharmacy Practice.

Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in the context of ambulatory patient care. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

## PHR 693E. Elective in Pharmacy Practice I.

Experience in pharmacy practice, research, or administration. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

## PHR 693N. 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. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

## PHR 693P. 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. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

## PHR 693S. Selective in Pharmacy Practice I.

Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in a selected pharmacy practice environment. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

## PHR 693W. Elective International Pharmacy Experience.

Competitive placement for an international advanced pharmacy experience. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

## PHR 694C. Acute Care Pharmacy Practice.

Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in the context of acute patient care. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

## PHR 694E. Elective in Pharmacy Practice II.

Experience in pharmacy practice, research, or administration. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

## PHR 394F. Pharmacoeconomics.

Terms, concepts, procedures, methods, problems, and strengths associated with pharmacoeconomics. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 393T, 394F, Pharmacy Graduate Studies 393T. Offered on the letter-grade basis only. Prerequisite: Pharmacy 364D or consent of instructor.

## PHR 194P. Advanced Pharmacotherapeutics Laboratory.

Using classroom simulations, provides students with opportunities to practice their skills in interacting with patients and other healthcare professionals and communicating information regarding contemporary therapeutic regimens. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 185P, 695F, and 395G.

## PHR 694S. Selective in Pharmacy Practice II.

Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in selected pharmacy practice environments. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

## PHR 695E. Elective in Pharmacy Practice III.

Experience in pharmacy practice, research, or administration. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all
didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

## PHR 695F. Pharmacotherapeutics III.

An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the etiology and treatment of neurological, psychiatric, and developmental disorders. Also includes therapeutics of pain management, anesthesia, chemical dependence, and oncology. Six lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 675E and 175P, and credit or registration for Pharmacy 185P and 395G.

## PHR 395G. Pharmacotherapeutics IV.

An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the etiology and treatment of hormonal disorders and gastrointestinal disorders. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 675E and 175P, and credit or registration for Pharmacy 185P and 695F.

## PHR 295R. 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 163C. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 163C, 163P, 185P, 695F, and 395G.

PHR 396D. Pharmacotherapeutics of Special Populations.
Topics include geriatrics, pediatrics, pharmacogenomics, transplant patients, and under-served populations. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy 371S, 171P, 172E, 172P, 185P, 695F, and 395G.

## Lyndon B. Johnson School of Public Affairs

Robert Hutchings, PhD, Dean<br>Chandler Stolp, PhD, Associate Dean http://www.utexas.edu/lbj/

The Lyndon B. Johnson School of Public Affairs offers the Master of Global Policy Studies, the Master of Public Affairs, and the Doctor of Philosophy with a major in public policy. Information is given in the Graduate Catalog about these programs and about the requirements for admission to graduate study.

In addition to the graduate courses described in the Graduate Catalog, the faculty has approval to offer the following courses in the academic years 2014-2015 and 2015-2016; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule (http://registrar.utexas.edu/schedules) to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in General Information (http://catalog.utexas.edu/general-information/academic-policies-and-procedures/credit-value-and-course-numbers). In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits indicate the rank of the course; if they are 01 through 19, the course is of lower-division rank; if 20 through 79, of upperdivision rank; if 80 through 99 , of graduate rank.

## Public Affairs: P A

## Lower-Division Courses

P A 310C. Public Policy.
Skill topics, including economics, quantitative methods, public financial management, policy development, and public administration. Three lecture hours a week for one semester. Public Affairs 310C and 330C may not both be counted unless the topics vary. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary.

## P A 310S. Public Policy Seminar.

Seminar with topics related to domestic or international public policy. Three lecture hours a week for one semester. Public Affairs 310S and 330 s may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## Upper-Division Courses

## P A 325. Topics in Policy.

Three lecture hours a week for one semester. Some sections are offered on the letter-grade basis only. May be repeated for credit when the topics vary.

## P A 330C. Public Policy.

Skill topics, including economics, quantitative methods, public financial management, policy development, and public administration. Three lecture hours a week for one semester. Public Affairs 310C and 330C may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## P A 330S. Public Policy Seminar.

Seminar with topics related to domestic or international public policy. Three lecture hours a week for one semester. Public Affairs 310S and

330S may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## P A 150. Public Service and Practice.

Restricted to sophomore, junior, and senior-level undergraduates. Topics related to public service fields and the skills used by effective leaders. One lecture hour a week for one semester, with additional hours for some topics. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

## P A 150S. Issues in Public Service.

Topics in issues and decision-making that arise in the practice of public service. One lecture hour a week for one semester, with additional hours for some topics. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

## P A 158S. Public Policy Issues.

Current issues in public policy. Hours to be arranged. Some sections may be offered on a letter-grade only basis. May be repeated for credit when the topics vary.

# School of Social Work 

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## General Information

## Accreditation

The bachelor of social work degree program is accredited by the Council on Social Work Education.

## Mission

The School of Social Work provides professional education and leadership in social work practice, research, and service to promote social and economic justice, enhance social welfare, and build strong community-University partnerships.

The mission of the Bachelor of Social Work (BSW) program is to prepare students as beginning level generalist professional social work practitioners who are committed to the provision of services that further the well-being of people and who promote social and economic justice. Building on a broad liberal arts framework, the BSW curriculum is designed to develop generalist practitioners who have an understanding of social work knowledge and values and are able to select different methods and resources to meet identified client needs, while recognizing and engaging the strengths of the client in the process. The curriculum offers students the opportunity to learn to promote, restore, maintain, and enhance the social functioning of multiple levels of systems in the environment, including individuals, families, small groups, organizations, and communities; to recognize worker and client limitations; and to know when to refer clients to other resources.

The BSW student is given the opportunity to learn to work collaboratively in a variety of settings using an ecosystems/developmental perspective; to recognize the relationships between client needs and public issues; to work toward the development of social policies, resources, and programs that meet basic human needs and empower at-risk groups; and to be sensitive to the diversities among individuals, including ethnicity, gender, age, sexual orientation, religion, and ability. The program is intended to prepare reflective, self-evaluating practitioners who have a strong identification with the social work profession and work to alleviate poverty, oppression, and discrimination.

Graduates of the program are expected to be able to enhance the problem-solving, coping, and developmental capacities of individuals, especially those from at-risk populations. They also are expected to contribute to the effective and humane operation of the systems within the environment that provide individuals with resources, services, and opportunities; to link individuals in need with the appropriate systems; and to contribute to the development and improvement of social policies that have an impact on people and their social environments, especially by empowering at-risk groups and by promoting social and economic justice.

The BSW program is integrated with and builds upon a liberal arts base that includes knowledge in language arts, the humanities, and the social, behavioral, and natural sciences. The curriculum includes content in social work values, diversity and at-risk populations, social and economic justice, human behavior and the social environment, research, social welfare policy and services, and social work intervention.

## Program Objectives

Students graduating from the BSW program are expected to demonstrate the following characteristics:

1. A professional identity that incorporates the values and ethics of the social work profession and the professional development of self.
2. The ability to work with diverse populations with an understanding of, and respect for, the positive value of diversity, including ethnicity, gender, sexual orientation, age, ability, and religion, and to use communication skills differentially with diverse groups.
3. An understanding of the forms and mechanisms of oppression and discrimination.
4. The ability to apply strategies and skills that advance social and economic justice and to address the oppression of at-risk populations.
5. An understanding of the biological, psychological, social, and cultural contexts of changing client systems, including individuals, families, groups, organizations, communities, and the broader society, and their effects on development and behavior.
6. Beginning level competencies in research and evaluation, including the ability to evaluate research studies and apply their findings to practice, and, under supervision, evaluate their own practice interventions and those of other relevant systems.
7. An understanding of how social policy develops and differentially affects various client systems, workers, and agencies.
8. An understanding of the role the social work profession has played in promoting social change, historically and currently.
9. The attainment of knowledge and skills that demonstrate the ability to practice effectively with individuals, families, groups, organizations, and communities, in a manner that empowers client systems and uses their strengths in order to maximize their health and well-being.
10. An ability to apply critical thinking skills within the context of professional social work roles and practice.
11. An awareness of their responsibility to continue their professional growth and development, including the use of supervision appropriate to generalist practice.

## History

The School of Social Work was established as a graduate program in 1949 and began classes in the fall of 1950 with twenty-four students enrolled in the Master of Science in Social Work (MSSW) program. Undergraduate courses in social work were first offered in 1958. These were incorporated into a full Bachelor of Social Work (BSW) program in the fall of 1974.

The first BSW degree was awarded in December, 1977. Since that time, the program has been strengthened by curriculum modifications reflecting changes in the profession and in society that have implications for beginning social work practice.

The School of Social Work also offers programs leading to the Master of Science in Social Work and the Doctor of Philosophy. These are described in the Graduate Catalog (http://catalog.utexas.edu/graduate/ fields-of-study/social-work).

## Facilities

The School of Social Work Building (1925 San Jacinto Boulevard) provides space for social work classes, including classrooms equipped for distance learning and an instructional technology classroom; offices for the faculty and staff; an advising center and student services area; and a student lounge. The building also houses the school's Learning Resource Center (LRC), which has an extensive collection of social work related books, journals, and other publications partially funded by
the Josleen Lockhart Memorial Book Fund. The LRC includes a large computer laboratory for student use and provides space, equipment, and technical assistance for studying, meetings of small groups of students, viewing audiovisual materials, videotaping, and completing other skillsbased learning assignments. The School of Social Work Building also houses the Center for Social Work Research, the DiNitto Center for Career Services, Con Mi Madre, and the Center for Students in Recovery.

## Financial Assistance Available through the School

Although many University scholarships are awarded through the Office of Student Financial Services, a limited number are awarded by the School of Social Work to undergraduate social work students. Awards are made for reasons ranging from academic promise to financial need. All social work majors who meet the eligibility requirements for the scholarships listed below are encouraged to apply. Additional information is available from the Academic Affairs Office.

The Francis Crockett Memorial Scholarship was established in memory of Francis Crockett. The scholarships provide support for undergraduate students in the School of Social Work who are planning a career in the mental health field. Preference will be given to applicants with demonstrated financial need, academic merit, and demonstrated involvement in their communities.

The Vincent J. DiNitto Endowed Scholarship was endowed in 2011 by Diana M. DiNitto, Ph.D., in memory of her father, Vincent J. DiNitto. Funds are distributed from the endowment and shall be used to award scholarship to social work students with financial need, with additional consideration given to academic achievement and professional potential. Dr. DiNitto is the Cullen Trust Centennial Professor in Alcohol Studies and Education and a University Distinguished Teaching Professor at the School of Social Work.

The Bonny Gardner Social Justice Award was established in 2006 through the generosity of Bonny Gardner, Ph.D. The award is given to a student who has shown an exemplary commitment to social justice through dissemination of knowledge, activism/advocacy, or leadership through class projects, field activities, and/or work within the community. Dr. Gardner received her doctorate and undergraduate degree from UT Austin.

The George K. Herbert Endowed Scholarship was created in 1989 through gifts from colleagues, faculty members, and alumni, the Wolens Foundation, the Social Work Advisory Council, and other friends in recognition of Dr. Herbert's dedication to high standards of professional service and contributions to social work education. Dr. Herbert served on the faculty and as dean of the School of Social Work. Students are nominated for the award on the basis of academic excellence and potential contribution to professional social work. The endowment provides scholarships to undergraduate or graduate students in the School of Social Work, selected at the discretion of the dean, based on merit or need, on the recommendation of the School of Social Work Scholarship Committee.

The Ami Lunsford Memorial Scholarship in Victim Services was initiated by the Social Work Student Council in memory of Ami Lunsford, a May 1996 graduate of the School of Social Work. The scholarship was endowed in 1997 through gifts from family and friends. It is awarded on the basis of academic achievement and professional potential to social work students with a special interest in victim services.

The Victor and Myra Ravel Scholarship in Children's Rights was endowed in 1989 by Mr. and Mrs. Victor Ravel of Austin and the University Regents' Endowed Student Fellowship and Scholarship Program. The endowment is administered through the Austin Community

Foundation; the income is used for scholarships to social work students interested in children's rights or child advocacy. Students are nominated on the basis of academic excellence and potential contribution to professional social work in the area of child advocacy.

The Sylvia Shapiro Scholarship was established in 1985 by Sidney S. Smith of Austin, in memory of his cousin, Sylvia Shapiro. Students are nominated on the basis of academic excellence, need, and potential contribution to professional social work with emphasis on work with the frail elderly.

The King S. Stephens II Memorial Endowed Scholarship was established in 1995 through the generosity of faculty members, family members, and friends in loving memory of this respected faculty member, whose fierce intellect and commitment to social justice challenged our ideas and inspired our sense of responsibility. Students are nominated on the basis of academic excellence and commitment to social justice.

The August N. "Gus" Swain Endowed Scholarship was established in 1993 in honor of Gus Swain, the first African American student to receive an MSSW degree from the School of Social Work. Students are selected on the basis of academic excellence, financial need, and potential contribution to the social work profession.

## The Melanie Walter-Mahoney Endowed Scholarship in Social Work

 Established by the Charles and Betti Saunders Foundation was endowed in 2003 by the Charles and Betti Saunders Foundation to provide scholarship support for social work students. Mr. and Mrs. Saunders are both graduates of UT Austin. Their daughter, Melanie Walter-Mahoney, received her MSSW from the School of Social Work and a bachelor's degree in sociology from UT Austin.The Louis A. Zurcher Memorial Scholarship was established by gifts in memory of Dr. Louis A. Zurcher, collected since his death in 1987. The scholarship is awarded to provide support to social work students.

## Other Scholarships

Additional scholarships funded by contributions to the School of Social Work are awarded to undergraduate social work majors each year. Students are nominated on the basis of academic excellence, financial need, and potential contribution to professional social work.

## Student Services

## Academic Advising

The Office of Academic Affairs in the School of Social Work seeks to assist the student in exploring social work as a career choice, in planning an academic program suited to the student's interests and talents, in seeking help with academic or personal problems, and in post-graduation planning, whether for employment or for further study. The Office of Academic Affairs also provides administrative support and student services, including maintenance of academic records, provision of official degree audits, and graduation certification for social work majors. Faculty and staff members are also available to assist students with questions about scholarship programs, degree requirements, rules and regulations, and other available campus services. Students who declare an interest in completing the social work program are required to meet with a social work adviser at least once each semester for academic advising. To arrange an appointment with an adviser, students should contact the Office of Academic Affairs.

During the student's first and second academic years, the student and the adviser discuss the student's career choice, the selection of a major, degree requirements, and requirements for admission to the major and to upper-division courses in social work; during the third year, the work required for the major and the student's preparation for entry into the
field practicum; and during the fourth year, the field practicum and the student's post-graduation plans.

## Career Choice Information

Students interested in social work as a career are encouraged to discuss this interest at any time with a social work adviser. Advisers are available in the school's Office of Academic Affairs to help students explore social work practice and settings and the development of interest in social work through academic and volunteer experiences. Students may also seek the assistance of the DiNitto Center for Career Services (http:// www.utexas.edu/ssw/dccs).

Members of the social work faculty are also available to assist the student in choosing a career, as are the staff and resources of the University's Sanger Learning Center, the Volunteer and Service Learning Center, and the Center for Strategic Advising and Career Counseling in the School of Undergraduate Studies. Since the social work program requires admission to the major and completion of 125 semester hours, students are encouraged to discuss their interest in social work as a career early in their studies.

## Career Services

Career development services are provided to students preparing to enter the professional job market. Students should inquire in the DiNitto Center for Career Services, School of Social Work Building 2.214. The office maintains a listserv of employment opportunities and provides information about social work careers, graduate programs, online resources, and other opportunities for professional development, volunteer placement, and social work licensure. Workshops and other programs are offered on the fields of social work practice, résumé preparation, and job search and interview skills.

Professional social workers may seek employment in a number of areas. The Texas Department of Aging and Disability Services has established quality control standards that mandate the hiring of holders of BSW degrees in designated positions. The Texas Department of Family and Protective Services hires social workers for its child protective services programs, and the Texas Health and Human Services Commission hires BSW graduates for its client support services programs. Large nursing home facilities are also required to have a social work staff. Substance use disorder treatment programs, psychiatric hospitals, health care programs, school social work and dropout prevention programs, criminal justice programs, and programs for the elderly also employ social workers. More than a third of the program's graduates go on to graduate schools throughout the country.

As a complement to the assistance available from the school, the University's Sanger Learning Center in Jester Center and the Center for Strategic Advising and Career Counseling in the School of Undergraduate Studies provide comprehensive career services to all students. The centers offer professional assistance to students in choosing or changing their majors or careers, seeking an internship, and planning for the job search or for graduate study.

The University makes no promise to secure employment for each graduate.

## Social Work Council

The Social Work Council is an organization open to all students pursuing a social work degree or interested in the social work profession. The purposes of the council are to help students acquire a better understanding of the profession of social work, to provide a mechanism for student input on issues related to the social work curriculum and the school, and to organize and support social work related programs and
projects that will benefit students, the school, the University, and the community.

Council activities are often conducted in collaboration with the Office of Academic Affairs. They include orientations to the BSW and MSSW programs, a career night, forums with guest speakers from community agencies and the University, community service projects, special interest groups that meet to discuss social work related topics, and social gatherings. Members of the Council represent student concerns as voting members of the school's curriculum committees, the Senate of College Councils, and the Student Government.

## Professional Liability Insurance

Students must purchase professional liability insurance while they are enrolled in the field practicum. The cost is about fifteen dollars a semester. Payment is coordinated by the Field Office of the School of Social Work. A criminal background check may be required as well.

## Admission and Registration

## Admission

## Admission to the University

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. Information about admission to the University is given in General Information (http:// catalog.utexas.edu/general-information/admission).

## Admission Policies of the School

The School of Social Work maintains two classifications of undergraduate students: pre-social work majors and social work majors. Pre-social work majors are usually freshmen and sophomores. After completing the requirements below, a student may apply for admission to the professional curriculum as a social work major. Students who are admitted into the major complete at least three semesters of social work coursework and any other remaining degree requirements. Students who fulfill all degree requirements receive a Bachelor of Social Work degree.

The professional practice of social work requires people who are above average in academic ability and performance, sufficiently emotionally mature to assume a helping role with people under stress, and committed to the ethical standards and performance demands of social work practice. Students are encouraged to use the advising services in the School of Social Work early in their college careers in anticipation of meeting requirements for admission to the major. A student who is interested in seeking a social work degree must discuss his or her intentions with a social work adviser before applying for admission to the program.

## Admission to the School as a Pre-Social Work Major

A student may transfer from another division of the University to the School of Social Work in accordance with the regulations given in General Information (http://catalog.utexas.edu/general-information/ registration-tuition-and-fees/transfer-from-one-division-to-another-within-the-university).

A University student who wants to transfer as a pre-social work major must meet the following requirements:

1. Completion of at least twelve semester hours of coursework in residence at the University. Credit earned by exam, correspondence, and extension may not be counted toward this requirement.
2. A cumulative in-residence grade point average of at least 2.00 .
3. If social work coursework has been completed prior to the application, a grade point of at least 2.50 in those courses is required, and all social work courses must have been completed with a grade of at least $C$.

Only currently enrolled students may apply. Forms to apply for internal transfer are available through the School of Social Work Office of Academic Affairs.

Admission to the School of Social Work is offered on a space-available basis to the students who are best qualified.

Students with over 90 semester hours of coursework or a completed degree are encouraged to consider other options, such as completing a degree in their current college/school or alternate institution with the option of pursuing a MSSW degree at a later date.

## Admission to the Major in Social Work

No student may enter the professional curriculum (the required upperdivision social work courses) unless he or she has been admitted to the University as described in General Information and has been admitted to the major in social work by the assistant dean for undergraduate programs, following recommendation by the BSW Program Committee, according to the procedures below. All students are considered according to the policies given in the editions of General Information and the undergraduate catalog that are in effect at the time of the application.

The School of Social Work considers students for admission to the major twice a year, during the fall and spring semesters. A student who enters the University as a freshman in a fall semester will usually apply for admission to the professional curriculum in the spring semester of the sophomore year or the fall semester of the junior year. Admission applications are distributed during mandatory information sessions held by the Office of Academic Affairs. The application allows the student to describe his or her background and motivation to enter the social work profession as well as any special experiences that enhance his or her application.

The School of Social Work limits admission to the major to the number of students for whom a professional education of high quality can be provided. Because of enrollment restrictions dictated by the availability of faculty members and facilities, some applicants may be denied admission even though they meet the following minimum requirements.

1. The applicant must have completed at least forty-five semester hours of coursework, including at least thirty hours chosen from the following requirements:
a. All requirements of the University's Core Curriculum (p. 20)
b. Sociology 302
c. Psychology 301
d. One three-semester-hour course in human biology: Biology 301L, 301M, 309D, 309F, or 311C
e. Second-semester-level proficiency, or the equivalent, in a single foreign language
f. A three-semester-hour course in economics
2. The applicant must have completed the following courses with a grade of at least $C$ in each course: Social Work 310, 312, 313, 318, and either Human Development and Family Sciences 313 or Psychology 304. He or she must also have a University grade point average of at least 2.50 in courses that are part of the social work major requirements
3. The applicant must have a University grade point average of at least 2.00
4. Application for admission must be made on forms available from the Office of Academic Affairs in the School of Social Work
5. The following must be submitted to the BSW Program by the application deadline:
a. The completed application for admission to the professional curriculum
b. A personal statement as explained on the application
c. At least two recommendation forms completed by appropriate individuals who can attest to the applicant's academic and professional readiness to enter the program
d. Documentation of successful completion of at least forty-five hours of supervised service learning involving direct contact with clients in a human services organization
e. Official transcripts from all colleges attended, if the coursework has not been transferred to the student's University record
f. Score reports for any credit earned by examination, if the scores are not on the student's University record
6. The applicant may be asked to appear for a personal interview

The applicant is considered on the basis of academic performance and his or her commitment to and suitability for generalist social work practice. The committee also assesses the applicant's emotional and professional readiness to work with clients on the basis of such factors as his or her work in courses already taken, previous meetings with social work advisers, personal statement, and the interview, if any, that is part of the application process. As a general guide, the committee also uses the Student Standards for Social Work Education, available at www.utexas.edu/ssw/current/forms/, which delineates expectations for social work students in four areas: basic abilities to acquire professional skills, mental and emotional abilities, professional performance skills, and scholastic performance. The Standards can be found in the appendix of the BSW Handbook, available at www.utexas.edu/ssw/current/forms/.

A student who is unable to attend in the semester for which he or she is admitted must reapply for admission in order to enroll at a later time. A student who has been admitted to and enrolls in the professional curriculum, withdraws, and then wishes to return must apply for readmission on the basis of the curriculum in effect at the time of the return. A student who has been out of the University for a semester or more must also submit an application for readmission to the University.

## Transfer Credit

As part of the application for admission to the University, students must submit transcripts from all other colleges and universities they have attended to the University's Office of Admissions. Students seeking readmission must submit transcripts from all schools they have attended since leaving the University. The Office of Admissions evaluates all transcripts and grants the student transfer credit when possible for coursework completed at the other schools.

Although the University's Office of Admissions may grant the student a certain number of semester hours of transfer credit for work completed in another social work program, the assistant dean for undergraduate programs in the School of Social Work determines whether this coursework may be counted toward fulfillment of the Bachelor of Social Work degree requirements. Students who wish to use transfer credit to meet degree requirements should submit a course syllabus, assignments, and the titles and names of authors of textbooks to the assistant dean for undergraduate programs for evaluation.

Students may also seek transfer credit for coursework they complete at another institution after enrolling at the University. In this case also the student should submit a transcript from the other institution to the University's Office of Admissions and a syllabus, course assignments, and information about textbooks to the School of Social Work's assistant dean for undergraduate programs.

## Registration

General Information gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. Published before registration each semester and summer session, the Course Schedule includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and General Information are published on the registrar's Web site, http://registrar.utexas.edu/.

## Academic Policies and Procedures

## Honors

## University Honors

The designation University Honors, awarded at the end of each longsession semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered. Criteria for University Honors are given in General Information.

## Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in General Information.

## School Honors Program

The Social Work Honors Program (https://www.utexas.edu/ssw/bsw/ honors) is available to outstanding students who have distinguished themselves by superior performance during their time at the University.

Majors who plan to seek special honors in social work should apply to the Honors Program Subcommittee of the BSW Program Committee for admission to the honors program at least one full year before they expect to graduate. A University grade point average of at least 3.50 is required for admission, as is a grade point average of at least 3.50 in all of the coursework required for the major that the student has completed. The requirements for graduation with special honors, which are in addition to the requirements for the major, are: (1) a six-hour, two-semester honors tutorial course with a grade of at least $B$-in each half; (2) oral presentation of the honors thesis in a research colloquium open to the School of Social Work community and the public; (3) a University grade point average of at least 3.50 and a grade point average of at least 3.50 in the courses required for the major and for honors; and (4) completion in residence at the University of at least sixty hours of coursework counted toward the degree.

## Review and Grievance Procedures

The School of Social Work document Student Standards for Social Work Education delineates standards for professional education that apply to students enrolled in the School of Social Work. Because of the nature of professional social work practice, the School of Social Work has different expectations of students than do nonprofessional programs. All social work students are expected to abide by the Standards and by the National Association of Social Workers (NASW) Code of Ethics. When a student's performance does not meet expectations according to these established guidelines, a review may be called to bring the problem to the student's attention and to develop a plan to address the problem. Usually, the issue is resolved and the student is continued in the program with additional support provided to the student and/or conditions established for the
student's continuance in the program. In some instances, depending on the nature of the problem, the student may be referred to the University's Office of the Dean of Students, counseled to change majors, or dismissed from the program.

Students enrolled in the social work program have the right to appeal decisions made by the social work program, including scholastic dismissal. Students are assured freedom from reprisals for filing appeals. Students who wish to appeal a decision made during a school review process should consult the standards for information on grievance procedures, located in the BSW Handbook (http://www.utexas.edu/ssw/ current/forms).

## Graduation

## Special Requirements of the School

All students must fulfill the General Requirements (p. 17) for graduation. Students in the School of Social Work must also fulfill the following requirements.

1. All University students must have a grade point average of at least 2.00 to graduate. In the School of Social Work, students must also have a grade point average of at least 2.50 in required social work courses.
2. To receive an undergraduate degree from the University, every student must fulfill the following requirements on coursework taken in residence:
a. All University students must complete in residence at least sixty semester hours of coursework counted toward the degree. For the Bachelor of Social Work degree, these sixty hours must include at least twenty-four hours in the major and must include the required field practicum courses.
b. The University requires that at least six semester hours of advanced coursework in the major be completed in residence. The School of Social Work further requires that twenty-four of the forty-six hours of upper-division coursework for the Bachelor of Social Work be completed in residence.
3. An Air Force, Army, or Naval Reserve Officer Training Corps student who elects the basic and/or advanced program in air force science, military science, or naval science will not be approved for graduation until the government contract is completed, unless the student is released from the ROTC.

## Applying for Graduation

The Office of Academic Affairs provides each student with a computergenerated degree audit during each long-session semester. The degree audit notifies the student of the courses he or she must take and the requirements he or she must fulfill to receive the degree. The degree audit normally provides an accurate statement of requirements, but the student is responsible for knowing the exact requirements for the degree as stated in a catalog under which he or she is eligible to graduate and for registering so as to fulfill those requirements. The student should seek an official ruling in the Office of Academic Affairs before registering if in doubt about any requirement.

In the semester or summer session in which the degree is to be conferred, the candidate must be registered at the University and must apply for the degree in the Office of Academic Affairs. This should be done at the time of registration for the last semester, if possible, but in no event later than the deadline given in the official academic calendar. No degree will be conferred unless the graduation application form has been filed on time.

## Advanced Standing in Master's Degree Programs

A number of graduate schools of social work grant advanced standing to students who have completed all the requirements of an accredited undergraduate social work program. Many programs allow up to one year of credit toward the master's degree in social work. Information about programs offering advanced standing is available in the Office of Academic Affairs.

## Degrees and Programs <br> Applicability of Certain Courses

No more than thirty-six semester hours in any one field of study other than social work may be counted toward the Bachelor of Social Work degree. No more than sixty semester hours of social work may be counted toward the degree.

## Physical Activity Courses

Physical activity courses (PED) are offered by the Department of Kinesiology and Health Education. Six semester hours of this coursework may be counted toward the Bachelor of Social Work degree. All physical activity courses are counted among courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

No more than six semester hours of credit for air force science, military science, or naval science courses may be counted toward the Bachelor of Social Work. Such credit may be used only as lower-division electives in degree programs that have room for such electives and only by students who have completed the third and fourth years of the ROTC program.

## Correspondence and Extension Courses

Credit that a University student in residence earns simultaneously by correspondence or extension from the University or elsewhere or in residence at another school will not be counted toward a degree in the School of Social Work unless specifically approved in advance by the dean. No more than 30 percent of the semester hours required for the Bachelor of Social Work may be taken by correspondence. More information is available from the assistant dean for undergraduate programs.

## Courses Taken on the Pass/Fail Basis

Undergraduate students who have received at least thirty semester hours of college credit may take no more than five one-semester courses in elective subjects outside their major area on the pass/fail basis. Students must state their intention to register on this basis by the deadline given in the official academic calendar; they may not change the basis of registration in a course more than once; and they may not take more than two courses a semester on this basis.

## Other Courses

Music 101G may not be counted toward any degree in the School of Social Work. Other introductory courses, such as Music 201J, 201M, and 201 N , may be counted toward degrees in the school.

No more than six semester hours of bible courses may be counted toward the Bachelor of Social Work degree.

## The Minor

Plans for a minor in psychology, sociology, or another approved area may be developed with advising assistance from the Office of Academic

Affairs. A minor requires completion of at least twelve semester hours, six of which must be upper-division.

## Bachelor of Social Work

The requirements for the Bachelor of Social Work degree are designed to give the student an opportunity for integrated, nonrepetitive learning. A total of 125 semester hours is required. These may include credit by examination and a maximum of five one-semester elective courses taken on the pass/fail basis. All students must complete the requirements for the major and must complete at least sixty semester hours in residence at the University. These sixty hours must include at least twenty-four semester hours in social work. A completed degree program must include at least forty-six semester hours of upper-division coursework, of which twentyfour semester hours must have been taken in residence. No more than sixty semester hours in social work may be counted toward the degree.

Each student must complete a sequence of prescribed work; major requirements, which include the field practicum; and special requirements, which include electives.

## Prescribed Work

The prescribed work provides the liberal arts base for the social work curriculum. Interdepartmental courses and credit by examination may be used to meet these requirements. Unless otherwise indicated, a course taken to meet the requirements of one area may not also be used to fulfill the requirements of another area; however, a single course may be used, unless otherwise indicated, to fulfill both an area requirement and a major requirement. No course used to fulfill area or major requirements, other than the field practicum, may be taken on the pass/fail basis.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 20). A single course may not be counted toward more than one core area, but in some cases a course that is required for the Bachelor of Social Work may also be counted toward the core curriculum; these courses are identified below.

## Skills and Experience Flags

In the process of fulfilling the core curriculum and other degree requirements, all students pursuing the Bachelor of Social Work must complete courses that carry flags in the following areas:

1. Writing: Three courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag; one of these courses must be upper-division. Social Work 323K and 327 count toward this requirement; students must complete the third writing course outside the School of Social Work. Courses used to fulfill the writing requirement may be used to fulfill other requirements.
2. Cultural diversity in the United States: One flagged course. Social Work 310 and 325 carry the cultural diversity flag.
3. Ethics and leadership: One flagged course. Social Work 332 and 333 carry the ethics and leadership flag.
4. Quantitative reasoning: One flagged course. Social Work 318 carries the quantitative reasoning flag.
5. Global cultures: One flagged course chosen from approved list. Social Work 360K (Ghana Maymester) and Social Work 460K (London Maymester) also satisfy the global cultures flag.
6. Independent inquiry: One flagged course. Social Work 323K carries the independent inquiry flag.

## Foreign Language

In addition to the core curriculum requirements above, undergraduates must earn credit for the second college-level course, or the equivalent, in a foreign language. American Sign Language may be used to fulfill this requirement.

## Major Requirements

The Bachelor of Social Work program offers basic courses designed to provide students with concentrated and in-depth educational experience combining social work knowledge and practice skills. No course used to fulfill major requirements, except Social Work 640 and 641, may be taken on the pass/fail basis. Students are advised to complete the core curriculum, the skills and experiences flags, the foreign language requirement, and all lower-division major requirements before taking upper-division courses. In developing their degree plans, students must also pay careful attention to the sequencing of social work courses to ensure that prerequisite requirements are met.

Academic credit cannot be granted for life experience or previous work experience, and such experience cannot be substituted for any of the courses in the professional foundation areas or the field practicum. Students who believe they have the qualifications to receive credit by examination for a social work course other than the practice sequence coursework (Social Work 312, 332, 333, and 334) and the field practicum may submit a written request to the assistant dean for undergraduate programs. The assistant dean will review the request and determine whether or not the student should be permitted to take the examination.

1. The following courses are required:
a. Social welfare policy: Social Work 310, 323K.
b. Research: Social Work 313, 318.
c. Human behavior: Social Work 325, 327.
d. Practice: Social Work 312, 332, 333, 334.
e. Field practicum: Social Work 640, 641, 444.
2. Students must complete a three-semester-hour introductory course in psychology. Psychology 301 fulfills this requirement and may also be counted toward the social and behavioral science requirement of the core curriculum.
3. Students must complete a three-semester-hour introductory course in sociology. Sociology 302 fulfills this requirement and may also be counted toward the social and behavioral science requirement of the core curriculum.
4. Students must complete either Human Development and Family Sciences 313 or Psychology 304.
5. Students must complete a three-semester-hour course in human/ environmental biology: Biology 301L, 301M, 309D, 309F, 311C, or the equivalent. Biology 301L and 301M or Biology 311C and 301M may be used together to complete the science and technology part I requirement. If biology coursework it not used for science and technology part I, any of these courses may be used to fulfill the science and technology part II requirement.
6. Students must complete three semester hours in economics. Certain economics courses may also be used to fulfill the social and behavioral sciences requirement of the core curriculum.
7. Students must complete at least nine semester hours of upperdivision coursework in the social and behavioral sciences (applied learning and development, anthropology, economics, educational psychology, government, history, kinesiology, psychology, sociology, Social Work 360 K topics) in addition to other major requirements. Six of these nine hours may be upper-division social work electives.

## Field Sequence Requirements

The social work program requires that students complete forty-five clock hours of supervised service learning related to social work to be admitted to the major, to upper-division courses in social work, and to the field practicum. These volunteer hours may be used to meet course requirements in Social Work 310 and 312. Students must also complete 480 clock hours of fieldwork as part of the course requirements in Social Work 640 and 641 . Students have the opportunity in the field practicum to develop the professional skills needed for entry-level social work positions as generalist practitioners. Adequate laboratory time through the field practicum is built into this professional program to provide students with an opportunity to test their developing skills in a real-life environment. At the same time, faculty members evaluate the student's professional development within the context of the educational objectives established for the experience. The goals are for the student to learn real-life practice, to develop skills, to relate concepts to skill development, to remain motivated to continue to learn, and to evaluate personal performance.

To enroll in the field practicum, students must meet the following requirements: (1) admission to the major in social work; (2) a University grade point average of at least 2.00; (3) completion of the core curriculum, the skills and experiences flags, and the foreign language requirement; and (4) both a grade point average of at least 2.50 for the following group of courses and a grade of at least $C$ in each course in the group: Social Work 310, 312, 313, 318, 323K, 325, 327, 332, 333, and 334.

Following the student's admission to the field practicum, his or her work is reviewed periodically by the student, the field faculty, and the agency supervisor. Should the student have trouble meeting the professional or academic requirements of the program, the review process will bring the difficulty to the student's attention and assist the student in seeking appropriate resolution. The student may make use of counseling and advising services at any time. If difficulties cannot be resolved, the field director may conduct an administrative review, which may result in a decision to terminate the student's field placement. The student is notified of this decision in writing.

All social work students enrolling in the field practicum are required to show evidence of professional liability insurance coverage paid for the duration of the course. The effective date of the policy must be on or before the first regular class period of the field practicum course for which the student is enrolling. Failure to provide evidence of insurance may result in the student being dropped from the field practicum.

## Special Requirements

## Elective Requirements and Limitations

In addition to the area and major requirements given above, the student must take elective coursework to complete the 125 semester hours required for the Bachelor of Social Work. No more than five one-semester courses taken on the pass/fail basis, thirty-six hours in any one field of study other than social work, and fifty-four hours in social work may be counted toward the 125 -hour requirement.

## Minimum Scholastic Requirements

1. The student must fulfill the University-wide graduation (p. 17) requirements and the requirements of the School of Social Work given earlier in this section.
2. To apply for admission to the social work major, a student must have earned a grade of at least $C$ in each of the following courses: Social Work 310, 312, 313, 318, and Psychology 304 or Human Development and Family Sciences 313. The student must also have a University grade point average of at least 2.00 and a grade point average of at least 2.50 in all the courses he or she has completed that are part of the social work major requirements. Additional
requirements are given in the section Admission to the Major in Social Work (p. 668).
3. Following the student's admission to the major, the student's coursework is reviewed periodically by the student and the academic adviser. Students must maintain a University grade point average of at least 2.00; they must also earn a grade of at least $C$ in each course listed as a social work major requirement and must maintain a grade point average of at least 2.50 in these courses. If the student has trouble meeting the professional or academic requirements of the major, the review process delineated in Student Standards for Social Work Education, available at www.utexas.edu/ssw/current/ forms/, will bring the difficulty to the student's attention and assist the student in making appropriate resolution. The student may make use of counseling and advising services at any time.
4. If the student's grade point average in social work courses falls below 2.50, the student is placed on academic probation in social work. If the grade point average remains below 2.50 for two consecutive semesters, including the summer session, the student is subject to academic dismissal from the School of Social Work.
5. All students who seek to reenter the School of Social Work after having been placed on enforced withdrawal or academic dismissal must have the approval of the assistant dean for undergraduate programs.
6. Any student who has a grade of $C$ or higher in a course may not repeat the course and use the second grade to improve his or her grade point average without special permission of the assistant dean for undergraduate programs. If a student repeats a course, all grades received for the course are included in the grade point average.

## Order and Choice of Work

A pre-social work major may fulfill the requirements for application to the major in four or five long-session semesters, depending on the number of hours completed each semester. After admission to the major, students complete a three-semester professional sequence and additional requirements needed for the BSW degree.

Suggested Schedule for Pre-Social Work Majors

| First Year |  |  |
| :---: | :---: | :---: |
| First Term | Hours Second Term | Hours |
| RHE 306 | 3 A course to be counted towards the mathematics requirement of the core curriculum | 3 |
| S W 310 | 3 SOC 302 | 3 |
| PSY 301 | 3 A course to be counted toward the U.S. history requirement of the core curriculum | 3 |
| A biology course to be counted toward the natural science and technology part I or II requirement of the core curriculum | 3 GOV 310L | 3 |
| UGS 302 or 303 | 3 |  |
|  | 15 | 12 |
| Second Year |  |  |
| First Term | Hours Second Term | Hours |
| E 316L, 316M, 316N, or 316P | 3 S W 313 | 3 |
| GOV 312L | 3 PSY 304 or HDF 313 | 3 |
| S W 312 | 3 A course to be counted toward the U.S. history requirement of the core curriculum | 3 |
| S W 318 | 3 Foreign language 506 and 507, or an equivalent sequence; or American Sign Language 506 and 507 | 3-5 |
| Foreign language 506 and 507, or an equivalent sequence; or American Sign Language 506 and 507 | 3-5 A course to be counted towards the natural science and technology part I requirement of the core curriculum | 3 |
|  | 15-17 | 15-17 |

Third Year

| First Term | Hours Second Term | Hours |
| :---: | :---: | :---: |
| A course to be counted toward the natural science and technology part I or II requirement of the core curriculum | 3 A three-hour upper-division elective if needed to provide the required fortysix hours of upper-division credit | 3 |
| A non-social work course that carries a writing flag | 3 S W 325 | 3 |
| An economics course | 3 S W 327 | 3 |
| Six hours of upper-division social and behavioral science coursework | 6 S W 334 | 3 |
|  | 15 | 12 |
| Fourth Year |  |  |
| First Term | Hours Second Term | Hours |
| S W 323K | 3 S W 640 | 6 |
| S W 332 | 3 S W 641 | 6 |
| S W 333 | 3 S W 444 | 4 |
| Three hours of upper-division coursework in social and behavioral science | 3 A three-hour upper-division elective if needed to provide the required fortysix hours of upper-division credit | 3 |
| A three-hour elective course | 3 |  |
|  | 15 | 19 |

Total credit hours: 118-122

## First Year

Thirty semester hours:

- Rhetoric and Writing 306, Rhetoric and Writing
- Social Work 310, Introduction to Social Work and Social Welfare
- Psychology 301, Introduction to Psychology
- Biology 301M, Ecology, Evolution, and Society
- Undergraduate Studies 302, First-Year Signature Course or Undergraduate Studies 303, First-Year Signature Course
- A three-hour course to be counted toward the core curriculum mathematics requirement
- Sociology 302, Introduction to the Study of Society
- A three-hour course to be counted toward the American history requirement of the core curriculum
- A three-hour course to be counted toward the visual and performing arts requirement of the core curriculum
- Government 310L, American Government


## Second Year

Thirty-one semester hours:

- English 316L, English 316M, English 316N, or English 316P
- Government 312L, Issues and Policies in American Government
- Social Work 318, Social Work Statistics
- Social Work 312, Generalist Social Work Practice: Knowledge, Values, and Skills
- Social Work 313, Social Work Research Methods
- Psychology 304, Introduction to Child Psychology, or Human Development and Family Sciences 313, Child Development
- A three-hour course to be counted toward the American history requirement of the core curriculum
- Foreign language 506 and 507 , or an equivalent sequence; or American Sign Language 506 and 507


## Third Year

Thirty-six semester hours:

- Six hours of coursework that, with Biology 301M, fulfill both parts of the core curriculum science and technology requirement
- A three-hour non-social work course that carries a writing flag
- A three-hour economics course
- Six hours of upper-division social and behavioral science coursework
- Six hours of elective coursework
- A three-hour global cultures flag course
- Social Work 325, Foundations of Social Justice
- Social Work 327, Human Behavior and Social Environment
- Social Work 334, Social Work Practice in Organizations and Communities


## Fourth Year

Thirty-one semester hours:

- Social Work 323K, Social Welfare Programs, Policies, and Issues
- Social Work 332, Social Work Practice with Individuals and Families
- Social Work 333, Social Work Practice with Groups
- Social Work 640, Social Work Practicum I
- Social Work 641, Social Work Practicum II
- Social Work 444, Integrative Seminar
- Three hours of upper-division coursework in social and behavioral science
- A three-hour upper-division elective if needed to provide the required forty-six hours of upper-division credit

The student must also complete all other remaining required coursework before the field practicum, including electives needed to provide the total of 125 semester hours required for the degree. No other courses may be taken concurrently with the field practicum courses.

## Courses

The faculty has approval to offer the following courses in the academic years 2014-2015 and 2015-2016; however, not all courses are taught each semester or summer session. Students should consult the Course Schedule (http://registrar.utexas.edu/schedules) to determine which courses and topics will be offered during a particular semester or summer session. The Course Schedule may also reflect changes made to the course inventory after the publication of this catalog.

A full explanation of course numbers is given in General Information (http://registrar.utexas.edu/catalogs/general-information). In brief, the first digit of a course number indicates the semester hour value of the course. The second and third digits indicate the rank of the course: if they are 01 through 19, the course is of lower-division rank; if 20 through 79, of upperdivision rank; if 80 through 99 , of graduate rank.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 675).

## Social Work: S W

## Lower-Division Courses

## S W 301C. Freshman Seminar.

Restricted to first-semester freshmen. 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. Two lecture hours and one discussion hour a week for one semester.

## S W 301D. Connecting Research Experience.

Restricted to freshmen and sophomores. Supervised research associated with the Connexus Bridging Disciplines Program. The equivalent of three lecture hours a week for one semester. With consent of the Connexus Bridging Disciplines Program, may be repeated for credit. Prerequisite: Admission to the Connexus Bridging Disciplines Program.

## S W 102D, 202D, 302D. Connecting Internship Experience.

Supervised internship experience related to interdisciplinary themes of a Bridging Disciplines Program. Internships may be on or off campus, be paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. For 102D, three hours of fieldwork a week for one semester; for 202D, six hours of fieldwork a week for one semester; for 302D, ten hours of fieldwork a week for one semester. With consent of the Bridging Disciplines Programs research coordinator, may be repeated once for credit. Prerequisite: Admission to the Bridging Disciplines Programs.

## S W 310 (TCCN: SOCW 2361). Introduction to Social Work and Social Welfare.

Introduction to the profession of social work and its roles in the social welfare system, with emphasis on social problems, society's historical response, and contemporary proposed solutions. Three lecture hours a week for one semester, and forty-five clock hours of volunteer experience.

## S W 311. Selected Topics in Social Welfare.

Analysis of selected policy and program implications in the human services. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## S W 312. Generalist Social Work Practice: Knowledge,

 Values, and Skills.Introduction to generalist social work practice, with emphasis on the knowledge, values, and skills used in intervention. Three lecture hours a week for one semester, and forty-five clock hours of volunteer experience. Prerequisite: Social Work 310.

## S W 313. Social Work Research Methods.

Introduction to the logic, design, and use of research, with emphasis on research designs appropriate to social work. Three lecture hours a week for one semester. Prerequisite: Social Work 318.

## S W 318. Social Work Statistics.

Introduction to statistics commonly used in social work research, including the critical analysis of the findings and inferential processes of existing research studies. Three lecture hours a week for one semester. Prerequisite: Completion of the Area C mathematics requirement for the Bachelor of Social Work.

## S W 118C, 218C, 318C. Forum Seminar Series.

Restricted to freshmen and sophomores. Lectures and discussion on various contemporary issues. Emphasis on multidisciplinary perspectives and critical discourse. For 118C, two lecture hours a week for eight weeks; for 218C, two lecture hours a week for one semester; for 318C, three lecture hours a week for one semester, or two lecture hours and one hour of supervised research a week for one semester. May be repeated for credit when the topics vary.

## Upper-Division Courses

## S W 320C. Connecting Research Experience.

Supervised research associated with the Connexus Bridging Disciplines Program. The equivalent of three lecture hours a week for one semester. With consent of the Connexus Bridging Disciplines Program, may be
repeated for credit. Prerequisite: Upper-division standing and admission to the Connexus Bridging Disciplines Program.

## S W 323K. Social Welfare Programs, Policies, and Issues.

Study of structure and function of service delivery systems, policy analysis, and effects and influences of policy on practice and planning decisions. Three lecture hours a week for one semester. Prerequisite: Government 310L, 312L, History 315K, 315L, three semester hours of coursework in economics, and admission to the major in social work.

## S W 325. Foundations of Social Justice.

History and demographics of culturally diverse groups in the United States, including family and community diversity. Emphasis on principles of knowledge acquisition about cultural diversity and ethnic-sensitive social work practice. Three lecture hours a week for one semester. Social Work 325 and 360K (Topic: Cultural Diversity in a Changing Society) may not both be counted. Prerequisite: Admission to the major in social work.

## S W 327. Human Behavior and Social Environment.

Same as Urban Studies 354 (Topic 10). Survey of selected theories of human behavior, including a systems/ecological perspective, ego psychology, and social learning theory, with emphasis on the life cycle from adolescence through adulthood. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Social Work 327, Urban Studies 354 (Topic: Human Behavior and Social Environment), 354 (Topic 10). Prerequisite: For social work majors, admission to the major in social work; for others, upper-division standing.

## S W 128C, 228C, 328C. Advanced Connexus Forum Seminar Series.

Discussion of contemporary issues related to the topics of a Bridging Disciplines Program, with an emphasis on multidisciplinary perspectives, research, and critical discourse. For 128C, two lecture hours a week for eight weeks; for 228C, two lecture hours a week for one semester; for 328 C , three lecture hours or two lecture hours and one hour of supervised research a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upperdivision standing. Additional prerequisites may vary with the topic and are given in the Course Schedule.

## S W 332. Social Work Practice with Individuals and Families.

Theory and knowledge of effecting change in individuals and families, with emphasis on analytical and interactional processes and skills. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Social Work 325 and 327.

## S W 333. Social Work Practice with Groups.

Theory and knowledge of group dynamics and the development of effective group work skills, with an emphasis on analytical and interactional processes. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Social Work 325 and 327.

## S W 334. Social Work Practice in Organizations and Communities.

Theory and knowledge of effecting change in organizations and communities, with an emphasis on analytical and interactional processes and skills. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Social Work 325 and 327.

## S W 640. Social Work Practicum I.

Field practicum providing supervised experience in which students apply knowledge and develop skills of social work practice. Educational supervision by faculty and by social workers in community agencies. Sixteen laboratory hours a week for one semester. Offered on the
pass/fail basis only. Prerequisite: Admission to the field sequence and concurrent enrollment in Social Work 641 and 444.

## S W 641. Social Work Practicum II.

Knowledge and skill in social work, building on objectives emphasized in Social Work 640. Educational supervision by faculty and by social workers in community agencies. Sixteen laboratory hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Admission to the field sequence and concurrent enrollment in Social Work 640 and 444.

## S W 444. Integrative Seminar.

Integration of theory and practice on the basis of field practicum experiences. Four lecture hours a week for one semester. Prerequisite: Completion of all requirements for the Bachelor of Social Work degree except Social Work 640 and 641, and concurrent enrollment in Social Work 640 and 641.

## S W 350. Special Topics in Generalist Social Work.

Conference course. May be repeated for credit. Prerequisite: Upperdivision standing.

## S W 360K, 460K. Current Welfare Issues.

A tutorial and seminar course designed to enable each student to undertake intensive study of selected aspects of social welfare practice. Topics include child abuse and neglect, chemical dependency, African American family, gerontology, and social work and the law. Three or four lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Computer Applications in Direct Services.
Topic 2: African American Family. Same as African and African Diaspora Studies 321K and Women's and Gender Studies 340 (Topic
3). Overview of historical and contemporary issues facing African American families and children. Social service delivery to African American families and communities is emphasized. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 321K, 374 (Topic 1: African American Family), Social Work 360K (Topic 2), Women's and Gender Studies 340 (Topic 3).

## S W 679H. Honors Tutorial Course.

Individual conference course in social work research and writing. The equivalent of three lecture hours a week for two semesters. Prerequisite: Upper-division standing and admission to the Social Work Honors Program.

## Appendix A: 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.

Notes are given below the table.

| Course Numbers | Primarily for: |
| :---: | :---: |
| ACCT 2301 | ACC 311 |
| ACCT 2302 | ACC 312 |
| ACCT 2401 | ACC $312^{1}$ |
| ACCT 2402 | ACC $412^{1}$ |
| ANTH 2301 | ANT 301 |
| ANTH 2302 | ANT 304 |
| ANTH 2351 | ANT 302 |
| ANTH 2401 | ANT $401{ }^{1}$ |
| ARAB 1311 | ARA $306{ }^{3}$ |
| ARAB 1312 | ARA $307^{3}$ |
| ARAB 1411 | ARA $406{ }^{3}$ |
| ARAB 1412 | ARA $407^{3}$ |
| ARAB 1511 | ARA 506 |
| ARAB 1512 | ARA 507 |
| ARAB 2311 | ARA $312 \mathrm{~K}^{3}$ |
| ARAB 2312 | ARA $312 L^{3}$ |
| ARCH 1301 | ARC 318K |
| ARCH 1302 | ARC 318L |
| ARCH 1311 | ARC $308{ }^{7}$ |
| ARTS 1301 | ARH 301 |
| ARTS 1303 | ARH 302 |
| ARTS 1304 | ARH 303 |
| ARTS 1311 | ART 304K |
| ARTS 1312 | ART 304L |
| ARTS 1316 | ART 303K |
| ARTS 1317 | ART 315 K |
| ARTS 2316 | ART 311K |
| ARTS 2323 | ART 316K |
| ARTS 2326 | ART 313K |
| ARTS 2341 | ART 314 K |
| ARTS 2346 | ART 310K |


| ARTS 2356 | ART 317 K |
| :---: | :---: |
| ASTR 1103 | AST 103L |
| ASTR 1104 | AST 1 LAB |
| ASTR 1303 | AST 301 |
| ASTR 1304 | AST 3095 |
| ASTR 1403 | AST 301+AST 103L |
| ASTR 1404 | AST 309S+1 LAB |
| BCIS 1305 | MIS 310 |
| BCIS 1405 | MIS $410^{1}$ |
| BIOL 1106 | BIO 206LA ${ }^{2}$ |
| BIOL 1107 | BIO 206LB ${ }^{2}$ |
| BIOL 1108 | BIO $1 \mathrm{LAB}^{2}$ |
| BIOL 1109 | BIO $1 \mathrm{LAB}^{2}$ |
| BIOL 1111 | BIO $1 \mathrm{LAB}^{2}$ |
| BIOL 1113 | BIO $1 \mathrm{LAB}^{2}$ |
| BIOL 1306 | BIO 311C ${ }^{2}$ |
| BIOL 1307 |  |
| BIOL 1308 | BIO 301L ${ }^{2}$ |
| BIOL 1309 | BIO 301M ${ }^{2}$ |
| BIOL 1311 | BIO 3 FRMN ${ }^{2}$ |
| BIOL 1313 | BIO 3 FRMN ${ }^{2}$ |
| BIOL 1322 | NTR 306 |
| BIOL 1406 | BIO 311C+BIO 206LA ${ }^{2}$ |
| BIOL 1407 | BIO 311D+BIO 206LB ${ }^{2}$ |
| BIOL 1408 | BIO 301L+1 LAB ${ }^{2}$ |
| BIOL 1409 | BIO 301M $+1 \mathrm{LAB}^{2}$ |
| BIOL 1411 | BIO 4 FLAB ${ }^{2}$ |
| BIOL 1413 | BIO 4 FLAB ${ }^{2}$ |
| BIOL 2101 | BIO $1 \mathrm{LAB}^{2}$ |
| BIOL 2102 | BIO $1 \mathrm{LAB}^{2}$ |
| BIOL 2120 | BIO $1 \mathrm{LAB}^{2}$ |
|  | MIC $116 L^{4}$ |
| BIOL 2121 | BIO $1 \mathrm{LAB}^{2}$ |
|  | MIC $119 \mathrm{~K}^{4}$ |
| BIOL 2301 | BIO 316K ${ }^{3,4}$ |
| BIOL 2302 | BIO 316L ${ }^{\text {3,4 }}$ |
| BIOL 2320 | BIO $3 \mathrm{SOPH}^{2}$ |
|  | MIC $316^{1,4}$ |
| BIOL 2321 | BIO $3 \mathrm{SOPH}^{2}$ |
|  | MIC $319^{4}$ |
| BIOL 2401 | BIO 416K ${ }^{4}$ |
| BIOL 2402 | BIO 416L ${ }^{4}$ |
| BIOL 2420 | BIO 4 SLAB $^{2}$ |
|  | MIC $316^{1,4}+116 L^{4}$ |
| BIOL 2421 | BIO 4 SLAB ${ }^{2}$ |
|  | MIC $319^{4}+119 \mathrm{~K}^{4}$ |
| CHEM 1111 | CH 204A ${ }^{3}$ |


| CHEM 1112 | CH 204B ${ }^{3}$ | DANC 1345 | T D 312C |
| :---: | :---: | :---: | :---: |
| CHEM 1311 | CH 301 | DANC 1346 | T D 312C |
| CHEM 1312 | CH 302 | DANC 1351 | T D 312P |
| CHEM 1411 | CH 301+CH 204A ${ }^{3}$ | DANC 1352 | T D 312P |
| CHEM 1412 | CH 302+CH 204B ${ }^{3}$ | DANC 2141 | TD 112G ${ }^{3}$ |
| CHEM 2123 | CH $110 \mathrm{~K}^{4}$ | DANC 2142 | TD 112G ${ }^{3}$ |
| CHEM 2125 | CH 110L ${ }^{4}$ | DANC 2145 | TD $112{ }^{3}$ |
| CHEM 2223 | CH $210 \mathrm{~K}{ }^{1,4}$ | DANC 2146 | T D $112{ }^{3}$ |
| CHEM 2225 | CH $210 \mathrm{~L}{ }^{1,4}$ | DANC 2151 | T D 112P |
| CHEM 2323 |  | DANC 2152 | T D 112P |
| CHEM 2323 | CH 310M ${ }^{4}$ | DANC 2241 | TD $212 \mathrm{G}^{3}$ |
| CHEM 2325 | CH $310{ }^{4}$ | DANC 2242 | TD 212G ${ }^{3}$ |
| CHEM 2423 | CH 310M + CH 110K | DANC 2245 | TD $212{ }^{3}$ |
| CHEM 2425 | CH 310N+CH 110L | DANC 2246 | TD $212 D^{3}$ |
| CHIN 1311 | CHI $306{ }^{3}$ | DANC 2246 | T D $212 \mathrm{D}^{3}$ |
| CHIN 1312 | CHI $307{ }^{3}$ | DANC 2251 | T D 212P |
| CHIN 1411 | CHI $406{ }^{3}$ | DANC 2341 | TD 312G |
| CHIN 1412 | CHI $407^{3}$ | DANC 2342 | T D 312G |
| CHIN 1511 | CHI 506 | DANC 2345 | T D 312D |
| CHIN 1512 | CHI 507 | DANC 2346 | T D 312D |
| CHIN 2311 | CHI $312 \mathrm{~K}{ }^{3}$ | DANC 2351 | T D 312P |
| CHIN 2312 | CHI 312L ${ }^{3}$ | DANC 2352 | T D 312P |
| COMM 1307 | RTF 305 | DRAM 1120 | T D $114 \mathrm{P}^{3}$ |
| COMM 1316 | COM 316 | DRAM 1121 | T D 114P ${ }^{3}$ |
| COMM 1335 | RTF 316 | DRAM 1220 | T D $214 \mathrm{P}^{3}$ |
| COMM 2302 | J 301F | DRAM 1221 | T D $214{ }^{3}$ |
| COMM 2316 | CMS 316L | DRAM 1310 | T D 301 |
| COMM 2366 | RTF 314 | DRAM 1320 | T D 314P |
| CZEC 1311 | CZ $306{ }^{3}$ | DRAM 1321 | T D 314P |
| CZEC 1312 | CZ $307^{3}$ | DRAM 1323 | T D 314P |
| CZEC 1411 | CZ 406 ${ }^{3}$ | DRAM 1330 | T D 314C |
| CZEC 1412 | CZ 407 ${ }^{3}$ | DRAM 1351 | T D 313C |
| CZEC 1511 | CZ 506 | DRAM 1352 | T D 313D |
| CZEC 1512 | CZ 507 | DRAM 2120 | T D 114P3 ${ }^{3}$ |
| CZEC 2311 | CZ 312K | DRAM 2121 | T D 114P ${ }^{3}$ |
| CZEC 2312 | CZ 312L | DRAM 2220 | T D $214 \mathrm{P}^{3}$ |
| DANC 1141 | T D 112F ${ }^{3}$ | DRAM 2331 | T D 314M |
| DANC 1142 | TD $112 \mathrm{~F}^{3}$ | DRAM 2336 | T D 303C |
| DANC 1145 | T D 112C ${ }^{3}$ | DRAM 2351 | T D 313E |
| DANC 1146 | T D 112C ${ }^{3}$ | DRAM 2361 | T D 317C |
| DANC 1151 | T D 112P | DRAM 2366 | RTF 314 |
| DANC 1152 | T D 112P | ECON 2301 | ECO 304L |
| DANC 1241 | T D $212 \mathrm{~F}^{3}$ | ECON 2302 | ECO 304K |
| DANC 1242 | T D $212 \mathrm{~F}^{3}$ | EDUC 1100 | EDP 110 (Topic 1) |
| DANC 1245 | T D $212 \mathrm{C}^{3}$ | EDUC 1200 | EDP 210 (Topic 1) |
| DANC 1246 | TD212C ${ }^{3}$ | EDUC 1300 | EDP 310 (Topic 1) |
| DANC 1251 | T D 212P | ENGL 1301 | RHE 306 |
| DANC 1252 | T D 212P | ENGL 1302 | RHE 309K |
| DANC 1341 | T D 312F | ENGL 2311 | RHE $317^{4}$ |
| DANC 1342 | T D 312F | ENGL 2321 | E 316L |
|  |  | ENGL 2322 | E 316L |


| ENGL 2323 | E 316L | GREE 1411 | GK $406^{3}$ |
| :---: | :---: | :---: | :---: |
| ENGL 2326 | E 316M | GREE 1412 | GK $407^{3}$ |
| ENGL 2327 | E 316M | GREE 1511 | GK 506 |
| ENGL 2328 | E 316M | GREE 1512 | GK 507 |
| ENGL 2331 | E 316N | GREE 2311 | GK 311 |
| ENGL 2332 | E 316N | HECO 1320 |  |
| ENGL 2333 | E 316N | HECO 1320 | TXA 305 |
| ENGL 2341 | E 314L | HECO 1322 | NTR 306 |
| ENGL 2342 | E 314L | HIST 1301 | HIS 315K |
| ENGL 2343 | E 314L | HIST 1302 | HIS 315L |
| ENGL 2351 | E 314V (Topic 3) | HIST 2311 | HIS 309K |
| ENGR 2301 | E M 306 | HIST 2312 | HIS 309L |
| ENGR 2302 | EM 311M | HIST 2313 | HIS 304K |
| ENGR 2305 | E E 302 | HIST 2314 | HIS 304L |
| ENGR 2332 | E M 319 | HIST 2321 | HIS 301F |
| ENGR 2401 | EM 406 ${ }^{1}$ | HIST 2327 | HIS 317L |
| ENGR 2402 | EM 411M ${ }^{1}$ | HIST 2328 | HIS 314L |
|  |  | HIST 2381 | HIS 317L |
| ENGR 2432 | EM $419{ }^{1}$ | HUMA 1305 | MAS 310 |
| FREN 1311 | FR $306{ }^{3}$ | HUMA 1315 | F A 310 |
| FREN 1312 | FR $307^{3}$ | ITAL 1311 | ITL $306^{3}$ |
| FREN 1411 | FR $406{ }^{3}$ | ITAL 1312 | ITL $307^{3}$ |
| FREN 1412 | FR $407^{3}$ | ITAL 1411 | ITL $406^{3}$ |
| FREN 1511 | FR 506 | ITAL 1412 | ITL $407^{3}$ |
| FREN 1512 | FR 507 | ITAL 1511 | ITL 506 |
| FREN 2311 | FR 312K | ITAL 1512 | ITL 507 |
| FREN 2312 | FR 312L | ITAL 2311 | ITL 312K |
| GEOG 1301 | GRG 301C | ITAL 2312 | ITL 312L |
| GEOG 1303 | GRG 305 | JAPN 1311 | JPN 306 ${ }^{3}$ |
| GEOL 1303 | GEO $301^{3}$ | JAPN 1312 | JPN $307^{3}$ |
| GEOL 1304 | GEO $305^{3}$ | JAPN 1411 | JPN 406 ${ }^{3}$ |
| GEOL 1345 | GEO 307 | JAPN 1412 | JPN 407 ${ }^{3}$ |
| GEOL 1347 | GRG 301K | JAPN 1511 | JPN 506 |
| GEOL 1403 | GEO 401 | JAPN 1512 | JPN 507 |
| GEOL 1404 | GEO 405 | JAPN 2311 | JPN 312K ${ }^{3}$ |
| GEOL 1447 | GRG 401K ${ }^{1}$ | JAPN 2312 | JPN $312{ }^{3}$ |
| GERM 1311 | GER $306{ }^{3}$ | KINE 1151 |  |
| GERM 1312 | GER $307^{3}$ | KINE 1151 | PED 102G PED 102G |
| GERM 1411 | GER $406^{3}$ | KINE 1153 | KIN 113 (Topic 3 or 4) ${ }^{3}$ |
| GERM 1412 | GER $407^{3}$ | KINE 1206 | KIN 213 (Topic 1) |
| GERM 1511 | GER 506 | KINE 1253 | KIN 213 (Topic 3 or 4) |
| GERM 1512 | GER 507 | KINE 1306 | KIN 313 (Topic 1) ${ }^{1}$ |
| GERM 2311 | GER 312K | KINE 1308 | KIN 319K ${ }^{1}$ |
| GERM 2312 | GER 312L | KINE 1309 | KIN 319K ${ }^{1}$ |
| GOVT 2301 | GOV $310 \mathrm{~L}^{5}$ | KINE 1321 | KIN 319 K |
| GOVT 2302 | GOV $312 L^{5}$ | KINE 1321 KINe 1322 | KIN 319K ${ }^{1}$ |
| GOVT 2305 | GOV 3 US ${ }^{5}$ | KINe 1322 | KIN $319{ }^{1}$ |
| GOVT 2306 | GOV 3 TX ${ }^{5}$ | KINE 1331 KINE 2155 | KIN 314 KIN 113 (Topic 2) |
| GOVT 2311 | MAS 312 | KINE 2255 | KIN 213 (Topic 2) |
| GREE 1311 | GK $306^{3}$ | KINE 2356 | KIN 312 (Topic 2) |
| GREE 1312 | GK $307^{3}$ | KORE 1311 | KOR $306{ }^{3}$ |


| KORE 1312 | KOR $307^{3}$ | MUSI 1161 | MUS 111E |
| :---: | :---: | :---: | :---: |
| KORE 1411 | KOR 406 ${ }^{3}$ | MUSI 1181 | MUS 101M ${ }^{3}$ |
| KORE 1412 | KOR $407^{3}$ | MUSI 1182 | MUS 101N ${ }^{3}$ |
| KORE 1511 | KOR 506 | MUSI 1211 | MUS 405A ${ }^{3}$ |
| KORE 1512 | KOR 507 | MUSI 1212 | MUS 405B ${ }^{3}$ |
| KORE 2311 | KOR 312K ${ }^{3}$ | MUSI 1286 | MUS 214C |
| KORE 2312 | KOR 312L ${ }^{3}$ | MUSI 1287 | MUS 214C |
| LATI 1311 | LAT $306^{3}$ | MUSI 1303 | MUS 306M |
| LATI 1312 | LAT $307^{3}$ | MUSI 1306 | MUS 302L |
| LATI 1411 | LAT $406{ }^{3}$ | MUSI 1311 | MUS 605A |
| LATI 1412 | LAT $407^{3}$ | MUSI 1312 | MUS 605B |
| LATI 1511 | LAT 506 | MUSI 1386 | MUS 314C ${ }^{1}$ |
| LATI 1512 | LAT 507 | MUSI 2116 | MUS $211 \mathrm{~A}^{3}$ |
| LATI 2311 | LAT 311 | MUSI 2117 | MUS 211B ${ }^{3}$ |
| MATH 1314 | M 301 |  |  |
| MATH 1316 | M 304E ${ }^{4}$ | MUSI 2181 | MUS $110{ }^{3}$ |
| MATH 1324 | M 303D | MUSI 2182 | MUS $110 \mathrm{~K}^{3}$ |
| MATH 1325 | M 303K ${ }^{3}$ | MUSI 2211 | MUS 412A ${ }^{3}$ |
| MATH 1332 | M 302 | MUSI 2212 | MUS 412B ${ }^{3}$ |
| MATH 1342 | M 316 | MUSI 2216 | MUS 411A |
| MATH 1350 | M 316K | MUSI 2217 | MUS 411B |
| MATH 1351 | M 316L | MUSI 2286 | MUS 214C |
| MATH 1414 | M 401 ${ }^{1}$ | MUSI 2311 | MUS 612A |
| MATH 1425 | M 403K | MUSI 2312 | MUS 612B |
| MATH 1442 | M $416{ }^{1}$ | MUSI 2386 | MUS 314C ${ }^{1}$ |
| MATH 2312 | M 305G | PHED 1151 | PED 102G |
| MATH 2313 | M $308 \mathrm{~K}^{3}$ or M 308N ${ }^{3}$ | PHED 1152 | PED 102G |
| MATH 2314 | M 308L ${ }^{3}$ or M $308 S^{3}$ | PHED 1153 | KIN 113 (Topic 3 or 4) ${ }^{3}$ |
| MATH 2315 | M 308M ${ }^{3}$ | PHED 1206 | KIN 213 (Topic 1) |
| MATH 2318 | M $311^{4}$ | PHED 1353 | KIN 313 (Topic 1) ${ }^{1}$ |
| MATH 2320 | M 327K ${ }^{3}$ | PHED 1308 | KIN $319{ }^{1}$ |
| MATH 2342 | M 316 | PHED 1309 | KIN 319K ${ }^{1}$ |
| MATH 2412 | M 405G ${ }^{1}$ | PHED 1321 | KIN 319K ${ }^{1}$ |
| MATH 2413 | M 408K or M 408N |  | KIN $310{ }^{1}$ |
| MATH 2414 | M 408L or M 408S | PHED 1322 | KIN $319{ }^{1}$ |
| MATH 2415 | M 408M | PHED 1331 | KIN 314 |
| MATH 2417 | M 408C | PHED 2155 | KIN 113 (Topic 2) ${ }^{3}$ |
| MATH 2418 | M 411 ${ }^{1,4}$ | PHED 2255 | KIN 213 (Topic 2) |
| MATH 2419 | M 408D | PHED 2356 | KIN 312 (Topic 2) |
| MATH 2420 | M 427K | PHIL 1301 | PHL 301 |
| MATH 2442 | M $416{ }^{1}$ | PHIL 2303 | PHL 312 |
| 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. | PHIL 2306 | PHL 318 |
|  |  | PHIL 2307 | PHL 318K |
|  |  | PHIL 2316 | PHL 301K |
|  |  | PHIL 2321 | PHL 305 |
|  |  | PHYS 1101 | PHY 102M |
|  |  | PHYS 1102 | PHY 102N |
| MUEN | Music ensemble courses transfer with appropriate University course numbers where applicable, otherwise as generic semester hour credit in ensemble (ENS). | PHYS 1103 | AST 103L |
|  |  | PHYS 1104 | AST 1 LAB |
|  |  | PHYS 1105 | PHY 1 LAB |
|  |  | PHYS 1107 | PHY 1 LAB |


| PHYS 1301 | PHY 302K | SOCI 1306 | SOC 307E |
| :---: | :---: | :---: | :---: |
| PHYS 1302 | PHY 302L | SOCI 2301 | SOC 307C |
| PHYS 1303 | AST 301 | SOCI 2326 | PSY 319K |
| PHYS 1304 | AST 309S | SOCW 2361 | S W 310 |
| PHYS 1305 | PHY 309K | SPAN 1311 | SPN $306{ }^{3}$ |
| PHYS 1307 | PHY 309L | SPAN 1312 | SPN $307^{3}$ |
| PHYS 1401 | PHY 302K+PHY 102M | SPAN 1411 |  |
| PHYS 1402 | PHY 302L+PHY 102N | SPAN 1411 | SPN 406 |
| PHYS 1403 | AST 301+AST 103L | SPAN 1412 | SPN $407^{3}$ |
| PHYS 1404 | AST 309+1 LAB | SPAN 1511 | SPN 506 |
| PHYS 1405 | PHY 309K+1 LAB | SPAN 1512 | SPN 507 |
| PHYS 1407 | PHY 309L+1 LAB | SPAN 2311 | SPN 312K |
| PHYS 2125 | PHY 103M ${ }^{6}$ | SPAN 2312 | SPN 312L |
| PHYS 2126 | PHY 103N ${ }^{6}$ | SPCH 1144 | CMS $110^{3}$ |
| PHYS 2325 | PHY $303 \mathrm{~K}^{6}$ | SPCH 1145 | CMS $110^{3}$ |
| PHYS 2326 | PHY 303L ${ }^{6}$ | SPCH 1315 | CMS 305 ${ }^{4}$ |
| PHYS 2425 | PHY 303K+PHY 103M ${ }^{6}$ | SPCH 1318 SPCH 1321 | CMS 315M |
| PHYS 2426 | PHY 303L+PHY 103N ${ }^{6}$ | SPCH 2144 | CMS $110^{3}$ |
| PORT 1311 | POR $306{ }^{3}$ | SPCH 2145 | CMS $110^{3}$ |
| PORT 1312 | POR $307^{3}$ | SPCH 2333 | CMS 310K |
| PORT 1411 | POR 406 | TECA 1303 | HDF 304 |
| PORT 1412 | POR 407 | TECA 1311 | ALD 3 HRS |
| PORT 1511 | POR $506{ }^{1}$ | TECA 1318 | KIN 3 HRS |
| PORT 1512 | POR $507{ }^{1}$ | TECA 1354 | HDF 313 |
| PORT 2311 | POR 312K | VIET 1311 | VTN $306{ }^{3}$ |
| PORT 2312 | POR 312L | VIET 1312 | VTN $307^{3}$ |
| PSYC 1100 | EDP 110 (Topic 1) | VIET 1411 | VTN $406{ }^{3}$ |
| PSYC 1200 | EDP 210 (Topic 1) | VIET 1412 |  |
| PSYC 1300 | EDP 310 (Topic 1) | VIET 1511 | VTN $407{ }^{3}$ |
| PSYC 2301 | PSY 301 | VIET 1511 | VTN 506 |
| PSYC 2308 | PSY 304 | VIET 1512 | VTN 507 |
| PSYC 2316 | PSY 309 | VIET 2311 | VTN $312 \mathrm{~K}^{3}$ |
| PSYC 2317 | PSY 317 | VIET 2312 | VTN $312 L^{3}$ |
| PSYC 2319 | PSY 319K | 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 applicability toward degree requirements. |  |
| RUSS 1311 | RUS $306{ }^{3}$ |  |  |
| RUSS 1312 | RUS $307^{3}$ |  |  |
| RUSS 1411 | RUS $406{ }^{3}$ |  |  |
| RUSS 1412 | RUS $407^{3}$ |  |  |
| RUSS 1511 | RUS 506 |  |  |
| RUSS 1512 | RUS 507 |  |  |
| RUSS 2311 | RUS $312 \mathrm{~K}^{3}$ |  |  |
| RUSS 2312 | RUS 312L ${ }^{3}$ |  |  |
| SGNL 1301 | ASL $306{ }^{3}$ |  |  |
| SGNL 1302 | ASL $307{ }^{3}$ |  |  |
| SGNL 1401 | ASL $406{ }^{3}$ |  |  |
| SGNL 1402 | ASL $407{ }^{3}$ |  |  |
| SGNL 1501 | ASL 506 |  |  |
| SGNL 1502 | ASL 507 |  |  |
| SGNL 2301 | ASL 312K |  |  |
| SGNL 2302 | ASL 312L |  |  |
| SOCI 1301 | SOC 302 |  |  |

Lower-division biology courses may transfer as generic credit, without a specific University course number. The terms "FLAB" and "SLAB" identify freshman- and sophomore-level combined lecture and laboratory credit; "FRMN" and "SOPH," freshman- and sophomore-level lecture credit; and "LAB," lower-division laboratory credit. For students in the School of Biological Sciences, such credit is applicable toward degrees only with department approval. For students in other degree plans that require specific biology courses, such credit is applicable toward degrees 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 Biology 311C (http://catalog.utexas.edu/undergraduate/appendixa) and 311D (http://catalog.utexas.edu/undergraduate/appendixa). 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 to reflect a lower credit value than is normally offered at the University.
Nonmajor lecture credit (TCCN BIOL 1408, 1409, 1308, or 1309) generally transfers as Biology 301L (http://catalog.utexas.edu/ undergraduate/appendix-a) and 301M (http://catalog.utexas.edu/ undergraduate/appendix-a). 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 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 courses.
5 Courses offered to fulfill the legislative requirement in government are not uniform in content and sequencing among schools. GOVT 2301 and 2302 transfer as Government 310L (http:// catalog.utexas.edu/undergraduate/appendix-a) and 312L (http:// catalog.utexas.edu/undergraduate/appendix-a); GOVT 2305 and 2306 transfer as generic credit. It is strongly recommended that students complete the required two-course sequence, either GOVT 2301 and 2302 or GOVT 2305 and 2306, at one institution.
6 At most Texas community colleges, calculus-based physics is offered in a two-semester sequence represented by the TCCN designations PHYS 2425 (or 2325 and 2125) and 2426 (or 2326 and 2126), which transfer as indicated. However, a few community colleges add a third course, PHYS 2427. In such cases, PHYS 2425 may transfer as Physics 301 (http://catalog.utexas.edu/undergraduate/appendixa) and 101L (http://catalog.utexas.edu/undergraduate/appendix-a); PHYS 2426 may transfer as Physics 316 (http://catalog.utexas.edu/ undergraduate/appendix-a) and 116L (http://catalog.utexas.edu/ undergraduate/appendix-a); and PHYS 2427 may transfer either as Physics 315 (http://catalog.utexas.edu/undergraduate/appendix-a) and 115L (http://catalog.utexas.edu/undergraduate/appendix-a) or as generic physics credit.
7 For School of Architecture students, ARCH 1311 transfers as generic architecture credit and Architecture 308 (http://catalog.utexas.edu/ undergraduate/appendix-a) must be taken in residence.

## Appendix B: Course Abbreviations

The University offers courses in the following fields of study. The abbreviations in the second column are used in catalogs, course schedules, and student records. Some of the fields listed are offered only at the graduate level.

| Field of Study | Abbreviation |
| :---: | :---: |
| Accounting | ACC |
| Actuarial foundations | ACF |
| Advertising | ADV |
| Aerospace engineering | ASE |
| African and African diaspora studies | AFR |
| Air force science | AFS |
| American Sign Language | ASL |
| American studies | AMS |
| Ancient history and classical civilization | AHC |
| Anthropology | ANT |
| Applied learning and development | ALD |
| Arabic | ARA |
| Architectural engineering | ARE |
| Architectural interior design | ARI |
| Architecture | ARC |
| Art education | AED |
| Art history | ARH |
| Asian American studies | AAS |
| Asian studies | ANS |
| Astronomy | AST |
| Bassoon | BSN |
| Bengali | BEN |
| Biochemistry | BCH |
| Biology | BIO |
| Biomedical engineering | BME |
| Bridging disciplines | BDP |
| Business administration | B A |
| Business, government, and society | BGS |
| Chemical engineering | CHE |
| Chemistry | CH |
| Chinese | CHI |
| Civil engineering | C E |
| Clarinet | CLA |
| Classical civilization | C C |
| Cognitive science | CGS |
| Communication | COM |
| Communication sciences and disorders | CSD |
| Communication studies | CMS |
| Community and regional planning | CRP |
| Comparative literature | C L |
| Computational science, engineering, and mathematics | CSE |
| Computer science | C S |
| Conducting | CON |
| Core texts and ideas | CTI |
| Creative writing | CRW |


| Cultural studies | CLS |
| :---: | :---: |
| Curriculum and instruction | EDC |
| Czech | CZ |
| Danish | DAN |
| Design | DES |
| Developmental studies | DEV |
| Double bass | D B |
| Drum set | DRS |
| Dutch | DCH |
| Economics | ECO |
| Educational administration | EDA |
| Educational psychology | EDP |
| Electrical engineering | E E |
| Energy and earth resources | EER |
| Engineering management | ENM |
| Engineering mechanics | EM |
| Engineering studies | ES |
| English | E |
| English as a second language | ESL |
| Ensemble | ENS |
| Environmental science | EVS |
| Euphonium | EUP |
| European studies | EUS |
| Finance | FIN |
| Fine arts | FA |
| Flute | FLU |
| Foreign language education | FLE |
| French | FR |
| French civilization | F C |
| French horn | FH |
| General engineering | G E |
| Geography | GRG |
| Geological sciences | GEO |
| German | GER |
| German, Scandinavian, and Dutch studies | GSD |
| Government | GOV |
| Greek | GK |
| Guitar | GUI |
| Harp | HAR |
| Harpsichord | HSC |
| Health and society | H S |
| Health education | HED |
| Hebrew | HEB |
| Hindi | HIN |
| History | HIS |
| Human development and family sciences | HDF |
| Human dimensions of organizations | HDO |
| Human ecology | HE |
| Humanities | HMN |
| Indigenous languages of Latin America | LAL |
| Information studies | INF |
| International business | 1 B |
| International relations and global studies | IRG |
| Islamic studies | ISL |
| Italian | ITL |


| Italian civilization | ITC | Portuguese | POR |
| :---: | :---: | :---: | :---: |
| Japanese | JPN | Portuguese civilization | PRC |
| Jewish studies | J S | Psychology | PSY |
| Journalism | J | Public affairs | PA |
| Kinesiology | KIN | Public health | PBH |
| Korean | KOR | Public relations | PR |
| Landscape architecture | LAR | Radio-television-film | RTF |
| Latin | LAT | Real estate | R E |
| Latin American studies | LAS | Recorder | REC |
| Law | LAW | Religious studies | R S |
| Legal environment of business | LEB | Rhetoric and writing | RHE |
| Liberal arts | LA | Risk management | R M |
| Liberal arts honors | LAH | Russian | RUS |
| Linguistics | LIN | Russian, East European, and Eurasian studies | REE |
| Malayalam | MAL | Sanskrit | SAN |
| Management | MAN | Saxophone | SAX |
| Management information systems | MIS | Science | SCI |
| Manufacturing systems engineering | MFG | Science and technology commercialization | STC |
| Marine science | MNS | Science, technology, and society | STS |
| Marketing | MKT | Serbian/Croatian | S C |
| Materials science and engineering | MSE | Slavic | SLA |
| Mathematics | M | Slavic and Eurasian languages | SEL |
| Mechanical engineering | M E | Social science | S S |
| Medieval studies | MDV | Social work | S W |
| Mexican American studies | MAS | Sociology | SOC |
| Middle Eastern languages and cultures | MEL | Spanish | SPN |
| Middle Eastern studies | MES | Spanish civilization | SPC |
| Military science | M S | Special education | SED |
| Molecular biology | MOL | Statistics | STA |
| Music | MUS | Statistics and data sciences | SDS |
| Music business | MBU | Studio art | ART |
| Music recording technology | MRT | Swahili | SWA |
| Natural sciences | NSC | Swedish | SWE |
| Naval science | NS | Tamil | TAM |
| Neuroscience | NEU | Telugu | TEL |
| Norwegian | NOR | Textiles and apparel | TXA |
| Nursing | N | Theatre and dance | TD |
| Nutrition | NTR | Trombone | TRO |
| Oboe | OBO | Trumpet | TRU |
| Opera | OPR | Tuba | TBA |
| Operations management | OM | Turkish | TUR |
| Operations research and industrial engineering | ORI | Tutorial course | T C |
| Organ | ORG | Undergraduate studies | UGS |
| Pashto | PSH | Urban studies | URB |
| Percussion | PER | Urdu | URD |
| Persian | PRS | UTeach-liberal arts | UTL |
| Petroleum and geosystems engineering | PGE | UTeach-natural sciences | UTS |
| Pharmacy | PHR | Vibraphone | VIB |
| Pharmacy graduate studies | PGS | Viola | VIA |
| Philosophy | PHL | Violin | VIO |
| Physical education | PED | Violoncello | V C |
| Physical science | PS | Visual art studies | VAS |
| Physics | PHY | Voice | VOI |
| Piano | PIA | Women's and gender studies | WGS |
| Polish | POL | Writing | WRT |

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Architecture
MArch, Harvard University, 2005
Lucy F Galbraith, Lecturer
Architecture
MPhil, Yale University, 1977
Frances Gale, Research Fellow
Architecture
MS, Columbia University in the City of New York, 1982

Sarah P Gamble, Lecturer
Architecture

MArch, University of Texas at Austin, 2005
Michael L Garrison, Professor
Architecture
MArch, Rice University, 1971
Carmen M Garufo, Lecturer
Architecture
BArch, Pratt Institute, 1966
Allison H Gaskins, Lecturer
Architecture
MArch, University of Texas at Austin, 2007
Michael J Gatto, Lecturer
Architecture
MArch, University of Texas at Austin, 2001
Tamie Michele Glass, Assistant Professor
Architecture
MArch, University of Oregon, 2001
Francisco H Gomes, Assistant Professor
Architecture
MArch, Harvard University, 1995
Katharine Brett Koenig Greig, Lecturer
Architecture
MArch, University of Texas at Austin, 2007
Hope Hasbrouck, Associate Professor
Architecture
MLArch, Harvard University, 1996
David D Heymann, Professor
Harwell Hamilton Harris Regents Professorship in Architecture
Architecture
MArch, Harvard University, 1988
Barbara Hoidn, Adjunct Associate Professor
Architecture
MArchE, Universitat Friedericiana Karlsruhe, 1988
Michael Holleran, Associate Professor
Architecture
PhD, Massachusetts Institute of Technology, 1991
Benjamin Ibarra Sevilla, Assistant Professor
Architecture
MS, Universidad de Alcala, 2005
Richard W Jennings, Adjunct Professor
Architecture
PhD, Harvard University, 2008
Junfeng Jiao, Assistant Professor
Architecture
PhD, University of Washington - Seattle, 2010
Terry D Kahn, Professor
David Bruton, Jr. Centennial Professorship in Urban Design
Architecture
PhD, University of California-Berkeley, 1970
Brian J Kelsey, Lecturer
Architecture
MPAff, University of Texas at Austin, 2004
Nancy P Kwallek, Professor
Gene Edward Mikeska Endowed Chair for Interior Design

Architecture
PhD, Purdue University Main Campus, 1978
Fernando Luiz Lara, Associate Professor
Architecture
PhD, University of Michigan-Ann Arbor, 2001
Daniel E Leary, Associate Professor Emeritus
Architecture
MArch, University of Pennsylvania, 1966
Robert M Legge, Lecturer
Architecture
BArch, Cooper Union, 1990
Gerlinde Leiding, Professor Emeritus
Architecture
MArch, Yale University, 1966
Charlton N Lewis, Specialist
Architecture
BArch, University of Texas at Austin, 1995
Katherine E Lieberknecht, Lecturer
Architecture
PhD, Cornell University, 2008
Petra Gabriele Liedl, Assistant Professor
Architecture
PhD, Technischen Universitat Munchen/Munich, 2007
Christopher A Long, Professor
Architecture
PhD, University of Texas at Austin, 1993
Sarah L Lopez, Assistant Professor
Architecture
PhD, University of California-Berkeley, 2011
Mark Macek, Specialist
Architecture
BArch, University of Texas at Austin, 1990
Richard W Macmath, Lecturer
Architecture
MArch, University of Texas at Austin, 1997
Emily E Manderson, Lecturer
Architecture
MLA, University of Texas at Austin, 2007
Sofia Carmen Martinez, Visiting Associate Professor
Architecture
BArch, University of Buenos Aires, 2002
Talia M McCray, Assistant Professor
Architecture
PhD, University of Michigan-Ann Arbor, 2001
Heather McKinney, Visiting Associate Professor
Architecture
MArch, University of Pennsylvania, 1976
Meghan L Merritt, Lecturer
Architecture
MCP, University of Pennsylvania, 2011
S Milovanovic-Bertram, Associate Professor
Architecture

MArch, Harvard University, 1974

Juan Miro, Professor
Architecture
MArch, Yale University, 1991
Steven A Moore, Professor
Bartlett Cocke Regents Professorship in Architecture
Architecture
PhD, Texas A \& M University, 1996
Elizabeth Mueller, Associate Professor
Architecture
PhD, University of California-Berkeley, 1992
Michael Oden, Associate Professor
Architecture
PhD, New Sch for Soc Research, 1992

Clay Odom, Assistant Professor
Architecture
MS, Columbia University in the City of New York, 2003
Francesco A Passanti, Senior Lecturer
Architecture
MPhil, Columbia University in the City of New York, 1978
Robert G Paterson, Associate Professor
Architecture
PhD, University of North Carolina at Chapel Hill, 1993
Mauricio Andres Pezo Bravo, Visiting Associate Professor Architecture
MArch, Pontificia Universidad Catolica de Chile, 1998
Danielle D Pieranunzi, Lecturer
Architecture
MS, University of Texas at Austin, 2006
Ana Francisca Moreira Aroso Pinto De Oliveira, Lecturer
Architecture
MArch, Universitat Politecnica de Catalunya, 2008
Adam A Pyrek, Lecturer
Architecture
MA, Architectural Association ARCH, 2005
Erica D Quinones, Lecturer
Architecture
MArch, Parsons School of Design, 2006
Rachael Rawlins, Senior Lecturer
Architecture
JD, University of Texas at Austin, 1993
Edward E Richardson, Lecturer
Architecture
MArch, Yale University, 2004
Sandra Rosenbloom, Research Professor
Architecture
PhD, University of California-Los Angeles, 1975
Joyce Rosner, Senior Lecturer
Architecture
MArch, University of Houston, 1981
Stephen L Ross, Senior Lecturer
Architecture

MA, University of Texas at Austin, 1990
John Paul Rysavy, Lecturer
Architecture
MArch, University of Texas at Austin, 2011
Allan W Shearer, Associate Professor
Architecture
PhD, Harvard University, 2003
Thomas C Shortall, Lecturer
Architecture
MArch, Washington University in St Louis, 2004
Keith A Shuley, Lecturer
Architecture
JD, University of Houston, 1981
Igor P Siddiqui, Assistant Professor
Architecture
MArch, Yale University, 2003
Mark T Simmons, Lecturer
Architecture
PhD, Texas A \& M University, 2003
Keith Simon, Lecturer
Architecture
MArch, University of Oregon, 2004
Bjorn I Sletto, Associate Professor
Architecture
PhD, Cornell University, 2006
Gregory W Smith, Research Fellow
Architecture
MA, University of Delaware, 1991
Marla Smith, Lecturer
Architecture
MArch, University of Texas at Austin, 1996
Vincent L Snyder, Associate Professor
Architecture
MArch, Princeton University, 1988
Stephen M Sonnenberg, Adjunct Professor
Architecture
MD, Yeshiva University, 1965
Jason S Sowell, Associate Professor
Architecture
MArch, Harvard University, 2004
Lawrence W Speck, Professor
The W. L. Moody, Jr. Centennial Professorship in Architecture
Architecture
MArch, Massachusetts Institute of Technology, 1972
Frederick R Steiner, Professor
Henry M. Rockwell Chair in Architecture
Architecture
PhD, University of Pennsylvania, 1986
William A Storrer, Adjunct Professor
Architecture
PhD, The Ohio State University Newark Campus, 1968
Richard P Swallow, Professor Emeritus
Architecture

MArch, Massachusetts Institute of Technology, 1957
Rabun M Taylor, Associate Professor
Architecture
PhD, University of Minnesota-Twin Cities, 1997
Danilo F Udovicki, Associate Professor
Architecture
PhD, Massachusetts Institute of Technology, 1995
Gary Wang, Lecturer
Architecture
MArch, University of Michigan-Ann Arbor, 1998
Wilfried Wang, Professor
O'Neil Ford Centennial Chair in Architecture
Architecture
MS, University College London, 1981
Jacob A Wegmann, Assistant Professor
Architecture
MCP, Massachusetts Institute of Technology, 2006
Dason M Whitsett, Lecturer
Architecture
MS, University of Texas at Austin, 2005
Nichole Wiedemann, Associate Professor
Architecture
MA, Princeton University, 1992
Roxanne K Williamson, Professor Emeritus
Architecture
MA, University of Texas at Austin, 1965
Patricia A Wilson, Professor
Architecture
PhD, Cornell University, 1975
Chen-Ching D Yang, Lecturer
Architecture
PhD, Texas A \& M University, 2001
Al York, Visiting Associate Professor
Architecture
MArch, Cornell University, 1993
Robert F Young, Assistant Professor
Architecture
PhD, Cornell University, 2007
Ming Zhang, Associate Professor
Architecture
PhD, Massachusetts Institute of Technology, 2002

## Red McCombs School of Business Faculty

Robert J Adams Jr, Senior Lecturer
Management
PhD, Capella University, 2007
Ashish Agarwal, Assistant Professor Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 2009
James W Albrecht Jr, Lecturer
Accounting

BBA, University of Texas at Austin, 1975
Joshua D Alexander, Lecturer
Finance
MBA, University of Pennsylvania, 2009
John R Allison, Professor
Mary John and Ralph Spence Centennial Professorship
JD, Baylor University, 1972
Andres Almazan, Professor
Finance
PhD, Massachusetts Institute of Technology, 1996
Mark I Alpert, Professor
Foley's Professorship in Retailing
Marketing
DBA, University of Southern California, 1968
Aydogan Alti, Associate Professor
Finance
PhD, Carnegie Mellon University, 2002
Gregory A Alves, Lecturer
Finance
MBA, University of San Francisco, 1994
Emily Amanatullah, Assistant Professor
Management
PhD, Columbia University in the City of New York, 2007
Edward G Anderson Jr, Associate Professor
Information, Risk, and Operations Management
Management
PhD, Massachusetts Institute of Technology, 1997
Mary A Anderson, Lecturer
Information, Risk, and Operations Management
Management
MS, Massachusetts Institute of Technology, 1997
Urton L Anderson, Professor Emeritus
Accounting
PhD, University of Minnesota-Twin Cities, 1985
Tanya Andrien, Lecturer
Finance
MBA, University of Pennsylvania, 2010
Fernando Antonio Nunes Dionisio Anjos, Assistant Professor Finance
PhD, Carnegie Mellon University, 2008
Victor L Arnold, Professor Emeritus
Management
PhD, University of Wisconsin-Madison, 1971
Mihran A Aroian, Lecturer
Management
MBA, University of Texas at Austin, 1988
Florence J Atiase, Lecturer
Accounting
MAcc, University of Florida, 1983
Rowland Atiase, Professor
Accounting
PhD, University of California-Berkeley, 1980
Gabrielle L Ayeni, Lecturer

JD, College of William and Mary, 2009
Patrick G Badolato, Lecturer
Accounting
PhD, Duke University, 2010
Uttarayan Bagchi, Professor
Information, Risk, and Operations Management
PhD, Pennsylvania State University Main Campus, 1985
Mark B Baker, Associate Professor Emeritus
Information, Risk, and Operations Management
JD, Southern Methodist University, 1974
Anantaram Balakrishnan, Professor
Kenneth M. and Susan T. Jastrow II Chair in Business
Information, Risk, and Operations Management
PhD, Massachusetts Institute of Technology, 1985
Cindi Baldi, Lecturer
Management
PhD, University of Texas at Austin, 2013
Michael J Barrett, Lecturer
Management
PhD, University of Texas at Austin, 1994
Caroline A Bartel, Associate Professor
Management
PhD, University of Michigan-Ann Arbor, 1998
Anitesh Barua, Professor
Mr. and Mrs. William F. Wright, Jr. Centennial Professorship for
Management of Innovative Technology
Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 1990
Fred C Beach, Lecturer
Marketing
PhD, University of Texas at Austin, 2010
Cynthia M Beath, Professor Emeritus
Information, Risk, and Operations Management
PhD, University of California-Los Angeles, 1986
Ben A Bentzin, Lecturer
Marketing
MBA, University of Pennsylvania, 1992
Y Sekou Bermiss, Assistant Professor
Management
PhD, Northwestern University, 2009
Calvin P Blair, Professor Emeritus
Marketing
PhD, University of Texas at Austin, 1957
Steven M Bowers, Lecturer
Finance
JD, University of Texas at Austin, 1982
Mark L Bradshaw, Lecturer
Accounting
JD, University of Texas at Austin, 1988
Floyd S Brandt, Professor Emeritus
Management
DBA, Harvard University, 1960
Dean A Bredeson, Senior Lecturer

JD, University of Texas at Austin, 1995
Patrick L Brockett, Professor
Gus Wortham Memorial Chair in Risk Management and Insurance
Finance
Information, Risk, and Operations Management
PhD, University of California-Irvine, 1975
Susan M Broniarczyk, Professor
Sam Barshop Centennial Professorship in Marketing Administration

## Marketing

PhD, University of Florida, 1992
Keith C Brown, Professor
Finance
PhD, Purdue University Main Campus, 1981
Patti J Brown, Lecturer
Accounting
MPA, University of Texas at Austin, 1989
Ethan R Burris, Associate Professor
Management
PhD, Cornell University, 2005
John Burrows, Lecturer
Management
PhD, Tulane University, 2003
Catherine E Buscemi, Lecturer
Management
PhD, University of Texas at Austin, 2003
John C Butler, Clinical Associate Professor
Finance
PhD, University of Texas at Austin, 1998
Johnny S Butler, Professor
Herb Kelleher Chair in Entrepreneurship, J. Marion West Chair for
Constructive Capitalism
Management
PhD, Northwestern University, 1974
Richard L Byars, Distinguished Senior Lecturer Information, Risk, and Operations Management MA, University of Texas at Austin, 1973

Joseph D Cahoon, Lecturer
Finance
MBA, University of Texas at Austin, 2005
Shelby H Carter Jr, Adjunct Professor
Marketing
BBA, University of Texas at Austin, 1953
Carlos Marinho Carvalho, Associate Professor
Information, Risk, and Operations Management
PhD, Duke University, 2006
Judson Caskey, Assistant Professor
Accounting
PhD, University of Michigan-Ann Arbor, 2006
Deepayan Chakrabarti, Assistant Professor Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 2005
Deepa Chandrasekaran, Adjunct Assistant Professor Marketing

PhD, University of Southern California, 2007
Gretchen B Charrier, Lecturer
Accounting
MPA, University of Texas at Austin, 1996
Naveed Chehrazi, Assistant Professor
Information, Risk, and Operations Management
PhD, Stanford University, 2013
Shuping Chen, Associate Professor
Accounting
PhD, University of Southern California, 2003
Charles T Clark, Professor Emeritus
Information, Risk, and Operations Management
PhD, University of Texas at Austin, 1956
Howard R Clayton, Lecturer
Information, Risk, and Operations Management
PhD, University of Georgia, 1991
Michael B Clement, Professor
Accounting
PhD, Stanford University, 1997
Jonathan B Cohn, Assistant Professor
Finance
PhD, University of Michigan-Ann Arbor, 2008
Brett L Cornwell, Lecturer
Management
MBA, Texas A \& M University, 1991
Stephen E Courter, Lecturer
Management
MSBA, George Washington University, 1982
Eli P Cox III, Professor
La Quinta Motor Inns, Inc. Centennial Professorship in Business
Marketing
DBA, Indiana University at Bloomington, 1973
Frank B Cross, Professor
Herbert D. Kelleher Centennial Professorship in Business Law
JD, Harvard University, 1980
William H Cunningham, Professor
James L. Bayless Chair for Free Enterprise
Marketing
PhD, Michigan State University, East Lansing, 1971
John A Daly, Professor
Texas Commerce Bancshares, Inc. Centennial Professorship in Business
Communication, Frank A. Liddell, Sr. Centennial Professorship in
Communication
Management
PhD, Purdue University Main Campus, 1977
Paul Damien, Professor
B. M. (Mack) Rankin, Jr. Professorship in Business Administration Finance
Information, Risk, and Operations Management
PhD, University of London, 1994
James W Deitrick, Professor
Accounting
DBA, University of Tennessee, 1977

Jade S Dekinder, Assistant Professor
Marketing
PhD, Emory University, 2007
Douglas P Devidal, Lecturer
Accounting
PhD, University of Texas at Austin, 1991
Douglas R Dierking, Senior Lecturer
Management
PhD, University of Texas at Austin, 1997
Andrew P Dillon, Professor
Louis T. Yule Regents Professorship in Library and Information Science Information, Risk, and Operations Management
PhD, Loughborough University, 1991
Edward D Doan, Lecturer
Information, Risk, and Operations Management
MS, University of Texas at Austin, 2005
John N Doggett, Senior Lecturer
Management
MBA, Harvard University, 1981
Andres Francisco Donangelo, Assistant Professor
Finance
PhD, University of California-Berkeley, 2011
Dain Donelson, Assistant Professor
Accounting
PhD, University of Illinois at Urbana-Champaign, 2007
Alejandro Herman Drexler, Assistant Professor
Finance
PhD, Massachusetts Institute of Technology, 2009
Minette E Drumwright, Associate Professor
PhD, University of North Carolina at Chapel Hill, 1986
Jun A Duan, Assistant Professor
Marketing
PhD, Duke University, 2006
Janet M Dukerich, Professor
Harkins \& Company Centennial Chair
Management
PhD, University of Minnesota-Twin Cities, 1985
Robert C Duvic, Distinguished Senior Lecturer Finance
PhD, University of Texas at Austin, 1990
James S Dyer, Professor
The Fondren Foundation Centennial Chair in Business
Information, Risk, and Operations Management
Management
PhD, University of Texas at Austin, 1969
Kathleen A Edwards, Senior Lecturer
Management
PhD, University of Texas at Austin, 1997
Megan Jean Ehrisman, Lecturer
Marketing
MA, Ball State University, 2008
Tatiana Encheva, Lecturer
Information, Risk, and Operations Management

PhD, Belarusian State University, 1989
Douglas Stephen Fearing, Assistant Professor
Information, Risk, and Operations Management
PhD, Massachusetts Institute of Technology, 2010
Greta C Fenley, Lecturer
Marketing
MS, University of Oklahoma Health Sciences Center, 1999
James A Fitzsimmons, Professor Emeritus
Information, Risk, and Operations Management
PhD, University of California-Los Angeles, 1970
Anna C Fowler, Professor Emeritus
Accounting
PhD, University of Texas at Austin, 1977
Cesare Fracassi, Assistant Professor
Finance
PhD, University of California-Los Angeles, 2009
James A Franklin, Lecturer
Accounting
MPA, University of Texas at Austin, 1993
James W Fredrickson, Professor
Tom E. Nelson, Jr. Regents Professorship in Business
Management
PhD, University of Washington - Seattle, 1980
Robert N Freeman, Professor
Arthur Andersen \& Co. Alumni Centennial Professorship in Accounting
Accounting
Finance
PhD, University of Texas at Austin, 1977
Robert B Freund, Senior Lecturer
Information, Risk, and Operations Management
PhD, Cornell University, 1995
Alessandro U Gabbi, Lecturer
Marketing
MBA, University of Texas at Austin, 1997
Charlee Garden, Lecturer
Management
MS, Stanford University, 1988
Rajiv Garg, Assistant Professor
Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 2013
George W Gau, Professor
George S. Watson Centennial Professorship in Real Estate, J. Ludwig
Mosle Centennial Memorial Professorship in Investments and Money
Management
Finance
PhD, University of Illinois at Urbana-Champaign, 1975
Kishore Gawande, Professor
PhD, University of California-Los Angeles, 1991
Gail A Gemberling, Distinguished Senior Lecturer Information, Risk, and Operations Management
PhD, University of Texas at Austin, 1983
Robert E George, Lecturer
Accounting

BBA, University of North Texas, 1971
Linda V Gerber, Senior Lecturer
Marketing
PhD, University of Texas at Austin, 1983
Andrew D Gershoff, Associate Professor
Marketing
PhD, University of Texas at Austin, 1999
Joydeep Ghosh, Professor
Schlumberger Centennial Chair in Electrical Engineering
Information, Risk, and Operations Management
PhD, University of Southern California, 1988
Stephen M Gilbert, Professor
Sam P. Woodson, Jr. Centennial Memorial Professorship in Business
Information, Risk, and Operations Management
Management
PhD, Massachusetts Institute of Technology, 1992
Kate Gillespie, Associate Professor
Marketing
PhD, University of London, 1983
Thomas W Gilligan, Professor
Centennial Chair in Business Education Leadership, Jack R. Crosby
Regents Chair in Business Administration
Finance
PhD, Washington University in St Louis, 1984
Elizabeth S Goins, Lecturer
Management
MA, George Mason University, 2006
Linda L Golden, Professor
Marlene and Morton Meyerson Centennial Professorship in Business
Marketing
PhD, University of Florida, 1975
Melissa E Graebner, Associate Professor
Management
PhD, Stanford University, 2001
Brian E Graham-Moore, Professor Emeritus
Management
PhD, Washington University in St Louis, 1970
Michael H Granof, Professor
Ernst \& Young Distinguished Centennial Professorship of Accounting
Accounting
PhD, University of Michigan-Ann Arbor, 1972
Richard D Grant, Lecturer
Marketing
PhD, University of Texas at Austin, 1973
Katie Gray, Lecturer
Information, Risk, and Operations Management
MS, Texas A \& M University, 2004
Robert T Green, Professor Emeritus
Marketing
PhD, Pennsylvania State University Main Campus, 1971
Betsy S Greenberg, Associate Professor
Information, Risk, and Operations Management
PhD, University of California-Berkeley, 1986

Charles H Griffin, Professor Emeritus
Accounting
PhD, University of Texas at Austin, 1950
John M Griffin, Professor
Arthur Andersen \& Co. Alumni Centennial Professorship in Finance Finance
PhD, Ohio State U Main Campus, 1997
Genaro J Gutierrez, Associate Professor
Information, Risk, and Operations Management
Management
PhD, Stanford University, 1988
Beverly L Hadaway, Associate Professor

## Finance

PhD, The University of Alabama, 1981
Warren J Hahn, Clinical Associate Professor
Finance
PhD, University of Texas at Austin, 2005
Greg F Hallman, Senior Lecturer
Finance
PhD, University of Texas at Austin, 1996
Roy D Harris, Professor Emeritus
Management
PhD, University of California-Los Angeles, 1965
David A Harrison, Professor
Charles and Elizabeth Prothro Regents Chair in Business Administration Management
PhD, University of Illinois at Urbana-Champaign, 1988
Jay C Hartzell, Professor
Trammell Crow Regents Professorship in Business
Finance
PhD, University of Texas at Austin, 1998
Michael G Hasler, Lecturer
Information, Risk, and Operations Management
MBA, University of Virginia, 1985
John William Hatfield, Associate Professor
Finance
PhD, Stanford University, 2005
Pamela R Haunschild, Professor Emeritus
Management
PhD, Carnegie Mellon University, 1992
Isadore B Helburn, Professor Emeritus
Management
PhD, University of Wisconsin-Madison, 1966
Andrew D Henderson, Associate Professor
Management
PhD, University of Texas at Austin, 1996
Ty Henderson, Assistant Professor
Marketing
PhD, University of Wisconsin-Madison, 2006
Karl E Henion II, Professor Emeritus
Marketing
PhD, University of Texas at Austin, 1967
Jonathan E Highbarger, Lecturer

Marketing
BBA, University of Texas at Austin, 1971
D E Hirst, Professor
The John Arch White Professorship in Business
Accounting
PhD, University of Minnesota-Twin Cities, 1992
Alain C Hoffman, Lecturer
Marketing
MM, Northern Arizona University, 2005
Terri Holbrook, Lecturer
Accounting
MS, University of Texas at Arlington, 1991
Wayne D Hoyer, Professor
James L. Bayless/W. S. Farish Fund Chair for Free Enterprise, Jack S.
Josey Professorship in Energy Studies
Marketing
PhD, Purdue University Main Campus, 1980
George P Huber, Professor Emeritus
Management
PhD, Purdue University Main Campus, 1966
David L Huff, Professor Emeritus
Marketing
PhD, University of Washington - Seattle, 1960
Regina W Hughes, Distinguished Senior Lecturer
Finance
MS, University of North Texas, 1982
Julie R Irwin, Professor
Marketing
PhD, University of Colorado at Boulder, 1992
Kapil Jain, Senior Lecturer
Marketing
PhD, Columbia University in the City of New York, 1990
Sirkka L Jarvenpaa, Professor
James L. Bayless/Rauscher Pierce Refsnes, Inc. Chair in Business
Administration
Information, Risk, and Operations Management
PhD, University of Minnesota-Twin Cities, 1986
David B Jemison, Professor Emeritus
Management
PhD, University of Washington - Seattle, 1978
Ross G Jennings, Professor
Deloitte \& Touche Professorship in Accounting
Accounting
PhD, University of California-Berkeley, 1987
Hao Jiang, Assistant Professor
Finance
PhD, National University of Singapore, 2007
Jeffrey L Johanns, Lecturer
Accounting
BS, University of Illinois at Urbana-Champaign, 1977
Travis Lake Johnson, Assistant Professor
Finance
PhD, Stanford University, 2012

Donna Johnston-Blair, Lecturer
Accounting
MBA, University of Toronto, 1976
Eleanor W Jordan, Professor Emeritus
Information, Risk, and Operations Management
PhD, University of Texas at Austin, 1978
Stephanie C Jue, Lecturer
JD, South Texas College of Law, 2002
Steven J Kachelmeier, Professor
Randal B. McDonald Chair in Accounting
Accounting
PhD, University of Florida, 1988
Matthias Kahl, Assistant Professor
Finance
PhD, University of Pennsylvania, 1997
J W Kamas, Lecturer
Accounting
MBA, University of Chicago, 1991
Kelly L Kamm, Senior Lecturer
Finance
PhD, University of Texas at Austin, 1992
Ari C Kang, Assistant Professor
Finance
PhD, Carnegie Mellon University, 2010
Orlando R Kelm, Associate Professor
Marketing
PhD, University of California-Berkeley, 1989
Carey W King, Lecturer
PhD, University of Texas at Austin, 2004
William R Kinney Jr, Professor
Charles and Elizabeth Prothro Regents Chair in Business
Accounting
PhD, Michigan State University, East Lansing, 1968
Amanda J Kious, Lecturer
Marketing
MS, Texas Tech University, 2006
Shimon Kogan, Assistant Professor
Finance
PhD, University of California-Berkeley, 2005
Prabhudev C Konana, Professor
William H. Seay Centennial Professorship in Business
Information, Risk, and Operations Management
PhD, University of Arizona, 1995
Lisa L Koonce, Professor
Deloitte \& Touche Chair in Accounting
Accounting
PhD, University of Illinois at Urbana-Champaign, 1990
Guoming Lai, Assistant Professor
Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 2009
Aldor R Lanctot, Lecturer
Marketing
PhD, University of Texas at Austin, 1995

Karen M Landolt, Lecturer
JD, Northeastern University, 2000
Tim Landvoigt, Assistant Professor
Finance
PhD, Stanford University, 2013
Holly J Lanham, Adjunct Assistant Professor Information, Risk, and Operations Management
PhD, University of Texas at Austin, 2010

Kermit D Larson, Professor Emeritus
Accounting
DBA, University of Colorado at Boulder, 1966
Leon S Lasdon, Professor
David Bruton, Jr. Centennial Chair in Business Decision Support Systems Information, Risk, and Operations Management PhD, Case Western Reserve University, 1964

Volker Laux, Associate Professor
Accounting
PhD, Johann Wolfgang Goethe University, 2003
Sanford J Leeds, Distinguished Senior Lecturer
Finance
JD, University of Virginia, 1989
Brian R Lendecky, Senior Lecturer
Accounting
MPA, University of Texas at Austin, 1999
Kyle Lewis, Associate Professor
Management
PhD, University of Maryland College Park, 1999
Luci K Leykum, Adjunct Associate Professor Information, Risk, and Operations Management MD, Columbia University in the City of New York, 1999

Stephen T Limberg, Professor
PricewaterhouseCoopers Centennial Professorship in Accounting
Accounting
PhD, Arizona State University Main, 1982
Kristie J Loescher, Senior Lecturer
Management
PhD, Nova Southeastern University, 2004
James Richard Lowery Jr, Assistant Professor
Finance
PhD, Carnegie Mellon University, 2009
Kathleen S Mackie, Distinguished Senior Lecturer Marketing
PhD, University of Texas at Austin, 1995
Stephen P Magee, Professor
James L. Bayless/Enstar Corp. Chair in Business Administration
Finance
PhD, Massachusetts Institute of Technology, 1969
Vijay Mahajan, Professor
John P. Harbin Centennial Chair in Business
Marketing
PhD, University of Texas at Austin, 1975
Arthur B Markman, Professor
Annabel Irion Worsham Centennial Professorship in Liberal Arts

Marketing
PhD, University of Illinois at Urbana-Champaign, 1992
Luis D Martins, Associate Professor
Management
PhD, New York University, 1997
Susan N Masson, Lecturer
Marketing
MEd, University of South Carolina - Columbia, 2001
Robert G May, Professor Emeritus
Accounting
PhD, Michigan State University, East Lansing, 1970
Leigh M McAlister, Professor
Ed and Molly Smith Chair in Business Administration
Marketing
PhD, Stanford University, 1978
Reuben R McDaniel Jr, Professor
Charles and Elizabeth Prothro Regents Chair in Health Care Management
Information, Risk, and Operations Management
EdD, Indiana University at Bloomington, 1971
John M McInnis, Associate Professor
Accounting
PhD, University of Iowa, 2008
Christopher H Meakin, Senior Lecturer
JD, University of Houston, 1987
Morgan E Medina, Lecturer
Marketing
MS, Texas A \& M University, 2008
Deirdre B Mendez, Lecturer
Management
PhD, University of Texas at Austin, 1986
Rafael Mendoza-Arriaga, Assistant Professor
Information, Risk, and Operations Management
PhD, Northwestern University, 2009
Robert M Metcalfe, Professor
Information, Risk, and Operations Management
PhD, Harvard University, 1973
Robert D Mettlen, Professor
Finance
DBA, Indiana University at Bloomington, 1969
Herbert A Miller, Senior Lecturer
Marketing
BS, University of Hartford, 1968
James D Miller, Lecturer
Finance
MBA, University of Texas at Austin, 2007
Lillian F Mills, Professor
The Wilton E. and Catherine A. Thomas Professorship in Accounting Accounting
PhD, University of Michigan-Ann Arbor, 1996
Douglas J Morrice, Professor
Bobbie and Coulter R. Sublett Centennial Professorship
Information, Risk, and Operations Management
Management

PhD, Cornell University, 1990
John R Mote, Associate Professor
Information, Risk, and Operations Management
PhD, University of Texas at Austin, 1979
Tobias Muhlhofer, Assistant Professor
Finance
PhD, London School of Economics and Political Science, 2006
Paula C Murray, Professor
JD, University of Texas at Austin, 1980
Kumar Muthuraman, Associate Professor Information, Risk, and Operations Management PhD, Stanford University, 2003

Sarah Elizabeth Neely, Lecturer
Marketing
MHR, Ohio State U Main Campus, 2008
Angela M Newell, Lecturer
Information, Risk, and Operations Management
PhD, University of Texas at Austin, 2011
Donald P Newman, Professor
Clark W. Thompson, Jr. Chair in Accounting
Accounting
PhD, University of Texas at Austin, 1977
Robert Parrino, Professor
Lamar Savings Centennial Professorship in Finance
Finance
PhD, University of Rochester, 1992
Dennis S Passovoy, Lecturer
Management
MA, University of California-Los Angeles, 1974
Shefali V Patil, Assistant Professor
Management
BS, New York University, 2008
Jeffery R Patterson, Lecturer
PhD, University of Texas at Austin,
Gaylen Paulson, Senior Lecturer
Management
PhD, Northwestern University, 1998
Frances A Pedersen, Lecturer
JD, Boston University, 1985
Robert A Peterson, Professor
John T. Stuart III Centennial Chair in Business
Marketing
PhD, University of Minnesota-Twin Cities, 1970
Bill Peterson, Lecturer
Marketing
MBA, Southern Methodist University, 1984
David E Platt, Senior Lecturer
Accounting
PhD, Cornell University, 1997
Francisco Polidoro Jr, Associate Professor
Management
PhD, University of Michigan-Ann Arbor, 2006

Mary L Poloskey, Lecturer
Finance
MBA, University of Texas at Austin, 1988
Robert A Prentice, Professor
Ed and Molly Smith Centennial Professorship in Business Law
JD, Washburn University, 1975
Amit K Puri, Lecturer
Marketing
MEd, University of Missouri - Columbia, 2009
Rajagopal Raghunathan, Professor
Marketing
PhD, New York University, 2000
Ramkumar Ranganathan, Assistant Professor
Management
PhD, University of Pennsylvania, 2012
Raghunath S Rao, Assistant Professor

## Marketing

PhD, University of Minnesota-Twin Cities, 2007
Ramesh K Rao, Professor
The Margaret and Eugene McDermott Centennial Professorship of
Banking and Finance
Finance
DBA, Indiana University at Bloomington, 1978
Grace Renbarger, Lecturer
JD, University of Texas at Austin, 1983
Brian Richter, Assistant Professor
PhD, University of California-Los Angeles, 2010
Janet J Riekenberg, Lecturer
Management
PhD, University of Texas at Austin, 2010
Violina P Rindova, Professor
Ralph B. Thomas Professorship in Business
Management
PhD, New York University, 1999
John T Ritter, Lecturer
Finance
JD, University of Texas at Austin, 1994
Brian E Roberts, Professor
PhD, Washington University in St Louis, 1986
Justin G Roberts, Lecturer
Marketing
JD, University of Texas at Austin, 2007
M K Roberts III, Lecturer
Marketing
JD, University of Texas at Austin, 2007
Jack C Robertson, Professor Emeritus
Accounting
PhD, University of North Carolina at Chapel Hill, 1970
John R Robinson, Professor
C. Aubrey Smith Professorship in Accounting

Accounting
PhD, University of Michigan-Ann Arbor, 1981
Joshua Thomas Rock, Lecturer

Information, Risk, and Operations Management
MS, University of Texas at Austin, 2010
Ehud I Ronn, Professor
Finance
PhD, Stanford University, 1983
Philip Roundy, Lecturer
Management
PhD, University of Texas at Austin, 2013
Merri S Ruhmann, Lecturer
Marketing
MEd, University of Texas at Austin, 2012
Maytal Saar-Tsechansky, Associate Professor Information, Risk, and Operations Management
PhD, New York University, 2002
Michael A Sadler, Senior Lecturer
Finance
PhD, University of Texas at Austin, 1997
Thomas W Sager, Professor
Information, Risk, and Operations Management
PhD, University of lowa, 1973
Scott R Sanderson, Lecturer
Finance
MBA, University of Chicago, 1991
Jaime Joy Schmidt, Assistant Professor
Accounting
PhD, Texas A \& M University, 2009
Jan Schneider, Assistant Professor
Finance
PhD, University of British Columbia, 2006
James G Scott, Assistant Professor Information, Risk, and Operations Management
PhD, Duke University, 2009
W W Scott, Lecturer
Accounting
MBA, University of Texas of the Permian Basin, 1976
Mark S Seasholes, Visiting Professor
Finance
PhD, Harvard University, 2000
Jeri Kristina Seidman, Assistant Professor
Accounting
PhD, Massachusetts Institute of Technology, 2008
Sridhar Seshadri, Adjunct Professor
Information, Risk, and Operations Management
PhD, University of California-Berkeley, 1993
Ronnie Shah, Lecturer
Finance
PhD, University of Texas at Austin, 2008
Billy M Shaw, Professor Emeritus
Information, Risk, and Operations Management
LLM, University of Texas at Austin, 1972
Thomas S Shively, Professor
Joe B. Cook Professorship in Business Administration Information, Risk, and Operations Management

PhD, University of Chicago, 1986
Clemens Sialm, Associate Professor
Finance
PhD, Stanford University, 2001
Stuart R Singer, Lecturer
Accounting
JD, Columbia University in the City of New York, 1965
Stephen T Smith, Lecturer
Accounting
MS, University of Virginia, 1994
Jeremy L Smitheal, Lecturer
Finance
MBA, University of Texas at Austin, 2003
Garrett P Sonnier, Assistant Professor
Marketing
PhD, University of California-Los Angeles, 2006
Lewis J Spellman, Professor
Finance
PhD, Stanford University, 1971
David B Spence, Professor
PhD, Duke University, 1997
James C Spindler, Professor
The Sylvan Lang Professorship
JD, Harvard University, 2000
Rajashri Srinivasan, Professor
Marketing
PhD, Pennsylvania State University Main Campus, 2000
Laura T Starks, Professor
Charles E. and Sarah M. Seay Regents Chair in Finance
Finance
PhD, University of Texas at Austin, 1981
Janet H Starnes, Lecturer
Management
MS, Texas A \& M University - Kingsville, 1974
Deidra G Stephens, Lecturer
Management
PhD, University of Nebraska - Lincoln, 2009
Veronica V Stidvent, Lecturer
JD, Yale University, 1999
Edward L Summers, Professor Emeritus
Accounting
PhD, University of Texas at Austin, 1965
William B Swann Jr, Professor
William Howard Beasley III Professorship in the Graduate School of

## Business

Management
PhD, University of Minnesota-Twin Cities, 1978
Keith P Syska, Lecturer
JD, University of Texas at Austin, 2012
Huseyin Tanriverdi, Associate Professor
Information, Risk, and Operations Management
DBA, Boston University, 2001

Frenkel Ter Hofstede, Associate Professor
Marketing
PhD, Wageningen University, 1999
Andrew M Thornley, Lecturer
JD, Harvard University, 2005
Sheridan Titman, Professor
Walter W. McAllister Centennial Chair in Financial Services
Finance
PhD, Carnegie Mellon University, 1981
Efstathios Tompaidis, Associate Professor
Finance
Information, Risk, and Operations Management
PhD, University of Texas at Austin, 1994
Heidi K Toprac, Senior Lecturer
Finance
MBA, University of Texas at Austin, 1991
Lawrence M Turner, Lecturer
Finance
MA, The University of Memphis, 1970
John Clinton Tuttle, Lecturer
Information, Risk, and Operations Management
BBA, University of Texas at Austin, 2003
Garry J Twite, Visiting Professor
Finance
PhD, The University of New South Wales, 1990
David B Verduzco, Lecturer
Accounting
MPA, University of Texas at Austin, 1993
Stephen M Walls, Senior Lecturer
Marketing
PhD, University of Texas at Austin, 2009
Robert Warren, Lecturer
Management
MBA, Syracuse University Main Campus, 1989
William J Way, Lecturer
Finance
MBA, University of Texas at Austin, 1989
Stuart James Webb, Assistant Professor Finance
PhD, Duke University, 2013
Rachel Wellhausen, Assistant Professor
PhD, Massachusetts Institute of Technology, 2012
Wen Wen, Assistant Professor
Information, Risk, and Operations Management
PhD, Georgia Institute of Technology, 2012
Timothy Daniel Werner, Assistant Professor
PhD, University of Wisconsin-Madison, 2009
Andrew B Whinston, Professor
Hugh Roy Cullen Centennial Chair in Business Administration
Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 1962
Brian White, Assistant Professor
Accounting

PhD, University of Illinois at Urbana-Champaign, 2012
Bruce A White, Lecturer
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PhD, University of Nebraska - Lincoln, 1990
Jennifer Whitson, Assistant Professor
Management
PhD, Northwestern University, 2007
John K Williams, Senior Lecturer
Marketing
MBA, University of Texas at Austin, 1994
Michael G Williamson, Associate Professor
Accounting
PhD, Indiana University at Bloomington, 2005
Sinead Williamson, Assistant Professor
Information, Risk, and Operations Management
PhD, University of Cambridge, 2012
Luke A Winslow, Lecturer
Management
PhD, University of Texas at Austin, 2009
Yong Yu, Associate Professor
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PhD, Penn State University Park, 2006
Gabrielle F Zandan, Lecturer
Marketing
MA, New York University, 2011
Thaleia Zariphopoulou, Professor
Chair in Mathematics, V. F. Neuhaus Centennial Professorship in Finance Information, Risk, and Operations Management
PhD, Brown University, 1989
Xiaolan Zhang, Assistant Professor
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MAEcon, Peking University, 2009
Ying Zhang, Associate Professor
Marketing
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PhD, Duke University, 2013
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PhD, University of Texas at Austin, 1998

## College of Communication Faculty

Wiley Akins, Lecturer
Radio-Television-Film
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Rosental C Alves, Professor
Knight Chair in Journalism
Journalism
BA, Universidade Federal do Rio de Janeiro, 1976
Henry A Anderson, Associate Professor Emeritus

Journalism
PhD, University of Texas at Austin, 1975
Ronald B Anderson, Associate Professor
Advertising
PhD, Michigan State University, East Lansing, 1988
Tracy L Arrington, Lecturer
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BA, University of Texas at Austin, 1997
Lucinda Jane Atkinson, Assistant Professor
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PhD, University of Wisconsin-Madison, 2009
George T Balagia, Visiting Professor
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MA, University of Santa Monica, 2003
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Communication Sciences and Disorders
MA, University of Texas at Austin, 1987
Dawna Ballard, Associate Professor
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PhD, University of California-Santa Barbara, 2002
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MFA, University of Texas at Austin, 2011
Benjamin L Bays, Lecturer
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Lisa M Bedore, Professor
Communication Sciences and Disorders
PhD, Purdue University Main Campus, 1998
Tamara A Bell, Lecturer
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PhD, University of Texas at Austin, 2002
Amy L Bench, Lecturer
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MFA, University of Texas at Austin, 2010
William R Bennatt, Lecturer
Radio-Television-Film
MS, Texas A \& M University, 2000
Charles E Berg, Professor
Joe M. Dealey, Sr. Professorship in Media Studies
Radio-Television-Film
PhD, University of Texas at Austin, 1987
Brenda L Berkelaar, Assistant Professor
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PhD, Purdue University Main Campus, 2010
Jay Bernhardt, Professor
PhD, University of North Carolina at Chapel Hill, 1999
Mark E Bernstein, Associate Professor
Communication Sciences and Disorders
EdD, Boston University, 1980

Susan C Blackwood, Lecturer
Advertising
EdD, University of Nebraska - Lincoln, 1984
Morgan G Blue, Lecturer
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PhD, University of Texas at Austin, 2013
Mary A Bock, Assistant Professor
Communication Studies
Journalism
PhD, University of Pennsylvania, 2009
Amy Elizabeth Booth, Professor
PhD, University of Pittsburgh, Pittsburgh Campus, 1998
James Booth, Professor
Communication Sciences and Disorders
PhD, University of Maryland College Park, 1995
Robert B Brenner, Professor
BA, Oberlin College, 1983
Robert D Brooks, Professor Emeritus
Radio-Television-Film
PhD, University of Wisconsin-Madison, 1968
Ann T Brown, Lecturer
Communication Sciences and Disorders
MA, University of Illinois at Urbana-Champaign, 1986
Larry D Browning, Professor
William P. Hobby Centennial Professorship in Communication
Communication Studies
PhD, Ohio State U Main Campus, 1973
Barry Brummett, Professor
Charles Sapp Centennial Professorship in Communication
Communication Studies
PhD, University of Minnesota-Twin Cities, 1978
Jennifer S Brundidge, Assistant Professor
Radio-Television-Film
PhD, University of California-Santa Cruz, 2008
Andrew John Bujalski, Lecturer
Radio-Television-Film
AB, Harvard University, 1998
James M Bunting, Lecturer
BS, University of Texas at Austin, 1985
Gene A Burd, Associate Professor
Journalism
PhD, Northwestern University, 1964
Neal M Burns, Professor
Advertising
PhD, McGill University, 1959
Courtney T Byrd, Associate Professor
Communication Sciences and Disorders
PhD, Vanderbilt University, 2003
Kat Candler, Lecturer
Radio-Television-Film
BA, Florida State University, 1996
Angela A Carey, Clinical Assistant Professor
Communication Sciences and Disorders

AuD, Pennsylvania College of Optometry, 2009
Wanda G Cash, Clinical Professor
Journalism
BJ, University of Texas at Austin, 1975
Craig A Champlin, Professor
Lillie Hage Jamail Centennial Professorship
Communication Sciences and Disorders
PhD, University of Kansas Main Campus, 1987
Bharath Chandrasekaran, Assistant Professor
Communication Sciences and Disorders
PhD, Purdue University Main Campus, 2008
Gina Chen, Assistant Professor
PhD, Syracuse University Main Campus, 2012
Wenhong Chen, Assistant Professor
Radio-Television-Film
PhD, University of Toronto, 2007
George Edward Cheney, Adjunct Professor
Communication Studies
PhD, Purdue University Main Campus, 1985
Richard A Cherwitz, Professor
Communication Studies
PhD, University of lowa, 1978
Hsiang I Chyi, Associate Professor
Journalism
PhD, University of Texas at Austin, 1999
Vincent Joseph Cicchirillo, Assistant Professor
Advertising
PhD, The Ohio State University Main Campus, 2009
Angeline Grace Close, Assistant Professor
Advertising
PhD, University of Georgia, 2006
Dana L Cloud, Associate Professor
Communication Studies
PhD, University of lowa, 1992
Renita B Coleman, Associate Professor
Journalism
PhD, University of Missouri - Columbia, 2001
James B Colson, Professor Emeritus
Journalism
MA, University of California-Los Angeles, 1961
Martin R Cox, Senior Lecturer
Communication Studies
MA, University of Texas at Austin, 1994
Michael J Cramer, Senior Lecturer
Advertising
JD, Marquette University, 1978
Isabella C Cunningham, Professor
Ernest A. Sharpe Centennial Professorship in Communication
Advertising
PhD, Michigan State University, East Lansing, 1972
Holly Custard, Lecturer
Radio-Television-Film

PhD, University of Texas at Austin, 2012
Tracy S Dahlby, Professor
Frank A. Bennack, Jr. Chair in Journalism
Journalism
AM, Harvard University, 1976
Rene M Dailey, Associate Professor
Communication Studies
PhD, University of California-Santa Barbara, 2005
Rodger M Dalston, Professor Emeritus
Communication Sciences and Disorders
PhD, Northwestern University, 1972
John A Daly, Professor
Texas Commerce Bancshares, Inc. Centennial Professorship in Business
Communication, Frank A. Liddell, Sr. Centennial Professorship in
Communication
Communication Studies
PhD, Purdue University Main Campus, 1977
Wayne A Danielson, Professor Emeritus
Journalism
PhD, Stanford University, 1957
Dennis C Darling, Professor
Journalism
MFA, School of the Art Institute of Chicago, 1973
Thomas J Darwin, Lecturer
Communication Studies
PhD, University of Texas at Austin, 1995
Barbara L Davis, Professor
Houston Harte Centennial Professorship in Communication
Communication Sciences and Disorders
PhD, University of Texas at Austin, 1986
D D Davis, Professor
Communication Studies
PhD, University of Texas at Arlington, 1995
Katherine Winkler Dawson, Senior Lecturer
Journalism
MS, Columbia University in the City of New York, 2003
Donna De Cesare, Associate Professor
Journalism
MPhil, University of Essex, 1979
Steven A DeGennaro, Lecturer
Radio-Television-Film
PhD, University of Texas at Austin, 2009
Lisa Z Dobias, Senior Lecturer
Advertising
BSAdv, University of Texas at Austin, 1989
David H Donaldson, Lecturer
JD, University of Texas at Austin, 1976
Erin Eileen Donovan, Assistant Professor
Communication Studies
PhD, University of Illinois at Urbana-Champaign, 2008
Minette E Drumwright, Associate Professor
Advertising
PhD, University of North Carolina at Chapel Hill, 1986

Anthony David Dudo, Assistant Professor
Advertising
PhD, University of Wisconsin-Madison, 2011
Matthew Eastin, Associate Professor
Advertising
PhD, Michigan State University, East Lansing, 2001
Peter J Elam, Lecturer
Radio-Television-Film
MA, University of Texas at Austin, 2008
James A Fino, Lecturer
Radio-Television-Film
BS, University of Texas at Austin, 1988
Jessica Franco, Clinical Assistant Professor
Communication Sciences and Disorders
PhD, University of Texas at Austin, 2008
Glenn Charles Frankel, Professor
G. B. Dealey Regents Professorship in Journalism

Journalism
AB, Columbia University in the City of New York, 1971
Caroline J Frick, Assistant Professor
Radio-Television-Film
PhD, University of Texas at Austin, 2005
Kathryn Fuller, Professor
Radio-Television-Film
PhD, Johns Hopkins University, 1992
Walter R Garcia-Buckalew, Lecturer
Journalism
MA, University of Texas at Austin, 1993
Andrew S Garrison, Associate Professor
Radio-Television-Film
BA, Antioch University, 1974
Homero Gil De Zuniga, Associate Professor
Journalism
PhD, University of Wisconsin-Madison, 2005
Megan R Gilbride, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2004
Lalitha Gopalan, Associate Professor
Radio-Television-Film
PhD, University of Rochester, 1993
Paul H Gray, Professor Emeritus
Communication Studies
PhD, Louisiana State University and Agricultural and Mechanical College, 1966

Zenzi M Griffin, Professor
Communication Sciences and Disorders
PhD, University of Illinois at Urbana-Champaign, 1998
Joshua G Gunn, Associate Professor
Communication Studies
PhD, University of Minnesota-Twin Cities, 2002
Sharon E Jarvis, Associate Professor
Communication Studies
PhD, University of Texas at Austin, 2000

David K Harmon, Lecturer
Journalism
BJ, University of Texas at Austin, 1991
Roderick P Hart, Professor
Allan Shivers Centennial Chair in Communication, Walter Cronkite
Regents Chair in Communication
Communication Studies
PhD, Pennsylvania State University Park, 1970
Terry Hemeyer, Senior Lecturer
Advertising
MA, University of Denver, 1970
Geraldine R Henderson, Adjunct Associate Professor
Advertising
PhD, Northwestern University, 1995
Maya L Henry, Assistant Professor
Communication Sciences and Disorders
PhD, University of Arizona, 2009
Carlos Hernandez Mireles, Assistant Professor
Advertising
PhD, Erasmus Universiteit, 2010
Burnes Patrick Hollyman, Lecturer
Radio-Television-Film
MA, University of Texas at Austin, 1977
Donald W Howard, Associate Professor
Radio-Television-Film
MA, University of Texas at Austin, 1988
Jeff R Hunt, Adjunct Assistant Professor
Advertising
BJ, University of Texas at Austin, 1984
Steve R Jennings, Lecturer
Radio-Television-Film
MFA, Stephen F Austin State University, 1992
Robert W Jensen, Professor
Journalism
PhD, University of Minnesota-Twin Cities, 1992
Su-Hyun Jin, Assistant Professor
Communication Sciences and Disorders
PhD, University of Minnesota-Twin Cities, 2003
Thomas Jerrold Johnson, Professor
Amon G. Carter, Jr. Centennial Professorship in Communication Journalism
PhD, University of Washington - Seattle, 1989
David S Junker, Lecturer
Advertising
PhD, University of Wisconsin-Madison, 2004
Lee Ann Kahlor, Associate Professor
Advertising
PhD, University of Wisconsin-Madison, 2003
Stuart D Kelban, Associate Professor
Radio-Television-Film
MFA, University of Virginia, 1989
Diana Kerew-Shaw, Lecturer
Radio-Television-Film

BFA, Boston University, 1964
Ellen S Kester, Lecturer
Communication Sciences and Disorders
PhD, University of Texas at Austin, 2002
Gene H Kincaid, Senior Lecturer
Advertising
MA, University of Texas at Austin, 1983
Mark L Knapp, Professor Emeritus
Communication Studies
PhD, Pennsylvania State University Main Campus, 1966
Dan W Knight, Lecturer
Radio-Television-Film
MA, Southern Methodist University, 1998
Karen J Kocher, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 1995
William E Korbus, Professor Emeritus
Journalism
MS, University of Illinois at Urbana-Champaign, 1974
Shanti Kumar, Associate Professor
Radio-Television-Film
PhD, Indiana University at Bloomington, 1987
Dominic L Lasorsa, Associate Professor
Journalism
PhD, Stanford University, 1986
Regina G Lawrence, Professor
Jesse H. Jones Centennial Chair in Communication Journalism
PhD, University of Washington - Seattle, 1997
John D Leckenby, Professor Emeritus
Advertising
PhD, University of Illinois at Urbana-Champaign, 1974
Wei-Na Lee, Professor
F. J. Heyne Centennial Professorship in Communication Advertising
PhD, University of Illinois at Urbana-Champaign, 1988
Anne Lewis, Senior Lecturer
Radio-Television-Film
BFA, School of Visual Arts, 2001
Deborah E Lewis, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 1995
Richard M Lewis, Associate Professor
Radio-Television-Film
MFA, University of Texas at Austin, 1994
Robert Joel Lewis, Assistant Professor
Advertising
PhD, Michigan State University, East Lansing, 2012
Catherine Licata, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2013
Chang Liu, Associate Professor
Communication Sciences and Disorders

PhD, Indiana University at Bloomington, 2002
Mark G Longaker, Associate Professor
Communication Studies
PhD, Pennsylvania State University Main Campus, 2003
Brad Love, Assistant Professor
Advertising
PhD, Michigan State University, East Lansing, 2007
Joel Lulla, Lecturer
Advertising
JD, University of North Carolina at Chapel Hill, 1982
Michael S Mackert, Associate Professor
Advertising
PhD, Michigan State University, East Lansing, 2006
Madhavi Mallapragada, Assistant Professor
Radio-Television-Film
PhD, University of Wisconsin-Madison, 2003
Galit Marmor-Lavie, Lecturer
Advertising
PhD, University of Texas at Austin, 2010
Thomas P Marquardt, Professor
Ben F. Love Regents Professorship in Communication
Communication Sciences and Disorders
PhD, University of Washington - Seattle, 1973
Geoffrey C Marslett, Senior Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2000
Frederick N Martin, Professor Emeritus
Communication Sciences and Disorders
PhD, City University of New York Brooklyn College, 1968
Sean G Mathis, Lecturer
Journalism
MA, University of Texas at Austin, 2011
Madeline M Maxwell, Professor
Communication Studies
PhD, University of Arizona, 1980
Erin E Mayes, Lecturer
Journalism
BJ, University of Texas at Austin, 1990
Diana D McCarthy, Lecturer
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BJ, University of Missouri - Columbia, 1980
Cynthia Ann McCreery, Assistant Professor
Radio-Television-Film
BA, University of California-Santa Barbara, 2000
Christian C McDonald, Lecturer
Journalism
BJ, University of Texas at Austin, 1989
Matthew S McGlone, Associate Professor
Communication Studies
PhD, Princeton University, 1994
Susan E McLeland, Lecturer
Journalism
Radio-Television-Film

PhD, University of Texas at Austin, 1996
Cydney M Medford, Communications Specialist
Communication Sciences and Disorders
MS, Baylor University, 1980
Stephen J Mims, Lecturer
Radio-Television-Film
MA, University of Texas at Austin, 1987
William D Minutaglio, Clinical Professor
Journalism
MS, Columbia University in the City of New York, 1978
Mark Morrison, Lecturer
Journalism
BJ, University of Texas at Austin, 1970
John H Murphy, Professor
Joe C. Thompson Centennial Professorship in Advertising
Advertising
PhD, University of Texas at Austin, 1974
Curran J Nault, Lecturer
Radio-Television-Film
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Philip P Nemy, Lecturer
Radio-Television-Film
BFA, Carnegie Mellon University, 1983
Mary Anne Nericcio, Clinical Assistant Professor
Communication Sciences and Disorders
PhD, University of Texas at Austin, 1994
Sheldon J Pacotti, Lecturer
Radio-Television-Film
AB, Harvard University, 1993
Elizabeth D Pena, Professor
Communication Sciences and Disorders
PhD, Temple University, 1993
Alisa H Perren, Associate Professor
Radio-Television-Film
PhD, University of Texas at Austin, 2004
John D Pierson Jr, Lecturer
Radio-Television-Film
BA, New York University, 1977
Sally Kay Planalp, Adjunct Professor
Communication Studies
PhD, University of Wisconsin-Madison, 1983
Paula M Poindexter, Associate Professor
Journalism
PhD, Syracuse University Main Campus, 1980
Stephen J Pont, Adjunct Assistant Professor
Advertising
MD, University of Texas Southwestern Medical Center at Dallas, 2002
Kathrynn Pounders, Assistant Professor
Advertising
PhD, Louisiana State University and Agricultural and Mechanical College, 2010

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BS, University of Texas at Austin, 1996
Charles P Quarterman, Lecturer
Advertising
Journalism
MA, University of Texas at Austin, 2006
Robert J Quigley, Senior Lecturer
Journalism
BA, Stephen F Austin State University, 1996
Paul J Raval, Assistant Professor
Radio-Television-Film
MFA, University of Texas at Austin, 2004
Chad J Rea, Lecturer
Advertising
BA, Texas Tech University, 1993
Ellis Clifford Reed, Clinical Professor
Journalism
AA, Newark School of Fine and Industrial Art, 1969
Stephen D Reese, Professor
Jesse H. Jones Professorship in Journalism
Journalism
PhD, University of Wisconsin-Madison, 1982
Gabriel Reyes Benavides, Lecturer
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BFA, University of Texas at Austin, 1980
Scott F Rice, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2003
Kevin Daniel Robbins, Senior Lecturer
Journalism
MS, Ohio University Main Campus, 1995
Maggie R Rodriguez, Associate Professor Journalism
PhD, University of North Carolina at Chapel Hill, 1998
Todd Rohal, Lecturer
Radio-Television-Film
BFA, Ohio University Main Campus, 1998
Christopher C Roldan, Lecturer
Radio-Television-Film
BS, University of Texas at Austin, 2002
Joel D Rollins, Senior Lecturer
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PhD, University of North Texas, 1996
Ryan Romero, Lecturer
Advertising
MA, University of Texas at Austin, 2004
Brian M Satterwhite, Lecturer
Radio-Television-Film
BM, Berklee College of Music, 1997
Thomas G Schatz, Professor
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PhD, University of lowa, 1976
Nancy Schiesari, Professor

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MA, Royal College of Art, 1978
Suzanne Scott, Assistant Professor
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Andrew B Shea, Associate Professor
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MA, California Institute of the Arts, 1985
Li Sheng, Associate Professor
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PhD, Northwestern University, 2007
Ellen R Spiro, Professor
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MA, State University of New York at Buffalo, 1991
Valerie J Stahl, Lecturer
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ScD, Boston University, 1990
Janet Staiger, Professor Emeritus
Radio-Television-Film
PhD, University of Wisconsin-Madison, 1981
Liz Stavchansky de Lewis, Lecturer
Advertising
PhD, University of Texas at Austin, 2000
Laura L Stein, Associate Professor
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PhD, University of Texas at Austin, 1997
Paul J Stekler, Professor
Wofford Denius Chair in Entertainment Studies
Radio-Television-Film
PhD, Harvard University, 1983
Keri K Stephens, Associate Professor
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PhD, University of Texas at Austin, 2005
Allucquere Sandy Stone, Associate Professor Emeritus
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PhD, University of California-Santa Cruz, 1993
Patricia A Stout, Professor
John P. McGovern Regents Professorship in Health and Medical Science
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Advertising
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PhD, Tufts University, 1981
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PhD, Free University of Berlin, 1981
Natalie J Stroud, Associate Professor
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Scott R Stroud, Assistant Professor
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PhD, Temple University, 2006

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Radio-Television-Film
PhD, Stanford University, 1982
Mathew Bentley Sturtevant, Lecturer
Journalism
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Daniel H Stuyck, Lecturer
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Harvey M Sussman, Professor
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Joel L Swerdlow, Adjunct Professor
Communication Studies
PhD, Cornell University, 1974
George Sylvie, Associate Professor
Journalism
PhD, University of Texas at Austin, 1988
Kevin D Thomas, Assistant Professor
Advertising
PhD, University of Texas at Austin, 2011
Sean R Thompson, Senior Lecturer
Advertising
MA, University of Texas at Austin, 1998
Todd M Thompson, Lecturer
Radio-Television-Film
MA, University of Texas at Austin, 2010
Beau M Thorne, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2006
Russell G Todd, Professor
Journalism
PhD, Stanford University, 1982
Jeffrey Treem, Assistant Professor
Communication Studies
PhD, Northwestern University, 2012
Jeffrey K Tulis, Associate Professor
Communication Studies
PhD, University of Chicago, 1982
Kathleen R Tyner, Associate Professor
Radio-Television-Film
MA, San Francisco State University, 1986
Rima N Vallbona, Lecturer
Journalism
BJ, University of Texas at Austin, 1979
Suzanne V Van Der Feest, Social Science/Humanities Research
Associate V
Communication Sciences and Disorders
PhD, Radboud Universiteit Nijmegen, 2007
Anita L Vangelisti, Professor
Jesse H. Jones Centennial Professorship in Communication

Communication Studies
PhD, University of Texas at Austin, 1989
Roberto Villalpando, Lecturer
Journalism
BA, Northwestern University, 1994
Jeffrey Walker, Professor
Communication Studies
PhD, University of California-Berkeley, 1985
Samuel C Watkins, Professor
Radio-Television-Film
PhD, University of Michigan-Ann Arbor, 1994
Jeffrey R Weber, Lecturer
JD, Southwestern University LAWS, 1976
Jason B Wehling, Lecturer
Journalism
BFA, Rice University, 1999
John T Wells, Lecturer
Advertising
JD, University of Texas at Austin, 1974
Gary B Wilcox, Professor
John A. Beck Centennial Professorship in Communication
Advertising
PhD, Michigan State University, East Lansing, 1982
Karin G Wilkins, Professor
Radio-Television-Film
PhD, University of Pennsylvania, 1991
Stephen A Wille, Lecturer
MA, University of Texas at Austin, 1974
Thomas J Willett, Lecturer
Radio-Television-Film
MA, University of Texas at Austin, 1999
Jerome D Williams, Adjunct Professor
F. J. Heyne Centennial Professorship in Communication

Advertising
PhD, University of Colorado at Boulder, 1986
Kristopher Wilson, Senior Lecturer
Journalism
PhD, University of Colorado at Boulder, 1993
Jie Yang, Lecturer
Communication Sciences and Disorders
PhD, University of Texas at Austin, 2012
Amanda Zappler, Lecturer
Communication Sciences and Disorders
AuD, A T Still University of Health Sciences, School of Health Sciences, 2006

## College of Education Faculty

Lawrence D Abraham, Professor<br>Kinesiology and Health Education<br>EdD, Teachers College, Columbia University, 1975<br>Jennifer Keys Adair, Assistant Professor<br>Curriculum and Instruction

PhD, Arizona State University Main, 2009
Ricardo C Ainslie, Professor
Educational Psychology
PhD, University of Michigan-Ann Arbor, 1979
Funsho M Akingbala, Lecturer
Curriculum and Instruction
PhD, University of Texas at Austin, 1978
Celeste D Alexander, Lecturer
Educational Administration
PhD, University of Texas at Austin, 1997
Greg Allen, Associate Professor
Educational Psychology
PhD, San Diego State University, 2000
Cassandre G Alvarado, Clinical Assistant Professor
Educational Administration
PhD, University of Texas at Austin, 2004
Carl J Anderson, Adjunct Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 1987
Robin D Atwood, Research Assistant Professor
Kinesiology and Health Education
EdD, University of Texas at Austin, 1999
Germine H Awad, Assistant Professor
Educational Psychology
PhD, Southern Illinois University Carbondale, 2005
Flavio S Azevedo, Assistant Professor
Curriculum and Instruction
PhD, University of California-Berkeley, 2005
Marcia Barnes, Professor
Manuel J. Justiz Endowed Chair in Math, Science, and Technology in
Teacher Education
Educational Psychology
Special Education
PhD, McMaster University, 1988
Natalie C Barraga, Professor Emeritus
Special Education
PHD-EDD, George Peabody C Teachers, 1963
John Bartholomew, Professor
Kinesiology and Health Education
PhD, Arizona State University Main, 1996
James P Barufaldi, Professor
Ruben E. Hinojosa Regents Professorship in Education
Curriculum and Instruction
PhD, University of Maryland College Park, 1972
Debra E Bay-Borelli, Clinical Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 2011
Sarah K Bearman, Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 2005
Kimberly A Beckwith, Lecturer
Kinesiology and Health Education
PhD, University of Texas at Austin, 2006

Dana Tyrone Bedden, Adjunct Professor
Educational Administration
PhD, Virginia Polytechnic Institute and State University, 2006
Mario A Benitez, Professor Emeritus
Curriculum and Instruction
PhD, Claremont Graduate University, 1967
Keisha L Bentley-Edwards, Assistant Professor
Educational Psychology
PhD, University of Pennsylvania, 2009
Susan N Beretvas, Professor
Educational Psychology
PhD, University of Washington - Seattle, 2000
Edgar W Bessent, Professor Emeritus
Educational Administration
PhD, University of Texas at Austin, 1961
Janie E Black, Clinical Assistant Professor
Educational Psychology
PhD, Fielding Graduate Institute, 2011
Christine M Blackmon, Specialist
Curriculum and Instruction
MEd, Texas State University-San Marcos, 1997
George M Blanco, Associate Professor Emeritus
Curriculum and Instruction
PhD, University of Texas at Austin, 1971
Katherine Bomer, Lecturer
Curriculum and Instruction
MA, Teachers College, Columbia University, 1990
Randy Bomer, Professor
Charles H. Spence, Sr. Centennial Professorship in Education
Curriculum and Instruction
PhD, Teachers College, Columbia University, 1996
John G Bordie, Professor Emeritus
Curriculum and Instruction
PhD, University of Texas at Austin, 1958
Gary D Borich, Professor
Educational Psychology
EdD, Indiana University at Bloomington, 1970
DeAunderia Necole Bowens, Lecturer
Educational Psychology
PhD, University of Michigan-Ann Arbor, 2011
Matthew Bowers, Clinical Assistant Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 2011
Gene Brooks, Lecturer
Special Education
PhD, University of Texas at Austin, 2000
Robert Matthew Brothers, Assistant Professor
Kinesiology and Health Education
PhD, University of North Texas, 2007
Anthony L Brown, Associate Professor
Curriculum and Instruction
PhD, University of Wisconsin-Madison, 2006
Christopher P Brown, Associate Professor

Curriculum and Instruction
PhD, University of Wisconsin-Madison, 2004
Keffrelyn D Brown, Associate Professor
Curriculum and Instruction
PhD, University of Wisconsin-Madison, 2006
Sharon A Brown, Professor
Joseph H. Blades Centennial Memorial Professorship in Nursing
Kinesiology and Health Education
PhD, University of Texas at Austin, 1987
Chris B Brownson, Clinical Associate Professor
Educational Psychology
PhD, University of Texas at Austin, 2001
Lawrence A Brownstein, Senior Lecturer
Educational Psychology
PhD, University of Texas at Austin, 1977
Brian R Bryant, Research Professor (Affiliated)
Special Education
PhD, University of Texas at Austin, 1984
Diane P Bryant, Professor
Mollie Villeret Davis Professorship in Learning Disabilities
Special Education
PhD, University of New Mexico Main Campus, 1986
Pamela S Buchanan, Lecturer
Kinesiology and Health Education
MA, Sam Houston State University, 1988
Andrew C Butler, Assistant Professor
Educational Psychology
PhD, Washington University in St Louis, 2009
Jesse J Butler, Adjunct Professor
Educational Administration
EdD, Oklahoma State University Main Campus, 1983
Ralph W Cain, Associate Professor Emeritus
Curriculum and Instruction
PhD, University of Texas at Austin, 1964
Rebecca M Callahan, Assistant Professor
Curriculum and Instruction
PhD, University of California-Davis, 2003
Lucy Camarillo, Lecturer
Curriculum and Instruction
MEd, University of Texas at Austin, 2009
Jessica Duncan Cance, Assistant Professor
Kinesiology and Health Education
PhD, University of North Carolina at Chapel Hill, 2010
Norma V Cantu, Professor
Ken McIntyre Professorship for Excellence in School Leadership Educational Administration

JD, Harvard University, 1977
V R Cardozier, Professor Emeritus
Educational Administration
PhD, Ohio State U Main Campus, 1952
Cindy I Carlson, Professor
Educational Psychology
PhD, Indiana University at Bloomington, 1982

Laroy R Carry, Professor Emeritus
Curriculum and Instruction
PhD, Stanford University, 1968
Meria J Carstarphen, Adjunct Professor
Educational Administration
EdD, Harvard University, 2002
Heather L Carter, Professor Emeritus
Curriculum and Instruction
PhD, University of Maryland College Park, 1969
Jennifer L Carter, Lecturer
Educational Psychology
PhD, University of Texas at Austin, 2004
Jodi M Casabianca, Assistant Professor
Educational Psychology
PhD, Fordham University, 2011

Darla M Castelli, Associate Professor
Kinesiology and Health Education
PhD, University of South Carolina - Columbia, 2002
Stephanie W Cawthon, Associate Professor
Educational Psychology
PhD, University of Wisconsin-Madison, 2000
Charles T Clark, Adjunct Assistant Professor
Educational Administration
PhD, University of Texas at Austin, 1983
Kevin O Cokley, Professor
Educational Psychology
PhD, Georgia State University, 1998
Denise Collier, Adjunct Professor
Educational Administration
EdD, University of Texas at Austin, 2001
North Cooc, Assistant Professor
Special Education
EdM, Harvard University, 2007
Nelson W Coulter, Adjunct Assistant Professor
Educational Administration
EdD, Texas Tech University, 2006
Edward F Coyle, Professor
Kinesiology and Health Education
PhD, University of Arizona, 1979
Charles W Craven, Associate Professor Emeritus
Kinesiology and Health Education
MEd, University of Texas at Austin, 1968
Kelly Crook, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 2003
Don S Crowley Jr, Specialist
Kinesiology and Health Education
BS, University of Texas at Austin, 1990
Nancy P Daley, Adjunct Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 1991
Ozro L Davis Jr, Professor Emeritus
Curriculum and Instruction

PhD, Vanderbilt University, 1958
Leonardo De La Garza, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1977
Noah De Lissovoy, Assistant Professor
Curriculum and Instruction
PhD, University of California-Los Angeles, 2005
Exalton A Delco Jr, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1962
Wilhelmina R Delco, Adjunct Professor
Educational Administration
MS, Fisk University, 1950
Rosario C Deleon
Educational Psychology
PhD, University of Houston, 2005
Cesar Delgado, Assistant Professor
Curriculum and Instruction
PhD, University of Michigan-Ann Arbor, 2009
Mark David Dietz, Lecturer
Educational Administration
PhD, University of Texas at Austin, 2008
Jonathan B Dingwell, Associate Professor
Kinesiology and Health Education
PhD, Pennsylvania State University Main Campus, 1998
Marlene A Dixon, Adjunct Associate Professor
Kinesiology and Health Education
PhD, Ohio State U Main Campus, 2002
Barbara G Dodd, Professor
Pearson Endowed Professorship in Psychometrics
Educational Psychology
PhD, University of Texas at Austin, 1984
Pamela Dougherty-Smith, Clinical Assistant Professor
Curriculum and Instruction
PhD, University of North Texas, 1997
David J Drum, Professor
Educational Psychology
PhD, American University, 1969
Susan K Dubois, Adjunct Assistant Professor
Kinesiology and Health Education
MD, University of Texas Health Science Center at Houston, 1988
Bonnie M Elliott, Clinical Assistant Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 1999
Edmund T Emmer, Professor
Educational Psychology
PhD, University of Michigan-Ann Arbor, 1967
Susan B Empson, Professor
Curriculum and Instruction
PhD, University of Wisconsin-Madison, 1994
Nolan Estes, Professor Emeritus
Educational Administration

EdD, Harvard University, 1959
Gulielma L Fager, Lecturer
Kinesiology and Health Education
MPH, Columbia University in the City of New York, 2007
John D Fair, Adjunct Professor
Kinesiology and Health Education
PhD, Duke University, 1970
Toni L Falbo, Professor
Educational Psychology
PhD, University of California-Los Angeles, 1973
Terry S Falcomata, Assistant Professor
Special Education
PhD, University of Iowa, 2008
Brian K Farr, Senior Lecturer
Kinesiology and Health Education
MA, Ohio State U Main Campus, 1996
Roger P Farrar, Professor
Kinesiology and Health Education
PhD, University of Massachusetts, 1976
Edmund J Farrell, Professor Emeritus
Curriculum and Instruction
PhD, University of California-Berkeley, 1969
Sherry L Field, Professor Emeritus
Curriculum and Instruction
PhD, University of Texas at Austin, 1991
Andrea Lynn Flower, Assistant Professor
Special Education
PhD, University of Washington - Seattle, 2008
Douglas E Foley, Professor Emeritus
Curriculum and Instruction
PhD, Stanford University, 1970
Pascal D Forgione Jr, Adjunct Professor
Educational Administration
PhD, Stanford University, 1977
Kevin M Foster, Associate Professor
Educational Administration
PhD, University of Texas at Austin, 2001
Christina L Fragale, Lecturer
Special Education
PhD, University of Texas at Austin, 2012
Maria E Franquiz, Professor
Curriculum and Instruction
PhD, University of California-Santa Barbara, 1995
Francie A Frederick, Adjunct Professor
Educational Administration
JD, University of Houston System, 1975
Joe L Frost, Professor Emeritus
Curriculum and Instruction
EdD, University of Arkansas Main Campus, 1965
Lynda E Frost, Clinical Associate Professor
Educational Administration
PhD, University of Iowa, 1996

Shernaz B Garcia, Associate Professor Emeritus
Special Education
PhD, University of Texas at Austin, 1984
David W Gardner, Adjunct Professor
Educational Administration
PhD, Texas A \& M University, 1979
Douglas C Garrard, Lecturer
Educational Administration
EdD, University of Texas at Austin, 2006
Elizabeth P Garza, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 2001
Karen Soehnge Garza, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 2002
Gretchen Generett, Adjunct Associate Professor
Educational Administration
PhD, University of North Carolina at Chapel Hill, 1997
Mary C Gerwels, Senior Lecturer
Educational Psychology
PhD, University of Texas at Austin, 1994
Barbara H Gideon, Lecturer
Educational Administration
EdD, Texas A \& M University, 2000
Lucia A Gilbert, Professor Emeritus
Educational Psychology
PhD, University of Texas at Austin, 1974
Edmund J Gleazer, Adjunct Professor
Educational Administration
EdD, Harvard University, 1953
Erik Gnagy, Clinical Assistant Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 2012
Lynn R Godwin, Adjunct Professor
Educational Administration
PhD, The University of Memphis, 1992
Brian C Gonzales, Lecturer
Kinesiology and Health Education
MA, Teachers College, Columbia University, 2006
Juan C Gonzalez, Research Fellow
Educational Administration
PhD, University of Illinois at Urbana-Champaign, 1981
Mark Anthony Gooden, Associate Professor
Educational Administration
PhD, The Ohio State University Main Campus, 2001
David A Goodman, Adjunct Assistant Professor
Educational Administration
PhD, University of Houston, 2009
Samantha Ruth Gottlich, Specialist
Kinesiology and Health Education
MS, University of Texas at Austin, 2013
Jeffery L Graves, Lecturer
Educational Administration

JD, University of Texas at Austin, 1991
Jane S Gray, Clinical Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 2006
Terrance L Green, Assistant Professor
Educational Administration
PhD, University of Wisconsin-Madison, 2013
Emily Strassner Greenspahn, Clinical Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 2006
Lisa Griffin, Associate Professor
Kinesiology and Health Education
PhD, University of Western Ontario, 1999
Julia A Guinn, Specialist
Kinesiology and Health Education
MS, Baylor University, 2006
Frank J Guszak, Professor Emeritus
Curriculum and Instruction
PhD, University of Wisconsin-Madison, 1966
Harold D Guthrie, Adjunct Professor
Educational Administration
EdD, Pennsylvania State University Park, 1971
Sheila B Guzman, Lecturer
Curriculum and Instruction
PhD, University of Texas at Austin, 2006
Dorothy R Hall, Clinical Assistant Professor
Educational Administration
PhD, University of Texas at Austin, 2009
Jennifer Lehmann Hall, Lecturer
Educational Administration
JD, University of Texas at Austin, 1997
Jennifer R Hammat, Clinical Professor
Educational Administration
EdD, Texas Tech University, 2005
William R Harmer, Professor Emeritus
Curriculum and Instruction
PhD, University of Minnesota-Twin Cities, 1959
Benjamin M Harris, Professor Emeritus
Educational Administration
PhD, University of California-Berkeley, 1958
Karol K Harris, Research Assistant Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 2000
Pamela W Harris, Lecturer
Curriculum and Instruction
MEd, Texas State University-San Marcos, 2011
Louis Harrison, Professor
Curriculum and Instruction
PhD, Louisiana State University and Agricultural and Mechanical College, 1997

Julian V Heilig, Associate Professor
Educational Administration

PhD, Stanford University, 2006
James V Hoffman, Professor
Curriculum and Instruction
PhD, University of Missouri - Kansas City, 1977
Carole K Holahan, Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 1976
Jennifer J Holme, Assistant Professor
Educational Administration
PhD, University of California-Los Angeles, 2000
Elaine K Horwitz, Professor
Curriculum and Instruction
PhD, University of Illinois at Urbana-Champaign, 1980
Philip P Huang, Adjunct Assistant Professor
Kinesiology and Health Education
MD, University of Texas Southwestern Medical Center at Dallas, 1986
Joan Hughes, Associate Professor
Curriculum and Instruction
PhD, Michigan State University, East Lansing, 2000
James H Hughey, Adjunct Professor
Educational Administration
PhD, Nova Southeastern University, 1977
Jessica H Hunt, Assistant Professor
Curriculum and Instruction
PhD, University of Central Florida, 2011
Thomas M Hunt, Assistant Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 2007
John L Ivy, Professor Emeritus
Kinesiology and Health Education
PhD, University of Maryland College Park, 1976
Huriya Jabbar, Assistant Professor
Educational Administration
PhD, University of California-Berkeley,
Stephen S Janes, Adjunct Associate Professor
Educational Administration
JD, University of Colorado at Boulder, 1967
Earl Jennings, Professor Emeritus
Educational Psychology
PhD, University of Texas at Austin, 1963
Jody Jensen, Professor
Kinesiology and Health Education
PhD, University of Maryland College Park, 1989
Julie M Jensen, Professor Emeritus
Curriculum and Instruction
PhD, University of Minnesota-Twin Cities, 1970
Melody A Johnson, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1990
Sharon C Johnson, Specialist
Curriculum and Instruction
EdD, Texas Tech University, 1983

Esbelle M Jowers, Research Assistant Professor (Affiliated)
Kinesiology and Health Education
PhD, University of Texas at Austin, 1999
Debra L Junk, Lecturer
Curriculum and Instruction
PhD, University of Texas at Austin, 2005
Sharon H Justice, Lecturer
Educational Administration
PhD, Southern Illinois University Carbondale, 1974
Manuel J Justiz, Professor
A. M. Aikin Regents Chair in Education Leadership, Lee Hage Jamail

Regents Chair in Education
Educational Administration
PhD, Southern Illinois University Carbondale, 1977
Marilyn C Kameen, Professor
Oscar and Anne Mauzy Regents Professorship for Educational Research
and Development
Educational Administration
EdD, University of Virginia (Old Code), 1974
Michael Kamen, Lecturer
Curriculum and Instruction
PhD, University of Texas at Austin, 1991
Jean M Kane, Lecturer
Educational Administration
PhD, Arizona State University Main, 1979
Xiaofen Keating, Associate Professor
Curriculum and Instruction
PhD, University of Illinois at Urbana-Champaign, 2000
Timothy Z Keith, Professor
Educational Psychology
PhD, Duke University, 1982
Harrison Keller, Clinical Professor
Educational Administration
Educational Administration
PhD, Georgetown University, 2002
Deborah C Kelt, Lecturer
Curriculum and Instruction
MA, University of Texas at Austin, 2008
John D King, Professor Emeritus
Special Education
EdD, University of Nebraska - Lincoln, 1964
Amy L Kinkade, Lecturer
Curriculum and Instruction
MEd, University of Texas at Austin, 1982
Stephen B Kinslow, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1984
William R Koch, Professor Emeritus
Educational Psychology
PhD, University of Missouri - Columbia, 1980
Harold Willis Kohl III, Research Professor
Kinesiology and Health Education
PhD, University of Texas Health Science Center at Houston, 1993

Steven A Kraal, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1992
Dorothy D Lambdin, Clinical Professor
Kinesiology and Health Education
EdD, University of Massachusetts, 1992
Sherry L Langston, Lecturer
Curriculum and Instruction
MS, Texas A \& M University - Commerce, 1997
William F Lasher, Professor Emeritus
Educational Administration
PhD, University of Michigan-Ann Arbor, 1974
Tad D Leusch, Specialist
Kinesiology and Health Education
MS, Michigan State University, East Lansing, 2000
Ann S Levine, Clinical Associate Professor
Educational Psychology
PhD, University of Denver, 1993
Judith W Lindfors, Professor Emeritus
Curriculum and Instruction
PhD, University of Texas at Austin, 1972
Amanda L Little, Clinical Assistant Professor
Special Education
PhD, University of Kansas Main Campus, 2009
Deborah L Little, Lecturer
Curriculum and Instruction
PhD, University of Texas at Austin, 1997
Min Liu, Professor
Curriculum and Instruction
EdD, West Virginia University, 1992
Alexandra Loukas, Professor
Kinesiology and Health Education
PhD, Michigan State University, East Lansing, 1997
Charles Lu, Clinical Assistant Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 2013
Jennifer W Maedgen, Clinical Associate Professor
Educational Psychology
PhD, University of Texas at Austin, 1998
Robert M Malina, Professor Emeritus
Kinesiology and Health Education
PhD, University of Pennsylvania, 1968
Anna E Maloch, Associate Professor
Curriculum and Instruction
PhD, Vanderbilt University, 2000
Guy J Manaster, Professor Emeritus
Educational Psychology
PhD, University of Chicago, 1969
Jill A Marshall, Associate Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 1984
Ramon Antonio Martinez, Assistant Professor
Curriculum and Instruction

PhD, University of California-Los Angeles, 2009
Julie Maslowsky, Assistant Professor
Kinesiology and Health Education
PhD, University of Michigan-Ann Arbor, 2012
Katherine T McCalister, Adjunct Assistant Professor
Kinesiology and Health Education
EdD, University of Texas at Austin, 2003
Christopher J McCarthy, Professor
Educational Psychology
PhD, Georgia State University, 1995
Byron N McClenney, Senior Lecturer
Educational Administration
EdD, University of Texas at Austin, 1969
Kay M McClenney, Senior Lecturer
Educational Administration
PhD, University of Texas at Austin, 1983
Danny P McCoy, Lecturer
Educational Administration
PhD, University of Texas at Austin, 2003
Katherine Chesham McKay, Lecturer
Curriculum and Instruction
MEd, University of Texas at Austin, 2011
Elizabeth G Medina, Lecturer
Educational Psychology
PhD, University of California-Los Angeles, 2003
Mary E Mercatoris, Specialist
Educational Psychology
PhD, University of Texas at Austin, 2006
Donna Micheaux, Lecturer
Educational Administration
PhD, University of Pittsburgh, Pittsburgh Campus, 1995
Richard A Middleton, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1986
Campbell Miller, Specialist
Kinesiology and Health Education
BS, Stanford University, 2002
Henry Richard Milner Iv, Lecturer
Educational Administration
PhD, Ohio State U Main Campus, 2001
Barbara P Mink, Clinical Professor
Educational Administration
EdD, Duke University, 1971
Lynn M Monnat, Clinical Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 2009
Leslie A Moore, Senior Lecturer
Educational Psychology
PhD, University of Texas at Austin, 1987
Michael A Moses, Adjunct Professor
Educational Administration
PhD, Texas A \& M University - Commerce, 1980

Richard Mowsesian, Associate Professor Emeritus
Educational Psychology
PhD, University of Wisconsin-Madison, 1965
Sheri Mycue, Clinical Assistant Professor
Curriculum and Instruction
PhD, University of New Orleans, 2000
Deborah D Nance, Lecturer
Educational Administration
PhD, University of Texas at Austin, 1985
Kristin Neff, Associate Professor
Educational Psychology
PhD, University of California-Berkeley, 1997
Shelley A Nicholson, Clinical Assistant Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 2008
Glenn L Nolly, Lecturer
Educational Administration
PhD, University of Texas at Austin, 1997
Nancy L Nussbaum, Lecturer
Educational Psychology
PhD, University of Texas at Austin, 1986
Mark F O'Reilly, Professor
Audrey Rogers Myers Centennial Professorship in Education
Special Education
PhD, University of Illinois at Urbana-Champaign, 1992
Ruben D Olivarez, Professor
L. D. Haskew Centennial Professorship in Public School Administration

Educational Administration
PhD, University of Texas at Austin, 1976
Angela Oriano-Darnall, Lecturer
Educational Administration
PhD, University of Texas at Austin, 2006
Alba A Ortiz, Professor Emeritus
Special Education
PhD, University of Texas at Austin, 1976
Martha N Ovando, Professor Emeritus
Educational Administration
PhD, University of Utah, 1981
Gage E Paine, Clinical Professor
Educational Administration
PhD, University of Texas at Austin, 1996
Deborah K Palmer, Associate Professor
Curriculum and Instruction
PhD, University of California-Berkeley, 2004
Guy S Parcel, Adjunct Professor
Kinesiology and Health Education
PhD, Pennsylvania State University Park, 1974
Raymund A Paredes, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1973
Randall M Parker, Professor Emeritus
Special Education
PhD, University of Missouri - Columbia, 1970

Keryn Elizabeth Pasch, Assistant Professor
Kinesiology and Health Education
PhD, University of Minnesota-Twin Cities, 2007
Erika Alisha Patall, Assistant Professor
Educational Psychology
PhD, Duke University, 2009
Dimpi Patel, Adjunct Assistant Professor
Kinesiology and Health Education
MD, Kansas City University of Medicine \& Biosciences, 2004
Puja G Patel, Clinical Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 2010
James R Patton, Adjunct Associate Professor
Special Education
EdD, University of Virginia (Old Code), 1980
Katherina A Payne, Assistant Professor
Curriculum and Instruction
MA, Adelphi University, 2004
Barbara L Pazey, Assistant Professor
Educational Administration
Special Education
PhD, University of Texas at Austin, 1996
Bertha A Pedroza, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1997
Amado M Pena Jr, Adjunct Professor
Educational Administration
MA, Texas A \& M University - Kingsville, 1971
Jose S Perez, Adjunct Professor
Educational Administration
EdD, Texas A \& M University, 1995
April L Peters, Lecturer
Educational Administration
PhD, The Ohio State University Main Campus, 2003
Fred L Peterson Jr, Associate Professor
Kinesiology and Health Education
PhD, University of Illinois at Urbana-Champaign, 1981
Anthony J Petrosino, Associate Professor
Curriculum and Instruction
PhD, Vanderbilt University, 1998
Kathleen Lynn Pfannenstiel, Lecturer
Special Education
PhD, University of Texas at Austin, 2011
Beeman N Phillips, Professor Emeritus
Educational Psychology
EdD, Indiana University at Bloomington, 1954
Keenan A Pituch, Associate Professor
Educational Psychology
PhD, Florida State University, 1997
Sarah Rannells Powell, Assistant Professor
Special Education
PhD, Vanderbilt University, 2009
Patrick G Pringle, Adjunct Professor

Educational Administration
PhD, University of Texas at Austin, 1989
Diana Christine Pulido, Assistant Professor
Curriculum and Instruction
PhD, University of Illinois at Urbana-Champaign, 2000
James E Pustejovsky, Assistant Professor
Educational Psychology
PhD, Northwestern University, 2013
Martha I Pyron, Adjunct Assistant Professor
Kinesiology and Health Education
MD, University of Texas at San Antonio, 1996
Jose M Ramirez, Lecturer
Curriculum and Instruction
MS, University of Phoenix, 2007
Teresita B Ramirez, Lecturer
Kinesiology and Health Education
MEd, University of Texas at Austin, 1981
Soncia Reagins-Lilly, Clinical Assistant Professor
Educational Administration
EdD, University of Southern California, 1999
Richard J Reddick, Assistant Professor
Educational Administration
EdD, Harvard University, 2007
Stuart Reifel, Professor Emeritus
Curriculum and Instruction
EdD, University of California-Los Angeles, 1981
Ashley E Reinhardt, Specialist
Curriculum and Instruction
MEd, University of Texas at Austin, 2013
Paul E Resta, Professor
Ruth Knight Millikan Centennial Professorship
Curriculum and Instruction
PhD, Arizona State University Main, 1968
Pedro Reyes, Professor
Educational Administration
PhD, University of Wisconsin-Madison, 1985
Sylvia R Reyna, Adjunct Professor
Educational Administration
PhD, Texas A \& M University, 2008
Geoff B Rich, Specialist
Kinesiology and Health Education
MA, Southwestern Baptist Theological Seminary, 1995
John M Rich, Professor Emeritus
Curriculum and Instruction
PhD, Ohio State U Main Campus, 1958
Frank C Richardson, Professor Emeritus
Educational Psychology
PhD, Colorado State University, 1971
Sarah R Griesemer, Clinical Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 2008
Catherine Riegle-Crumb, Associate Professor
Curriculum and Instruction

PhD, University of Chicago, 2000
Herbert J Rieth, Professor Emeritus
Special Education
EdD, University of Kansas Main Campus, 1971
K G Ripperger-Suhler, Research Engineering/ Scientist Associate III
Kinesiology and Health Education
PhD, University of Texas at Austin, 2010
Donald T Rippey, Professor Emeritus
Educational Administration
EdD, University of Northern Colorado, 1963
Scott D Ritchie, Clinical Assistant Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 1994
Rachel W Robillard, Adjunct Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 2002
Aaron B Rochlen, Professor
Educational Psychology
PhD, University of Maryland College Park, 2000
Erin M Rodriguez, Assistant Professor
Educational Psychology
PhD, Vanderbilt University, 2012
Haydee M Rodriguez, Clinical Assistant Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 2000
Nancy L Roser, Professor
Priscilla Pond Flawn Regents Professorship in Early Childhood Education
Curriculum and Instruction
EdD, Indiana University at Bloomington, 1970
John E Roueche Jr, Professor Emeritus
Educational Administration
PhD, Florida State University, 1964
Angel M Royal, Adjunct Professor
Educational Administration
PhD, Louisiana State University and Agricultural and Mechanical College, 2000

Stephanie S Rude, Professor
Educational Psychology
PhD, Stanford University, 1983
Frances M Rush, Lecturer
Kinesiology and Health Education
MEd, University of Texas at Austin, 1978
Smita Ruzicka, Lecturer
Educational Psychology
PhD, University of Texas at Austin, 2011
Victor B Saenz, Associate Professor
Educational Administration
PhD, University of California-Los Angeles, 2005
Cynthia S Salinas, Associate Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 1999
Victor Sampson, Associate Professor
Curriculum and Instruction

PhD, Arizona State University Main, 2007
Delida Sanchez, Assistant Professor
Educational Psychology
PhD, Columbia University in the City of New York, 2002
Michael T Sanders, Lecturer
Kinesiology and Health Education
EdD, University of Tennessee, 1985
Sherri L Sanders, Clinical Associate Professor
Educational Administration
PhD, University of Texas at Austin, 1998
Veronica G Sardegna, Assistant Professor
Curriculum and Instruction
PhD, University of Illinois at Urbana-Champaign, 2009
James L Schaller, Associate Professor
Special Education
PhD, University of Wisconsin-Madison, 1991
Diane L Schallert, Professor
Educational Psychology
PhD, Arizona State University Main, 1975
Julie Schell, Clinical Assistant Professor
Educational Administration
EdD, Teachers College, Columbia University, 2009
Jay D Scribner, Professor Emeritus
Educational Administration
EdD, Stanford University, 1965
Susan W Sedwick, Clinical Professor
Educational Administration
PhD, Texas A \& M University, 1998
Bill Segura, Adjunct Professor
Educational Administration
PhD, University of Oregon, 1983
Edwin R Sharpe Jr, Clinical Professor
Educational Administration
PhD, University of Texas at Austin, 1980
Alissa R Sherry, Associate Professor
Educational Psychology
PhD, University of Southern Mississippi, 2001
Allison Skerrett, Associate Professor
Curriculum and Instruction
PhD, Boston College, 2007
Darla R Smith, Clinical Professor
Kinesiology and Health Education
PhD, Texas Woman's University, 1996
Elizabeth A Smith, Clinical Assistant Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 2009
Michael R Solis, Research Assistant Professor (Affiliated)
Special Education
PhD, University of Texas at Austin, 2012
Patricia A Somers, Associate Professor
Educational Administration
PhD, University of New Orleans, 1992

Audrey M Sorrells, Associate Professor
Special Education
PhD, University of Florida, 1996
Emily Sparvero, Clinical Assistant Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 2008
Carol J Spaulding, Lecturer
Kinesiology and Health Education
PhD, University of Texas at Austin, 2009
Ted D Spears, Adjunct Associate Professor
Kinesiology and Health Education
PhD, University of Texas Medical Branch, 1980
Janet T Spence, Professor Emeritus
Educational Psychology
PhD, University of lowa, 1949
Waneen W Spirduso, Professor Emeritus
Kinesiology and Health Education
EdD, University of Texas at Austin, 1966
Joseph H Stafford, Adjunct Professor
Educational Administration
PhD, Purdue University Main Campus, 1965
Dixie Stanforth, Senior Lecturer
Kinesiology and Health Education
PhD, University of Texas at Austin, 2010
Philip R Stanforth, Lecturer
Kinesiology and Health Education
MS, University of Arizona, 1978
Kevin D Stark, Professor
Educational Psychology
PhD, University of Wisconsin-Madison, 1985
Mary A Steinhardt, Professor
Kinesiology and Health Education
EdD, University of Houston, 1985
Eric M Stice, Adjunct Associate Professor Educational Psychology
PhD, Arizona State University Main, 1996
Walter M Stroup, Associate Professor
Curriculum and Instruction
EdD, Harvard University, 1996
Marie-Anne P Suizzo, Associate Professor
Educational Psychology
EdD, Harvard University, 1997
Charlotte A Sullivan, Lecturer
Educational Administration
PhD, University of Texas at Austin, 2002
Marilla D Svinicki, Professor
Educational Administration
Educational Psychology
PhD, University of Colorado at Boulder, 1972
Elizabeth Swanson, Research Assistant Professor (Affiliated)
Special Education
PhD, University of Texas at Austin, 2008
Kathryn Klinger Tackett, Clinical Assistant Professor

Special Education
PhD, University of Texas at Austin, 2009
Hirofumi Tanaka, Professor
Kinesiology and Health Education
PhD, University of Tennessee, 1995
Deborah J Tharinger, Professor
Educational Psychology
PhD, University of California-Berkeley, 1981
Alicia H Thomas, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1999
Sylvia F Thompson, Associate Professor
Special Education
PhD, University of Texas at Austin, 1999
Jerry S Thornton, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1983
Janice S Todd, Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 1995
Martin L Tombari, Senior Lecturer
Educational Psychology
PhD, University of Arizona, 1975
Jessica R Toste, Assistant Professor
Special Education
PhD, McGill University, 2011
Ramona S Trevino, Clinical Assistant Professor
Educational Administration
PhD, University of Texas at Austin, 2006
David R Troutman, Lecturer
Educational Administration
PhD, University of North Carolina at Greensboro, 2007
Keith D Turner, Professor Emeritus
Special Education
PhD, University of Washington - Seattle, 1974
Edward P Tyson, Adjunct Assistant Professor
Kinesiology and Health Education
MD, Tex Medl Sch Houston, U, 1982
Kenneth W (Pete) Tyson, Associate Professor Emeritus
Kinesiology and Health Education
MEd, University of Texas at Austin, 1970
Joe Ueng, Adjunct Professor
Educational Administration
PhD, Saint Louis University, 1995
Luis Urrieta, Associate Professor
Curriculum and Instruction
PhD, University of North Carolina at Chapel Hill, 2003
Richard Valencia, Professor
Educational Psychology
PhD, University of California-Santa Barbara, 1977
Angela Valenzuela, Professor
Curriculum and Instruction
Educational Administration

PhD, Stanford University, 1990
Sharon Vaughn, Professor
H. E. Hartfelder/The Southland Corporation Regents Chair in Human

Resource Development
Special Education
PhD, University of Arizona, 1981
Georghios Veletsianos, Adjunct Assistant Professor
Curriculum and Instruction
PhD, University of Minnesota-Twin Cities, 2008
Johnny L Veselka, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1982
Gregory J Vincent, Professor
W. K. Kellogg Professorship of Community College Leadership

Educational Administration
EdD, University of Pennsylvania, 2004
Linda K Voges, Lecturer
Curriculum and Instruction
EdD, Baylor University, 1998
Kay E Waggoner, Adjunct Professor
Educational Administration
PhD, University of Texas at Austin, 1991
Lonnie H Wagstaff, Professor Emeritus
Educational Administration
EdD, University of Oklahoma Norman Campus, 1969
Evelyn N Waiwaiole, Lecturer
Educational Administration
PhD, University of Texas at Austin, 2001
Thomas J Walters, Adjunct Associate Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 1989
Rodney E Watson, Adjunct Professor
Educational Administration
PhD, University of Missouri - Kansas City, 2007
Claire Ellen Weinstein, Professor
Educational Psychology
PhD, University of Texas at Austin, 1975
John W Wenrich, Adjunct Professor
Educational Administration
PhD, University of Michigan-Ann Arbor, 1968
Melissa R Wetzel, Associate Professor
Curriculum and Instruction
PhD, Washington University in St Louis, 2007
Tiffany A Whittaker, Associate Professor
Educational Psychology
PhD, University of Texas at Austin, 2003
Frank W Wicker, Professor Emeritus
Educational Psychology
PhD, Princeton University, 1966
Teri L Wood, Lecturer
Educational Psychology
PhD, University of Texas at Austin, 2006
Althea L Woodruff, Lecturer

Educational Psychology
PhD, University of Texas at Austin, 2003
Mary J Worthy, Professor
Curriculum and Instruction
PhD, University of Virginia (Old Code), 1989
James R Yates, Professor Emeritus
Educational Administration
PhD, University of Texas at Austin, 1971
San Yoon, Specialist
Kinesiology and Health Education
EdD, United States Sports Academy, 1992
Mark A Zentner, Clinical Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 1999
Nina Isabel Zuna, Assistant Professor
Special Education
PhD, University of Kansas Main Campus, 2007

## Cockrell School of Engineering Faculty

Jacob A Abraham, Professor

Cockrell Family Regents Chair in Engineering \#8
Electrical and Computer Engineering
PhD, Stanford University, 1974
P A Abusali, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1983
Behcet Acikmese, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, Purdue University Main Campus, 2002
J K Aggarwal, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#2
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 1964
Maruthi R Akella, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, Texas A \& M University, 1998
Deji Akinwande, Assistant Professor
Electrical and Computer Engineering
PhD, Stanford University, 2010
David T Allen, Professor
Melvin H. Gertz Regents Chair in Chemical Engineering
Chemical Engineering
PhD, California Institute of Technology, 1983
J Scott Allen, Engineering Scientist
Mechanical Engineering
BSME, University of Texas at Austin, 1998
Hal S Alper, Assistant Professor
Chemical Engineering
PhD, Massachusetts Institute of Technology, 2006
Andrea Alu, Associate Professor
Electrical and Computer Engineering

PhD, Universita degli Studi Roma Tre, 2007
Catherine G Ambrose, Adjoint Associate Professor
Biomedical Engineering
PhD, University of Texas at Austin, 1992
Billy H Amstead, Professor Emeritus
Mechanical Engineering
PhD, University of Texas at Austin, 1955
Jeffrey G Andrews, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#1
Electrical and Computer Engineering
PhD, Stanford University, 2002
Aristotle Arapostathis, Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1982
Neal E Armstrong, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1968
Adnan Aziz, Adjunct Associate Professor
Electrical and Computer Engineering
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1996
Ivo M Babuska, Professor
Robert B. Trull Chair in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, Academy of Sciences, 1955
Francois Baccelli, Professor
Simons Chair in Mathematics and Electrical and Computer Engineering
Electrical and Computer Engineering
These d'Etat, Universite de Paris XI, Paris-Sud, 1983
Vaibhav Bahadur, Assistant Professor
Mechanical Engineering
PhD, Purdue University Main Campus, 2008
Aaron Blair Baker, Assistant Professor
Biomedical Engineering
PhD, Harvard University, 2006
Lee E Baker, Professor Emeritus
Electrical and Computer Engineering
PhD, Baylor College of Medicine, 1965
Efstathios Bakolas, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, Georgia Institute of Technology, 2011
Michael Baldea, Assistant Professor
Chemical Engineering
PhD, University of Minnesota-Twin Cities, 2006
Ross Baldick, Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1990
Matthew T Balhoff, Associate Professor
Petroleum and Geosystems Engineering
PhD, Louisiana State University and Agricultural and Mechanical College,
2005
Sanjay K Banerjee, Professor

Cockrell Family Regents Chair in Engineering \#4
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 1983
Seth R Bank, Associate Professor
Electrical and Computer Engineering
PhD, Stanford University, 2006
James A Bankson, Adjoint Associate Professor
Biomedical Engineering
PhD, Texas A \& M University, 2001
Suzanne Barber, Professor
AT\&T Foundation Endowed Professorship in Engineering
Electrical and Computer Engineering
PhD, University of Texas at Arlington, 1992
Jonathan F Bard, Professor
Mechanical Engineering
DSc, George Washington University, 1979
William C Bard, Senior Lecturer
Electrical and Computer Engineering
MS, University of Texas at Austin, 1976
John W Barnes, Professor Emeritus
Mechanical Engineering
PhD, University of Arkansas Main Campus, 1971
Ronald E Barr, Professor
Mechanical Engineering
PhD, Marquette University, 1975
Michael E Barrett, Research Professor (Affiliated)
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1996
Don S Batory, Professor
David Bruton, Jr. Centennial Professorship in Computer Sciences \#1
Electrical and Computer Engineering
PhD, University of Toronto, 1981
Martin L Baughman, Professor Emeritus
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 1972
Oguzhan Bayrak, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Toronto, 1999
Fred C Beach, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2010
Joseph J Beaman Jr, Professor
Earnest F. Gloyna Regents Chair in Engineering
Mechanical Engineering
ScD, Massachusetts Institute of Technology, 1979
H K Beasley, Clinical Professor
Mechanical Engineering
MD, Tulane University, 1962
Michael F Becker, Professor
Electrical and Computer Engineering
PhD, Stanford University, 1974
Anthony Bedford, Professor Emeritus
Aerospace Engineering and Engineering Mechanics

PhD, Rice University, 1967
Mikhail A Belkin, Assistant Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 2004
Adela Ben-Yakar, Associate Professor
Mechanical Engineering
PhD, Stanford University, 2001
Nicole A Benedek, Assistant Professor
Mechanical Engineering
PhD, Rmit University, 2006
Halil Berberoglu, Assistant Professor
Mechanical Engineering
PhD, University of California-Los Angeles, 2008
Srinivas V Bettadpur, Research Professor (Affiliated)
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1993
Jayanta Bhadra, Adjunct Associate Professor
Electrical and Computer Engineering
PhD, University of Texas at Austin, 2001
Amit Bhasin, Assistant Professor
Civil, Architectural, and Environmental Engineering
DPhil, Texas A \& M University, 2006
Chandra R Bhat, Professor
Adnan Abou-Ayyash Centennial Professorship in Transportation Engineering
Civil, Architectural, and Environmental Engineering
PhD, Northwestern University, 1991
J Eric Bickel, Assistant Professor
Mechanical Engineering
Petroleum and Geosystems Engineering
PhD, Stanford University, 1999
Kendra M Biegalski, Lecturer
Mechanical Engineering
PhD, University of Illinois at Urbana-Champaign, 1998
Steven R Biegalski, Professor
Mechanical Engineering
PhD, University of Illinois at Urbana-Champaign, 1996
George Biros, Professor
W. A. "Tex" Moncrief, Jr. Endowment in Simulation-Based Engineering
and Sciences - Endowed Chair No. 2
Mechanical Engineering
PhD, Carnegie Mellon University, 2000
Michael F Blackhurst, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, Carnegie Mellon University, 2011
David T Blackstock, Professor Emeritus
Mechanical Engineering
PhD, Harvard University, 1960
David G Bogard, Professor
Baker Hughes Incorporated Centennial Professorship
Mechanical Engineering
PhD, Purdue University Main Campus, 1982
Paul M Bommer, Senior Lecturer

Chevron Lectureship in Petroleum Engineering
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1979
Roger T Bonnecaze, Professor
William and Bettye Nowlin Chair in Engineering
Chemical Engineering
PhD, California Institute of Technology, 1991
John D Borcherding, Adjunct Professor
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1972
Michael J Borden, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 2012
Maura Borrego, Associate Professor
Mechanical Engineering
PhD, Stanford University, 2003
Francis X Bostick Jr, Professor Emeritus
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1964
David L Bourell, Professor
Temple Foundation Endowed Professorship No. 2
Mechanical Engineering
PhD, Stanford University, 1979
Alan C Bovik, Professor
Keys and Joan Curry/Cullen Trust Endowed Chair
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 1984
Stephen Boyles, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2009
Stephane Bratu, Lecturer
Mechanical Engineering
PhD, Massachusetts Institute of Technology, 2004

John E Breen, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1962
Amy Brock, Assistant Professor
Biomedical Engineering
PhD, Harvard University, 2004
Gregory L Brooks, Senior Lecturer
Civil, Architectural, and Environmental Engineering
MArch, University of Texas at Austin, 1996
David R Brown, Senior Lecturer
Electrical and Computer Engineering
PhD, Purdue University Main Campus, 1978
Michael D Bryant, Professor
Accenture Endowed Professorship in Manufacturing Systems Engineering
Mechanical Engineering
PhD, Northwestern University, 1981
Steven L Bryant, Professor
Bank of America Centennial Professorship in Petroleum Engineering
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1986

Tan T Bui, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, Massachusetts Institute of Technology, 2007
John F Burgin, Lecturer
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1995
Ned H Burns, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1962
John H Byrne, Adjoint Professor
Biomedical Engineering
PhD, Polytechnic University, 1973
Carlos H Caldas, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 2003
Matthew I Campbell, Adjunct Associate Professor
Mechanical Engineering
PhD, Carnegie Mellon University, 2000
Mehmet F Candas, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2007
Constantine Caramanis, Associate Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 2006
Ben H Caudle, Professor Emeritus
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1963
Armand J Chaput, Senior Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, Texas A \& M University, 1966
Craig M Chase, Associate Professor
Electrical and Computer Engineering
PhD, Cornell University, 1993
James R Chelikowsky, Professor
W. A. "Tex" Moncrief, Jr. Chair in Computational Materials

Chemical Engineering
PhD, University of California-Berkeley, 1975
Dongmei Chen, Assistant Professor
Mechanical Engineering
PhD, University of Michigan-Ann Arbor, 2006
Ray T Chen, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering
\#3
Electrical and Computer Engineering
PhD, University of California-Irvine, 1991
Julian Cheng, Professor
Cockrell Family Regents Chair in Engineering \#3
Electrical and Computer Engineering
PhD, Harvard University, 1973
Derek Chiou, Associate Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 1999
Patricia Clayton, Assistant Professor

Civil, Architectural, and Environmental Engineering
MSCE, University of Washington - Seattle, 2010
Noel T Clemens, Professor
Cockrell Family Chair for Departmental Leadership \#2, Bob R. Dorsey
Professorship in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, Stanford University, 1991
Lydia Maria Contreras, Assistant Professor
Chemical Engineering
PhD, Cornell University, 2008
Richard L Corsi, Professor
Cockrell Family Chair for Departmental Leadership \#3, E. C. H. Bantel
Professorship for Professional Practice
Civil, Architectural, and Environmental Engineering
PhD, University of California-Davis, 1989
Brady R Cox, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2006
Harvey G Cragon, Professor Emeritus
Electrical and Computer Engineering
BSEE, Louisiana Tech University, 1950
Roy R Craig Jr, Professor Emeritus
Aerospace Engineering and Engineering Mechanics
PhD, University of Illinois at Urbana-Champaign, 1960
Michael E Crawford, Professor Emeritus
Mechanical Engineering
PhD, Stanford University, 1976
Richard H Crawford, Professor
Mechanical Engineering
PhD, Purdue University Main Campus, 1989
Michael Arthur Cullinan, Assistant Professor
Mechanical Engineering
PhD, Massachusetts Institute of Technology, 2011
Adriana Costa Da Silveira, Adjunct Assistant Professor
Biomedical Engineering
PhD, University of Florida, 1998
Hugh C Daigle, Assistant Professor
Petroleum and Geosystems Engineering
PhD, Rice University, 2011
Clinton N Dawson, Professor
Edward S. Hyman Endowed Chair in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, Rice University, 1988
Ghislaine De Regge, Senior Lecturer
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1986
Gustavo A De Veciana, Professor
The Joe King Professorship
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1993
Neil E Deeds, Lecturer
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1999

Mark Deinert, Assistant Professor
Mechanical Engineering
PhD, Cornell University, 2003
Mojdeh Delshad, Research Professor (Affiliated)
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1986
Leszek F Demkowicz, Professor
W. A. "Tex" Moncrief, Jr. Chair in Computational Engineering and Sciences II
Aerospace Engineering and Engineering Mechanics
PhD, Cracow Univ of Technology, 1982
Brandi L DeMont, Lecturer
Biomedical Engineering
PhD, University of Texas at Austin, 2010
Eric Pierre Derouffignac, Adjunct Professor
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1979
Ashish Deshpande, Assistant Professor
Mechanical Engineering
PhD, University of Michigan-Ann Arbor, 2007
Luigi Dibiase, Adjunct Associate Professor
Biomedical Engineering
MD, University of Bari, 2000
David DiCarlo, Associate Professor
Petroleum and Geosystems Engineering
PhD, Cornell University, 1994
Kenneth R Diller, Professor
Robert M. and Prudie Leibrock Endowed Professorship in Engineering
Biomedical Engineering
ScD, Massachusetts Institute of Technology, 1972
Georgios-Alex Dimakis, Assistant Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 2008
Ned Dimitrov, Assistant Professor
Mechanical Engineering
PhD, University of Texas at Austin, 2008
Brian Dinsmoor, Lecturer
Chemical Engineering
MS, University of Texas at Austin, 1979
Dragan Djurdjanovic, Associate Professor
Mechanical Engineering
PhD, University of Michigan-Ann Arbor, 2002
Ananth Dodabalapur, Professor
Ashley H. Priddy Centennial Professorship in Engineering
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1990
Mircea D Driga, Professor
Electrical and Computer Engineering
PhD, University of Kentucky, 1990
Andrew K Dunn, Associate Professor
Biomedical Engineering
PhD, University of Texas at Austin, 1997
Cyril J Durrenberger, Senior Lecturer

Chemical Engineering
MS, University of Texas at Austin, 1977
Jennifer C Duthie, Lecturer
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2008
Thomas F Edgar, Professor
George T. and Gladys H. Abell Endowed Chair of Engineering
Chemical Engineering
PhD, Princeton University, 1971
Thomas A Edison, Lecturer
Chemical Engineering
PhD, University of Maryland College Park, 1998
John G Ekerdt, Professor
Dick Rothwell Endowed Chair in Chemical Engineering
Chemical Engineering
PhD, University of California-Berkeley, 1979
Chadi Said El Mohtar, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, Purdue University Main Campus, 2008
Robert B Eldridge, Distinguished Senior Lecturer
Chemical Engineering
PhD, University of Texas at Austin, 1986
Zwy Eliezer, Professor Emeritus
Mechanical Engineering
D SC, Israel Inst Of Tech, 1972
Christopher J Ellison, Assistant Professor
Chemical Engineering
PhD, Northwestern University, 2005
Janet L Ellzey, Professor
Mechanical Engineering
PhD, University of California-Berkeley, 1985
Stanislav Emelianov, Professor
Biomedical Engineering
PhD, University of Moscow, 1992
Michael D Engelhardt, Professor
DeWitt C. Greer Centennial Professorship in Transportation Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1989
Mattan Erez, Associate Professor
Electrical and Computer Engineering
PhD, Stanford University, 2007
David N Espinoza, Assistant Professor
Petroleum and Geosystems Engineering
PhD, Georgia Institute of Technology, 2011
Brian L Evans, Professor
Engineering Foundation Professorship
Electrical and Computer Engineering
PhD, Georgia Institute of Technology, 1993
Ofodike A Ezekoye, Professor
Donald J. Douglass Centennial Professorship in Engineering
Mechanical Engineering
PhD, University of California-Berkeley, 1991
William F Fagelson, Lecturer

Electrical and Computer Engineering
PhD, University of Texas at Austin, 2004
Danial Faghihi-Shahrestani, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, Louisiana State University and Agricultural and Mechanical College, 2012

Eric P Fahrenthold, Professor
Mechanical Engineering
PhD, Rice University, 1984
Donglei Fan, Assistant Professor
Mechanical Engineering
PhD, Johns Hopkins University, 2007
Marc D Feldman, Adjunct Professor
Biomedical Engineering
MD, University of Pennsylvania, 1981
Gregory L Fenves, Professor
Dean's Chair for Excellence in Engineering, Cockrell Family Dean's Chair
in Engineering Excellence, Jack and Beverly Randall Dean's Chair for
Excellence in Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1984
Benito Fernandez, Associate Professor
Mechanical Engineering
PhD, Massachusetts Institute of Technology, 1988
Paulo J Ferreira, Associate Professor
Mechanical Engineering
PhD, University of Illinois at Urbana-Champaign, 1996
Raissa Patricia Ferron, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, Northwestern University, 2008
Robert H Flake, Professor
Electrical and Computer Engineering
DSc, Washington University in St Louis, 1962
Mark M Flynn, Lecturer
Electrical and Computer Engineering
PhD, University of Texas at Austin, 2003
Kevin J Folliard, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1995
Davis L Ford, Adjunct Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1967
David W Fowler, Professor
Joe J. King Chair of Engineering No. 2, T. U. Taylor Professorship in Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Colorado at Boulder, 1965
Wallace T Fowler, Professor
Paul D. and Betty Robertson Meek Centennial Professorship in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1965
Douglas J Fox Jr, Adjunct Assistant Professor
Biomedical Engineering

MD, Washington University in St Louis, 1999
Karl H Frank, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, Lehigh University, 1972
Benny D Freeman, Professor
Richard B. Curran Centennial Chair in Engineering
Chemical Engineering
PhD, University of California-Berkeley, 1988
Keith A Friedman, Lecturer
Chemical Engineering
PhD, University of Texas at Austin, 2003
Richard W Furlong, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1963
Donald S Fussell, Professor
Trammell Crow Regents Professorship in Computer Science
Electrical and Computer Engineering
PhD, University of Texas at Dallas, 1980
Venkat Ganesan, Professor
Chemical Engineering
PhD, Massachusetts Institute of Technology, 1999
Vijay K Garg, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#5
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1988
Peter R Gascoyne, Adjunct Professor
Biomedical Engineering
PhD, Bangor University, 1979
George Georgiou, Professor
Cockrell Family Regents Chair in Engineering \#9
Biomedical Engineering
Chemical Engineering
PhD, Cornell University, 1987
Andreas M Gerstlauer, Assistant Professor
Electrical and Computer Engineering
PhD, University of California-Irvine, 2004
Wassim M Ghannoum, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 2007
Ranjit Gharpurey, Associate Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1995
Omar Ghattas, Professor
John A. and Katherine G. Jackson Chair in Computational Geosciences
Biomedical Engineering
Mechanical Engineering
PhD, Duke University, 1988
Joydeep Ghosh, Professor
Schlumberger Centennial Chair in Electrical Engineering
Electrical and Computer Engineering
PhD, University of Southern California, 1988
Robert B Gilbert, Professor

Brunswick-Abernathy Regents Professorship in Soil Dynamics and Geotechnical Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1993
Earnest F Gloyna, Professor Emeritus
Civil, Architectural, and Environmental Engineering
DR ENGR, , 1953
David B Goldstein, Professor
Hayden Head Centennial Professorship
Aerospace Engineering and Engineering Mechanics
PhD, California Institute of Technology, 1990
Mario J Gonzalez, Professor Emeritus
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1971
John B Goodenough, Professor
Virginia H. Cockrell Centennial Chair in Engineering
Electrical and Computer Engineering
Mechanical Engineering
PhD, University of Chicago, 1952
Mack Grady, Professor Emeritus
Josey Centennial Professorship in Energy Resources
Electrical and Computer Engineering
PhD, Purdue University Main Campus, 1983
Kenneth E Gray, Professor
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1963
Matthew G Green, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2005
Michael R Haberman, Research Scientist
Mechanical Engineering
PhD, Georgia Institute of Technology, 2007
John S Haglund, Lecturer
Mechanical Engineering
PhD, Texas A \& M University, 2003
Joseph M Hahn, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, University of Notre Dame, 1997
Matthew J Hall, Professor
Mechanical Engineering
PhD, Princeton University, 1987
Neal A Hall, Assistant Professor
Electrical and Computer Engineering
PhD, Georgia Institute of Technology, 2004
Gary A Hallock, Professor
Electrical and Computer Engineering
PhD, Rensselaer Polytechnic Institute, 1982
Mark F Hamilton, Professor
Harry L. Kent, Jr. Professorship in Mechanical Engineering
Mechanical Engineering
PhD, Pennsylvania State University Main Campus, 1983
Raymond J Harshbarger III, Adjunct Professor
Biomedical Engineering

PhD, University of Rochester, 1994
Hillary Hart, Distinguished Senior Lecturer
Civil, Architectural, and Environmental Engineering
PhD, Bryn Mawr College, 1981
John J Hasenbein, Associate Professor
Mechanical Engineering
PhD, Georgia Institute of Technology, 1999
Arjang Hassibi, Assistant Professor
Electrical and Computer Engineering
PhD, Stanford University, 2005
Robert W Heath Jr, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#6
Electrical and Computer Engineering
PhD, Stanford University, 2002
Robert E Hebner, Research Professor
Mechanical Engineering
PhD, University of Missouri - Rolla, 1971
Adam Heller, Research Professor
Chemical Engineering
PhD, The Hebrew University of Jerusalem, 1961
Alexander J Heltzel, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2006
Todd A Helwig, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1994
Deborah S Hempel-Medina, Lecturer
Petroleum and Geosystems Engineering
MBA, Southern Methodist University, 2001
Carlos H Hidrovo Chavez, Adjunct Assistant Professor
Mechanical Engineering
Mechanical Engineering
PhD, Massachusetts Institute of Technology, 2001
Lea Hildebrandt Ruiz, Assistant Professor
Chemical Engineering
PhD, Carnegie Mellon University, 2011
Paul S Ho, Professor
Cockrell Family Regents Chair in Engineering \#5
Mechanical Engineering
PhD, Rensselaer Polytechnic Institute, 1965
Ben R Hodges, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1997
Edward R Holley, Professor Emeritus
Civil, Architectural, and Environmental Engineering
ScD, Massachusetts Institute of Technology, 1965
Rodney Horton, Adjunct Professor
Biomedical Engineering
MD, University of Texas Southwestern Medical Center at Dallas, 1988
John R Howell, Professor Emeritus
Mechanical Engineering
PhD, Case Western Reserve University, 1962

Trevor Daniel Hrynyk, Assistant Professor Civil, Architectural, and Environmental Engineering
PhD, University of Toronto, 2013
Rui Huang, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, Princeton University, 2001
William R Hudson, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1965
Thomas J Hughes, Professor
CAM Chair III
Aerospace Engineering and Engineering Mechanics
PhD, University of California-Berkeley, 1974
Chun Huh, Research Professor (Affiliated)
Petroleum and Geosystems Engineering
PhD, University of Minnesota-Duluth, 1965
David G Hull, Professor
M. J. Thompson Regents Professorship in Aerospace Engineering and Engineering Mechanics
Aerospace Engineering and Engineering Mechanics
PhD, Rice University, 1967
Todd E Humphreys, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, Cornell University, 2008
Gyeong S Hwang, Professor
Chemical Engineering
PhD, California Institute of Technology, 1999
Jang-Hi Im, Research Professor (Affiliated)
Mechanical Engineering
ScD, Massachusetts Institute of Technology, 1976
Marcia Isakson, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2002
Ilyas M Iyoob, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2007
Vijay Janapa Reddi, Assistant Professor
Electrical and Computer Engineering
PhD, Harvard University, 2010
Ning Jiang, Assistant Professor
Biomedical Engineering
PhD, Georgia Institute of Technology, 2005
James O Jirsa, Professor
Janet S. Cockrell Centennial Chair in Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1963
Lizy K John, Professor
B. N. Gafford Professorship in Electrical Engineering

Electrical and Computer Engineering
PhD, Pennsylvania State University Main Campus, 1993
Keith P Johnston, Professor
M. C. (Bud) and Mary Beth Baird Endowed Chair

Chemical Engineering

PhD, University of Illinois at Urbana-Champaign, 1981
Jerold W Jones, Professor Emeritus
Mechanical Engineering
PhD, University of Utah, 1970
Miguel Jose-Yacaman, Adjunct Professor
Chemical Engineering
PhD, Nat University of Mexico, 1973
Maria G Juenger, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, Northwestern University, 1999
Christine L Julien, Associate Professor
Electrical and Computer Engineering
DSc, Washington University in St Louis, 2004
Davor Juricic, Professor Emeritus
Mechanical Engineering
D SC, Foreign Institution, 1964
Loukas F Kallivokas, Professor
Civil, Architectural, and Environmental Engineering
PhD, Carnegie Mellon University, 1995
Lynn E Katz, Professor
Bettie Margaret Smith Professorship in Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Michigan-Ann Arbor, 1993
Fayez S Kazi, Lecturer
Civil, Architectural, and Environmental Engineering
MSE, University of Texas at Austin, 2001
Patrick K Kelley, Adjunct Associate Professor
Biomedical Engineering
MD, Baylor College of Medicine, 1998
Thomas W Kennedy, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1965
Alireza Khademhosseini, Adjunct Associate Professor Biomedical Engineering
PhD, Massachusetts Institute of Technology, 2005
Aida Khajavirad, Assistant Professor
Mechanical Engineering
PhD, Carnegie Mellon University, 2011
Sarfraz Khurshid, Associate Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 2004
Thomas M Kiehne, Senior Lecturer
Aerospace Engineering and Engineering Mechanics
Mechanical Engineering
PhD, University of Texas at Austin, 1985
Miryung Kim, Assistant Professor
Electrical and Computer Engineering
PhD, University of Washington - Seattle, 2008
Spyridon A Kinnas, Professor
Hussein M. Alharthy Centennial Professorship in Civil Engineering
Civil, Architectural, and Environmental Engineering
PhD, Massachusetts Institute of Technology, 1985
Kerry A Kinney, Professor
L. P. Gilvin Centennial Professorship in Civil Engineering

Civil, Architectural, and Environmental Engineering
PhD, University of California-Davis, 1996
Mary Jo Kirisits, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 2000
Dale E Klein, Professor
Reese Endowed Professorship in Engineering
Mechanical Engineering
PhD, University of Missouri - Columbia, 1977
Richard E Klingner, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1977
Kara Kockelman, Professor
E. P. Schoch Professorship in Engineering

Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1998
Billy V Koen, Professor Emeritus
Mechanical Engineering
ScD, Massachusetts Institute of Technology, 1968
Joseph H Koo, Lecturer
Mechanical Engineering
ScD, George Washington University, 1987
Brian A Korgel, Professor
T. Brockett Hudson Professorship in Chemical Engineering Chemical Engineering
PhD, University of California-Los Angeles, 1997
Lothar E Koschmieder, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Bonn, 1963
Desiderio Kovar, Professor
Mechanical Engineering
PhD, Carnegie Mellon University, 1995
Herbert C Krasner, Senior Lecturer
Electrical and Computer Engineering
PhD, University of Missouri - Rolla, 1979
Thomas J Krueger, Senior Lecturer
Mechanical Engineering
PhD, Texas A \& M University, 1975
Kirby A Kuntz, Lecturer
Civil, Architectural, and Environmental Engineering
PhD, Pennsylvania State University Main Campus, 1994
Erhan Kutanoglu, Associate Professor
Mechanical Engineering
PhD, Lehigh University, 1999
Alexis Kwasinski, Associate Professor
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 2007
Stelios Kyriakides, Professor
Cockrell Family Chair in Engineering No. 10
Aerospace Engineering and Engineering Mechanics
PhD, California Institute of Technology, 1980
Larry W Lake, Professor

Shahid and Sharon Ullah Endowed Chair in Petroleum and Geosystems Engineering
Petroleum and Geosystems Engineering
PhD, Rice University, 1973
Simon S Lam, Professor
Regents Chair in Computer Sciences \#1
Electrical and Computer Engineering
PhD, University of California-Los Angeles, 1974
Jamie P Lamb Jr, Professor Emeritus
Mechanical Engineering
PhD, University of Illinois at Urbana-Champaign, 1961
Chad M Landis, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of California-Santa Barbara, 1999
Sheldon Landsberger, Professor
Texas Atomic Energy Research Foundation Professorship in Engineering
Mechanical Engineering
PhD, University of Toronto, 1982
Hon Chung Lau, Adjunct Professor
Petroleum and Geosystems Engineering
PhD, Princeton University, 1982
Desmond F Lawler, Professor
Nasser I. Al-Rashid Chair in Civil Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of North Carolina at Chapel Hill, 1980
Clyde E Lee, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1962
Jack C Lee, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#4
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1988
Fernanda L Leite, Assistant Professor
Civil, Architectural, and Environmental Engineering
DPhil, Carnegie Mellon University, 2009
William G Lesso, Professor Emeritus
Mechanical Engineering
PhD, Case Western Reserve University, 1967
Marsha Jane Lewis, Lecturer
Chemical Engineering
Chemical Engineering
PhD, University of Texas at Austin, 2010
Wei Li, Associate Professor
Mechanical Engineering
PhD, University of Michigan-Ann Arbor, 1999
Kenneth M Liechti, Professor
Zarrow Centennial Professorship in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, California Institute of Technology, 1980
Glenn Lightsey, Professor
Aerospace Engineering and Engineering Mechanics
PhD, Stanford University, 1997
Howard M Liljestrand, Professor

Gerard A. Rohlich Regents Professorship in Civil Engineering
Civil, Architectural, and Environmental Engineering
PhD, California Institute of Technology, 1980
Frederick F Ling, Professor Emeritus
Mechanical Engineering
DSc, Carnegie Mellon University, 1954
Hao Ling, Professor
L. B. (Preach) Meaders Professorship in Engineering

Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 1986
Gerald J Lipovski, Professor Emeritus
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 1969
Douglas R Lloyd, Professor
Henry Beckman Professorship in Chemical Engineering
Chemical Engineering
PhD, University of Waterloo, 1977
Raymond C Loehr, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Wisconsin-Madison, 1961
Raul G Longoria, Professor
Mechanical Engineering
PhD, University of Texas at Austin, 1989
Nanshu Lu, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, Harvard University, 2009
Randy B Machemehl, Professor
Nasser I. Al-Rashid Centennial Professorship in Transportation Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1975
Chris A Mack, Adjunct Assistant Professor
Chemical Engineering
PhD, University of Texas at Austin, 1998
David R Maidment, Professor
Hussein M. Alharthy Centennial Chair in Civil Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1976
Krishan A Malik, Adjunct Professor
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1987
Joseph F Malina Jr, Professor
C. W. Cook Professorship in Environmental Engineering

Civil, Architectural, and Environmental Engineering
PhD, University of Wisconsin-Madison, 1961
Arumugam Manthiram, Professor
Joe C. Walter, Jr. Chair in Engineering
Mechanical Engineering
PhD, Indian Institute of Technology, 1980
Lance Manuel, Professor
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1993
Harris L Marcus, Professor Emeritus
Mechanical Engineering

PhD, Northwestern University, 1966
Stephen R Marek, Lecturer
Biomedical Engineering
PhD, University of Texas at Austin, 2009
Hans M Mark, Professor
John J. McKetta Centennial Energy Chair in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, Massachusetts Institute of Technology, 1954
Mia K Markey, Associate Professor
Biomedical Engineering
PhD, Duke University, 2001
Kurt M Marshek, Professor Emeritus
Mechanical Engineering
, Ohio State U Main Campus,
Lealon L Martin, Lecturer
Chemical Engineering
PhD, University of California-Los Angeles, 2002
Glenn Y Masada, Professor
Mechanical Engineering
ScD, Massachusetts Institute of Technology, 1980
Lee H Matlock Jr, Professor Emeritus
Civil, Architectural, and Environmental Engineering
MS, University of Texas at Austin, 1950
Ronald D Matthews, Professor
Mechanical Engineering
PhD, University of California-Berkeley, 1977
Jennifer A Maynard, Associate Professor
Chemical Engineering
PhD, University of Texas at Austin, 2002
Robert B McCann, Adjunct Professor
Civil, Architectural, and Environmental Engineering
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1975
Mark W McClure, Assistant Professor
Petroleum and Geosystems Engineering
PhD, Stanford University, 2013
Talia M McCray, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Michigan-Ann Arbor, 2001
Elena C McDonald-Buller, Research Associate Professor (Affiliated)
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1996
John J McKetta Jr, Professor Emeritus
Chemical Engineering
PhD, University of Michigan-Ann Arbor, 1946
Daene C McKinney, Professor
W.A. (Bill) Cunningham Professorship

Civil, Architectural, and Environmental Engineering
PhD, Cornell University, 1990
John S McLeod, Lecturer
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2000
Mark E Mear, Professor

Aerospace Engineering and Engineering Mechanics
PhD, Harvard University, 1986
Fatima A Merchant, Adjunct Assistant Professor
Biomedical Engineering
PhD, University of Texas at Austin, 1995
Robert M Metcalfe, Professor
Electrical and Computer Engineering
PhD, Harvard University, 1973
Delia Milliron, Associate Professor
Chemical Engineering
PhD, University of California-Berkeley, 2004
Thomas E Milner, Professor
Marion E. Forsman Centennial Professorship in Engineering Biomedical Engineering
Electrical and Computer Engineering
PhD, University of Arizona, 1991
Kevan Moffett, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 2010
Kishore Mohanty, Professor
H. B. (Burt) Harkins, Jr. Professorship of Petroleum Engineering

Petroleum and Geosystems Engineering
PhD, University of Minnesota-Duluth, 1981
Luis Vicente Montiel Cendejas, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2012
Tessie J Moon, Professor
Mechanical Engineering
PhD, University of Illinois at Urbana-Champaign, 1989
J S Moore II, Professor
Admiral B. R. Inman Centennial Chair in Computing Theory
Electrical and Computer Engineering
PhD, University of Edinburgh, 1973
Christy Moore, Senior Lecturer
Mechanical Engineering
MA, University of Texas at Austin, 1990
Mohammad Morovati Sharifabadi, Lecturer
Petroleum and Geosystems Engineering
MS, University of Texas at Austin, 2007
David P Morton, Professor
Engineering Foundation Endowed Professorship \#1
Mechanical Engineering
PhD, Stanford University, 1993
Robert D Moser, Professor
W. A. "Tex" Moncrief, Jr. Chair in Computational Engineering and

Sciences
Mechanical Engineering
PhD, Stanford University, 1984
Charles B Mullins, Professor
Z. D. Bonner Professorship of Chemical Engineering, Matthew Van

Winkle Regents Professorship in Chemical Engineering
Chemical Engineering
PhD, California Institute of Technology, 1990
Stephen P Mulva, Lecturer

Civil, Architectural, and Environmental Engineering
PhD, Georgia Institute of Technology, 2004
Jayathi Murthy, Professor
Ernest Cockrell, Jr., Memorial Chair in Engineering, Cockrell Family Chair
for Departmental Leadership \#4
Mechanical Engineering
PhD, University of Minnesota-Twin Cities, 1984
Peter B Nagel, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1999
Mohsen Nakhaeinejad, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 2010
Andrea Natale, Adjunct Professor
Biomedical Engineering
MD, University of Florence, 1985
Michael Victor Nehme, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2009
Dean P Neikirk, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#7
Electrical and Computer Engineering
PhD, California Institute of Technology, 1984
Steven D Nelson, Senior Lecturer
Civil, Architectural, and Environmental Engineering
JD, Southern Methodist University, 1976
Richard R Neptune, Professor
John T. MacGuire Professorship in Mechanical Engineering
Aerospace Engineering and Engineering Mechanics
Mechanical Engineering
PhD, University of California-Davis, 1996
Quoc P Nguyen, Associate Professor
Petroleum and Geosystems Engineering
PhD, Delft University of Technology, 2004
Steven P Nichols, Professor
Annis and Jack Bowen Endowed Professorship in Engineering
Mechanical Engineering
PhD, University of Texas at Austin, 1975
Evdokia Nikolova, Assistant Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 2009
Atila Novoselac, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, Pennsylvania State University Main Campus, 2004
William J O'Brien, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1998
James T O'Connor, Professor
C. T. Wells Professorship in Project Management

Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1983
Cesar A Ocampo, Associate Professor
Aerospace Engineering and Engineering Mechanics

PhD, University of Colorado at Boulder, 1996
J T Oden, Professor
Cockrell Family Regents Chair in Engineering \#2, Peter O'Donnell, Jr. Centennial Chair in Computing Systems
Aerospace Engineering and Engineering Mechanics
PhD, Oklahoma State University Main Campus, 1962
Todd A Oliver, Lecturer
Mechanical Engineering
PhD, Massachusetts Institute of Technology, 2008
Hilary C Olson, Lecturer
Petroleum and Geosystems Engineering
PhD, Stanford University, 1988
Jon E Olson, Associate Professor
Petroleum and Geosystems Engineering
PhD, Stanford University, 1991
Roy E Olson, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1960
Raymond Lee Orbach, Professor
Cockrell Family Chair in Engineering No. 12
Mechanical Engineering
PhD, University of California-Berkeley, 1960
Michael E Orshansky, Associate Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 2001
Zhigang Pan, Professor
Electrical and Computer Engineering
PhD, University of California-Los Angeles, 2000
Ronald L Panton, Professor Emeritus
Mechanical Engineering
PhD, University of California-Berkeley, 1966
Michael P Pappas, Lecturer
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2004
Paola Passalacqua, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Minnesota-Twin Cities, 2009
Yale N Patt, Professor
Ernest Cockrell, Jr. Centennial Chair in Engineering
Electrical and Computer Engineering
PhD, Stanford University, 1966
Tadeusz W Patzek, Professor
Cockrell Family Chair in Engineering No. 11, Lois K. and Richard D.
Folger Leadership Chair in Petroleum and Geosystems Engineering
Petroleum and Geosystems Engineering
PhD, Silesian University of Technology, 1979
Donald R Paul, Professor
Ernest Cockrell, Sr. Chair in Engineering
Chemical Engineering
PhD, University of Wisconsin-Madison, 1965
John A Pearce, Professor
Temple Foundation Endowed Professorship No. 3
Electrical and Computer Engineering

PhD, Purdue University Main Campus, 1980
Lisa Brannon-Peppas, Adjunct Professor
Biomedical Engineering
PhD, Purdue University Main Campus, 1988
Nicholas A Peppas, Professor
Fletcher Stuckey Pratt Chair in Engineering, Cockrell Family Chair for
Departmental Leadership \#1
Biomedical Engineering
Chemical Engineering
ScD, Massachusetts Institute of Technology, 1973
Dewayne E Perry, Professor
Motorola Regents Chair in Electrical and Computer Engineering
Electrical and Computer Engineering
PhD, Stevens Institute of Technology, 1978
Daniel L Peterson, Adjunct Professor
Biomedical Engineering
MD, University of Colorado at Boulder, 1988
Mostafa Pirnia, Senior Lecturer
Mechanical Engineering
MS, University of Tehran, 1965
Michael E Poehl, Lecturer
Chemical Engineering
MBA, University of Houston, 1988
Steven R Poole, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1991
Gary A Pope, Professor
Texaco Centennial Chair in Petroleum Engineering
Petroleum and Geosystems Engineering
PhD, Rice University, 1972
Boaz Porat, Adjunct Professor
Electrical and Computer Engineering
PhD, Stanford University, 1982
Edward J Powers Jr, Professor Emeritus
Electrical and Computer Engineering
PhD, Stanford University, 1965
Masa Prodanovic, Assistant Professor
Petroleum and Geosystems Engineering
PhD, New York University, 2005
Jorge A Prozzi, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 2001
Llewellyn K Rabenberg, Associate Professor
Mechanical Engineering
PhD, University of California-Berkeley, 1983
Varun Rai, Assistant Professor
Mechanical Engineering
PhD, Stanford University, 2008
Laxminarayan L Raja, Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1996
Kenneth M Ralls, Professor
Mechanical Engineering

ScD, Massachusetts Institute of Technology, 1964
Venkatramanan Raman, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, Iowa State University, 2003
D'Arcy C Randall, Senior Lecturer
Chemical Engineering
PhD, University of Texas at Austin, 2001
Ellen M Rathje, Professor
Warren S. Bellows Centennial Professorship in Civil Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1997
Krishnaswa Ravi-Chandar, Professor
Temple Foundation Endowed Professorship No. 1
Aerospace Engineering and Engineering Mechanics
PhD, California Institute of Technology, 1982
Leonard F Register, Professor
Electrical and Computer Engineering
PhD, North Carolina State University, 1990
Danny D Reible, Adjunct Professor
Civil, Architectural, and Environmental Engineering
PhD, California Institute of Technology, 1982
Pengyu Ren, Associate Professor
Biomedical Engineering
PhD, University of Cincinnati Main Campus, 1999
John A Rickard, Senior Lecturer
Civil, Architectural, and Environmental Engineering
MS, University of Texas at Austin, 1982
Eugene A Ripperger, Professor Emeritus
Aerospace Engineering and Engineering Mechanics
PhD, Stanford University, 1952
Gary T Rochelle, Professor
Carol and Henry Groppe Professorship in Chemical Engineering
Chemical Engineering
PhD, University of California-Berkeley, 1977
Gregory J Rodin, Professor
Aerospace Engineering and Engineering Mechanics
PhD, Massachusetts Institute of Technology, 1986
Peter J Rossky, Professor
Marvin K. Collie-Welch Regents Chair in Chemistry
Chemical Engineering
PhD, Harvard University, 1978
Charles H Roth Jr, Professor Emeritus
Electrical and Computer Engineering
PhD, Stanford University, 1962
Krishnendu Roy, Adjunct Professor
Biomedical Engineering
PhD, Johns Hopkins University, 2000
Juan P Ruiz, Lecturer
Chemical Engineering
PhD, Carnegie Mellon University, 2011
Rodney S Ruoff, Adjunct Professor
Cockrell Family Regents Chair in Engineering \#7
Mechanical Engineering

Mechanical Engineering
PhD, University of Illinois at Urbana-Champaign, 1988
Ryan P Russell, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 2004
Christopher G Rylander, Associate Professor
Mechanical Engineering
PhD, University of Texas at Austin, 2005
Henry G Rylander III, Professor
Harry H. Power Professorship in Engineering
Biomedical Engineering
Electrical and Computer Engineering
MD, University of Texas Health Science Center at San Antonio, 1974
Marissa Nichole Rylander, Associate Professor
Mechanical Engineering
PhD, University of Texas at Austin, 2005
Michael S Sacks, Professor
W.A. "Tex" Moncrief, Jr. Endowment in Simulation-Based Engineering and Sciences - Endowed Chair No. 1
Biomedical Engineering
PhD, University of Texas at Arlington, 1992
Joseph C Salamone, Adjunct Professor
Biomedical Engineering
PhD, Polytechnic University, 1967
Navid Saleh, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, Carnegie Mellon University, 2007
Isaac C Sanchez, Professor
William J. (Bill) Murray, Jr. Endowed Chair of Engineering
Chemical Engineering
PhD, University of Delaware, 1969
Juan M Sanchez, Professor
Temple Foundation Endowed Professorship No. 4
Mechanical Engineering
PhD, University of California-Los Angeles, 1977
Irwin W Sandberg, Professor Emeritus
Electrical and Computer Engineering
DEE, Polytechnic University, 1958
Sujay Sanghavi, Assistant Professor
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 2006
Surya Santoso, Associate Professor
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1996
Richard A Schapery, Professor Emeritus
Aerospace Engineering and Engineering Mechanics
PhD, California Institute of Technology, 1962
Robert S Schechter, Professor Emeritus
Chemical Engineering
Petroleum and Geosystems Engineering
PhD, University of Minnesota-Twin Cities, 1956
Christine E Schmidt, Adjunct Professor
Biomedical Engineering

PhD, University of Illinois at Urbana-Champaign, 1995
Erich A Schneider, Associate Professor
Mechanical Engineering
PhD, Cornell University, 2002
Bob E Schutz, Professor
Joe J. King Chair of Engineering, The FSX Professorship in Space
Applications and Exploration
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1969
Carroll T Sciance, Senior Lecturer
Chemical Engineering
PhD, University of Oklahoma Norman Campus, 1966
Carolyn C Seepersad, Associate Professor
Mechanical Engineering
PhD, Georgia Institute of Technology, 2004
Luis Sentis, Assistant Professor
Mechanical Engineering
PhD, Stanford University, 2007
Kamy Sepehrnoori, Professor
W. A. "Monty" Moncrief Centennial Chair in Petroleum Engineering

Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1977
Sanjay Shakkottai, Professor
Ashley H. Priddy Centennial Professorship in Engineering
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 2002
Mukul M Sharma, Professor
W. A. "Tex" Moncrief, Jr. Centennial Chair in Petroleum Engineering

Petroleum and Geosystems Engineering
PhD, University of Southern California, 1985
Li Shi, Professor
Mechanical Engineering
PhD, University of California-Berkeley, 2000
Jayant Sirohi, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Maryland College Park, 2002
Richard W Smalling, Adjoint Professor
Biomedical Engineering
PhD, University of Texas Health Science Center at Houston, 1977
Michael H Smolensky, Adjunct Professor
Biomedical Engineering
PhD, University of Illinois at Urbana-Champaign, 1971
Konstantin V Sokolov, Adjunct Associate Professor
Biomedical Engineering
PhD, Moscow State University, 1992
Gerald E Speitel Jr, Professor
John J. McKetta Energy Professorship in Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of North Carolina at Chapel Hill, 1985
S V Sreenivasan, Professor
Mechanical Engineering
PhD, Ohio State U Main Campus, 1994
Sanjay Srinivasan, Associate Professor

Petroleum and Geosystems Engineering
PhD, Stanford University, 2000
Jeanne Casstevens Stachowiak, Assistant Professor Biomedical Engineering
PhD, University of California-Berkeley, 2008
Sarah K Steinbock-Pratt, Lecturer
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2013
Karl D Stephan, Adjunct Associate Professor
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1983
Morris Stern, Professor Emeritus
Aerospace Engineering and Engineering Mechanics
PhD, University of Illinois at Urbana-Champaign, 1962
James E Stice, Professor Emeritus
Chemical Engineering
PhD, Illinois Institute of Technology, 1963
Roy H Stogner, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 2008
Kenneth H Stokoe II, Professor
Jennie C. and Milton T. Graves Chair in Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Michigan-Ann Arbor, 1972
Ben G Streetman, Professor Emeritus
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1966
Laura J Suggs, Associate Professor
Biomedical Engineering
PhD, Rice University, 1998
Muhammad A Suleman, Lecturer
Electrical and Computer Engineering
PhD, University of Texas at Austin, 2010
James Samuel Sulzer, Assistant Professor
Mechanical Engineering
PhD, Northwestern University, 2009
Nan Sun, Assistant Professor
Electrical and Computer Engineering
PhD, Harvard University, 2011
Eric J Swanson, Adjunct Professor
Electrical and Computer Engineering
MSEE, California Institute of Technology, 1980
Earl E Swartzlander Jr, Professor
Electrical and Computer Engineering
PhD, University of Southern California, 1972
John S Swinnea, Lecturer
Chemical Engineering
PhD, University of Texas at Austin, 1981
Eric M Taleff, Professor
Mechanical Engineering
PhD, Stanford University, 1995
Byron D Tapley, Professor
Clare Cockrell Williams Centennial Chair in Engineering

Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1960
John L Tassoulas, Professor
Phil M. Ferguson Professorship in Civil Engineering
Civil, Architectural, and Environmental Engineering
PhD, Massachusetts Institute of Technology, 1981
Nina K Telang, Lecturer
Electrical and Computer Engineering
PhD, University of Notre Dame, 1995
David W Terreson, Adjunct Associate Professor
Biomedical Engineering
MD, University of Mississippi Medical Center, 1986
Delbert Tesar, Professor
Carol Cockrell Curran Chair in Engineering
Mechanical Engineering
PhD, Georgia Institute of Technology, 1964
Ahmed Hossam Tewfik, Professor
Cockrell Family Regents Chair in Engineering \#1
Electrical and Computer Engineering
ScD, Massachusetts Institute of Technology, 1987
Stephen R Thomas, Research Associate Professor (Affiliated)
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1996
Charles E Tinney, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, Syracuse University Main Campus, 2005
Mohit Tiwari, Assistant Professor
Electrical and Computer Engineering
PhD, University of California-Santa Barbara, 2011
Carlos Torres-Verdin, Professor
Zarrow Centennial Professorship in Petroleum Engineering, Frank W.
Jessen Professorship in Petroleum Engineering
Petroleum and Geosystems Engineering
PhD, University of California-Berkeley, 1991
Nur A Touba, Professor
Electrical and Computer Engineering
PhD, Stanford University, 1996
Thomas M Truskett, Professor
Bill L. Stanley Endowed Leadership Chair in Chemical Engineering, Les and Sherri Stuewer Endowed Professorship in Chemical Engineering Chemical Engineering
PhD, Princeton University, 2001
Richard L Tucker, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1963
James W Tunnell, Associate Professor
Biomedical Engineering
PhD, Rice University, 2002
Emanuel Tutuc, Associate Professor
Electrical and Computer Engineering
PhD, Princeton University, 2004
Jonathan W Valvano, Professor
Electrical and Computer Engineering

PhD, Massachusetts Institute of Technology, 1981
Eric Van Oort, Professor
B. J. Lancaster Professorship in Petroleum Engineering

Petroleum and Geosystems Engineering
PhD, University of Amsterdam, 1990
Philip L Varghese, Professor
Stanley P. Finch Centennial Professorship in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, Stanford University, 1983
Haris Vikalo, Associate Professor
Electrical and Computer Engineering
PhD, Stanford University, 2003
Sriram Vishwanath, Associate Professor
Electrical and Computer Engineering
PhD, Stanford University, 2004
T R Viswanathan, Research Professor
Electrical and Computer Engineering
PhD, University of Saskatchewan, 1964
Gary C Vliet, Professor Emeritus
Mechanical Engineering
PhD, Stanford University, 1962
Randi G Voss, Lecturer
Biomedical Engineering
PhD, University of Texas at Austin, 1995
Norman K Wagner, Associate Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of Hawaii at Manoa, 1966
C Michael Walton, Professor
Ernest H. Cockrell Centennial Chair in Engineering, Cockrell Family Chair for Departmental Leadership \#3
Civil, Architectural, and Environmental Engineering
PhD, North Carolina State University, 1971
Yaguo Wang, Assistant Professor
Mechanical Engineering
PhD, Purdue University Main Campus, 2011
Zheng Wang, Assistant Professor
Electrical and Computer Engineering
PhD, Stanford University, 2006
Michael E Webber, Associate Professor
Mechanical Engineering
PhD, Stanford University, 2001
Sunshine P Webster, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 2009
William F Weldon, Professor Emeritus
Mechanical Engineering
MS-ME, University of Texas at Austin, 1970
Charles J Werth, Professor
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1997
John C Westkaemper, Professor Emeritus
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1967

Dan L Wheat, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, Colorado State University, 1980
Harovel G Wheat, Associate Professor
Mechanical Engineering
PhD, University of Texas at Austin, 1985
Mary F Wheeler, Professor
Ernest and Virginia Cockrell Chair in Engineering
Aerospace Engineering and Engineering Mechanics
Petroleum and Geosystems Engineering
PhD, Rice University, 1971
Iona P Williams, Lecturer
Petroleum and Geosystems Engineering
MS, University of Texas at Austin, 2013
Eric B Williamson, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1996
Carlton G Willson, Professor
Rashid Engineering Regents Chair
Chemical Engineering
PhD, University of California-Berkeley, 1974
Preston S Wilson, Associate Professor
Mechanical Engineering
PhD, Boston University, 2002
Brian C Winkelmann, Lecturer
Aerospace Engineering and Engineering Mechanics
MSE, University of Texas at Austin, 1997
Eugene H Wissler, Professor Emeritus
Chemical Engineering
PhD, University of Minnesota-Twin Cities, 1955
Billy H Wood, Senior Lecturer
Mechanical Engineering
MArch, Texas A \& M University, 1977
Sharon L Wood, Professor
Cockrell Family Chair for Departmental Leadership \#3, Cockrell Family
Chair in Engineering \#14, Jack and Beverly Randall Dean's Chair for
Excellence in Engineering, Cockrell Family Dean's Chair in Engineering
Excellence
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1986
Charles M Woodruff Jr, Senior Lecturer
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1973
Herbert H Woodson, Professor Emeritus
Electrical and Computer Engineering
DSc, Massachusetts Institute of Technology, 1956
Stephen G Wright, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1969
Tracy A Wuster, Lecturer
Electrical and Computer Engineering
PhD, University of Texas at Austin, 2011
Ying Xu, Assistant Professor
Civil, Architectural, and Environmental Engineering

PhD, Virginia Polytechnic Institute and State University, 2009
Hsin-Chih Yeh, Assistant Professor
Biomedical Engineering
PhD, Johns Hopkins University, 2008
Ramesh Yerraballi, Senior Lecturer
Biomedical Engineering
Electrical and Computer Engineering
PhD, Old Dominion University, 1996
Ching-Hsie Yew, Professor Emeritus
Aerospace Engineering and Engineering Mechanics
PhD, University of California-Berkeley, 1962
Yetkin Yildirim, Research Assistant Professor (Affiliated)
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2000
Ali E Yilmaz, Associate Professor
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 2005
Edward T Yu, Professor
Judson S. Swearingen Regents Chair in Engineering
Electrical and Computer Engineering
PhD, California Institute of Technology, 1991
Guihua Yu, Assistant Professor
Mechanical Engineering
PhD, Harvard University, 2009
Joseph A Yura, Professor Emeritus
Civil, Architectural, and Environmental Engineering
PhD, Lehigh University, 1965
Xiaojing Zhang, Associate Professor
Biomedical Engineering
PhD, Stanford University, 2004
Zhanmin Zhang, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1996
Yuebing Zheng, Assistant Professor
Mechanical Engineering
PhD, Pennsylvania State University Park, 2010
Jianshi Zhou, Research Professor
Mechanical Engineering
PhD, Jilin University, 1991
Yinle Zhou, Lecturer
Electrical and Computer Engineering
PhD, University of Arkansas at Little Rock, 2012
Jinying Zhu, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 2006
Janeta Zoldan, Assistant Professor
Biomedical Engineering
PhD, Technion-Israel Institute of Technology, 2004
Jorge G Zornberg, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1994

## College of Fine Arts Faculty

| Lee E Abraham, Associate Professor EmeritusTheatre and Dance |
| :---: |
|  |  |
|  |
| MFA, California Institute of the Arts, 1977 |
| Christopher O Adejumo, Associate Professor |
| Art and Art History |
| PhD, Ohio State U Main Campus, 1997 |
| Donnie R Albert, Senior Lecturer |
| Music |
| MM, Southern Methodist University, 1975 |
| Shirley M Alexander, Professor Emeritus |
| Art and Art History |
| PhD, New York University, 1967 |
| Brian S Allen, Lecturer |
| Art and Art History |
| MFA, Bard College, |
| Gregory D Allen, Professor |
| Music |
| MM, Peabody Institute of Johns Hopkins University, 1972 |
| Byron P Almen, Associate Professor |
| Music |
| PhD, Indiana University at Bloomington, 1998 |
| Anthony Alofsin, Professor |
| Roland Gommel Roessner Centennial Professorship in Architecture Art and Art History |
|  |  |
|  |
| Megan Alrutz, Assistant Professor |
| Theatre and Dance |
| PhD, Arizona State University Main, 2004 |
| Charles O Anderson, Associate Professor |
| Theatre and Dance |
| MFA, Temple University, 2002 |
| Elliott M Antokoletz, Professor |
| Music |
| PhD, City University of New York Graduate Center, 1975 |
| Christina Bain, Associate Professor |
| Art and Art History |
| PhD, University of Georgia, 2001 |
| Rebecca A Baltzer, Professor Emeritus |
| Music |
| PhD, Boston University, 1974 |
| Jacqueline E Barnitz, Professor Emeritus |
| Art and Art History |
| PhD, City University of New York Graduate Center, 1986 |
| Jean J Barrera, Specialist |
| Music |
| HS/GED, , 1970 |
| Ellen Bartel, Lecturer |
| Theatre and Dance |
| MFA, University of Texas at Austin, 2012 |
| Andrea P Beckham, Senior Lecturer |

Theatre and Dance
BA, University of Texas at Austin, 1986
Ronald Berry Jr, Lecturer
Theatre and Dance
BA, Earlham College and Earlham School of Religion, 1995
William Bloodgood, Lecturer
Theatre and Dance
MFA, Penn State University Park, 1990
Joseph E Bolin, Lecturer
Music
DMA, University of Texas at Austin, 2013
Paul E Bolin, Professor
Art and Art History
PhD, University of Oregon, 1986
Paul A Bonin, Assistant Professor
Theatre and Dance
PhD, University of Texas at Austin, 2006
Troy D Brauntuch, Professor
Art and Art History
BFA, California Institute of the Arts, 1975
Nathaniel O Brickens, Professor
Music
DMA, University of Texas at Austin, 1989
John W Brokaw, Professor Emeritus
Theatre and Dance
PhD, Indiana University at Bloomington, 1970
Ryan D Bruner, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2012
Jason B Buchanan, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2005
James W Buhler, Associate Professor
Music
PhD, University of Pennsylvania, 1996
Thomas A Burritt, Associate Professor
Music
DMA, Northwestern University, 2000
William S Bussey, Lecturer
Theatre and Dance
BFA, University of Wisconsin-Milwaukee, 1983
Jett Butler, Lecturer
Art and Art History
BArch, Texas Tech University, 1996
Mary C Caldwell, Assistant Professor
Music
PhD, University of Chicago, 2013
Charlotte Canning, Professor
Frank C. Erwin, Jr. Centennial Professorship in Drama
Theatre and Dance
PhD, University of Washington - Seattle, 1991
Sarah A Canright, Senior Lecturer
Art and Art History

BFA, School of the Art Institute of Chicago, 1964
Andrew I Carlson, Clinical Assistant Professor
Theatre and Dance
PhD, University of Illinois at Urbana-Champaign, 2011
Robert M Carnochan, Associate Professor
Music
DMA, University of Texas at Austin, 1999
Laquetta L Carpenter, Lecturer
Theatre and Dance
MFA, Pennsylvania State University Park, 2007
Charles Daniel Carson, Assistant Professor
Music
PhD, University of Pennsylvania, 2008
Ezekiel R Castro, Lecturer
Music
BM, University of Texas at Austin, 1961
Kate Catterall, Associate Professor
Art and Art History
MA, Glasgow School of Art, 1992
Edward Chambers, Associate Professor
Art and Art History
PhD, University of London, 1998
B G Chandler, Professor
Florence Thelma Hall Centennial Chair in Music
Music
PhD, Indiana University at Bloomington, 1975
Michael Ray Charles, Professor
Art and Art History
MFA, University of Houston, 1993
Michael J Charlesworth, Professor
Art and Art History
PhD, The University of Kent, 1990
Lee R Chesney III, Associate Professor
Art and Art History
MFA, Indiana University at Bloomington, 1972
Kalleen Chilcote, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2009
Elizabeth J Chiles, Lecturer
Art and Art History
MFA, San Francisco Art Institute, 2005
Daniel Ching, Senior Lecturer
Music
MMus, Cleveland Institute of Music, 1998
Pamela D Christian, Associate Professor
Theatre and Dance
PhD, Southern Illinois University., 2000
John R Clarke, Professor
Annie Laurie Howard Regents Professorship in Fine Arts
Art and Art History
PhD, Yale University, 1973
Rusty Cloyes, Lecturer
Theatre and Dance

MFA, University of Texas at Austin, 2005
Sarah Howe Coleman, Program Coordinator
Theatre and Dance
MFA, University of Texas at Austin, 2012
Thelma R Coles, Professor Emeritus
Art and Art History
MA, San Diego State University, 1978
Anna Collette, Assistant Professor
Art and Art History
MFA, Yale University, 2003
Eugenia Costa-Giomi, Professor
Music
PhD, Ohio State U Main Campus, 1991
Paula A Crider, Professor Emeritus
Music
MM, University of Texas at Austin, 1970
Ryan M Cronk, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2010
Jeremy L Cudd, Lecturer
Theatre and Dance
MFA, Pennsylvania State University Park, 2007
Lindsey L Culpepper, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2012
Erin M Cunningham, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2007
Tina Marie Curran, Assistant Professor
Theatre and Dance
PhD, New York University, 2010
Stephen J Daly, Professor Emeritus
Art and Art History
MFA, Cranbrook Academy of Art, 1967
James R Daniels, Senior Lecturer
Theatre and Dance
MFA, Florida State University, 1980
Patricia M Daniels, Lecturer
Theatre and Dance
MFA, Case Western Reserve University, 1987
Neal A Daugherty, Lecturer
Art and Art History
MFA, Louisiana State University and Agricultural and Mechanical College, 1996

Penelope J Davies, Associate Professor
Art and Art History
PhD, Yale University, 1994
Natalie A Davison, Lecturer
Theatre and Dance
BA, Georgia State University, 1993
Kathryn M Dawson, Assistant Professor
Theatre and Dance

MFA, University of Texas at Austin, 2006
Andrew F Dell'Antonio, Professor
Music
PhD, University of California-Berkeley, 1991
Douglas J Dempster, Professor
Effie Marie Cain Regents Chair in Fine Arts, The Marie and Joseph D.
Jamail, Sr. Regents Professorship in Fine Arts
Theatre and Dance
PhD, University of North Carolina at Chapel Hill, 1983
Robert A Desimone, Professor
Sarah and Ernest Butler Professorship in Opera
Music
DMA, University of Washington - Seattle, 1981
Hanns-Bertold Dietz, Professor Emeritus
Music
PhD, University of Innsbruck, 1956
Steven Dietz, Professor
Theater for Youth Chair
Theatre and Dance
BA, University of Northern Colorado, 1980
Charles A Dillard, Lecturer
Music
DMA, University of Colorado at Boulder, 2008
Vincent R Dinino, Professor Emeritus
Music
MS, Nd State U Main Campus, 1955
Franchelle Dorn, Professor
Virginia L. Murchison Regents Professorship in Fine Arts
Theatre and Dance
MFA, Yale University, 1975
Dennis W Dotson, Specialist
Music
HS/GED, , 1963
Lucien Douglas, Associate Professor
Theatre and Dance
PhD, Michigan State University, East Lansing, 1996
Eric A Drott, Associate Professor
Music
PhD, Yale University, 2001
Robert A Duke, Professor
Marlene and Morton Meyerson Centennial Professorship in Music
Music
PhD, Florida State University, 1983
Rachel N Durkin-Drga, Lecturer
Theatre and Dance
MFA, University of Illinois at Urbana-Champaign, 1991
William A Edwards, Specialist
Music
MM, University of Texas at Austin, 1989
Nathan A Ellefson, Technical Staff Assistant III
Art and Art History
MFA, University of Texas at Austin, 2013
Jeff W Ellinger, Lecturer

Theatre and Dance
BA, University of Texas at Austin, 1977
Bernard B Engel, Professor Emeritus
Theatre and Dance
PhD, University of Pittsburgh, Pittsburgh Campus, 1967
Elizabeth Engelman, Lecturer
Theatre and Dance
MFA, Columbia University in the City of New York, 1996
Anne E Epperson, Professor
Priscilla Pond Flawn Regents Professorship in Organ or Piano
Performance
Music
MM, Louisiana State University and Agricultural and Mechanical College, 1975

Veit F Erlmann, Professor
History of Music Chair
Music
PhD, Foreign Institution, 1978
Jonathan J Faber, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2003
Edward Z Fair, Lecturer
Music
JD, University of Texas at Austin, 1985
Shannon H Faseler, Lecturer
Art and Art History
MFA, School of the Art Institute of Chicago, 2004
William A Fedkenheuer, Senior Lecturer
Music
BM, Rice University, 1998
Sandra Fernandez, Assistant Professor
Art and Art History
MFA, University of Wisconsin-Madison, 1995
Kenneth B Fiske, Professor Emeritus
Art and Art History
MA, University of Southern California, 1952
George F Flaherty, Assistant Professor
Art and Art History
PhD, University of California-Santa Barbara, 2010
Colin Robert Frazer, Assistant Professor
Art and Art History
MFA, Rhode Island School of Design, 2013
Robert Freeman, Professor
Music
PhD, Princeton University, 1967
John M Fremgen, Associate Professor
Music
MMus, University of Southern California, 1993
George A Frock, Professor Emeritus
Music
MME, University of Kansas Main Campus, 1963
Nancy B Garrett, Professor
Music

MM, University of Texas at Austin, 1966
Marianne Gedigian, Professor
Sarah and Ernest Butler Professorship in Music
Music
BM, Boston University, 1986
Stephen T Gerald, Associate Professor
Theatre and Dance
MFA, Rutgers the State University of New Jersey Camden Campus, 1977
Sophia Gilmson, Associate Professor
Music
MM, Foreign Institution, 1973
Joshua T Gindele, Senior Lecturer
Music
BMus, The Juilliard School, 2000
Andrea Giunta, Professor
Chair in Latin American Art History and Criticism
Art and Art History
PhD, University of Buenos Aires, 1999
James J Glavan, Professor
David Bruton, Jr. Regents Professorship in Fine Arts
Theatre and Dance
MA, Kent State University Main Campus, 1984
Mark K Goodman, Professor Emeritus
Art and Art History
BA, Boston University, 1970
Carma Ryanne Gorman, Associate Professor
Art and Art History
PhD, University of California-Berkeley, 1998
Donald J Grantham, Professor
Frank C. Erwin, Jr. Centennial Professorship in Music
Music
DMA, University of Southern California, 1980
Terence Grieder, Professor Emeritus
Art and Art History
PhD, University of Pennsylvania, 1961
John W Grubbs, Associate Professor Emeritus Music
PhD, University of California-Los Angeles, 1972
Julia E Guernsey, Professor
Art and Art History
PhD, University of Texas at Austin, 1997
Lita A Guerra, Professor Emeritus
Music
MM, University of Texas at Austin, 1959
Laura G Gutierrez, Associate Professor
Theatre and Dance
PhD, University of Wisconsin-Madison, 2000
Joel J Guzman, Specialist
Music
HS/GED, , 1974
Michelle Habeck, Associate Professor
Theatre and Dance
MFA, Northwestern University, 1996

Kenneth J Hale, Professor Emeritus
Art and Art History
MFA, University of Illinois at Urbana-Champaign, 1973
Barney Hammond, Associate Professor
Theatre and Dance
MA, University of Houston, 1977
Scott S Hanna, Senior Lecturer
Music
DMA, University of Texas at Austin, 1999
Paul P Hatgil, Professor Emeritus
Art and Art History
MA, Columbia University in the City of New York, 1951
Robert S Hatten, Professor

## Music

PhD, Indiana University at Bloomington, 1982
Amy Hauft, Professor
Leslie Waggener Professorship in the COFA
Art and Art History
MFA, School of the Art Institute of Chicago, 1983
Andre Hayward, Specialist
Music
BAMusic, Texas Southern University, 2014
Jeffrey L Hellmer, Professor
Music
MM, University of Rochester, 1983
Linda D Henderson, Professor
David Bruton, Jr. Centennial Professorship in Art History
Art and Art History
PhD, Yale University, 1975
Rebecca Henderson, Professor
Music
MM, University of Rochester, 1986
William R Henry III, Lecturer
Theatre and Dance
MM, Texas State University-San Marcos, 2011
Timothy G High, Associate Professor
Art and Art History
MFA, University of Wisconsin-Madison, 1976
Megan L Hildebrandt, Lecturer
Art and Art History
MFA, University of South Florida, 2012
Martha F Hilley, Professor
Music
MA, Sam Houston State University, 1971
Lynn M Hoare, Lecturer
Theatre and Dance
MFA, University of Texas at Austin, 1998
Joan A Holladay, Professor
Art and Art History
PhD, Brown University, 1982
David Justin, Associate Professor
Theatre and Dance
MA, University of Birmingham, 2000

Grace M Holmes, Lecturer
Theatre and Dance
MA, University of Birmingham, 2000
Adam Holzman, Professor
Parker C. Fielder Regents Professorship in Music
Music
MM, Florida State University, 1984
Teresa Hubbard, Professor
Art and Art History
MFA, Nova Scotia College of Art and Design, 1992
Patrick Hughes, Associate Professor
Music
MMus, University of Wisconsin-Madison, 1988
Richard M Isackes, Professor
Joanne Sharp Crosby Regents Chair in Design and Technology
Theatre and Dance
MFA, Carnegie Mellon University, 1975
Judith A Jellison, Professor
Mary D. Bold Regents Professorship of Music
Music
PhD, Florida State University, 1972
Kristin Wolfe Jensen, Professor
Music
MM, The Juilliard School, 1991
Ann C Johns, Senior Lecturer
Art and Art History
PhD, University of Texas at Austin, 2000
Bethany J Johnson, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2011
Omi Osun Joni L Jones, Associate Professor
Theatre and Dance
PhD, New York University, 1993
Jerry F Junkin, Professor
Music
MMus, University of Texas at Austin, 1979
Benjamin Jurgensen, Assistant Professor
Art and Art History
MFA, Virginia Commonwealth University, 2010
Janet E Kastner, Associate Professor Emeritus
Art and Art History
MFA, Alfred University, 1979
Jannette Keating, Lecturer
Art and Art History
MAT, University of Texas at Austin, 2013
Kathleen A Kelly, Lecturer
Music
MMus, Arizona State University Main, 1988
Donald L Knaub, Professor Emeritus
Music
MM, Foreign Institution, 1961
Nancy K Koenning, Lecturer
Theatre and Dance

MM, University of Texas at Austin, 1983
Stefan M Kostka, Professor Emeritus
Music
PhD, University of Wisconsin-Madison, 1969
Anna J Krachey, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2008
Kelly Kuo, Lecturer
Music
MM, Manhattan School of Music, 1998
Jeffrey P Kurihara, Lecturer
Theatre and Dance
MFA, University of Texas at Austin, 2013
John C Largess, Senior Lecturer
Music
BA, Yale University, 1995
Joan Lazarus, Associate Professor
Theatre and Dance
MFA, Arizona State University Main, 1982
Gloria J Lee, Associate Professor
Art and Art History
MFA, Yale University, 1991
Delaine E Leonard, Senior Lecturer
Music
MMus, University of Texas at Austin, 1984
Janice Leoshko, Associate Professor
Art and Art History
PhD, Ohio State U Main Campus, 1987
Brian D Lewis, Professor
David and Mary Winton Green Chair in String Performance and Pedagogy

## Music

MM, The Juilliard School, 1993
Hannah Lewis, Assistant Professor
Music
BA, Brown University, 2007
William L Lewis, Professor
Frank C. Erwin, Jr. Centennial Professorship in Opera
Music
BM, Texas Christian University, 1967
Beili Liu, Associate Professor
Art and Art History
MFA, University of Michigan-Ann Arbor, 2003
Sondra Lomax, Lecturer
Theatre and Dance
MFA, York College, 1979
Allison Elizabeth Lowery, Lecturer
Theatre and Dance
MFA, North Carolina School of the Arts, 1999
Kristin Lucas, Assistant Professor
Art and Art History
MFA, Stanford University, 2006
William A Lundberg, Professor Emeritus
Art and Art History

MA, University of California-Berkeley, 1965
Kirk E Lynn, Assistant Professor
Theatre and Dance
MFA, University of Texas at Austin, 2004
Matthias Maierhofer, Assistant Professor
Music
MMus, University of Music Freiburg, 2008
Betty P Mallard, Associate Professor Emeritus
Music
DMA, University of Texas at Austin, 1979
Karen L Maness, Lecturer
Theatre and Dance
BA, Whittier College, 1995
Vincent A Mariani, Professor Emeritus
Art and Art History
BFA, Yale University, 1959
Anthony Charles Marinello, Lecturer
Music
MM, University of Cincinnati Main Campus, 2006
Judy Matetzschk, Lecturer
Theatre and Dance
PhD, University of Texas at Austin, 1996
Melinda M Mayer, Assistant Professor
Art and Art History
PhD, Penn State University Park, 1999
Lawrence D McFarland, Professor Emeritus
Art and Art History
MFA, University of Nebraska - Lincoln, 1976
Richard E McMaster, Lecturer
Art and Art History
MFA, Arizona State University Main, 2008
Jeffrey L Meikle, Professor
Stiles Professorship in American Studies
Art and Art History
PhD, University of Texas at Austin, 1977
Robert W Melton, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2010
Susan E Mickey, Professor
Theatre and Dance
MFA, The University of Alabama, 1979
Karl H Miller, Associate Professor
Music
PhD, New York University, 2002
Melissa W Miller, Associate Professor Emeritus
Art and Art History
BA, New Mexico State University Main Campus, 1974
John R Mills, Associate Professor
Music
DMA, University of Texas at Austin, 1998
Michael J Mogavero, Associate Professor
Art and Art History

MFA, Maryland Institute College of Art, 1975
Kevin Edward Mooney, Lecturer
Music
PhD, University of Texas at Austin, 1998
Robin D Moore, Professor
Music
PhD, University of Texas at Austin, 1995
Kit R Morris, Lecturer
Art and Art History
MA, Royal College of Music, 1995
Cynthia C Morrow, Lecturer
Music
DMA, Ohio State U Main Campus, 1989
James M Morrow Jr, Associate Professor
Music
DMA, University of Texas at Austin, 1996
Stephennie Mulder, Assistant Professor
Art and Art History
PhD, University of Pennsylvania, 2008
Leslie A Mutchler, Assistant Professor
Art and Art History
MFA, Temple University, 2004
Roger E Myers, Professor
Music
MM, University of Southern California, 1992
David A Nancarrow, Professor Emeritus
Theatre and Dance
PhD, Foreign Institution, 1975
Luisa Nardini, Associate Professor
Music
PhD, Universita degli Studi di Roma "La Sapienza", 2001
Anton Nel, Professor
Joe R. \& Teresa Lozano Long Chair in Piano
Music
MMus, University of Cincinnati Main Campus, 1984
David P Neumeyer, Professor
Marlene and Morton Meyerson Professorship in Music
Music
PhD, Yale University, 1976
Phillip E Niemeyer, Lecturer
Art and Art History
JD, University of Texas at Austin, 1999
Moyosore Benjamin Okediji, Professor
Art and Art History
PhD, University of Wisconsin Colleges, 1995
Guido Olivieri, Senior Lecturer
Music
PhD, University of California-Santa Barbara, 2005
Sven Ortel, Lecturer
Theatre and Dance
BA, Rose Bruford College of Theatre and Performance, 2001
Francie Ostrower, Professor
Theatre and Dance

PhD, Yale University, 1991
Ray Charles Otte, Associate Professor
Theatre and Dance
MFA, University of Southern California, 1995
Athanasio Papalexandrou, Associate Professor
Art and Art History
PhD, Princeton University, 1998
Jiwon Park, Lecturer
Art and Art History
MFA, Rhode Island School of Design, 2013
Beatrice Parsons, Assistant Professor
Art and Art History
MFA, Columbia University in the City of New York, 2012
Ann N Paterra, Lecturer
Art and Art History
MFA, University of Texas at Austin, 1994
Marcus R Payzant, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2012
Gordon B Peacock, Professor Emeritus
Theatre and Dance
MFA, Carnegie Mellon University, 1952
Edward R Pearsall, Associate Professor
Music
PhD, University of Wisconsin-Madison, 1994
Glenn A Peers, Professor
Art and Art History
PhD, Johns Hopkins University, 1996
Suzanne M Pence, Associate Professor
Music
DMA, University of Missouri - Kansas City, 1992
Bruce W Pennycook, Professor
Music
DMA, Stanford University, 1978
Bogdan P Perzynski, Professor
Art and Art History
MFA, Poznan Academy of Fine Arts, 1979
Bradley R Petersen, Associate Professor Emeritus
Art and Art History
MFA, University of Georgia, 1975
Russell F Pinkston, Professor
Music
DMA, Columbia University in the City of New York, 1984
Harvey C Pittel, Professor
Music
MM, Northwestern University, 1967
Mary Ellen Poole, Professor
Music
PhD, University of Illinois at Urbana-Champaign, 1994
Barbara M Pope, Senior Lecturer
Theatre and Dance
MA, University of Connecticut, 1980

Brant Pope, Professor
Z. T. Scott Family Chair in Drama

Theatre and Dance
PhD, Michigan State University, East Lansing, 2003
Gary L Powell, Senior Lecturer
Music
BMusEd, Sam Houston State University, 1975
Heidi C Powell, Lecturer
Art and Art History
EdD, University of Houston, 2006
Brenda I Preyer, Professor Emeritus
Art and Art History
PhD, Harvard University, 1976
Scott R Proctor, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2007
Robert Ramirez, Associate Professor
Theatre and Dance
MFA, University of Delaware, 1995
Joe R Randel, Lecturer
Theatre and Dance
MBA, University of Texas at Austin, 2012
Sarah M Rasmussen, Associate Professor
Theatre and Dance
MFA, University of California-San Diego, 2008
Susan W Rather, Associate Professor
Art and Art History
PhD, University of Delaware, 1986
Matthew S Rebholz, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2008
A D Renner, Associate Professor
Music
MM, University of Rochester, 1965
Ann M Reynolds, Associate Professor
Art and Art History
PhD, City University of New York Graduate Center, 1993
Clark W Reynolds, Lecturer
Music
PhD, Indiana University at Bloomington, 2000
Glenn A Richter, Professor
Music
MM, University of Texas at Austin, 1975
Edwin L Rifkin, Professor
Art and Art History
PhD, University of Michigan-Ann Arbor, 1977
Andrew M Riggsby, Professor
Art and Art History
PhD, University of California-Berkeley, 1993
Magdalena J Riley, Lecturer
Theatre and Dance
BA, New College of Florida, 2003
Canay T Riordan, Lecturer

Art and Art History
MA, Domus Academy, 2002
John Risley, Professor
Ruth Head Centennial Professorship, Marguerite Fairchild Centennial
Professorship
Art and Art History
MFA, Yale University, 1986
Patricia M Risser, Lecturer
Theatre and Dance
BFA, Western Illinois University, 1975
Charles A Roeckle, Senior Lecturer
Music
PhD, University of Texas at Austin, 1978
Rebecca Rossen, Assistant Professor
Theatre and Dance
PhD, Northwestern University, 2006
Rick E Rowley, Senior Lecturer
Music
HS/GED, , 1973
Benjamin Ruggiero, Lecturer
Art and Art History
MFA, Bard College, 2005
Gerardo Jose Ruiz, Lecturer
Theatre and Dance
MFA, University of California-San Diego, 2007
Astrid Runggaldier, Lecturer
Art and Art History
PhD, Boston University, 2009
Wayne W Salzmann II, Specialist
Music
MM, University of Texas at Austin, 2010
Ray K Sasaki, Professor
Frank C. Erwin, Jr. Centennial Professorship in Fine Arts
Music
MMus, University of North Texas, 1975
Peter A Saul, Professor Emeritus
Art and Art History
BFA, Washington University in St Louis, 1956
Bruce A Saunders, Lecturer
Music
MM, University of North Texas, 1986
Margo L Sawyer, Professor
Art and Art History
MFA, Yale University, 1982
D Schmandt-Besserat, Professor Emeritus
Art and Art History
MA, Ecole Du Louvre, 1965
Robert N Schmidt, Professor Emeritus
Theatre and Dance
MFA, University of Wisconsin-Madison, 1979
Roxanne Schroeder-Arce, Assistant Professor
Theatre and Dance
MFA, University of Texas at Austin, 2000

Sonia T Seeman, Associate Professor
Music
PhD, University of California-Los Angeles, 2002
YunChiahn C Sena, Assistant Professor
Art and Art History
PhD, University of Chicago, 2007
Yevgeniy Sharlat, Associate Professor
Music
MM, Yale University, 2004
Andrew B Shea, Associate Professor
Theatre and Dance
MA, California Institute of the Arts, 1985
Richard A Shiff, Professor
Effie Marie Cain Regents Chair in Art
Art and Art History
PhD, Yale University, 1973
Stephen M Slawek, Professor
Music
PhD, University of Illinois at Urbana-Champaign, 1986
David A Small, Associate Professor
Music
MM, University of Cincinnati Main Campus, 1987
Cherise Smith, Associate Professor
Art and Art History
PhD, Stanford University, 2004
Jeffrey C Smith, Professor
Kay Fortson Chair in European Art
Art and Art History
PhD, Columbia University in the City of New York, 1979
Michael Smith, Professor
Art and Art History
BA, Colorado College, 1974
Frank N Speller, Associate Professor Emeritus
Music
DMA, University of Colorado at Boulder, 1968
Jeffrey C Stanley, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2011
David S Stewart, Lecturer
Theatre and Dance
BFA, Webster University, 1990
John S Stoney, Associate Professor
Art and Art History
MFA, Cranbrook Academy of Art, 1998
Nikita Storojev, Associate Professor
Music
MFA, Moscow P.I. Tchaikovsky Conservatory, 1979
David S Stuart, Professor
Linda and David Schele Chair in the Art and Writing of Mesoamerica Art and Art History
PhD, Vanderbilt University, 1995
Daniel D Sutherland, Associate Professor
Art and Art History

MFA, Syracuse University Main Campus, 1991
Rebecca Switzer, Lecturer
Theatre and Dance
MFA, University of Arizona, 1987
Lisa Thompson, Associate Professor
Theatre and Dance
PhD, Stanford University, 2000
Joshua Tobiessen, Lecturer
Theatre and Dance
MFA, University of California-San Diego, 2007
Riley G Triggs, Lecturer
Art and Art History
MArch, Rice University, 2006
Bion Tsang, Associate Professor
Music
MM, Yale University, 1993
John R Turci, Assistant Professor
Music
PhD, Yale University, 2004
Michael C Tusa, Professor
Music
PhD, Princeton University, 1983
Jarvis W Ulbricht, Professor Emeritus
Art and Art History
PhD, University of lowa, 1976
Jason Paul Urban, Lecturer
Art and Art History
MFA, University of lowa, 2002
Colette T Valentine, Lecturer
Music
DMA, State University of New York at Stony Brook, 2005
Ivo Van Der Graaff, Research Affiliate - Research Fellow
Art and Art History
PhD, University of Texas at Austin, 2013
Robert K Verf, Lecturer
Art and Art History
BFA, Utrecht University, 1991
Charles W Villarrubia, Associate Professor
Music
MM, Boston University, 1988
Ferdinand W Vollmar, Lecturer
Music
MMus, University of Houston, 1985
Louis A Waldman, Associate Professor
Art and Art History
PhD, New York University, 1999
Dan E Welcher, Professor
The Lee Hage Jamail Regents Professorship in Fine Arts Music
MM, Manhattan School of Music, 1972
Marianne Wheeldon, Associate Professor
Music

PhD, Yale University, 1997
Susan D Whyne, Associate Professor Emeritus
Art and Art History
MA, University of San Francisco, 1974
Darlene C Wiley, Professor
Music
MM, University of Illinois at Urbana-Champaign, 1969
Holly A Williams, Professor
Theatre and Dance
MFA, Texas Woman's University, 1994
Jeff Williams, Assistant Professor
Art and Art History
MFA, Syracuse University Main Campus, 2002
Nathan L Williams, Associate Professor
Music
DMA, The Juilliard School, 1992
Lyn C Wiltshire, Professor
Theatre and Dance
, , 1969
Lewis R Wiman, Professor Emeritus
Art and Art History
MFA, University of Florida, 1966
Satoko S Yamamoto, Senior Lecturer
Music
MMus, Cleveland Institute of Music, 1998
John A Yancey, Professor
John D. Murchison Regents Professorship in Art
Art and Art History
MFA, Georgia Southern University, 1993
Laurie S Young, Associate Professor
Music
PhD, University of Texas at Austin, 1987
Phyllis C Young, Professor Emeritus
Music
MM, University of Texas at Austin, 1950
Suzan L Zeder, Professor Emeritus
Theatre and Dance
PhD, Florida State University, 1978
Daxun Zhang, Associate Professor
Music
BM, Indiana University at Bloomington, 2005
Gerhardt Zimmermann, Professor
Jack G. Taylor Regents Professorship in Fine Arts
Music
MFA, University of Iowa, 1971

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

Milo M Backus, Professor Emeritus<br>Geological Sciences<br>PhD, Massachusetts Institute of Technology, 1956<br>Jay L Banner, Professor

Geological Sciences
PhD, State University of New York at Stony Brook, 1986
Daniel S Barker, Professor Emeritus
Geological Sciences
PhD, Princeton University, 1961
Jaime D Barnes, Assistant Professor
Geological Sciences
PhD, University of New Mexico Main Campus, 2006
Whitney Behr, Assistant Professor
Geological Sciences
PhD, University of Southern California, 2011
Christopher J Bell, Professor
Geological Sciences
PhD, University of California-Berkeley, 1997
Philip C Bennett, Professor
Geological Sciences
PhD, Syracuse University Main Campus, 1989
Robert E Boyer, Professor Emeritus
Geological Sciences
PhD, University of Michigan-Ann Arbor, 1959
Daniel O Breecker, Assistant Professor
Geological Sciences
PhD, University of New Mexico Main Campus, 2008
Leonard F Brown Jr, Professor Emeritus
Geological Sciences
PhD, University of Wisconsin-Madison, 1955
Matthew A Brown, Lecturer
Geological Sciences
MSc, University of Leicester, 2013
Robert W Burroughs, Lecturer
Geological Sciences
MS, University of Texas at Austin, 2013
Meinhard Bayani Cardenas, Associate Professor
Geological Sciences
PhD, New Mexico Institute of Mining and Technology, 2006
William D Carlson, Professor
Peter T. Flawn Centennial Chair in Geology
Geological Sciences
PhD, University of California-Los Angeles, 1980
Ginny A Catania, Associate Professor
Geological Sciences
PhD, University of Washington - Seattle, 2004
Elizabeth J Catlos, Associate Professor
Geological Sciences
PhD, University of California-Los Angeles, 2000
Gail L Christeson, Lecturer
Geological Sciences
PhD, Massachusetts Institute of Technology, 1993
Julia A Clarke, Associate Professor
Geological Sciences
PhD, Yale University, 2002
Mark P Cloos, Professor
Getty Oil Company Centennial Chair in Geological Sciences

Geological Sciences
PhD, University of California-Los Angeles, 1981
Kerry H Cook, Professor
Geological Sciences
PhD, North Carolina State University, 1984
Ian W Dalziel, Professor
Geological Sciences
PhD, University of Edinburgh, 1963
Robert E Dickinson, Professor
Geological Sciences
PhD, Massachusetts Institute of Technology, 1966
Robert A Dull, Lecturer
Geological Sciences
PhD, University of California-Berkeley, 2001
Catherine S Duncan, Adjunct Assistant Professor
Geological Sciences
PhD, University of Texas at Austin, 2001
Peter Eichhubl, Lecturer
Geological Sciences
PhD, University of California-Santa Barbara, 1997
Brent Elliott, Lecturer
Geological Sciences
PhD, University of Helsinki, 2001
William L Fisher, Professor
Leonidas T. Barrow Centennial Chair in Mineral Resources
Energy and Earth Resources
Geological Sciences
PhD, University of Kansas Main Campus, 1980
Peter P Flaig, Lecturer
Geological Sciences
PhD, University of Alaska Fairbanks, 2010
Peter T Flawn, Professor Emeritus
Geological Sciences
PhD, Yale University, 1951
Peter B Flemings, Professor
John A. and Katherine G. Jackson Chair in Geosystems
Energy and Earth Resources
Geological Sciences
PhD, Cornell University, 1990
Robert L Folk, Professor Emeritus
Geological Sciences
PhD, Pennsylvania State University Main Campus, 1952
Sergey B Fomel, Professor
Geological Sciences
PhD, Stanford University, 2001
Gregory Frebourg, Lecturer
Geological Sciences
PhD, University of Geneva, 2010
Rong Fu, Professor
Geological Sciences
PhD, Columbia University in the City of New York, 1991
William E Galloway, Professor Emeritus
Geological Sciences

PhD, University of Texas at Austin, 1971
James E Gardner, Professor
Geological Sciences
PhD, University of Rhode Island, 1993
Marcus Orton Gary, Adjunct Assistant Professor
Geological Sciences
PhD, University of Texas at Austin, 2009
Omar Ghattas, Professor
John A. and Katherine G. Jackson Chair in Computational Geosciences
Geological Sciences
PhD, Duke University, 1988
John A Goff, Lecturer
Geological Sciences
PhD, Massachusetts Institute of Technology, 1990
Stephen P Grand, Professor
Dave P. Carlton Centennial Professorship in Geophysics
Geological Sciences
PhD, California Institute of Technology, 1986
Sean S Gulick, Research Associate Professor (Affiliated)
Geological Sciences
PhD, Lehigh University, 2000
Roberto Gutierrez, Lecturer
Geological Sciences
PhD, University of Texas at Austin, 1990
Nicholas W Hayman, Lecturer
Geological Sciences
PhD, University of Washington - Seattle, 2003
Mark A Helper, Distinguished Senior Lecturer
Geological Sciences
PhD, University of Texas at Austin, 1985
Eric S Hersh, Lecturer
Geological Sciences
PhD, University of Texas at Austin, 2012
Marc A Hesse, Assistant Professor
Geological Sciences
PhD, Stanford University, 2008
John W Holt, Research Associate Professor (Affiliated)
Geological Sciences
PhD, California Institute of Technology, 1997
Brian K Horton, Professor
Geological Sciences
PhD, University of Arizona, 1998
Jingwei Hu, Lecturer
Geological Sciences
PhD, University of Wisconsin-Madison, 2011
Charles S Jackson, Lecturer
Geological Sciences
PhD, University of Chicago, 1998
Farzam Javadpour, Lecturer
Geological Sciences
PhD, University of Calgary, 2006
Joel Peterson Johnson, Assistant Professor
Geological Sciences

PhD, Massachusetts Institute of Technology, 2007
Charles Kerans, Professor
Robert K. Goldhammer Chair in Carbonate Geology
Energy and Earth Resources
Geological Sciences
PhD, Carleton University, 1982
Richard A Ketcham, Associate Professor
Geological Sciences
PhD, University of Texas at Austin, 1995
Wonsuck Kim, Assistant Professor
Geological Sciences
PhD, University of Minnesota-Twin Cities, 2007
Gary A Kocurek, Professor
J. Nalle Gregory Chair in Sedimentary Geology

Geological Sciences
PhD, University of Wisconsin-Madison, 1980
Alison Marie Koleszar, Research Engineering/ Scientist Associate IV
Geological Sciences
PhD, Oregon State University, 2011
J Richard Kyle, Professor
The Third Mr. and Mrs. Charles E. Yager Professorship
Energy and Earth Resources
Geological Sciences
PhD, University of Western Ontario, 1977
Lynton S Land, Professor Emeritus
Geological Sciences
PhD, Lehigh University, 1966
John C Lassiter, Associate Professor
Geological Sciences
PhD, University of California-Berkeley, 1995
Luc L Lavier, Assistant Professor
Geological Sciences
PhD, Columbia University in the City of New York, 1999
Jung-Fu Lin, Associate Professor
Geological Sciences
PhD, University of Chicago, 2002
Staci L Loewy, Research Engineering/ Scientist Associate IV
Geological Sciences
PhD, University of Texas at Austin, 2002
E L Lundelius Jr, Professor Emeritus
Geological Sciences
PhD, University of Chicago, 1954
Joseph A Macgregor, Lecturer
Geological Sciences
PhD, University of Washington - Seattle, 2008
Randall A Marrett, Professor
Energy and Earth Resources
Geological Sciences
PhD, Cornell University, 1990
Rowan Clare Martindale, Other University Affiliate
Geological Sciences
PhD, University of Southern California, 2012
Arthur E Maxwell, Professor Emeritus

Geological Sciences
PhD, University of California-San Diego, 1959
Earle F McBride, Professor Emeritus
Geological Sciences
PhD, Johns Hopkins University, 1960
Kirk D McIntosh, Lecturer
Geological Sciences
PhD, University of California-Santa Cruz, 1992
Nathaniel R Miller, Research Engineering/ Scientist Associate IV
Geological Sciences
PhD, University of Texas at Dallas, 1995
Kevan Moffett, Assistant Professor
Geological Sciences
PhD, Stanford University, 2010
David Mohrig, Professor
John E. "Brick" Elliott Centennial Endowed Professorship in Geological Sciences
Geological Sciences
PhD, University of Washington - Seattle, 1994
Sharon Mosher, Professor
William Stamps Farish Chair in Geology, John A. and Katherine G.
Jackson Decanal Chair in the Geosciences
Geological Sciences
PhD, University of Illinois at Urbana-Champaign, 1978
Yosio Nakamura, Professor Emeritus
Geological Sciences
PhD, Pennsylvania State University Main Campus, 1963
Cornel Olariu, Lecturer
Geological Sciences
PhD, University of Texas at Dallas, 2005
Jon E Olson, Associate Professor
Energy and Earth Resources
PhD, Stanford University, 1991
Christopher R Omelon, Research Associate
Geological Sciences
PhD, University of Toronto, 2006
Raymond Lee Orbach, Professor
Cockrell Family Chair in Engineering No. 12
Geological Sciences
PhD, University of California-Berkeley, 1960
Jeffrey G Paine, Lecturer
Geological Sciences
PhD, University of Texas at Austin, 1991
Mary F Poteet, Lecturer
Geological Sciences
PhD, University of California-Berkeley, 2001
David B Prior, Professor
Geological Sciences
PhD, Queen's University, 1968
Terrence M Quinn, Professor
Albert W. and Alice M. Weeks Centennial Professorship in Geological
Sciences
Geological Sciences

PhD, Brown University, 1989
Vibhuti Rana, Specialist
Geological Sciences
BS, University of Texas at Austin, 2013
Timothy B Rowe, Professor
J. Nalle Gregory Regents Professorship in Geological Sciences

Geological Sciences
PhD, University of California-Berkeley, 1986
Stephen C Ruppel, Lecturer
Geological Sciences
PhD, University of Illinois at Urbana-Champaign, 1979
Mrinal K Sen, Professor
John A. and Katherine G. Jackson Chair in Applied Seismology
Geological Sciences
PhD, University of Hawaii at Manoa, 1987
Timothy M Shanahan, Assistant Professor
Geological Sciences
PhD, University of Arizona, 2006
John M Sharp Jr, Professor
Dave P. Carlton Centennial Professorship in Geology
Geological Sciences
PhD, University of Illinois at Urbana-Champaign, 1974
Douglas Smith, Professor Emeritus
Geological Sciences
PhD, California Institute of Technology, 1969
Kyle Thomas Spikes, Assistant Professor
Geological Sciences
PhD, Stanford University, 2008
James T Sprinkle, Professor Emeritus
Geological Sciences
PhD, Harvard University, 1971
Ronald J Steel, Professor
Morgan J. Davis Centennial Chair in Petroleum Geology
Geological Sciences
PhD, University of Glasgow, 1972
Daniel Stockli, Professor
Chevron Centennial Professorship in Geology
Geological Sciences
PhD, Stanford University, 2000
Paul L Stoffa, Professor Emeritus
Geological Sciences
PhD, Columbia University in the City of New York, 1974
Robert H Tatham, Professor
Shell Companies Foundation Centennial Chair in Geophysics
Geological Sciences
PhD, Columbia University in the City of New York, 1975
Scott W Tinker, Professor
Edwin Allday Centennial Chair in Subsurface Geology
Geological Sciences
PhD, University of Colorado at Boulder, 1996
Edward K Vizy, Research Engineering/ Scientist Associate V Geological Sciences
PhD, Cornell University, 2003

Clark R Wilson, Professor
Wallace E. Pratt Professorship in Geophysics
Geological Sciences
PhD, University of California-San Diego, 1975
Lesli J Wood, Lecturer
Geological Sciences
PhD, Colorado State University, 1992
Zong-Liang Yang, Professor
John A. and Katherine G. Jackson Chair in Earth System Sciences
Geological Sciences
PhD, Macquarie University, 1992
Christopher K Zahm, Lecturer
Geological Sciences
PhD, Colorado School of Mines, 2002
Donggao Zhao, Research Engineering/ Scientist Associate IV
Geological Sciences
PhD, University of Michigan-Ann Arbor, 1998

## School of Information Faculty

## College of Liberal Arts Faculty

Jeffrey Bruce Abramson, Professor
Government
PhD, Harvard University, 1977
Jason Abrevaya, Professor
Fred Hofheinz Regents Professorship in Economics
Economics
PhD, Massachusetts Institute of Technology, 1996
Robert H Abzug, Professor
Audre and Bernard Rapoport Regents Chair of Jewish Studies
American Studies
History
Jewish Studies
PhD, University of California-Berkeley, 1977
Michael W Adams, Associate Professor
English
PhD, University of Texas at Austin, 1973
Paul C Adams, Associate Professor
Geography and the Environment
PhD, University of Wisconsin-Madison, 1993
Richard N Adams, Professor Emeritus
Anthropology
PhD, Yale University, 1951
Christopher O Adejumo, Associate Professor
African and African Diaspora Studies
PhD, Ohio State U Main Campus, 1997
Ari Adut, Associate Professor
Sociology
PhD, University of Chicago, 2004
Omoniyi Afolabi, Associate Professor
African and African Diaspora Studies
Spanish and Portuguese
PhD, University of Wisconsin-Madison, 1997

Kamran S Aghaie, Associate Professor
History
Middle Eastern Studies
Middle Eastern Studies Ctr
Women's and Gender Studies
PhD, University of California-Los Angeles, 1999
Yukie Aida, Senior Lecturer
Asian Studies
PhD, University of Texas at Austin, 1988
Erick Akins, Lecturer
Geography and the Environment
MA, Trinity University, 1988
Mahmoud M Al-Batal, Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of Michigan-Ann Arbor, 1985
Ilana Albanese, Clinical Assistant Professor
Psychology
PhD, University of Florida, 1994
Bethany L Albertson, Assistant Professor
Government
PhD, University of Chicago, 2006
Duane G Albrecht, Professor Emeritus
Psychology
PhD, University of California-Berkeley, 1978
Kamran Ali, Associate Professor
Anthropology
Asian Studies
Asian Studies
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Johns Hopkins University, 1998
Samer M Ali, Associate Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Indiana University at Bloomington, 2002
Rachel Allred, Research Assistant Professor (Affiliated)
Psychology
PhD, University of Texas at Austin, 2009
Andres Almazan, Professor
Economics
PhD, Massachusetts Institute of Technology, 1996
Chad Alvarez, Assistant Professor
African and African Diaspora Studies
MA, Harvard University, 2005
Carlos M Amador, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2012
Charles O Anderson, Associate Professor
African and African Diaspora Studies
MFA, Temple University, 2002
Lee Eric Anderson, Assistant Professor-ROTC
Air Force Science
MA, Webster University, 2008

Michael R Anderson, Lecturer
Government
PhD, University of Texas at Austin, 2009
Jacqueline L Angel, Professor
Sociology
PhD, Rutgers the State University of New Jersey New Brunswick
Campus, 1989
Ronald J Angel, Professor
Sociology
PhD, University of Wisconsin-Madison, 1981
Jamie D Aprile, Lecturer
Classics
MA, University of California-Los Angeles, 2005
Katherine M Arens, Professor
Germanic Studies
Women's and Gender Studies
PhD, Stanford University, 1981
Arturo Arias, Professor
Tomas Rivera Regents Professorship in Spanish Language and Literature Latin American Studies
Spanish and Portuguese
PhD, L'Ecole des Hautes Etudes en Sciences Sociales, 1978
Eugenio Yatsuda Arima, Assistant Professor
Geography and the Environment
PhD, Michigan State University, East Lansing, 2005
David Armstrong, Professor Emeritus
Classics
PhD, University of Texas at Austin, 1968
Jossianna Arroyo Martinez, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
Spanish and Portuguese
PhD, University of California-Berkeley, 1998
Blake R Atwood, Assistant Professor
Middle Eastern Studies
PhD, University of Texas at Austin, 2011
Wade L Aubin, Assistant Professor-ROTC
Military Science
MS, Washington State University, 2000
Javier Auyero, Professor
Joe R. \& Teresa Lozano Long Endowed Professorship \#3
Latin American Studies
Sociology
PhD, New Sch for Soc Research, 1998
Germine H Awad, Assistant Professor
African and African Diaspora Studies
African and African Diaspora Studies
Middle Eastern Studies Ctr
PhD, Southern Illinois University Carbondale, 2005
James B Ayres, Professor Emeritus
English
PhD, Ohio University Main Campus, 1964
Jennifer L Ayres, Clinical Assistant Professor
Psychology

PhD, University of Texas Southwestern Medical Center at Dallas, 2000
Hina Azam, Assistant Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Duke University, 2007
Aaron Bady, Postdoctoral Fellow
English
PhD, University of California-Berkeley, 2013
Martin Baeumel, Lecturer
Germanic Studies
PhD, University of Chicago, 2013
Mary J Baker, Professor Emeritus
French and Italian
PhD, Harvard University, 1969
Samuel Baker, Associate Professor
English
PhD, University of Chicago, 2001
Jason M Baldridge, Associate Professor
Linguistics
PhD, University of Edinburgh, 2002
Lucas A Balke, Assistant Professor-ROTC
Naval Science
MBA, Webster University, 2009
Dana H Ballard, Professor
Psychology
PhD, University of California-Irvine, 1974
Cecilia Balli, Assistant Professor
Anthropology
PhD, Rice University, 2009
Colin James Bannard, Assistant Professor
Linguistics
PhD, University of Edinburgh, 2006
Hoda Barakat, Specialist
Middle Eastern Studies
BA, Lebanese University, 1975
Zoltan D Barany, Professor
Frank C. Erwin, Jr. Centennial Professorship in Government Government
PhD, University of Virginia (Old Code), 1991
Janine Barchas, Professor
English
PhD, University of Chicago, 1995
Jeffrey Barnouw, Professor Emeritus
English
PhD, Yale University, 1969
Jennifer-Kate Barret, Assistant Professor
English
PhD, Princeton University, 2008
Phillip J Barrish, Associate Professor
English
PhD, Cornell University, 1991
Alice L Batt, Program Coordinator
Rhetoric and Writing

PhD, University of Texas at Austin, 1996
Thomas A Bay, Adjunct Professor

## Liberal Arts

PhD, Columbia University in the City of New York, 1987
Sheryl Luzzadder Beach, Professor
Geography and the Environment
PhD, University of Minnesota-Twin Cities, 1990
Timothy Beach, Professor
Geography and the Environment
PhD, University of Minnesota-Twin Cities, 1989
Marie Boinot Beardsley, Lecturer
French and Italian
MLitt, Universite Paul Valery, Montpellier III, 2005
David I Beaver, Professor
Linguistics
PhD, University of Edinburgh, 1995
John T Beavers, Associate Professor
Linguistics
PhD, Stanford University, 2006
Deborah Beck, Assistant Professor
Classics
PhD, Harvard University, 1997
Jennifer S Beer, Associate Professor
Psychology
PhD, University of California-Berkeley, 2002
Christopher G Beevers, Professor
Psychology
PhD, University of Miami, 2002
Kirsten L Belgum, Associate Professor
Germanic Studies
PhD, University of Wisconsin-Madison, 1989
Mary C Beltran, Associate Professor
Mexican American Studies
PhD, University of Texas at Austin, 2002
Valerie R Bencivenga, Senior Lecturer
Economics
PhD, University of Toronto, 1985
Chad J Bennett, Assistant Professor
English
PhD, Cornell University, 2011
Keisha L Bentley-Edwards, Assistant Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, University of Pennsylvania, 2009
Robin Benzrihem, Lecturer
French and Italian
MA, Universite de Paris VII, Denis Diderot, 2009
Charles E Berg, Professor
Joe M. Dealey, Sr. Professorship in Media Studies
Mexican American Studies
PhD, University of Texas at Austin, 1987
Mitchell N Berman, Professor
Richard Dale Endowed Chair in Law

Philosophy
JD, University of Michigan-Ann Arbor, 1993
Betsy A Berry, Senior Lecturer
English
PhD, University of Texas at Austin, 1994
Daina R Berry, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
History
Women's and Gender Studies
PhD, University of California-Los Angeles, 1998
Lance Bertelsen, Professor
Iris Howard Regents Professorship in English Literature
English
PhD, University of Washington - Seattle, 1979
John A Bertelson, Clinical Assistant Professor
Psychology
MD, University of Texas Medical Branch, 1998
Venkataraman Bhaskar, Professor
Economics
DPhil, University of Oxford, 1988
Chandra R Bhat, Professor
Adnan Abou-Ayyash Centennial Professorship in Transportation
Engineering
Economics
PhD, Northwestern University, 1991
Julia A Biggerstaff Haug, Clinical Assistant Professor
Liberal Arts
BA, University of Texas at Austin, 1997
Rebecca Bigler, Professor
Psychology
Women's and Gender Studies
PhD, Penn State University Park, 1991
Douglas G Biow, Professor
The Superior Oil Company - Linward Shivers Centennial Professorship in
Medieval and Renaissance Studies
European Studies
French and Italian
History
PhD, Johns Hopkins University, 1990
David P Birdsong, Professor
David Bruton, Jr. Centennial Professorship in Modern Languages
French and Italian
PhD, Harvard University, 1979
Daniel J Birkholz, Associate Professor
English
PhD, University of Minnesota-Twin Cities, 1999
Marc Bizer, Associate Professor
French and Italian
PhD, Princeton University, 1993
Anna S Bjurman-Pautz, Lecturer
Philosophy
PhD, Lund University, 2003
Amy D Blackmon, Clinical Assistant Professor
Psychology

PhD, Yale University, 2000
Mary E Blockley, Professor
English
PhD, Yale University, 1984
Carl S Blyth, Associate Professor
French and Italian
PhD, Cornell University, 1990
Hans C Boas, Professor
The Raymond Dickson, Alton C. Allen and Dillon Anderson Centennial Professorship
Germanic Studies
Linguistics
PhD, University of North Carolina at Chapel Hill, 2000
Mary A Bock, Assistant Professor
Women's and Gender Studies
PhD, University of Pennsylvania, 2009
Marion Enid Bodian, Professor
History
PhD, Hebrew University, 1988
Gemma Boleda Torrent, Lecturer
Linguistics
PhD, Universitat Pompeu Fabra, 2007
Deborah A Bolnick, Assistant Professor
Anthropology
PhD, University of California-Davis, 2005
Daniel A Bonevac, Professor
Philosophy
PhD, University of Pittsburgh, Pittsburgh Campus, 1980
Paola Bonifazio, Assistant Professor
French and Italian
PhD, New York University, 2008
Amy Elizabeth Booth, Visiting Researcher/Scholar Psychology
PhD, University of Pittsburgh, Pittsburgh Campus, 1998
John G Bordie, Professor Emeritus
Linguistics
PhD, University of Texas at Austin, 1958
Jason R Borge, Associate Professor
Spanish and Portuguese
PhD, University of California-Berkeley, 2002
Pascale R Bos, Associate Professor
Germanic Studies
Women's and Gender Studies
PhD, University of Minnesota-Twin Cities, 1998
Svetlana Boyarchenko, Associate Professor
Economics
PhD, Rostov State University, 1983
Mildred V Boyer, Professor Emeritus
Spanish and Portuguese
PhD, University of Texas at Austin, 1956
Robert S Boyer, Professor Emeritus
Philosophy
PhD, University of Texas at Austin, 1971

Casey A Boyle, Assistant Professor
Rhetoric and Writing
PhD, University of South Carolina - Columbia, 2011
Kirsten E Bradbury, Lecturer
Psychology
PhD, Virginia Polytechnic Institute and State University, 2005
William R Braisted, Professor Emeritus

## History

PhD, University of Chicago, 1950
Claud A Bramblett, Professor Emeritus
Anthropology
PhD, University of California-Berkeley, 1967
Steele Brand, Lecturer
History
PhD, Baylor University, 2009
Henry W Brands, Professor
Jack S. Blanton, Sr. Chair in History
History
PhD, University of Texas at Austin, 1985
Brian A Bremen, Associate Professor
English
PhD, Princeton University, 1989
Joel P Brereton, Associate Professor
Asian Studies
Religious Studies
PhD, Yale University, 1975
Daniel M Brinks, Associate Professor
Government
PhD, University of Notre Dame, 2004
James B Brow, Professor Emeritus
Anthropology
Asian Studies
PhD, University of Washington - Seattle, 1974
Benjamin C Brower, Associate Professor
History
Middle Eastern Studies Ctr
PhD, Cornell University, 2005
Anthony L Brown, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, University of Wisconsin-Madison, 2006
Carolyn M Brown, Professor
African and African Diaspora Studies
PhD, University of Florida, 1994
Jonathan C Brown, Professor
History
Latin American Studies
PhD, University of Texas at Austin, 1976
Keffrelyn D Brown, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
Women's and Gender Studies
PhD, University of Wisconsin-Madison, 2006
Richard A Brown, Adjunct Professor

Psychology
PhD, University of Oregon, 1981
Simone A Browne, Assistant Professor
African and African Diaspora Studies
African and African Diaspora Studies
Sociology
PhD, University of Toronto, 2007
Grayson D Browning, Professor Emeritus
Philosophy
PhD, University of Texas at Austin, 1958
Harley L Browning, Professor Emeritus
Sociology
PhD, University of California-Berkeley, 1962
Jason M Brownlee, Associate Professor
Government
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Princeton University, 2004
Kristen Brustad, Associate Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Harvard University, 1991
Douglas S Bruster, Professor
Mody C. Boatright Regents Professorship in American and English
Literature
English
PhD, Harvard University, 1990
Erika M Bsumek, Associate Professor
History
PhD, Rutgers the State University of New Jersey New Brunswick
Campus, 2000
Bruce Buchanan II, Professor
Government
PhD, Yale University, 1972
Lawrence R Buchanan, Assistant Professor
Philosophy
PhD, New York University, 2008
Robert J Buchanan, Adjunct Associate Professor
Psychology
MD, Saint Louis University, 1993
Tom Buckley, Specialist
Rhetoric and Writing
MA, Penn State University Park, 1985
J Budziszewski, Professor
Government
Philosophy
PhD, Yale University, 1981
Barbara Ellen Bullock, Professor
French and Italian
Spanish and Portuguese
PhD, University of Delaware, 1990
Jerome F Bump, Professor
English
PhD, University of California-Berkeley, 1972

Melissa R Bunner, Clinical Assistant Professor
Psychology
PhD, University of Texas at Austin, 1997
Virginia Garrard Burnett, Professor
History
Religious Studies
PhD, Tulane University, 1986
Walter D Burnham, Professor Emeritus
Government
PhD, Harvard University, 1962
Brenda H Burt, Lecturer
African and African Diaspora Studies
BS, Morgan State University, 1973
Arnold H Buss, Professor Emeritus
Psychology
PhD, Indiana University at Bloomington, 1952
David M Buss, Professor
Psychology
PhD, University of California-Berkeley, 1981
Johnny S Butler, Professor
Herb Kelleher Chair in Entrepreneurship, J. Marion West Chair for Constructive Capitalism
African and African Diaspora Studies
Sociology
PhD, Northwestern University, 1974
Matthew J Butler, Associate Professor
History
PhD, University of Bristol, 1999
Karl W Butzer, Professor
Raymond Dickson Centennial Professorship \#1
Anthropology
Geography and the Environment
PhD, University of Bonn, 1957
Richard F Buxton, Lecturer
Classics
PhD, University of Washington - Seattle, 2010
Cris Cabello De Martinez, Senior Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 1993
Thomas M Cable, Professor Emeritus
English
PhD, University of Texas at Austin, 1969
Marika Cabral, Assistant Professor
Economics
PhD, Stanford University, 2011
Craig A Campbell, Assistant Professor
Anthropology
PhD, University of Alberta, 2009
Jorge Canizares, Professor
Alice Jane Drysdale Sheffield Regents Professorship in History History
PhD, University of Wisconsin-Madison, 1995
Charlotte Canning, Professor
Frank C. Erwin, Jr. Centennial Professorship in Drama

African and African Diaspora Studies
Women's and Gender Studies
PhD, University of Washington - Seattle, 1991
Luis E Carcamo-Huechante, Associate Professor
Spanish and Portuguese
PhD, Cornell College, 2001
Caryn L Carlson, Professor
Psychology
PhD, University of Georgia, 1984
Nicolas Carrasco, Clinical Assistant Professor
Psychology
PhD, University of Texas at Austin, 1990
Ben Carrington, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
Sociology
Women's and Gender Studies
PhD, Leeds Metropolitan University, 2004
Patrick J Carroll, Senior Lecturer
Psychology
PhD, University of Massachusetts, 1983
Charles Daniel Carson, Assistant Professor
African and African Diaspora Studies
PhD, University of Pennsylvania, 2008
Daniela Bini Carter, Professor
French and Italian
PhD, University of Texas at Austin, 1970
Mia E Carter, Associate Professor
English
PhD, University of Wisconsin-Milwaukee, 1992
Evan B Carton, Professor
Joan Negley Kelleher Centennial Professorship in Rhetoric and
Composition
English
PhD, Johns Hopkins University, 1979
Cristina Carusi, Assistant Professor
Classics
PhD, Scuola Normale of Pisa, 2006
Larry D Carver, Professor
Doyle Professorship in Western Civilization, Frank C. Erwin, Jr. Centennial Honors Professorship
English
Rhetoric and Writing
PhD, University of Rochester, 1973
Oscar H Casares, Associate Professor
English
MFA, University of lowa, 2001
Robert L Causey, Professor Emeritus
Philosophy
PhD, University of California-Berkeley, 1967
Jean-Pierre B Cauvin, Professor Emeritus
French and Italian
PhD, Princeton University, 1968
Shannon E Cavanagh, Associate Professor

Sociology
Women's and Gender Studies
PhD, University of North Carolina at Chapel Hill, 2003
Edward Chambers, Associate Professor
African and African Diaspora Studies
PhD, University of London, 1998
Bharath Chandrasekaran, Assistant Professor
Linguistics
Psychology
PhD, Purdue University Main Campus, 2008
Chih-Wei Chang, Lecturer
Asian Studies
MA, University of Texas at Austin, 2000
Sung-Sheng Yvonne Chang, Professor
Asian Studies
PhD, Stanford University, 1985
Terrence L Chapman, Associate Professor Government
PhD, Emory University, 2007
Michael Ray Charles, Professor
African and African Diaspora Studies
African and African Diaspora Studies
MFA, University of Houston, 1993
Davida H Charney, Professor
English
Rhetoric and Writing
PhD, Carnegie Mellon University, 1985
Mounira M Charrad, Associate Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
Sociology
Women's and Gender Studies
PhD, Harvard University, 1980
Ruramisai Charumbira, Assistant Professor
African and African Diaspora Studies
African and African Diaspora Studies
History
PhD, Yale University, 2006
Indrani Chatterjee, Professor
Asian Studies
History
PhD, University of London, 1996
Vidhu S Chaturvedi, Lecturer
Asian Studies
MA, Banaras Hindu University, 1984
Alexander Chee, Assistant Professor
English
MFA, University of lowa, 1994
Jeanette C Chen, Lecturer
Asian Studies
MA, Middlebury College, 1983
Richard A Cherwitz, Professor
Rhetoric and Writing
PhD, University of lowa, 1978

Tshepo Chery, Assistant Professor
African and African Diaspora Studies
History
PhD, University of Pennsylvania, 2012
George S Christian, Adjunct Professor
English
PhD, University of Texas at Austin, 2000
Jessica A Church-Lang, Assistant Professor
Psychology
PhD, Washington University in St Louis, 2008
Sally H Clarke, Professor
History
PhD, Brown University, 1987
Nadya Clayton, Lecturer
Slavic and Eurasian Studies
PhD, University of Texas at Austin, 2010
Harry M Cleaver Jr, Associate Professor Emeritus
Economics
PhD, Stanford University, 1975
Tanya Elizabeth Clement, Assistant Professor
English
PhD, University of Maryland College Park, 2009
Dana L Cloud, Associate Professor
Rhetoric and Writing
PhD, University of lowa, 1992
Judith G Coffin, Associate Professor
History
Women's and Gender Studies
PhD, Yale University, 1985
Leslie B Cohen, Professor Emeritus
Psychology
PhD, University of California-Los Angeles, 1966
Matthew Cohen, Associate Professor
English
PhD, College of William and Mary, 2002
Olivier Coibion, Assistant Professor
Economics
PhD, University of Michigan-Ann Arbor, 2007
Kevin O Cokley, Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, Georgia State University, 1998
Juan J Colomina-Alminana, Assistant Professor
African and African Diaspora Studies
PhD, University of la Laguna, 2009
Chikako H Cooke, Lecturer
Asian Studies
MA, University of Wisconsin Colleges, 1995
Cary Cordova, Assistant Professor
American Studies
PhD, University of Texas at Austin, 2005
Lawrence K Cormack, Professor
Psychology

PhD, University of California-Berkeley, 1992
Ronald Covey, Associate Professor
Anthropology
PhD, University of Michigan-Ann Arbor, 2003
James H Cox, Associate Professor
English
Mexican American Studies
PhD, University of Nebraska - Lincoln, 1999
Corinne Petra Crane, Assistant Professor
Germanic Studies
PhD, Georgetown University, 2007
David F Crew, Professor
History
PhD, Cornell University, 1975
David P Crews, Professor
Psychology
PhD, Rutgers the State University of New Jersey Newark Campus, 1973
Kelley A Crews, Associate Professor
Geography and the Environment
PhD, University of North Carolina at Chapel Hill, 2000
Alfred W Crosby Jr, Professor Emeritus
American Studies
Geography and the Environment
History
PhD, Boston University, 1961
Robert Crosnoe, Professor
Elsie and Stanley E. (Skinny) Adams, Sr. Centennial Professorship in Liberal Arts
Psychology
Sociology
PhD, Stanford University, 1999
Megan J Crowhurst, Associate Professor
Linguistics
PhD, University of Arizona, 1991
Michael Cucher, Lecturer
Mexican American Studies
PhD, University of Southern California, 2011
Elizabeth Cullingford, Professor
Jane Weinert Blumberg Chair in English
English
Women's and Gender Studies
PhD, University of Oxford, 1977
Todd A Curtis, Lecturer
Classics
PhD, University of Newcastle Upon Tyne, 2010
Ann Cvetkovich, Professor
Ellen Clayton Garwood Centennial Professorship in Creative Writing \#2 English
Women's and Gender Studies
PhD, Cornell University, 1988
Douglas C Dacy, Professor
Economics
PhD, Harvard University, 1963
Cody Layne Damron, Associate Professor-ROTC

Military Science
BS, Sam Houston State University, 1994
Jonathan Dancy, Professor
Philosophy
MA, University of Oxford, 1972
D D Davis, Professor
English
Rhetoric and Writing
PhD, University of Texas at Arlington, 1995
Donald R Davis, Associate Professor
Asian Studies
PhD, University of Texas at Austin, 2000
Janet M Davis, Associate Professor
American Studies
History
Women's and Gender Studies
PhD, University of Wisconsin-Madison, 1998
King E Davis, Professor
Mike Hogg Professorship in Liberal Arts
African and African Diaspora Studies
PhD, Brandeis University, 1972
William H Davis, Assistant Professor-ROTC
Air Force Science
BS, United States Air Force Academy, 2008
Jack C De La Torre, Adjunct Professor
Psychology
PhD, University of Geneva, 1968
Lesley A Dean-Jones, Associate Professor Classics
PhD, Stanford University, 1987
Susan Deans-Smith, Associate Professor History
PhD, University of Cambridge, 1984
Victoria Maria Defrancesco, Adjunct Assistant Professor
Mexican American Studies
PhD, Duke University, 2007
John Deigh, Professor
Philosophy
PhD, University of California-Los Angeles, 1979
Lina Maria Del Castillo, Assistant Professor
History
PhD, University of Miami, 2007
Yvon Delville, Professor
Psychology
PhD, University of Massachusetts, 1992
James R Denbow, Professor
Anthropology
PhD, Indiana University at Bloomington, 1983
Joshua Dever, Associate Professor
Philosophy
PhD, University of California-Berkeley, 1998
Anthony F Di Fiore, Professor
Anthropology

PhD, University of California-Davis, 1997
Yoav Di-Capua, Associate Professor
History
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Princeton University, 2004
Rasha Diab, Assistant Professor
English
Middle Eastern Studies
Rhetoric and Writing
PhD, University of Wisconsin-Madison, 2009
Randy L Diehl, Professor
David Bruton, Jr. Regents Chair in Liberal Arts
Psychology
PhD, University of Minnesota-Twin Cities, 1975
Henry A Dietz, Professor
Government
PhD, Stanford University, 1975
Andrew P Dillon, Professor
Louis T. Yule Regents Professorship in Library and Information Science Psychology
PhD, Loughborough University, 1991
Diana M Dinitto, Professor
Cullen Trust Centennial Professorship in Alcohol Studies and Education
Women's and Gender Studies
PhD, Florida State University, 1980
Robert A Divine, Professor Emeritus
History
PhD, Yale University, 1954
Sinan Dogramaci, Assistant Professor
Philosophy
PhD, New York University, 2009
Brian F Doherty, Senior Lecturer
English
PhD, University of Wisconsin-Milwaukee, 1996
Juan M Dominguez, Associate Professor
Psychology
PhD, State University of New York at Buffalo, 2002
Hector Dominguez-Ruvalcaba, Associate Professor
Spanish and Portuguese
Women's and Gender Studies
PhD, University of Colorado at Boulder, 1999
Michael P Domjan, Professor
Psychology
PhD, McMaster University, 1973
Wendy I Domjan, Distinguished Senior Lecturer
Psychology
PhD, University of Wisconsin-Madison, 1977
Stephen Donald, Professor
Edward Everett Hale Centennial Professorship in Economics

## Economics

PhD, University of British Columbia, 1990
Bryan Andrew Donaldson, Assistant Professor
French and Italian

PhD, Indiana University at Bloomington, 2008
William Doolittle, Professor
Erich W. Zimmermann Regents Professorship in Geography
Geography and the Environment
PhD, University of Oklahoma Norman Campus, 1979
Robin W Doughty, Professor Emeritus
Geography and the Environment
PhD, University of California-Berkeley, 1971
Carolyn P Dunlap, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2000
Katherine Laura Dunlop, Assistant Professor
Philosophy
PhD, University of California-Los Angeles, 2005
Richard Dusansky, Professor
Richard J. Gonzalez Regents Chair in Economic Progress Based on
Freedom and Private Enterprise
Economics
PhD, Brown University, 1969
Christine L Duvauchelle, Associate Professor
Psychology
PhD, University of California-Santa Barbara, 1991
David J Eaton, Professor
Bess Harris Jones Centennial Professorship in Natural Resource Policy
Studies
Geography and the Environment
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Johns Hopkins University, 1977
Jennifer V Ebbeler, Associate Professor
Classics
PhD, University of Pennsylvania, 2001
Catharine H Echols, Associate Professor
Psychology
PhD, University of Illinois at Urbana-Champaign, 1987
John G Eden, Professor-ROTC
Naval Science
MS, US Army War College, 2008
Ingrid M Edlund-Berry, Professor Emeritus
Classics
PhD, Bryn Mawr College, 1971
David V Edwards, Professor
Government
PhD, Harvard University, 1966
Christopher B Ehlinger, Assistant Professor-ROTC
Naval Science
BA, Duke University, 2008
I Eibenstein-Alvisi, Lecturer
French and Italian
MA, Cornell University, 1995
Sheldon Ekland-OIson, Professor
Amy Johnson McLaughlin Administrative Chair in Human Ecology,
Rapoport Centennial Professorship of Liberal Arts
Sociology

PhD, University of Washington - Seattle, 1971
Tarek Adnan El-Ariss, Assistant Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Cornell University, 2004
Jules R Elkins, Lecturer
Geography and the Environment
PhD, University of California-Berkeley, 2008
Zachary S Elkins, Associate Professor
Government
PhD, University of California-Berkeley, 2003
Fred P Ellison, Professor Emeritus
Spanish and Portuguese
PhD, University of California-Berkeley, 1952
James M Enelow, Professor
Government
PhD, University of Rochester, 1977
Elizabeth Engelhardt, Professor
American Studies
Women's and Gender Studies
PhD, Emory University, 1999
Nora C England, Professor
Dallas TACA Centennial Professorship in the Humanities
Anthropology
Latin American Studies
Linguistics
PhD, University of Florida, 1975
Patience L Epps, Associate Professor
Linguistics
PhD, University of Virginia, 2005
Katrin E Erk, Associate Professor
Linguistics
PhD, Saarland University, 2002
Veit F Erlmann, Professor
History of Music Chair
Anthropology
PhD, Foreign Institution, 1978
Christopher Ernst, Lecturer
Jewish Studies
PhD, University of Toronto, 2011
Rhonda L Evans Case, Adjunct Associate Professor
Government
PhD, University of Texas at Austin, 2004
Jacqueline Josephine Evans, Lecturer
Psychology
PhD, University of Texas at Austin, 2011
Matthew Evans, Associate Professor
Philosophy
PhD, University of Texas at Austin, 2004
Lester L Faigley, Professor
Robert Adger Law and Thos. H. Law Centennial Professorship in
Humanities
English
Rhetoric and Writing

PhD, University of Washington - Seattle, 1976
Toni L Falbo, Professor
Sociology
PhD, University of California-Los Angeles, 1973
Oloruntoyin O Falola, Professor
Jacob and Frances Sanger Mossiker Chair in the Humanities \#2
African and African Diaspora Studies
African and African Diaspora Studies
History
PhD, Obafemi Awolowo University, 1981
Laila H Familiar, Lecturer
Middle Eastern Studies
MA, American University in Cairo, 2008
Hafez Farmayan, Professor Emeritus
History
PhD, Georgetown University, 1953
Norman K Farmer Jr, Professor Emeritus
English
PhD, University of Pennsylvania, 1966
John P Farrell, Professor Emeritus
English
PhD, Indiana University at Bloomington, 1967
Mark D Feldman, Lecturer
Economics
PhD, University of California-Davis, 1982
Robert A Fernea, Professor Emeritus
Anthropology
Middle Eastern Studies Ctr
PhD, University of Chicago, 1959
Linda Ferreira-Buckley, Associate Professor
English
Rhetoric and Writing
PhD, University of Pennsylvania, 1990
Christopher L Field, Assistant Professor-ROTC
Naval Science
BS, Saint Louis University, 1994
Enrique H Fierro, Associate Professor Emeritus
Spanish and Portuguese
BEd, Instituto de Profesores Artigas, 1973
Michael G Findley, Assistant Professor
Government
PhD, University of Illinois at Urbana-Champaign, 2007
Karen L Fingerman, Professor
Psychology
PhD, University of Michigan-Ann Arbor, 1993
Stephen E Finn, Clinical Associate Professor
Psychology
PhD, University of Minnesota-Twin Cities, 1984
Walter I Firey Jr, Professor Emeritus
Sociology
PhD, Harvard University, 1945
Kirsten Cather, Associate Professor
Asian Studies

PhD, University of California-Berkeley, 2004
Larry Fisher, Clinical Assistant Professor
Psychology
PhD, New York University, 1969
Brian S Fitzpatrick, Associate Professor-ROTC
Naval Science
MA, Air University, 2008
George F Flaherty, Assistant Professor
Mexican American Studies
PhD, University of California-Santa Barbara, 2010
Vivian Flanzer, Senior Lecturer
Spanish and Portuguese
MA, Universidade Federal do Rio de Janeiro, 1994
Richard R Flores, Professor
C. B. Smith, Sr. Centennial Chair in United States-Mexico Relations \#3

Anthropology
Mexican American Studies
PhD, University of Texas at Austin, 1989
Betty M Flowers, Professor Emeritus
English
PhD, University of London, 1973
William E Forbath, Professor
Lloyd M. Bentsen Chair in Law
History
JD, Yale University, 1983
George B Forgie, Associate Professor
History
PhD, Stanford University, 1972
Kevin M Foster, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
Anthropology
PhD, University of Texas at Austin, 2001
Carrie Fountain, Lecturer
English
MFA, University of Texas at Austin, 2004
Maria Franklin, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
Anthropology
PhD, University of California-Berkeley, 1997
Alison K Frazier, Associate Professor
History
Religious Studies
PhD, Columbia University in the City of New York, 1996
Gary P Freeman, Professor
Government
PhD, University of Wisconsin-Madison, 1975
Oliver Freiberger, Associate Professor
Asian Studies
Religious Studies
PhD, Georg-August Universitat Gottingen, 1999
Eric D Frey, Clinical Assistant Professor
Psychology

PhD, Texas Tech University, 1999
Daniel G Fridman, Assistant Professor
Latin American Studies
Sociology
PhD, Columbia University in the City of New York, 2010
Alan W Friedman, Professor
Arthur J. Thaman and Wilhelmina Dore' Thaman Endowed Professorship
in English \#3
English
PhD, University of Rochester, 1966
Stanley Friedman, Clinical Assistant Professor
Psychology
PhD, University of Notre Dame, 1983
Steven J Friesen, Professor
The Louise Farmer Boyer Chair in Biblical Studies
Classics
Religious Studies
Religious Studies
PhD, Harvard University, 1990
William P Frisbie, Professor Emeritus
Sociology
PhD, University of North Carolina at Chapel Hill, 1972
Adria Frizzi, Lecturer
French and Italian
PhD, Pennsylvania State University Main Campus, 1988
Penelope F Frohlich, Clinical Assistant Professor
Psychology
PhD, University of Texas at Austin, 2003
Kim Fromme, Professor
Psychology
PhD, University of Washington - Seattle, 1988
Kirkland A Fulk, Lecturer
Germanic Studies
Germanic Studies
PhD, University of North Carolina at Chapel Hill, 2013
Kelly Fulton, Lecturer
Sociology
PhD, University of Texas at Austin, 2004
Laura J Furman, Professor Emeritus
English
BA, Bennington College, 1968
Michael Gagarin, Professor Emeritus
Classics
PhD, Yale University, 1968
James K Galbraith, Professor
Lloyd M. Bentsen, Jr. Chair in Government/Business Relations
Government
PhD, Yale University, 1981
Karl Galinsky, Professor
Floyd A. Cailloux Centennial Professorship
Classics
PhD, Princeton University, 1966
Omer R Galle, Professor Emeritus
Sociology

PhD, University of Chicago, 1968
Patricia M Garcia, Lecturer
English
PhD, Texas A \& M University, 2006
Seth W Garfield, Associate Professor
History
Latin American Studies
PhD, Yale University, 1996
James D Garrison, Professor
Archibald A. Hill Regents Professorship in American and English
Literature
English
PhD, University of California-Berkeley, 1972
Thomas J Garza, Associate Professor
Mexican American Studies
Slavic and Eurasian Studies
EdD, Harvard University, 1987
Francis J Gavin, Associate Professor
History
PhD, University of Pennsylvania, 1997
Bertram Gawronski, Professor
Psychology
PhD, Humboldt Universitat zu Berlin, 2001
Wilson S Geisler III, Professor
David Wechsler Regents Chair in Psychology
Psychology
PhD, Indiana University at Bloomington, 1975
Vincent J Geraci, Professor Emeritus
Economics
PhD, University of Wisconsin-Madison, 1974
Michael L Geruso, Assistant Professor
Economics
PhD, Princeton University, 2012
Zulfikar A Ghose, Professor Emeritus English
BA, Keele University, 1959
Kaushik Ghosh, Assistant Professor
Anthropology
Asian Studies
PhD, Princeton University, 2006
Robert D Giannini, Assistant Professor-ROTC
Air Force Science
MBA, Southern New Hampshire University, 2011
Dorie J Gilbert, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
Women's and Gender Studies
PhD, University of Texas at Austin, 1996
David L Gilden, Professor
Psychology
PhD, University of Texas at Austin, 1982
Lyndon K Gill, Assistant Professor
African and African Diaspora Studies
Anthropology

PhD, Harvard University, 2010
Kate Gillespie, Associate Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of London, 1983
Terri E Givens, Associate Professor
African and African Diaspora Studies
European Studies
Government
PhD, University of California-Los Angeles, 1999
William P Glade, Professor Emeritus
Economics
PhD, University of Texas at Austin, 1955
Jennifer Glass, Professor
Barbara Pierce Bush Regents Professorship in Liberal Arts
Sociology
PhD, University of Wisconsin-Madison, 1983
Andrew Stephen Glover, Assistant Professor
Economics
PhD, University of Minnesota-Twin Cities, 2011
Jorge M Gomez-Bocanegra, Lecturer
Spanish and Portuguese
PhD, Universidad Nacional de Cordoba, 2006
Alfonso Gonzales, Assistant Professor
Government
PhD, University of California-Los Angeles, 2008
Rueben A Gonzales, Professor
Jacques P. Servier Regents Professorship in Pharmacy
Psychology
PhD, University of Texas at Austin, 1983
John M Gonzalez, Associate Professor
English
Mexican American Studies
PhD, Stanford University, 1998
Miguel Gonzalez-Gerth, Professor Emeritus
Spanish and Portuguese
PhD, Princeton University, 1973
F Gonzalez-Lima, Professor
George I. Sanchez Centennial Professorship in Liberal Arts Psychology
PhD, University of Pr Medical Sciences, 1980
Gloria Gonzalez-Lopez, Associate Professor
Mexican American Studies
Sociology
PhD, University of Southern California, 2000
Lalitha Gopalan, Associate Professor
Asian Studies
PhD, University of Rochester, 1993
Edmund T Gordon, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
Anthropology
PhD, Stanford University, 1981
Andrea C Gore, Professor

Gustavus and Louise Pfeiffer Professorship in Toxicology
Psychology
PhD, University of Wisconsin-Madison, 1990
Samuel D Gosling, Professor
Psychology
PhD, University of California-Berkeley, 1998
Philip B Gough, Professor Emeritus
Psychology
PhD, University of Minnesota-Twin Cities, 1961
Lewis L Gould, Professor Emeritus
History
PhD, Yale University, 1966
Jennifer Graber, Associate Professor
Religious Studies
PhD, Duke University, 2006
Don B Graham, Professor
J. Frank Dobie Regents Professorship in American and English Literature English
PhD, University of Texas at Austin, 1971
Lawrence S Graham, Professor Emeritus
Government
PhD, University of Florida, 1965
Richard Graham, Professor Emeritus
History
PhD, University of Texas at Austin, 1961
Jerry R Grammer, Adjunct Assistant Professor
Psychology
PhD, University of Texas Southwestern Medical Center at Dallas, 1982
Darlene Grant, Associate Professor
African and African Diaspora Studies
PhD, University of Tennessee, 1993
Richard B Grant, Professor Emeritus
French and Italian
PhD, Harvard University, 1952
Tracy N Graves, Lecturer
Germanic Studies
MA, The University of Alabama, 2003
Laurie B Green, Associate Professor
African and African Diaspora Studies
History
Women's and Gender Studies
PhD, University of Chicago, 1999
Penny A Green, Senior Lecturer
Sociology
PhD, University of Texas at Austin, 1986
Peter M Green, Professor Emeritus
Classics
PhD, University of Cambridge, 1954
Kenneth F Greene, Associate Professor
Government
PhD, University of California-Berkeley, 2002
Benjamin G Gregg, Associate Professor
Government

PhD, Princeton University, 1996
Zenzi M Griffin, Professor
Linguistics
Psychology
PhD, University of Illinois at Urbana-Champaign, 1998
Kali N Gross, Associate Professor
African and African Diaspora Studies
History
Women's and Gender Studies
PhD, University of Pennsylvania, 1999
Karen Grumberg, Associate Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of California-Los Angeles, 2004
Sumit Guha, Professor
Frances Higginbotham Nalle Centennial Professorship in History
Asian Studies
History
PhD, University of Cambridge, 1982
Nicole Marie Guidotti-Hernandez, Associate Professor
American Studies
Mexican American Studies
Women's and Gender Studies
PhD, Cornell University, 2004
Nancy C Guilloteau, Lecturer
French and Italian
PhD, University of Texas at Austin, 1997
Joann Gulizio, Lecturer
Classics
PhD, University of Texas at Austin, 2011
Joshua G Gunn, Associate Professor
Rhetoric and Writing
PhD, University of Minnesota-Twin Cities, 2002
Frank A Guridy, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
History
PhD, University of Michigan-Ann Arbor, 2002
Laura G Gutierrez, Associate Professor
Mexican American Studies
PhD, University of Wisconsin-Madison, 2000
Travis M Habhab, Professor-ROTC
Military Science
MBA, Texas A \& M University, 2006
Jo Ann Hackett, Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
Religious Studies
PhD, Harvard University, 1980
Hossein Haghshenas, Senior Lecturer
Sociology
PhD, University of Texas at Austin, 1991
Sabine Hake, Professor
Texas Chair of German Literature and Culture
Geography and the Environment

Germanic Studies
Women's and Gender Studies
PhD, Universitat Hannover, 1984
Charles R Hale, Professor
Chair for Western Hemispheric Trade Studies
African and African Diaspora Studies
African and African Diaspora Studies
Anthropology
Latin American Studies
PhD, Stanford University, 1990
Andreana P Haley, Assistant Professor
Psychology
PhD, University of Virginia, 2005
Michael G Hall, Professor Emeritus
History
PhD, Johns Hopkins University, 1956
Daniel S Hamermesh, Professor
Sue Killam Professorship in the Foundations of Economics
Economics
PhD, Yale University, 1969
Sukjin Han, Assistant Professor
Economics
PhD, Yale University, 2012
Ian F Hancock, Professor
Harold C. and Alice T. Nowlin Regents Professorship in Liberal Arts
English
Linguistics
PhD, University of London, 1971
Robert J Hankinson, Professor

## Classics

Philosophy
PhD, University of Cambridge, 1985
Henry M Hanna, Clinical Assistant Professor
Psychology
PhD, University of Texas at Austin, 1991
Kathryn G Hansen, Professor Emeritus
Asian Studies
PhD, University of California-Berkeley, 1978
Niles M Hansen, Professor Emeritus
Economics
PhD, Indiana University at Bloomington, 1963
Kathryn Paige Harden, Assistant Professor
Psychology
PhD, University of Virginia, 2009
Robert L Hardgrave, Professor Emeritus
Government
PhD, University of Chicago, 1966
Julie Hardwick, Professor
History
PhD, Johns Hopkins University, 1991
Barbara J Harlow, Professor
Louann and Larry Temple Centennial Professorship in English Literature English
Middle Eastern Studies
Middle Eastern Studies Ctr

Women's and Gender Studies
PhD, State University of New York at Buffalo, 1977
Robert T Harms, Professor Emeritus
Linguistics
PhD, University of Chicago, 1960
Michael P Harney, Associate Professor
Spanish and Portuguese
PhD, University of California-Berkeley, 1983
Louis Harrison, Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, Louisiana State University and Agricultural and Mechanical College, 1997

Roderick P Hart, Professor
Allan Shivers Centennial Chair in Communication, Walter Cronkite
Regents Chair in Communication
Government
PhD, Pennsylvania State University Park, 1970
John Hartigan, Professor
Anthropology
PhD, University of California-Santa Cruz, 1995
Edeltraud Harzer, Senior Lecturer
Asian Studies
PhD, University of Washington - Seattle, 1986
Shahnaz Hassan, Lecturer
Asian Studies
BA, University of the Punjab, 1989
Junko Hatanaka, Lecturer
Asian Studies
MA, University of Wisconsin-Madison, 1998
John William Hatfield, Associate Professor
Economics
PhD, Stanford University, 2005
Raymond C Hawkins II, Clinical Assistant Professor
Psychology
PhD, University of Pennsylvania, 1975
Mary M Hayhoe, Professor
Psychology
PhD, University of California-San Diego, 1979
Mark D Hayward, Professor
Sociology
Women's and Gender Studies
PhD, Indiana University at Bloomington, 1981
Elizabeth A Hedrick, Associate Professor
English
PhD, Columbia University in the City of New York, 1986
Julian V Heilig, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, Stanford University, 2006
Hubert P Heinen, Professor Emeritus
Germanic Studies
PhD, University of Texas at Austin, 1964

Carolyn Heinrich, Professor
Sid Richardson Chair in Public Affairs
Economics
PhD, University of Chicago, 1995
Kurt O Heinzelman, Professor
English
PhD, University of Massachusetts, 1978
Susan S Heinzelman, Associate Professor
English
Women's and Gender Studies
PhD, University of Western Ontario, 1978
Marlone D Henderson, Assistant Professor

## Psychology

PhD, New York University, 2006
Geraldine Heng, Associate Professor
English
Middle Eastern Studies Ctr
Women's and Gender Studies
PhD, Cornell University, 1990
Jacqueline M Henkel, Associate Professor English
Rhetoric and Writing
PhD, University of Minnesota-Twin Cities, 1985
Clement M Henry, Professor Emeritus
Government
PhD, Harvard University, 1963
Frederick G Hensey, Professor Emeritus
Spanish and Portuguese
PhD, University of Texas at Austin, 1967
James R Henson, Lecturer
Government
PhD, University of Texas at Austin, 1996
Jared T Hepler, Assistant Professor-ROTC
Military Science
BS, Winston-Salem State University, 2004
Hala Herbly, Lecturer
English
PhD, University of Texas at Austin, 2013
Van A Herd, Lecturer
Women's and Gender Studies
PhD, University of Oklahoma Norman Campus, 2008
Jeanette M Herman, Lecturer
Women's and Gender Studies
PhD, University of Texas at Austin, 2004
Peter Hess, Associate Professor
European Studies
Germanic Studies
PhD, University of Michigan-Ann Arbor, 1984
Thomas R Hester, Professor Emeritus
Anthropology
PhD, University of California-Berkeley, 1972
Richard Heyman, Lecturer
Geography and the Environment

PhD, University of Washington - Seattle, 2004
Wayne R Hickenbottom, Senior Lecturer
Economics
PhD, University of Minnesota-Twin Cities, 1992
Virginia Higginbotham, Associate Professor Emeritus
Spanish and Portuguese
PhD, Tulane University, 1966
Kathleen M Higgins, Professor
Philosophy
PhD, Yale University, 1982
John C Higley, Professor Emeritus
Government
PhD, University of Connecticut, 1968
Forest G Hill, Professor Emeritus
Economics
PhD, Columbia University in the City of New York, 1950
Michael C Hillmann, Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of Chicago, 1974
Robin Hilsabeck, Clinical Associate Professor
Psychology
PhD, Louisiana State University and Agricultural and Mechanical College, 1999

Heather Hindman, Assistant Professor
Anthropology
Asian Studies
PhD, University of Chicago, 2003
R Roland Hinojosasmith, Professor
Ellen Clayton Garwood Centennial Professorship in Creative Writing \#1
English
Spanish and Portuguese
PhD, University of Illinois at Urbana-Champaign, 1969
Lars Hinrichs, Associate Professor
English
PhD, Albert Ludwig University Freiburg im Breisgau, 2006
James A Hitt, Associate Professor Emeritus
Classics
PhD, Princeton University, 1954
John G Hixon, Lecturer
Psychology
PhD, University of Texas at Austin, 1991
Neville Hoad, Associate Professor
English
Women's and Gender Studies
PhD, Columbia University in the City of New York, 1998
John M Hoberman, Professor
Germanic Studies
PhD, University of California-Berkeley, 1975
Herbert I Hochberg, Professor Emeritus
Philosophy
PhD, University of lowa, 1954
Steven D Hoelscher, Professor

American Studies
Geography and the Environment
PhD, University of Wisconsin-Madison, 1995
Carole K Holahan, Professor
Psychology
PhD, University of Texas at Austin, 1976
Charles J Holahan, Professor
Psychology
PhD, University of Massachusetts, 1971
Jakob Holm, Lecturer
Germanic Studies
MA, University of Southern Denmark, 1997
Stephanie S Holmsten, Lecturer
Government
PhD, University of Texas at Austin, 2012
Wayne H Holtzman, Professor Emeritus
Psychology
PhD, Stanford University, 1950
Robert K Holz, Professor Emeritus
African and African Diaspora Studies
Geography and the Environment
Middle Eastern Studies Ctr
PhD, Michigan State University, East Lansing, 1963
Shu feng Hong, Lecturer
Asian Studies
MA, National Taiwan Normal University, 2005
Juliet A Hooker, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
Government
Latin American Studies
PhD, Cornell University, 2001
Christopher Hoover, Assistant Professor-ROTC
Naval Science
BS, United States Naval Academy, 2006
Antony G Hopkins, Research Affiliate - Research Fellow
History
PhD, University of London, 1964
Kristine L Hopkins, Research Assistant Professor Sociology
PhD, University of Texas at Austin, 1998
Mariah E Hopkins, Lecturer
Anthropology
PhD, University of California-Berkeley, 2008
Joseph M Horn, Professor Emeritus
Psychology
PhD, University of Minnesota-Twin Cities, 1969
Aimee Hosemann, Lecturer
Anthropology
PhD, Southern Illinois University Carbondale, 2013
Stephanie Ann Houghton, Senior Lecturer
Economics
PhD, Duke University, 2008

Ghada Housen, Lecturer
Russian, East European, and Eurasian Studies
BA, Univeristy of Damascus, 2003
Heather Houser, Assistant Professor
English
PhD, Stanford University, 2010
Camilla H Hsieh, Senior Lecturer
Asian Studies
PhD, University of Texas at Austin, 1995
Madeline Y Hsu, Associate Professor
Asian Studies
History
PhD, Yale University, 1996
Thomas K Hubbard, Professor
Classics
PhD, Yale University, 1980
John Huehnergard, Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Harvard University, 1979
David L Huff, Professor Emeritus
Geography and the Environment
PhD, University of Washington - Seattle, 1960
Alexander C Huk, Associate Professor
Psychology
PhD, Stanford University, 2001
Janice R Hullum, Lecturer
Sociology
PhD, University of Texas at Austin, 1980
Robert A Hummer, Professor
Centennial Commission Professorship in the Liberal Arts \#1 Sociology
PhD, Florida State University, 1993

Bruce J Hunt, Associate Professor
History
PhD, Johns Hopkins University, 1984
Wendy A Hunter, Professor
Government
PhD, University of California-Berkeley, 1992
Coleman Hutchison, Associate Professor
English
PhD, Northwestern University, 2006
Syed A Hyder, Associate Professor
Asian Studies
Middle Eastern Studies Ctr
PhD, Harvard University, 2000
James G Hynes, Lecturer
English
MFA, University of Iowa, 1989
William Inboden, Associate Professor
History
PhD, Yale University, 2003
Yasmiyn Irizarry Murphy, Assistant Professor

African and African Diaspora Studies
PhD, Indiana University at Bloomington, 2011
Ira Iscoe, Professor Emeritus
Psychology
PhD, University of California-Los Angeles, 1951
Gary J Jacobsohn, Professor
H. Malcolm Macdonald Chair in Constitutional and Comparative Law

Government
PhD, Cornell University, 1972
F Tomasson Jannuzi, Professor Emeritus
Economics
PhD, University of London, 1958
Min Jung Jee, Lecturer
Asian Studies
PhD, University of Texas at Austin, 2010
Jody Jensen, Professor
Psychology
PhD, University of Maryland College Park, 1989
Robert W Jensen, Professor
Women's and Gender Studies
PhD, University of Minnesota-Twin Cities, 1992
Jiwon Jeon, Lecturer
Sociology
PhD, University of Wisconsin-Madison, 1992
Stephen A Jessee, Associate Professor
Government
PhD, Stanford University, 2007
Patricia S Johansson, Lecturer
Germanic Studies
MA, University of Texas at Austin, 2010
Jane A Johnson, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 1996
Peri A Johnson, Other University Affiliate
Middle Eastern Studies
PhD, University of Pennsylvania, 2010
Barbara L Jones, Associate Professor
Women's and Gender Studies
PhD, State University of New York at Albany, 2004
Bryan D Jones, Professor
J. J. "Jake" Pickle Regents Chair in Congressional Studies

Government
PhD, University of Texas at Austin, 1970
Claire C Jones, Lecturer
French and Italian
PhD, University of Texas at Austin, 2013
Jacqueline Jones, Professor
Walter Prescott Webb Chair in History and Ideas, Mastin Gentry White
Professorship in Southern History
History
PhD, University of Wisconsin-Madison, 1976
Omi Osun Joni L Jones, Associate Professor
African and African Diaspora Studies

African and African Diaspora Studies
PhD, New York University, 1993
Theresa A Jones, Professor
Psychology
PhD, University of Texas at Austin, 1992
Bella B Jordan, Lecturer
Slavic and Eurasian Studies
PhD, University of Texas at Austin, 2002
Robert A Josephs, Professor
Psychology
PhD, University of Michigan-Ann Arbor, 1990
Cory F Juhl, Professor
Philosophy
PhD, University of Pittsburgh, Pittsburgh Campus, 1992
Lee Ann Kahlor, Associate Professor
Women's and Gender Studies
PhD, University of Wisconsin-Madison, 2003
Neil D Kamil, Associate Professor
History
PhD, Johns Hopkins University, 1989
Bernadeta Kaminska, Lecturer
Germanic Studies
Slavic and Eurasian Studies
MA, Adam Mickiewicz University, 1988
Johan A Kamp, Visiting Professor
Linguistics
Philosophy
PhD, University of California-Los Angeles, 1968
Robert H Kane, Professor Emeritus
Philosophy
PhD, Yale University, 1964
Jonathan Kaplan, Assistant Professor
Middle Eastern Studies
PhD, Harvard University, 2010
John W Kappelman Jr, Professor
Anthropology
PhD, Harvard University, 1987
Akemi Katayama, Lecturer
Asian Studies
MA, Portland State University, 1996
Ernest N Kaulbach, Professor
English
PhD, Cornell University, 1970
Parviz K Kavoussi, Adjunct Assistant Professor
Psychology
MD, Baylor College of Medicine, 2002
James Charles Kearney, Lecturer
Germanic Studies
PhD, University of Texas at Austin, 2010
Elizabeth L Keating, Professor
Anthropology
Linguistics
PhD, University of California-Los Angeles, 1994

Ward W Keeler, Associate Professor
Anthropology
Women's and Gender Studies
PhD, University of Chicago, 1982
Matthias Kehrig, Assistant Professor
Economics
PhD, Northwestern University, 2011
Darren D Kelly, Lecturer
History
PhD, University of Texas at Austin, 2012
William R Kelly, Professor
Sociology
PhD, Indiana University at Bloomington, 1979
Orlando R Kelm, Associate Professor
Spanish and Portuguese
PhD, University of California-Berkeley, 1989
David A Kendrick, Professor
Ralph W. Yarborough Centennial Professorship of Liberal Arts

## Economics

PhD, Massachusetts Institute of Technology, 1966
Martin W Kevorkian, Associate Professor
English
PhD, University of California-Los Angeles, 2000
Joseph A Kieke, Clinical Associate Professor
Liberal Arts
BA, University of Texas at Austin, 1978
Su Yeong Kim, Associate Professor
Women's and Gender Studies
PhD, University of California-Davis, 2003
Sara E Kimball, Associate Professor
English
PhD, University of Pennsylvania, 1983
Troy M Kimmel Jr, Senior Lecturer
Geography and the Environment
BS, Texas A \& M University, 1983
Karen R King, Lecturer
American Studies
PhD, University of Texas at Austin, 2000
Robert D King, Professor Emeritus
Linguistics
PhD, University of Wisconsin-Madison, 1965
David S Kirk, Associate Professor
Sociology
PhD, University of Chicago, 2006
Edward C Kirk, Associate Professor
Anthropology
PhD, Duke University, 2003
Brendan Andrew Kline, Assistant Professor
Economics
PhD, Northwestern University, 2012
Sebastian Klor, Lecturer
Jewish Studies
PhD, University of Haifa, 2013

Gregory W Knapp, Associate Professor
Geography and the Environment
PhD, University of Wisconsin-Madison, 1984
Paul Kockelman, Professor
Anthropology
PhD, University of Chicago, 2002
Dale A Koike, Professor
Spanish and Portuguese
PhD, University of New Mexico Main Campus, 1981
John S Kolsti, Professor Emeritus
Slavic and Eurasian Studies
PhD, Harvard University, 1968
Robert C Koons, Professor
Philosophy
PhD, University of California-Los Angeles, 1987
David D Kornhaber, Assistant Professor
English
PhD, Columbia University in the City of New York, 2009
Donna Marie Kornhaber, Assistant Professor
English
PhD, Columbia University in the City of New York, 2009
Charles A Krecz, Senior Lecturer
Philosophy
PhD, University of Texas at Austin, 1975
John H Kroll, Professor Emeritus
Classics
PhD, Harvard University, 1968
Joseph E Kruppa, Professor Emeritus
English
PhD, Johns Hopkins University, 1964
Shanti Kumar, Associate Professor
Asian Studies
PhD, Indiana University at Bloomington, 1987
Tatiana Kuzmic, Assistant Professor
Slavic and Eurasian Studies
PhD, University of Illinois at Urbana-Champaign, 2008
Francois P Lagarde, Associate Professor
French and Italian
PhD, Stanford University, 1985
Chiu-Mi Lai, Senior Lecturer
Asian Studies
PhD, University of Washington - Seattle, 1990
Knud P Lambrecht, Professor Emeritus
French and Italian
PhD, University of California-Berkeley, 1986
John E Lamphear, Professor Emeritus
History
PhD, University of London, 1972
Brent Landau, Lecturer
Religious Studies
ThD, Harvard University, 2008
Tim Landvoigt, Assistant Professor
Economics

PhD, Stanford University, 2013
Judith H Langlois, Professor
Charles and Sarah Seay Regents Professorship in Developmental
Psychology
Psychology
PhD, Louisiana State University and Agricultural and Mechanical College, 1973

Elayne L Lansford, Clinical Assistant Professor
Psychology
PhD, University of Michigan-Ann Arbor, 1982
Richard W Lariviere, Professor Emeritus
Asian Studies
PhD, University of Pennsylvania, 1978
Peter N Lasalle, Professor
Susan Taylor McDaniel Regents Professorship in Creative Writing \#2 English
MA, University of Chicago, 1972
Clarence G Lasby, Professor Emeritus
History
PhD, University of California-Los Angeles, 1962
Edgardo M Latrubesse, Professor
Geography and the Environment
PhD, National University of San Luis, 1992
Daniel A Law, Assistant Professor
Linguistics
PhD, University of Texas at Austin, 2011
Mark A Lawrence, Associate Professor
History
PhD, Yale University, 1998
David L Leal, Professor
Government
Mexican American Studies
PhD, Stanford University, 1998
Hongjoo J Lee, Assistant Professor
Psychology
PhD, Yale University, 2002
Cristine H Legare, Assistant Professor
Psychology
PhD, University of Michigan-Ann Arbor, 2008
Jeffrey C Leon, Lecturer
Philosophy
PhD, University of Texas at Austin, 1993
Kari Rene Nations, Clinical Assistant Professor
Psychology
PhD, University of Texas at Austin, 2002
Janice Leoshko, Associate Professor
Asian Studies
PhD, Ohio State U Main Campus, 1987
Wayne Lesser, Associate Professor
English
PhD, University of Chicago, 1975
Brian P Levack, Professor
John E. Green Regents Professorship in History

History
PhD, Yale University, 1969
Philippa Judith Levine, Professor
Mary Helen Thompson Centennial Professorship in the Humanities History
Women's and Gender Studies
PhD, University of Oxford, 1984
Sanford V Levinson, Professor
W. St. John Garwood and W. St. John Garwood, Jr. Centennial Chair in Law
Government
JD, Stanford University, 1973
Marc S Lewis, Associate Professor
Psychology
PhD, University of Cincinnati Main Campus, 1973
Randolph R Lewis, Professor
American Studies
Anthropology
PhD, University of Texas at Austin, 1994
Rebecca J Lewis, Associate Professor
Anthropology
PhD, Duke University, 2004
Jarrod Alan Lewis-Peacock, Assistant Professor
Psychology
PhD, University of Wisconsin-Madison, 2010
Huaiyin Li, Professor
Asian Studies
History
PhD, University of California-Los Angeles, 2000
Tatjana Lichtenstein, Assistant Professor
History
PhD, University of Toronto, 2009
Harold A Liebowitz, Professor Emeritus
Middle Eastern Studies
PhD, University of Pennsylvania, 1972
Robert P Lieli, Lecturer
Economics
PhD, University of California-San Diego, 2004
Vladimir Lifschitz, Professor
Professorship in Computer Sciences \#2
Philosophy
PhD, Steklov Mathematical Institute, 1969
Jose E Limon, Professor Emeritus
English
PhD, University of Texas at Austin, 1978
Ken-Hou Lin, Assistant Professor
Sociology
PhD, University of Massachusetts, 2013
Tse-Min Lin, Associate Professor
Government
PhD, University of Minnesota-Twin Cities, 1990
Yi-Chun Lin, Lecturer
Asian Studies

MA, National Taiwan University, 2010
Bjorn E Lindblom, Professor Emeritus
Linguistics
PhD, Lund University, 1968
Leigh L Linden, Assistant Professor Economics
PhD, Massachusetts Institute of Technology, 2004
Bernth O Lindfors, Professor Emeritus

## English

PhD, University of California-Los Angeles, 1969
Naomi E Lindstrom, Professor
Spanish and Portuguese
PhD, Arizona State University Main, 1974
Jane N Lippmann, Professor Emeritus
French and Italian
PhD, University of Illinois at Urbana-Champaign, 1965
Jon E Litland, Assistant Professor
Philosophy
PhD, Harvard University, 2012
Lily Litvak, Professor Emeritus
Spanish and Portuguese
PhD, University of California-Berkeley, 1972
Amy H Liu, Assistant Professor
Government
PhD, Emory University, 2009
Xuecheng Liu, Visiting Associate Professor
Government
PhD, University of Texas at Austin, 1993
Xavier Livermon, Assistant Professor
African and African Diaspora Studies
Women's and Gender Studies
PhD, University of California-Berkeley, 2006
Keith A Livers, Associate Professor
Slavic and Eurasian Studies
PhD, University of Michigan-Ann Arbor, 1995
James N Loehlin, Professor
Shakespeare at Winedale Regents Professorship
English
PhD, Stanford University, 1993
John C Loehlin, Professor Emeritus
Psychology
PhD, University of California-Berkeley, 1957
Mark G Longaker, Associate Professor
English
Rhetoric and Writing
PhD, Pennsylvania State University Main Campus, 2003
Martita A Lopez, Clinical Professor
Psychology
PhD, Syracuse University Main Campus, 1977
Michael Lopez, Clinical Associate Professor Liberal Arts
MA, University of Texas - Pan American, 1991
William R Louis, Professor

Mildred Caldwell and Baine Perkins Kerr Centennial Chair in English History and Culture, Jo Anne Christian Centennial Professorship in British Studies
History
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of Oxford, 1962
Bradley C Love, Adjunct Professor
Psychology
PhD, Northwestern University, 1999
Timothy J Loving, Associate Professor
Psychology
PhD, Purdue University Main Campus, 2001
Xiaobo Lu, Assistant Professor
Government
PhD, Yale University, 2011
Marta E Lujan, Professor Emeritus
Spanish and Portuguese
PhD, University of Texas at Austin, 1972
Steven J Lundy, Lecturer
Classics
PhD, University of Texas at Austin, 2013
Ayelet H Lushkov, Assistant Professor
Classics
PhD, Yale University, 2009
Robert C Luskin, Associate Professor
Government
PhD, University of Michigan-Ann Arbor, 1983
Edward A Macduffie III, Assistant Professor
English
PhD, Harvard University, 2006
Carol H MacKay, Professor
English
Women's and Gender Studies
PhD, University of California-Los Angeles, 1979
Patricia Maclachlan, Associate Professor
Asian Studies
Government
PhD, Columbia University in the City of New York, 1996
Peter F Macneilage, Professor Emeritus
Psychology
PhD, McGill University, 1962
W T Maddox, Professor
Psychology
PhD, University of California-Santa Barbara, 1992
Raul L Madrid, Professor
Government
PhD, Stanford University, 1999
Stephen P Magee, Professor
James L. Bayless/Enstar Corp. Chair in Business Administration Economics
PhD, Massachusetts Institute of Technology, 1969
James L Magnuson, Professor
English

MS, University of Wisconsin-Madison, 1964
Minkah Makalani, Assistant Professor
African and African Diaspora Studies
PhD, University of Illinois at Urbana-Champaign, 2004
Madhavi Mallapragada, Assistant Professor
Asian Studies
PhD, University of Wisconsin-Madison, 2003
Eric S Mallin, Associate Professor

## English

PhD, Stanford University, 1986
Joseph F Malof, Professor Emeritus
English
PhD, University of California-Los Angeles, 1961
Ian R Manners, Professor Emeritus
Geography and the Environment
PhD, University of Oxford, 1969
Dayanand Manoli, Assistant Professor
Economics
PhD, University of California-Berkeley, 2008
George B Mansbridge, Clinical Assistant Professor
Psychology
PhD, Boston University, 1979
Sanford C Marble, Lecturer
Economics
PhD, University of Texas at Austin, 1996
Mollie T Marchione, Lecturer
Women's and Gender Studies
PhD, State University of New York at Albany, 2004
Abraham Marcus, Associate Professor Emeritus

## History

PhD, Columbia University in the City of New York, 1979
Arthur B Markman, Professor
Annabel Irion Worsham Centennial Professorship in Liberal Arts
Psychology
PhD, University of Illinois at Urbana-Champaign, 1992
Lilian I Marquez Barrientos, Lecturer
Latin American Studies
PhD, Indiana University at Bloomington, 2011
Ray Marshall, Professor Emeritus
Audre and Bernard Rapoport Centennial Chair in Economics

## Economics

PhD, University of California-Berkeley, 1954
Stephen H Marshall, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
American Studies
PhD, Harvard University, 2002
Susan E Marshall, Professor
Sociology
PhD, University of Massachusetts, 1980
Leticia J Marteleto, Assistant Professor
Sociology
PhD, University of Michigan-Ann Arbor, 2001

Norman M Martin, Professor Emeritus
Philosophy
PhD, University of California-Los Angeles, 1952
Alberto A Martinez, Associate Professor History
PhD, University of Minnesota-Twin Cities, 2000
Anne M Martinez, Assistant Professor
History
Mexican American Studies
PhD, University of Minnesota-Twin Cities, 2003
Monica M Martinez, Postdoctoral Fellow
Mexican American Studies
PhD, Yale University, 2012
Aloysius P Martinich, Professor
Roy Allison Vaughan Centennial Professorship in Philosophy
Government
History
Philosophy
PhD, University of California-San Diego, 1973
Joseph H Matluck, Professor Emeritus
Spanish and Portuguese
PhD, Nat University of Mexico, 1951
Tracie M Matysik, Associate Professor History
PhD, Cornell University, 2001
Janice C May, Professor Emeritus
Government
PhD, University of Minnesota-Twin Cities, 1952
Alfred L McAlister, Adjunct Associate Professor
Liberal Arts
PhD, Stanford University, 1976
Elizabeth McCracken, Professor
James A. Michener Endowed Chair in Writing
English
MFA, University of lowa, 1990
Talia M McCray, Assistant Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, University of Michigan-Ann Arbor, 2001
Eric L Mcdaniel, Associate Professor
African and African Diaspora Studies
Government
PhD, University of Illinois at Urbana-Champaign, 2004
Patrick J McDonald, Associate Professor
Government
PhD, Ohio State U Main Campus, 2002
Kelly McDonough, Assistant Professor
Spanish and Portuguese
PhD, University of Minnesota-Twin Cities, 2010
Dennis McFadden, Professor Emeritus
Psychology
PhD, Indiana University at Bloomington, 1967
Eileen M McGinnis, Lecturer
English

PhD, University of Texas at Austin, 2013
Matthew S McGlone, Associate Professor
Women's and Gender Studies
PhD, Princeton University, 1994
John Mclver, Research Fellow
Government
PhD, Indiana University at Bloomington, 1986
Samuel D McLemore, Professor Emeritus
Sociology
PhD, Yale University, 1961
Standish Meacham Jr, Professor Emeritus
History
PhD, Harvard University, 1961
Nora Megharbi, Lecturer
French and Italian
PhD, University of Texas at Austin, 2007
Richard P Meier, Professor
Robert D. King Centennial Professorship of Liberal Arts
Linguistics
Psychology
PhD, University of California-San Diego, 1982
Jeffrey L Meikle, Professor
Stiles Professorship in American Studies
American Studies
PhD, University of Texas at Austin, 1977
Mirna Mejia, Clinical Assistant Professor
Psychology
PhD, St John's University, 2002
Martha Menchaca, Professor
Anthropology
Mexican American Studies
Women's and Gender Studies
PhD, Stanford University, 1987
Sofian Merabet, Assistant Professor
Anthropology
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Columbia University in the City of New York, 2009
Menahem Merhavy, Lecturer
Middle Eastern Studies Ctr
PhD, Tel Aviv University, 2012
Cindy M Meston, Professor
Psychology
PhD, University of British Columbia, 1995
Mark Metzler, Associate Professor
Asian Studies
History
PhD, University of California-Berkeley, 1998
Vagdevi V Meunier, Clinical Assistant Professor
Psychology
PsyD, Antioch New England Graduate School, 1997
Thoralf Meyer, Lecturer
Geography and the Environment

MS, Anhalt University of Applied Sciences, 1999
Julia L Mickenberg, Associate Professor
American Studies
PhD, University of Minnesota-Twin Cities, 2000
John C Middleton, Professor Emeritus
Germanic Studies
PhD, University of Oxford, 1954
Maria Isabel A Millan, Postdoctoral Fellow
Mexican American Studies
PhD, University of Michigan-Ann Arbor, 2013
Aragorn Miller, Lecturer
History
PhD, University of Texas at Austin, 2012
Guy H Miller, Associate Professor Emeritus History
PhD, University of Michigan-Ann Arbor, 1970
Jennifer A Miller, Associate Professor
Geography and the Environment
PhD, San Diego State University, 2003
Karl H Miller, Associate Professor
American Studies
History
PhD, New York University, 2002
Gail Minault, Professor
Asian Studies
History
Middle Eastern Studies Ctr
Women's and Gender Studies
PhD, University of Pennsylvania, 1972
Jessica L Miner, Lecturer
Classics
PhD, University of Texas at Austin, 2006
Julie A Minich, Assistant Professor
English
PhD, Stanford University, 2008
Steven Mintz, Professor
History
PhD, Yale University, 1979
Eugenio J Miravete, Professor
Rex G. Baker, Jr., Professorship of Political Economy
Economics
PhD, Northwestern University, 1996
John Mirowsky, Professor
Sociology
PhD, Yale University, 1981
Rodney Moag, Associate Professor Emeritus
Asian Studies
PhD, University of Wisconsin-Madison, 1973
Hans-Bernhard Moeller, Associate Professor Emeritus Germanic Studies
PhD, University of Southern California, 1964
Mahboob A Mohammad, Lecturer
Asian Studies

Asian Studies
PhD, University of Wisconsin-Madison, 2006

Mohammad A Mohammad, Associate Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of Southern California, 1989
A Azfar Moin, Assistant Professor
Religious Studies
PhD, University of Michigan-Ann Arbor, 2010

Joseph J Moldenhauer, Professor Emeritus English
PhD, Columbia University in the City of New York, 1964
Robert R Mollenauer, Associate Professor Emeritus
Germanic Studies
PhD, Indiana University at Bloomington, 1960

Sidney Monas, Professor Emeritus
History
PhD, Harvard University, 1955
Marie H Monfils, Assistant Professor
Psychology
PhD, University of Lethbridge, 2005
Michelle Montague, Associate Professor
Philosophy
PhD, University of Colorado at Boulder, 2002
Delia L Montesinos, Senior Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2000
Jean-Pierre Montreuil, Professor
French and Italian
PhD, University of Texas at Austin, 1977
Leonard N Moore, Professor
African and African Diaspora Studies
African and African Diaspora Studies
History
PhD, The Ohio State University Main Campus, 1998
Lisa L Moore, Professor
English
Women's and Gender Studies
PhD, Cornell University, 1991
Lorraine Leu, Associate Professor
Latin American Studies
Spanish and Portuguese
PhD, King's College, University of London, 2000
Pamela R Moore, Adjunct Assistant Professor
Psychology
PhD, Texas Tech University, 1991

Robin D Moore, Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, University of Texas at Austin, 1995
Daniel C Morgan Jr, Professor Emeritus
Economics
PhD, University of Wisconsin-Madison, 1961

M G Morgan, Professor Emeritus
Classics
History
PhD, University of Exeter, 1962
Rosemary Morrow, Clinical Assistant Professor Liberal Arts
PhD, University of Texas at Austin, 1999

Fehintola A Mosadomi, Assistant Professor
African and African Diaspora Studies
African and African Diaspora Studies
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Tulane University, 1998
Robert G Moser, Professor
Government
Slavic and Eurasian Studies
PhD, University of Wisconsin-Madison, 1995

Scott James Moser, Assistant Professor
Government
PhD, Carnegie Mellon University, 2007
Michael W Mosser, Lecturer
Government
PhD, University of Wisconsin-Madison, 2002
Alexander Mourelatos, Professor Emeritus
Philosophy
PhD, Yale University, 1964
Stephennie Mulder, Assistant Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of Pennsylvania, 2008
Chandra L Muller, Professor
Alma Cowden Madden Centennial Professorship Sociology
PhD, University of Chicago, 1991
Jeanette A Mumford, Research Associate Professor (Affiliated)
Psychology
PhD, University of Michigan-Ann Arbor, 2006

Gretchen Murphy, Professor
English
Women's and Gender Studies
PhD, University of Washington - Seattle, 1999
Melissa D Murphy, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2008

Richard Murphy, Assistant Professor
Economics
MSc, University of Southampton, 2004
Marc A Musick, Professor
Mike Hogg Professorship in Liberal Arts \#2 Sociology
PhD, Duke University, 1997

Pamala Myers, Clinical Assistant Professor Liberal Arts
EdM, Texas State University-San Marcos, 1977

Scott P Myers, Professor
Linguistics
PhD, University of Massachusetts, 1987
Nicholas Myklebust, Lecturer
English
PhD, University of Texas at Austin, 2012
Zoltan Nadasdy, Adjunct Assistant Professor
Psychology
PhD, Rutgers the State University of New Jersey Newark Campus, 1999
Ian Michael Nauhaus, Assistant Professor
Psychology
PhD, University of California-Los Angeles, 2008
A Rebecca Neal-Beevers, Research Associate
Psychology
PhD, University of Miami, 2002
James A Neely, Professor Emeritus
Anthropology
PhD, University of Arizona, 1974
Neil R Nehring, Associate Professor
English
PhD, University of Michigan-Ann Arbor, 1985
William R Nethercut, Professor
Classics
Middle Eastern Studies Ctr
PhD, Columbia University in the City of New York, 1963
Joan H Neuberger, Professor
History
Slavic and Eurasian Studies
PhD, Stanford University, 1985
Mary C Neuburger, Professor
History
Middle Eastern Studies Ctr
Slavic and Eurasian Studies
PhD, University of Washington - Seattle, 1997
Vernon E Neuenschwander, Associate Professor-ROTC
Naval Science
MPAdmin, Troy State University, 1997
Irma C Nevarez, Lecturer
Spanish and Portuguese
MAEd, Instituto Tecnologico y de Estudios Superiores de Monterrey, 1998
Paula Ruth Newberg, Clinical Professor
Asian Studies
Government
PhD, University of Chicago, 1990
Martha G Newman, Associate Professor

## History

Religious Studies
Religious Studies
PhD, Stanford University, 1988
Chiyo Nishida, Associate Professor
Spanish and Portuguese
PhD, University of Arizona, 1987
Angela M Nonaka, Assistant Professor
Anthropology

PhD, University of California-Los Angeles, 2007
Alfred L Norman, Professor Emeritus
Economics
PhD, University of Minnesota-Twin Cities, 1971
Charlotte L Nunes, Lecturer
English
PhD, University of Texas at Austin, 2013
Nancy L Nussbaum, Lecturer
Psychology
PhD, University of Texas at Austin, 1986
Shannon B O'Brien, Lecturer
Government
MA, University of Louisville, 2000
Thomas J O'hare, Associate Professor Emeritus
Germanic Studies
PhD, University of Texas at Austin, 1964
Gerald S Oettinger, Associate Professor
Economics
PhD, Massachusetts Institute of Technology, 1993
Guillermina Ogando Lavin, Lecturer
Spanish and Portuguese
MA, Universidad Antonio de Nebrija, 2002
Wura-Natasha A Ogunji, Lecturer
Women's and Gender Studies
MFA, San Jose State University, 1998
Youjeong Oh, Assistant Professor
Asian Studies
PhD, University of California-Berkeley, 2013
Moyosore Benjamin Okediji, Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, University of Wisconsin Colleges, 1995
Jeannette Okur, Lecturer
Middle Eastern Studies
PhD, Ankara University, 2007
J P Olivelle, Professor Emeritus
Asian Studies
PhD, University of Pennsylvania, 1974
Antonella D Olson, Distinguished Senior Lecturer
French and Italian
Laurea, Universita degli Studi di Roma "La Sapienza", 1978
Lisa Olstein, Associate Professor
English
MFA, University of Massachusetts, 2003
Robert A Olwell, Associate Professor
History
PhD, Johns Hopkins University, 1991
Robert M Oppenheim, Associate Professor
Anthropology
Asian Studies
PhD, University of Chicago, 2003
Cynthia Osborne, Associate Professor
Women's and Gender Studies

PhD, Princeton University, 2003
Lynette Osborne, Lecturer
Sociology
PhD, Purdue University Main Campus, 2006
David M Oshinsky, Research Affiliate - Research Fellow History
PhD, Brandeis University, 1971
Abena Osseo-Asare, Assistant Professor History
PhD, Harvard University, 2005
Beatrix Paal, Lecturer
Economics
PhD, Cornell University, 1999
Yolanda C Padilla, Professor
Women's and Gender Studies
PhD, University of Michigan-Ann Arbor, 1993
Karen A Pagani, Assistant Professor
French and Italian
PhD, University of Chicago, 2008
Angela N Paik, Assistant Professor
African and African Diaspora Studies
American Studies
Women's and Gender Studies
PhD, Yale University, 2009
Thomas G Palaima, Professor
Robert M. Armstrong Centennial Professorship
Classics
Middle Eastern Studies Ctr
PhD, University of Wisconsin-Madison, 1980
Lorraine S Pangle, Professor
Government
PhD, University of Chicago, 1999
Thomas L Pangle, Professor
Joe R. Long Endowed Chair in Democratic Studies
Government
PhD, University of Chicago, 1972
Athanasio Papalexandrou, Associate Professor
Middle Eastern Studies Ctr
PhD, Princeton University, 1998
Deborah A Paredez, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
English
PhD, Northwestern University, 2002
Kyung Park, Senior Lecturer
Asian Studies
MA, Yonsei University, 1995
Na'ama Pat-EI, Assistant Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, Harvard University, 2008
Adam Pautz, Associate Professor
Philosophy

PhD, New York University, 2004
Pamela Marie Paxton, Professor
Centennial Commission Professorship in the Liberal Arts \#4
Sociology
PhD, University of North Carolina at Chapel Hill, 1998
Antonella C Pease, Associate Professor Emeritus
French and Italian
DR, Florence, Univ Of, 1948
Ami Pedahzur, Professor
Arnold S. Chaplik Professorship in Israel and Diaspora Studies
Government
Jewish Studies
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of Haifa, 1999
David S Pedulla, Assistant Professor
Sociology
MA, Princeton University, 2010
Glenn A Peers, Professor
Middle Eastern Studies Ctr
PhD, Johns Hopkins University, 1996
Heather G Pelletier, Lecturer
French and Italian
PhD, Vanderbilt University, 2004
Richard H Pells, Professor Emeritus
History
PhD, Harvard University, 1969
James W Pennebaker, Professor
Liberal Arts Foundation Centennial Professorship
Psychology
PhD, University of Texas at Austin, 1977
Domino R Perez, Associate Professor
English
Mexican American Studies
PhD, University of Nebraska - Lincoln, 1998
Francisco L Perez, Professor
Geography and the Environment
PhD, University of California-Berkeley, 1985
Paula J Perlman, Professor
Classics
PhD, University of California-Berkeley, 1983
H W Perry Jr, Associate Professor
Government
PhD, University of Michigan-Ann Arbor, 1987
Michael A Pesenson, Assistant Professor
Slavic and Eurasian Studies
PhD, Yale University, 2001
Elizabeth M Pettit, Professor
Sociology
PhD, Princeton University, 1999
Stephen H Phillips, Professor
Asian Studies
Philosophy

PhD, Harvard University, 1982
Tasha S Philpot, Associate Professor
African and African Diaspora Studies
Government
PhD, University of Michigan-Ann Arbor, 2003
Herve Picherit, Assistant Professor
French and Italian
PhD, Stanford University, 2008
Marc Pierce, Associate Professor
Germanic Studies
PhD, University of Michigan-Ann Arbor, 2002
Jonathan William Pillow, Assistant Professor
Psychology
PhD, New York University, 2005
Steven G Pinkerton, Lecturer
English
PhD, Cornell University, 2013
Gabriela Polit, Associate Professor
Spanish and Portuguese
PhD, New York University, 2002
Lito Elio Porto, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2000
Pablo Postigo Olsson, Lecturer
Spanish and Portuguese
PhD, U Lit de Salamanca, 2013
Marina Potoplyak, Lecturer
Russian, East European, and Eurasian Studies
Slavic and Eurasian Studies
PhD, University of Texas at Austin, 2010
Joseph E Potter, Professor
Sociology
PhD, Princeton University, 1975
Rose M Potter, Clinical Assistant Professor Liberal Arts
MA, University of Northern Iowa, 1984
John G Potthoff, Clinical Assistant Professor Psychology
PhD, University of Texas at Austin, 1995
Lucas A Powe Jr, Professor
Anne Green Regents Chair
Government
JD, University of Washington - Seattle, 1968
Daniel A Powers, Professor
Sociology
PhD, University of Wisconsin-Madison, 1991
Mark B Powers, Research Associate Professor
Psychology
PhD, University of Texas at Austin, 2006
Alison R Preston, Associate Professor
Psychology
PhD, Stanford University, 2004
David F Prindle, Professor

Government
PhD, Massachusetts Institute of Technology, 1977
Eric Darnell Pritchard, Assistant Professor
African and African Diaspora Studies
African and African Diaspora Studies
English
PhD, University of Wisconsin-Madison, 2006

Ian N Proops, Professor
Philosophy
PhD, Harvard University, 1998
Tetyana Pudrovska, Assistant Professor Sociology
PhD, University of Wisconsin-Madison, 2007

Thomas W Pullum, Professor Emeritus
Sociology
PhD, University of Chicago, 1971
Helene Jeannine Quanquin, Visiting Associate Professor
English
PhD, Universite de Paris III, Sorbonne Nouvelle, 2001

David G Quinto-Pozos, Assistant Professor
Linguistics
PhD, University of Texas at Austin, 2002
Martin Quixal Martinez, Lecturer
Spanish and Portuguese
PhD, Universitat Pompeu Fabra, 2012
Adam T Rabinowitz, Assistant Professor
Classics
PhD, University of Michigan-Ann Arbor, 2004
Megan Margaret Raby, Assistant Professor History
PhD, University of Wisconsin-Madison, 2012
Sankaran Radhakrishnan, Senior Lecturer
Asian Studies
PhD, Annamalai University, 1985
Guy P Raffa, Associate Professor
French and Italian
PhD, Indiana University at Bloomington, 1991
Esther L Raizen, Associate Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of Texas at Austin, 1987

Kelly Raley, Professor
Sociology
PhD, University of Wisconsin-Madison, 1994
Manuel Ramirez III, Professor
Psychology
PhD, University of Texas at Austin, 1963
Silvia D Ramirez, Lecturer
Spanish and Portuguese
Licenciado, Nat University of Mexico, 1974
Carlos E Ramos, Assistant Professor
Geography and the Environment
Latin American Studies

PhD, Colorado State University, 2004
Gilbert C Rappaport, Professor
Linguistics
Slavic and Eurasian Studies
PhD, University of California-Los Angeles, 1979
Adi Raz, Clinical Assistant Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
EdD, Jewish Theological Seminary of America, 2009
Wayne A Rebhorn Jr, Professor
Celanese Centennial Professorship
English
PhD, Yale University, 1968
Richard J Reddick, Assistant Professor
African and African Diaspora Studies
African and African Diaspora Studies
EdD, Harvard University, 2007
Cory A Reed, Associate Professor
Spanish and Portuguese
PhD, Princeton University, 1989
Denne N Reed, Associate Professor
Anthropology
PhD, State University of New York at Stony Brook, 2003
Lauretta Reeves, Lecturer
Psychology
PhD, Temple University, 1993
Mark Regnerus, Associate Professor
Sociology
PhD, University of North Carolina at Chapel Hill, 2000
Peter Renberg, Adjunct Associate Professor
Germanic Studies
PhD, New York University, 2001
Matthew F Reilly, Lecturer
English
PhD, University of Texas at Austin, 2012
Stanley J Reiser, Adjunct Professor
Liberal Arts
PhD, Harvard University, 1970
Roger Deveer Renwick, Professor Emeritus
English
PhD, University of Pennsylvania, 1974
Ann M Repp, Senior Lecturer
Psychology
PhD, University of Texas at Austin, 1994
Penne L Restad, Distinguished Senior Lecturer
History
PhD, University of Texas at Austin, 1993
Ann M Reynolds, Associate Professor
Women's and Gender Studies
PhD, City University of New York Graduate Center, 1993
Edward J Rhoads, Professor Emeritus
History
PhD, Harvard University, 1970

Matt T Richardson, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
English
Women's and Gender Studies
PhD, University of California-Berkeley, 2005
Elizabeth Richmond-Garza, Associate Professor English
PhD, Columbia University in the City of New York, 1992
Catherine Riegle-Crumb, Associate Professor
Sociology
PhD, University of Chicago, 2000
Andrew M Riggsby, Professor
Classics
PhD, University of California-Berkeley, 1993
Gretchen Ritter, Adjunct Professor
Government
PhD, Massachusetts Institute of Technology, 1992
Michael Rivera, Assistant Professor
Government
MA, University of California-San Diego, 2010
Jill Robbins, Professor
Peter T. Flawn Centennial Professorship in Spanish Language and Literature
Spanish and Portuguese
PhD, University of Kansas Main Campus, 1992
Brian E Roberts, Professor
Economics
Geography and the Environment
Government
PhD, Washington University in St Louis, 1986
Bryan R Roberts, Professor
C. B. Smith, Sr. Centennial Chair in United States-Mexico Relations \#1

Sociology
PhD, University of Chicago, 1964
Patricia Roberts-Miller, Professor
English
Rhetoric and Writing
PhD, University of California-Berkeley, 1985
Keith Robinson, Assistant Professor
African and African Diaspora Studies
Sociology
PhD, University of Michigan-Ann Arbor, 2006
Victoria E Rodriguez, Professor
Government
PhD, University of California-Berkeley, 1987
Enrique R Rodriguez, Associate Professor
Anthropology
PhD, University of Chicago, 2002
Nestor P Rodriguez, Professor
Sociology
PhD, University of Texas at Austin, 1984
Douglass M Rogers, Associate Professor Emeritus
Spanish and Portuguese

PhD, University of Wisconsin-Madison, 1964
Sergio Romero, Assistant Professor
Latin American Studies
Spanish and Portuguese
PhD, University of Pennsylvania, 2006
Sonia Roncador, Associate Professor
Spanish and Portuguese
PhD, New York University, 1999
Mary Rose, Associate Professor
Sociology
PhD, Duke University, 1998
Arlene Rosen, Professor
Anthropology
PhD, University of Chicago, 1985
Catherine E Ross, Professor
Sociology
PhD, Yale University, 1980
Charles R Rossman, Professor Emeritus
English
PhD, University of Southern California, 1968
Jacek Antoni Rothert, Lecturer
Economics
PhD, University of Minnesota-Twin Cities, 2010
Michele A Rountree, Associate Professor
Women's and Gender Studies
PhD, Arizona State University Main, 1992
Loriene Roy, Professor
Women's and Gender Studies
PhD, University of Illinois at Urbana-Champaign, 1987
Sharmila Rudrappa, Associate Professor
Sociology
Women's and Gender Studies
PhD, University of Wisconsin-Madison, 2001
John P Rumrich, Professor
Arthur J. Thaman and Wilhelmina Dore' Thaman Endowed Professorship
in English \#1
English
PhD, University of Virginia, 1981
Cinzia Russi, Associate Professor
French and Italian
PhD, University of Washington - Seattle, 2003
John J Ruszkiewicz, Professor
English
Rhetoric and Writing
PhD, Ohio State U Main Campus, 1977
John N Rutledge, Adjunct Professor
Psychology
MD, University of Oklahoma Health Sciences Center, 1980
Stephen Patrick Ryan, Associate Professor
Economics
PhD, Duke University, 2005
Michael A Sadler, Senior Lecturer
Economics

PhD, University of Texas at Austin, 1997
Victor B Saenz, Associate Professor
Mexican American Studies
PhD, University of California-Los Angeles, 2005
Alan M Sager, Lecturer
Government
PhD, Northwestern University, 1971
Richard M Sainsbury, Professor
Philosophy
DPhil, University of Oxford, 1970
Tomoko Sakuma, Lecturer
Asian Studies
PhD, University of Texas at Austin, 2011
Cesar A Salgado, Associate Professor
Spanish and Portuguese
PhD, Yale University, 1993
Juan A Salinas, Lecturer
Psychology
PhD, University of California-Irvine, 1994
Sahotra Sarkar, Professor
Philosophy
PhD, University of Chicago, 1989
Elizabeth D Scala, Associate Professor
English
PhD, Harvard University, 1994
Timothy J Schallert, Professor
Psychology
PhD, Arizona State University Main, 1976
William J Scheick, Professor Emeritus
English
PhD, University of Illinois at Urbana-Champaign, 1969
Beatriz E Schleppe, Lecturer
French and Italian
PhD, University of Texas at Austin, 2003
Karl M Schmitt, Professor Emeritus
Government
PhD, University of Pennsylvania, 1954
Helen Schneider, Lecturer
Economics
PhD, Cornell University, 2002
David M Schnyer, Associate Professor
Psychology
PhD, University of Arizona, 1998
Miriam Schoenfield, Assistant Professor
Philosophy
PhD, Massachusetts Institute of Technology, 2012
Jonathan Wyn Schofer, Associate Professor
Religious Studies
PhD, University of Chicago, 2000
Roxanne Schroeder-Arce, Assistant Professor
Mexican American Studies
MFA, University of Texas at Austin, 2000

Franky L Schussel, Senior Lecturer
Linguistics
MA, University of Nebraska - Lincoln, 1997
Megan Seaholm, Senior Lecturer
History
PhD, Rice University, 1988
Chad Eugene Seales, Assistant Professor
Religious Studies
PhD, University of North Carolina at Chapel Hill, 2007
Carol L Seeger, Senior Lecturer
Linguistics
MS, McDaniel College, 1992
Sonia T Seeman, Associate Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of California-Los Angeles, 2002
Eyal Seidemann, Associate Professor
Psychology
PhD, Stanford University, 1998
Henry A Selby, Professor Emeritus
Anthropology
PhD, Stanford University, 1966
Martha A Selby, Professor
Ralph B. Thomas Regents Professorship in Asian Studies
Asian Studies
PhD, University of Chicago, 1994
Albert D Sellstrom, Professor Emeritus
French and Italian
PhD, Princeton University, 1956
David M Sena, Assistant Professor
Asian Studies
PhD, University of Chicago, 2005
Suzanne K Seriff, Senior Lecturer
Anthropology
PhD, University of Texas at Austin, 1989
Sandro Sessarego, Assistant Professor
Spanish and Portuguese
PhD, The Ohio State University Main Campus, 2010
Thomas K Seung, Professor
Jesse H. Jones Regents Professorship in Liberal Arts
Philosophy
PhD, Yale University, 1965
Gautami Hiru Shah, Senior Lecturer
Asian Studies
MS, Purdue University North Central Campus, 1988
Jishnu Shankar, Senior Lecturer
Asian Studies
PhD, Syracuse University Main Campus, 2011
Harel Shapira, Assistant Professor
Sociology
PhD, Columbia University in the City of New York, 2010
Liza J Shapiro, Professor
Anthropology

PhD, State University of New York at Stony Brook, 1991
Mehrak Shariat, Lecturer
French and Italian
PhD, University of Texas at Austin, 2012
Daron R Shaw, Professor
Frank C. Erwin, Jr. Centennial Chair in State Government
Government
PhD, University of California-Los Angeles, 1994
Cynthia W Shelmerdine, Professor Emeritus
Classics
PhD, Harvard University, 1977
Dina M Sherzer, Professor Emeritus
French and Italian
PhD, University of Pennsylvania, 1970
Joel F Sherzer, Professor Emeritus
Anthropology
PhD, University of Pennsylvania, 1968
Snehal A Shingavi, Assistant Professor
English
PhD, University of California-Berkeley, 2008
Faegheh S Shirazi, Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
Women's and Gender Studies
PhD, Ohio State U Main Campus, 1985
Jason D Shumake, Research Assistant Professor (Affiliated)
Psychology
PhD, University of Texas at Austin, 2004
Nicolas Shumway, Professor Emeritus
Spanish and Portuguese
PhD, University of California-Los Angeles, 1976
David S Sibley, Professor
John T. Stuart III Centennial Professorship in Economics
Economics
PhD, Yale University, 1973
Charles M Silver, Professor
Roy W. and Eugenia C. McDonald Endowed Chair of Civil Procedure Government
JD, Yale University, 1987
David G Simmons, Lecturer
Linguistics
BA, Gallaudet University, 2013
Gideon A Sjoberg, Professor Emeritus
Sociology
PhD, Washington State University, 1949
Allison Skerrett, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, Boston College, 2007
Melissa E Skidmore, Lecturer
French and Italian
PhD, University of Texas at Austin, 2005
Daniel T Slesnick, Professor

Economics
PhD, Harvard University, 1982
Bjorn I Sletto, Associate Professor
Geography and the Environment
PhD, Cornell University, 2006
Rajka Smiljanic, Assistant Professor Linguistics
PhD, University of Illinois at Urbana-Champaign, 2002
Bea Ann Smith, Adjunct Professor
Women's and Gender Studies
JD, University of Texas at Austin, 1975
Cherise Smith, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, Stanford University, 2004
Christen Smith, Assistant Professor
African and African Diaspora Studies
African and African Diaspora Studies
Anthropology
Women's and Gender Studies
PhD, Stanford University, 2007
Daniel Smith, Lecturer
Rhetoric and Writing
PhD, Pennsylvania State University Park, 2004
Mark C Smith, Associate Professor
American Studies
History
PhD, University of Texas at Austin, 1980
Nicole Smith, Lecturer
Philosophy
PhD, Bowling Green State University, 2013
Tara A Smith, Professor
Philosophy
PhD, Johns Hopkins University, 1990
Jasper A Smits, Professor
Psychology
PhD, University of Texas at Austin, 2004
Rupert Snell, Professor
Asian Studies
PhD, University of London, 1984
Carlos A Sole, Professor Emeritus
Spanish and Portuguese
PhD, Georgetown University, 1966
Yolanda Sole, Professor Emeritus
Spanish and Portuguese
PhD, Georgetown University, 1966
Patricia A Somers, Associate Professor
Women's and Gender Studies
PhD, University of New Orleans, 1992
Stephen M Sonnenberg, Adjunct Professor Liberal Arts
MD, Yeshiva University, 1965
David Sosa, Professor

Louann and Larry Temple Centennial Professorship in the Humanities Philosophy
PhD, Princeton University, 1996
Bartholomew H Sparrow, Professor
Government
PhD, University of Chicago, 1991
Lawrence W Speck, Professor
The W. L. Moody, Jr. Centennial Professorship in Architecture
Geography and the Environment
MArch, Massachusetts Institute of Technology, 1972
Shannon Speed, Associate Professor
Anthropology
Women's and Gender Studies
PhD, University of California-Davis, 2001
Denise A Spellberg, Associate Professor
History
Middle Eastern Studies
Middle Eastern Studies Ctr
Religious Studies
PhD, Columbia University in the City of New York, 1989
Janet T Spence, Professor Emeritus
Psychology
PhD, University of lowa, 1949
Clay Spinuzzi, Professor
English
Rhetoric and Writing
PhD, Iowa State University, 1999
Jeffrey F Staha, Professor-ROTC
Air Force Science
MA, Chapman University, 2001
Dale O Stahl II, Professor
Malcolm Forsman Centennial Professorship
Economics
PhD, University of California-Berkeley, 1981
Thomas F Staley, Professor
English
PhD, University of Pittsburgh, Pittsburgh Campus, 1962
Nancy K Stalker, Associate Professor
Asian Studies
History
PhD, Stanford University, 2002
Dana J Stauffer, Lecturer
Government
PhD, University of Toronto, 2005
Devin A Stauffer, Associate Professor
Government
PhD, Boston College, 1998
Sarah K Steinbock-Pratt, Lecturer History
PhD, University of Texas at Austin, 2013
Kathleen C Stewart, Professor
Anthropology
PhD, University of Michigan-Ann Arbor, 1987
Eric M Stice, Adjunct Associate Professor

Psychology
PhD, Arizona State University Main, 1996
Maxwell B Stinchcombe, Professor
E. C. McCarty Centennial Professorship

Economics
PhD, University of California-Berkeley, 1986
Michael B Stoff, Associate Professor
History
PhD, Yale University, 1977
William M Stott, Professor Emeritus
American Studies
English
PhD, Yale University, 1972
Sandra B Straubhaar, Distinguished Senior Lecturer
Germanic Studies
PhD, Stanford University, 1982
Galen Strawson, Professor
Chair in Philosophy
Philosophy
DPhil, University of Oxford, 1983
Jurgen K Streeck, Professor
Anthropology
Germanic Studies
PhD, Free University of Berlin, 1981
Pauline T Strong, Professor
Anthropology
Women's and Gender Studies
PhD, University of Chicago, 1992
David S Stuart, Professor
Linda and David Schele Chair in the Art and Writing of Mesoamerica
Anthropology
PhD, Vanderbilt University, 1995
Circe D Sturm, Associate Professor
Anthropology
PhD, University of California-Davis, 1997
Naoko Suito, Senior Lecturer
Asian Studies
PhD, University of Texas at Austin, 1991
Paul V Sullivan, Lecturer
English
PhD, University of Texas at Austin, 2005
Teresa A Sullivan, Professor Emeritus
Sociology
PhD, University of Chicago, 1975
Jeremi Suri, Professor
Mack Brown Distinguished Chair for Leadership in Global Affairs
History
PhD, Yale University, 2001
Harvey M Sussman, Professor
R. P. Doherty, Sr. Centennial Professorship in Communication

Linguistics
PhD, University of Wisconsin-Madison, 1970
William O S Sutherland, Professor Emeritus
English

PhD, University of North Carolina at Chapel Hill, 1950
Madelin Sutherland-Meier, Associate Professor
Spanish and Portuguese
PhD, University of California-San Diego, 1983
Janet K Swaffar, Professor Emeritus
Germanic Studies
PhD, University of Wisconsin-Madison, 1965
William B Swann Jr, Professor
William Howard Beasley III Professorship in the Graduate School of Business
Psychology
PhD, University of Minnesota-Twin Cities, 1978
William S Swearingen, Lecturer
Sociology
PhD, University of Texas at Austin, 1997
Margaret A Syverson, Associate Professor
English
Rhetoric and Writing
PhD, University of California-San Diego, 1994
Cynthia M Talbot, Associate Professor
Asian Studies
History
PhD, University of Wisconsin-Madison, 1988
Kimberly M Tallbear, Associate Professor
Anthropology
PhD, University of California-Santa Cruz, 2005
Midori Tanaka, Lecturer
Asian Studies
MA, University of Oregon, 1996
Eric Tang, Assistant Professor
African and African Diaspora Studies
African and African Diaspora Studies
PhD, New York University, 2006
Rabun M Taylor, Associate Professor
Classics
PhD, University of Minnesota-Twin Cities, 1997
Michael J Telch, Professor
Psychology
PhD, Stanford University, 1982
Wen-Hua Teng, Senior Lecturer
Asian Studies
PhD, University of Texas at Austin, 1990
Sean M Theriault, Associate Professor
Government
PhD, Stanford University, 2001
Delbert D Thiessen, Professor Emeritus
Psychology
PhD, University of California-Berkeley, 1963
Caroline Desiree Thomas, Assistant Professor
Economics
MSc, University College London, 2004
Henry G Thomas, Adjunct Assistant Professor
Liberal Arts

MAEd, Harvard University, 1974
Kevin D Thomas, Assistant Professor
African and African Diaspora Studies
Women's and Gender Studies
PhD, University of Texas at Austin, 2011
Lisa Thompson, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
English
PhD, Stanford University, 2000
Shirley E Thompson, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
American Studies
PhD, Harvard University, 2001
Elizabeth S Tilley, Visiting Associate Professor
English
PhD, University of Toronto, 1988
Natasha Tinsley, Associate Professor
African and African Diaspora Studies
PhD, University of California-Berkeley, 2003
Helene Tissieres, Associate Professor
French and Italian
Middle Eastern Studies Ctr
PhD, New York University, 2000
Sheridan Titman, Professor
Walter W. McAllister Centennial Chair in Financial Services Economics
PhD, Carnegie Mellon University, 1981
Jeffrey B Titus, Clinical Assistant Professor
Psychology
PhD, Ball State University, 2002
Irene Potocki Tobis, Clinical Assistant Professor
Psychology
PhD, University of Wisconsin-Madison, 1990
Janice S Todd, Professor
Women's and Gender Studies
PhD, University of Texas at Austin, 1995
Almeida J Toribio, Professor
African and African Diaspora Studies
African and African Diaspora Studies
Spanish and Portuguese
PhD, Cornell University, 1993
Rebecca M Torres, Assistant Professor
Geography and the Environment
PhD, University of California-Davis, 2000
John W Traphagan, Professor
Anthropology
Asian Studies
Religious Studies
PhD, University of Pittsburgh, Pittsburgh Campus, 1997
Stephen J Trejo, Associate Professor
Economics
PhD, University of Chicago, 1988

John R Trimble, Professor Emeritus
English
Rhetoric and Writing
PhD, University of California-Berkeley, 1971
Brian M Trinque, Lecturer
Economics
PhD, University of Texas at Austin, 1993
Ronja Tripp, Lecturer
European Studies
PhD, University of Stuttgart, 2012
Chien-Hsin Tsai, Assistant Professor
Asian Studies
PhD, Harvard University, 2009
David M Tucker, Clinical Associate Professor
Psychology
PhD, University of Georgia, 1983
Elliot Max Tucker-Drob, Assistant Professor
Psychology
PhD, University of Virginia, 2009
Jeffrey K Tulis, Associate Professor
Government
PhD, University of Chicago, 1982
Alan Tully, Professor
Eugene C. Barker Centennial Professorship in American History History
PhD, Johns Hopkins University, 1973
Ann Twinam, Professor
History
PhD, Yale University, 1976
Robert G Twombly, Associate Professor Emeritus
English
PhD, Yale University, 1965
Michael Tye, Professor
Dallas TACA Centennial Professorship in the Liberal Arts
Philosophy
PhD, New York University, 1975
Kathleen R Tyner, Associate Professor
Women's and Gender Studies
MA, San Francisco State University, 1986
Antonio Ugalde, Professor Emeritus
Sociology
PhD, Stanford University, 1969
Debra J Umberson, Professor
Christie and Stanley E. Adams, Jr. Centennial Professorship in Liberal
Arts
Sociology
PhD, Vanderbilt University, 1985
Gary N Underwood, Associate Professor Emeritus
English
PhD, University of Minnesota-Twin Cities, 1970
Deborah Unferth, Associate Professor
English
MFA, Syracuse University Main Campus, 1998

Madhavan R Unnithan, Lecturer
Asian Studies
Asian Studies
PhD, University of Kerala, 1980
Per K Urlaub, Assistant Professor
Germanic Studies
PhD, Stanford University, 2008
Luis Urrieta, Associate Professor
Mexican American Studies
PhD, University of North Carolina at Chapel Hill, 2003
Alex Valadka, Adjunct Professor
Psychology
MD, University of Chicago, 1987
Fred Valdez Jr, Professor
Anthropology
PhD, Harvard University, 1987
Richard Valencia, Professor
Mexican American Studies
PhD, University of California-Santa Barbara, 1977
Angela Valenzuela, Professor
Mexican American Studies
PhD, Stanford University, 1990
Herman H Van Olphen, Professor Emeritus
Asian Studies
PhD, University of Texas at Austin, 1970
Vincent Vanderheijden, Lecturer
Germanic Studies
PhD, University of Texas at Austin, 2011
Joao H Vargas, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
Anthropology
PhD, University of San Diego, 1999
James Martin Vaughn, Assistant Professor
History
PhD, University of Chicago, 2008
Andrew Villalon, Senior Lecturer
History
PhD, Yale University, 1984
Andres Villarreal, Associate Professor
Sociology
PhD, University of Chicago, 2002
Gregory J Vincent, Professor
W. K. Kellogg Professorship of Community College Leadership

African and African Diaspora Studies
EdD, University of Pennsylvania, 2004
Maurizio Viroli, Professor
French and Italian
Government
PhD, European University Institute, 1985
Kamala Visweswaran, Associate Professor
Anthropology
Asian Studies

PhD, Stanford University, 1990
Maria D Wade, Associate Professor
Anthropology
PhD, University of Texas at Austin, 1998
Warwick P Wadlington, Professor Emeritus
English
PhD, Tulane University, 1967
Robert H Wagner, Professor Emeritus
Government
PhD, Harvard University, 1966
Jeffrey Walker, Professor
English
Rhetoric and Writing
PhD, University of California-Berkeley, 1985
Juliet E K Walker, Professor
African and African Diaspora Studies
African and African Diaspora Studies
History
PhD, University of Chicago, 1976
Robert E Wall, Professor Emeritus
Linguistics
PhD, Harvard University, 1961
Denton Walthall, Assistant Professor
Classics
PhD, Princeton University, 2013
Peter Ward, Professor
C. B. Smith, Sr. Centennial Chair in United States-Mexico Relations \#4

Geography and the Environment
PhD, University of Liverpool, 1976
Eric M Warr, Professor
Sociology
PhD, University of Arizona, 1979
Samuel C Watkins, Professor
African and African Diaspora Studies
PhD, University of Michigan-Ann Arbor, 1994
Anthony K Webster, Associate Professor
Anthropology
PhD, University of Texas at Austin, 2004
Stephen M Wechsler, Professor
Linguistics
PhD, Stanford University, 1991
Alexander A Weinreb, Associate Professor Sociology
PhD, University of Pennsylvania, 2000
Amelia Gabrielle Weinreb, Lecturer
Jewish Studies
PhD, University of Pennsylvania, 2007
John M Weinstock, Professor Emeritus
Germanic Studies
PhD, University of Wisconsin-Madison, 1967
Rachel Wellhausen, Assistant Professor
Government
PhD, Massachusetts Institute of Technology, 2012

Timothy Daniel Werner, Assistant Professor
Government
PhD, University of Wisconsin-Madison, 2009
Jo Lynn Westbrook, Associate Professor
Women's and Gender Studies
PhD, University of Michigan-Ann Arbor, 1995
Alexandra K Wettlaufer, Professor
French and Italian
Liberal Arts
PhD, Columbia University in the City of New York, 1993
Walter D Wetzels, Professor Emeritus
Germanic Studies
PhD, Princeton University, 1968
David A Wevill, Professor Emeritus
English
MA, University of Cambridge, 1957
Kurt G Weyland, Professor
Joe R. \& Teresa Lozano Long Endowed Professorships
Government
PhD, Stanford University, 1991
Frank F Whigham Jr, Professor
Arthur J. Thaman and Wilhelmina Dore' Thaman Endowed Professorship in English \#2
English
PhD, University of California-San Diego, 1975
Andrew B Whinston, Professor
Hugh Roy Cullen Centennial Chair in Business Administration
Economics
PhD, Carnegie Mellon University, 1962
Thomas B Whitbread, Professor
English
PhD, Harvard University, 1959
Deborah E White, Lecturer
Linguistics
MA, Gallaudet University, 1993
L M White, Professor
The Ronald Nelson Smith Chair in Classics \& Christian Origins
Classics
Religious Studies
PhD, Yale University, 1982
Stephen A White, Professor
Classics
Philosophy
PhD, University of California-Berkeley, 1987
Walter Wilczynski, Adjunct Professor
Psychology
PhD, University of Michigan-Ann Arbor, 1978
Karin G Wilkins, Professor
Middle Eastern Studies
Middle Eastern Studies Ctr
PhD, University of Pennsylvania, 1991
Lynn R Wilkinson, Associate Professor
Germanic Studies
Women's and Gender Studies

PhD, University of California-Berkeley, 1983
Jennifer M Wilks, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies
English
PhD, Cornell University, 2003
Christine L Williams, Professor
Sociology
Women's and Gender Studies
PhD, University of California-Berkeley, 1986
Robert H Wilson, Professor
Mike Hogg Professorship of Urban Policy
Geography and the Environment
PhD, University of Pennsylvania, 1979
Samuel M Wilson, Professor
Anthropology
PhD, University of Chicago, 1986
James I Wimsatt, Professor Emeritus
English
PhD, Duke University, 1964
Michael B Winship, Professor
Iris Howard Regents Professorship in English Literature \#2
English
DPhil, University of Oxford, 1990
William J Winslade, Adjunct Professor
Liberal Arts
Philosophy
PhD, Northwestern University, 1967
Thomas E Wiseman, Associate Professor
Economics
PhD, Northwestern University, 2001
Zipporah B Wiseman, Professor
Thos. H. Law Centennial Professorship in Law
Women's and Gender Studies
LLB, Yale University, 1954
Christopher Wlezien, Professor
Mike Hogg Professorship in Government
Government
PhD, University of Iowa, 1989
Hannah C Wojciehowski, Professor
English
PhD, Yale University, 1984
Michael Scott Wolford, Assistant Professor
Government
PhD, Emory University, 2008
Seth L Wolitz, Professor Emeritus
French and Italian
Slavic and Eurasian Studies
PhD, Yale University, 1965
Helena Woodard, Associate Professor
African and African Diaspora Studies
African and African Diaspora Studies English
PhD, University of North Carolina at Chapel Hill, 1991

Anthony C Woodbury, Professor
Anthropology
Linguistics
PhD, University of California-Berkeley, 1981
Paul B Woodruff, Professor
Darrell K Royal Regents Professorship in Ethics and American Society

## Classics

Philosophy
PhD, Princeton University, 1973
Marjorie C Woods, Professor
Jane and Roland Blumberg Centennial Professorship in English

## English

PhD, University of Toronto, 1977
Jacqueline D Woolley, Professor
Psychology
PhD, University of Michigan-Ann Arbor, 1990
Samuel G Workman, Assistant Professor
Government
PhD, University of Washington - Seattle, 2009
Harold A Wylie Jr, Associate Professor Emeritus
African and African Diaspora Studies
French and Italian
PhD, Stanford University, 1965
Charters S Wynn, Associate Professor

## History

Slavic and Eurasian Studies
PhD, Stanford University, 1987
Michael Francis Wynne Jr, Lecturer
Linguistics
MA, Gallaudet University, 2005
Haiqing Xu, Assistant Professor
Economics
PhD, Pennsylvania State University Park, 2011
Keli Xu, Adjunct Associate Professor
Economics
PhD, Yale University, 2007
David Scott Yeager, Assistant Professor
Psychology
PhD, Stanford University, 2011
Dean H Young, Professor
William S. Livingston Endowed Chair in Writing
English
MFA, Indiana University at Bloomington, 1984
Kenneth R Young, Professor
Geography and the Environment
Latin American Studies
PhD, University of Colorado at Boulder, 1990
Michael P Young, Associate Professor
Sociology
PhD, New York University, 2000
Sandra E Black, Professor
Audre and Bernard Rapoport Centennial Chair in Economics Economics
PhD, Harvard University, 1997

Wei-Hsin Yu, Associate Professor
Sociology
PhD, University of Chicago, 1999
Aaron S Zacks, Lecturer
Rhetoric and Writing
PhD, University of Texas at Austin, 2012
Emilio Zamora, Professor
History
Mexican American Studies
PhD, University of Texas at Austin, 1983
Maria Del Pilar Zazueta, Lecturer
Latin American Studies
PhD, Columbia University in the City of New York, 2011
Mark A Zentner, Clinical Assistant Professor
Psychology
PhD, University of Texas at Austin, 1999
Abraham Zilkha, Associate Professor Emeritus
Middle Eastern Studies
PhD, University of Texas at Austin, 1970
Larisa Zlatic, Lecturer
Slavic and Eurasian Studies
PhD, University of Texas at Austin, 1997
Leo E Zonn, Professor
Geography and the Environment
PhD, University of Wisconsin-Milwaukee, 1975

## College of Natural Sciences Faculty

Seema Agarwala, Associate Professor<br>Molecular Biosciences<br>PhD, State University of New York at Stony Brook, 1990<br>J K Aggarwal, Professor<br>Cullen Trust for Higher Education Endowed Professorship in Engineering<br>\#2<br>Computer Science<br>PhD, University of Illinois at Urbana-Champaign, 1964<br>Teri J Albrecht, Lecturer<br>PhD, University of Texas at Austin, 2007<br>Richard W Aldrich, Professor<br>Karl Folkers Chair in Interdisciplinary Biomedical Research II<br>Neuroscience<br>PhD, Stanford University, 1980<br>Daniel J Allcock, Professor<br>Mathematics<br>PhD, University of California-Berkeley, 1996<br>Arthur W Allen, Lecturer<br>Biology Instruction Office<br>PhD, University of Texas at Austin, 1998<br>Kelli R Allen, Clinical Assistant Professor<br>MS, Pittsburg State University, 1998<br>Mark A Allen, Research Affiliate - Postdoctoral<br>Mathematics

PhD, Purdue University Main Campus, 2013
Lorenzo Alvisi, Professor
Computer Science
PhD, Cornell University, 1996
Sally K Amen, Research Engineering/ Scientist Associate III
Statistics and Scientific Computation
MS, University of Texas at Austin, 2012
Natalie Y Ammon, Specialist
Human Ecology
Human Ecology
PhD, University of Texas at Austin, 2011
Edward R Anderson, Associate Professor
Human Ecology
PhD, University of Virginia, 1989
Eric V Anslyn, Professor
Norman Hackerman Chair in Chemistry
Chemistry
PhD, California Institute of Technology, 1988
Peter R Antoniewicz, Professor Emeritus
Physics
PhD, Purdue University Main Campus, 1965
Dean R Appling, Professor
Lester J. Reed Professorship in Biochemistry
Molecular Biosciences
PhD, Vanderbilt University, 1981
Pedro Jose Aragon Saez, Specialist
Chemistry
PhD, University of Castilla-La Mancha, 2006
Todd J Arbogast, Professor
Mathematics
PhD, University of Chicago, 1987
Jane Arledge, Lecturer
Mathematics
PhD, University of Colorado at Boulder, 1995
Taft E Armandroff, Professor
Astronomy
PhD, Yale University, 1988
Connie R Arnold, Professor Emeritus
Marine Science
PhD, Texas A \& M University, 1968
Karen J Artzt, Professor Emeritus
Molecular Biosciences
PhD, Weill Medical College of Cornell University, 1972
William F Aspray Jr, Professor
Bill and Lewis Suit Professorship
Computer Science
PhD, University of Wisconsin Colleges, 1980
Nigel S Atkinson, Professor
Neuroscience
PhD, Pennsylvania State University Main Campus, 1986
Jennifer K Mann, Lecturer
Mathematics
MS, Florida State University, 2002

Ivo M Babuska, Professor
Robert B. Trull Chair in Engineering
Mathematics
PhD, Academy of Sciences, 1955
Francois Baccelli, Professor
Simons Chair in Mathematics and Electrical and Computer Engineering
Mathematics
These d'Etat, Universite de Paris XI, Paris-Sud, 1983
Joshua Dana Baer, Specialist
Computer Science
BS, Carnegie Mellon University, 1999
Chandrajit L Bajaj, Professor
CAM Chair in Visualization
Computer Science
PhD, Cornell University, 1984
Dana H Ballard, Professor
Computer Science
PhD, University of California-Irvine, 1974
Allen J Bard, Professor
Norman Hackerman - Welch Regents Chair in Chemistry
Chemistry
PhD, Harvard University, 1958
William J Bargmann, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1997
Michael Barnes, Assistant Professor
Physics
PhD, University of Maryland College Park, 2008
Jeffrey E Barrick, Assistant Professor
Molecular Biosciences
PhD, Yale University, 2006
Suzanne S Barth, Adjunct Associate Professor
Biology Instruction Office
PhD, University of Texas at Austin, 1983
Frank N Bash, Professor Emeritus
Astronomy
PhD, University of Virginia (Old Code), 1967
Don S Batory, Professor
David Bruton, Jr. Centennial Professorship in Computer Sciences \#1
Computer Science
PhD, University of Toronto, 1981
John C Batterton, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1970
Nathan L Bauld, Professor Emeritus
Chemistry
PhD, University of Illinois at Urbana-Champaign, 1959
Mark C Baumann, Lecturer
PhD, University of Texas at Austin, 2011
Mary R Beckham, Adjunct Assistant Professor
Molecular Biosciences
MEd, University of Mary Hardin-Baylor, 1998
William Beckner, Professor

Paul V. Montgomery Centennial Memorial Professorship in Mathematics Mathematics
PhD, Princeton University, 1975
Ockhee Bego, Lecturer
Human Ecology
Human Ecology
MFA, Academy of Art University, 2010
David D Ben-Zvi, Associate Professor
Mathematics
PhD, Harvard University, 1999
Roger D Bengtson, Professor
Physics
PhD, University of Maryland College Park, 1968
Aprile D Benner, Assistant Professor
Human Ecology
PhD, University of California-Los Angeles, 2007
Hanna Bennett, Lecturer
Mathematics
PhD, University of Chicago, 2009
Sterling K Berberian, Professor Emeritus
Mathematics
PhD, University of Chicago, 1955
Gary D Berg, Lecturer
Mathematics
PhD, University of Texas at Austin, 1996
Herbert L Berk, Professor
Physics
PhD, Princeton University, 1964
Vertica Bhardwaj, Lecturer
Human Ecology
Human Ecology
PhD, University of Tennessee, 2010
Ajay V Bhargava, Lecturer
Computer Science
MS, University of Texas at Arlington, 1992
Klaus R Bichteler, Professor
Mathematics
PhD, University of Hamburg, 1965
Christopher W Bielawski, Professor
Chemistry
PhD, California Institute of Technology, 2003
Mark W Bierner, Senior Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1971
George Biros, Professor
W. A. "Tex" Moncrief, Jr. Endowment in Simulation-Based Engineering and Sciences - Endowed Chair No. 2
Computer Science
PhD, Carnegie Mellon University, 2000
George D Bittner, Professor
Neuroscience
PhD, Stanford University, 1967
Bryan Andrew Black, Assistant Professor

Marine Science
Marine Science
PhD, Pennsylvania State University Park, 2003
James M Blair, Specialist
Biology Instruction Office
BS, University of Texas at Austin, 2012
Kirk D Blazek, Lecturer
Mathematics
PhD, University of Washington - Seattle, 2006
Andrew Justin Blumberg, Assistant Professor Mathematics
PhD, University of Chicago, 2005
Olena Blumberg, Lecturer
Mathematics
PhD, Stanford University, 2011
Arno R Bohm, Professor
Physics
PhD, Philipps-University of Marburg, 1966
John R (Jay) Boisseau, Lecturer
Statistics and Scientific Computation
PhD, University of Texas at Austin, 1996
Daniel I Bolnick, Professor
Biology Instruction Office
PhD, University of California-Davis, 2003
Haran Boral, Adjunct Associate Professor
Computer Science
PhD, University of Wisconsin-Madison, 1981
Erika Borden, Lecturer
Biology Instruction Office
PhD, North Carolina State University, 2005
Jacek I Borysow, Adjunct Professor
Physics
PhD, University of Texas at Austin, 1986
Henry R Bose, Professor
Mary M. Betzner Morrow Centennial Chair in Microbiology
Molecular Biosciences
PhD, Indiana University at Bloomington, 1967
Lisa D Boucher, Lecturer
Biology Instruction Office
PhD, Ohio State U Main Campus, 1995
Lewis P Bowen, Associate Professor
Mathematics
PhD, University of Texas at Austin, 2002
Robert S Boyer, Professor Emeritus
Computer Science
PhD, University of Texas at Austin, 1971
Jerry J Brand, Professor
Molecular Biosciences
PhD, Purdue University Main Campus, 1971
Karen M Bravo, Lecturer
Human Ecology
MA, Central Saint Martins College of Art and Design, 2004
Molly S Bray, Professor

Susan T. Jastrow Human Ecology Chair for Excellence in Nutritional Sciences
Human Ecology
PhD, University of Texas Health Science Center at Houston, 1998
Michel Breger, Adjunct Professor
Astronomy
PhD, University of California-Berkeley, 1969
Boris Breizman, Research Professor (Affiliated)
Physics
PhD, Budker Institute of Nuclear Physics, 1971
Margaret E Briley, Professor
Human Ecology
PhD, Texas Tech University, 1973
Patrick L Brockett, Professor
Gus Wortham Memorial Chair in Risk Management and Insurance Mathematics
PhD, University of California-Irvine, 1975
Jennifer S Brodbelt, Professor
William H. Wade Endowed Professorship in Chemistry
Chemistry
PhD, Purdue University Main Campus, 1988
Volker Bromm, Associate Professor
Astronomy
PhD, Yale University, 2000
Franklin H Bronson, Professor Emeritus
Biology Instruction Office
PhD, Pennsylvania State University Main Campus, 1961
R Malcolm Brown Jr, Professor
Johnson \& Johnson Centennial Chair in Plant Cell Biology
Molecular Biosciences
PhD, University of Texas at Austin, 1964
Stacie Brown, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 2010
James C Browne, Professor Emeritus
Computer Science
PhD, University of Texas at Austin, 1960
Karen S Browning, Associate Professor
Molecular Biosciences
PhD, University of Illinois at Urbana-Champaign, 1980
Amy E Bryan, Lecturer
Human Ecology
MSSW, University of Texas at Austin, 2000
James T Bryant, Lecturer
Biology Instruction Office
PhD, Tex Hlth Sci C Dallas, U, 2000
Anthony P Bucolo, Lecturer
Marine Science
PhD, University of Alabama at Birmingham, 2011
James J Bull, Professor
Johann Friedrich Miescher Regents Professorship in Molecular Biology
Biology Instruction Office
PhD, University of Utah, 1977

Douglas C Burger, Adjunct Professor
Computer Science
PhD, University of Wisconsin-Madison, 1998
Mary Jane Burson, Lecturer
Human Ecology
MS, Colorado State University, 1979
Thomas J Bushart, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 2007
Edward J Buskey, Professor
Marine Science
Marine Science
PhD, University of Rhode Island, 1983
Ruth E Buskirk, Distinguished Senior Lecturer
Biology Instruction Office
PhD, University of California-Davis, 1972
Elena Caceres, Adjunct Professor
Physics
PhD, University of Texas at Austin, 1996
Luis A Caffarelli, Professor
Sid W. Richardson Foundation Regents Chair in Mathematics \#1
Mathematics
PhD, University of Buenos Aires, 1972
Joshua M Cambridge, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 2011
Jonathan A Campbell, Instructor
Mathematics
PhD, Stanford University, 2013
Alan Campion, Professor
Dow Chemical Company Endowed Professorship in Chemistry Chemistry
PhD, University of California-Los Angeles, 1977
Phillip E Cannata, Adjunct Professor
Computer Science
PhD, University of Notre Dame, 1980
David Cannatella, Professor
Biology Instruction Office
PhD, University of Kansas Main Campus, 1986
Maria-Cristina Caputo, Lecturer
Mathematics
PhD, Columbia University in the City of New York, 2006
David M Casto, Specialist
Chemistry
BS, University of Missouri - Columbia, 2011
Gustavo E Cepparo, Lecturer
Mathematics
MS, Kansas State University, 1999
Clarence Shiu Man Chan, Associate Professor
Molecular Biosciences
PhD, Cornell University, 1985
Fernando Charro Caballero, Lecturer
Mathematics

PhD, Universidad Autonoma de Madrid, 2009
Javier Alejandro Chavez-Dominguez, Instructor
Mathematics
PhD, Texas A \& M University, 2012
James R Chelikowsky, Professor
W. A. "Tex" Moncrief, Jr. Chair in Computational Materials

Chemistry
Physics
PhD, University of California-Berkeley, 1975
Jonathan Yan Chen, Professor
Human Ecology
Human Ecology
PhD, University of Leeds, 1995
Thomas Chen, Associate Professor
Mathematics
PhD, Swiss Federal Institute of Technology, 2001
Zengjian J Chen, Professor
D. J. Sibley Centennial Professorship in Plant Molecular Genetics

Molecular Biosciences
PhD, Texas A \& M University, 1993
Elliott W Cheney, Professor Emeritus
Mathematics
PhD, University of Kansas Main Campus, 1957
Sheree D Cherry, Lecturer
Biology Instruction Office
PhD, University of Tennessee Health Science Center, 2009
Antonia Chimonidou, Lecturer
PhD, University of Texas at Austin, 2009
Brenda J Chinnery, Lecturer
Biology Instruction Office
PhD, Johns Hopkins University, 2002
Raymond A Chitwood, Lecturer
Biology Instruction Office
PhD, University of Texas at San Antonio, 2000
Woongsoon Choi, Specialist
Chemistry
MA, University of Texas at Austin, 2013
Mirela Ciperiani, Assistant Professor
Mathematics
PhD, Princeton University, 2006
Alan K Cline, Professor
David Bruton, Jr. Centennial Professorship in Computer Sciences \#2,
William David Blunk Memorial Professorship
Computer Science
Mathematics
PhD, University of Michigan-Ann Arbor, 1970
William D Cochran, Research Professor (Affiliated)
Astronomy
PhD, Princeton University, 1976
William R Coker, Professor
Physics
PhD, University of Georgia, 1966
John A Colapret, Lecturer

Chemistry
PhD, University of Texas at Austin, 1983
Laura Lee Colgin, Assistant Professor
Neuroscience
PhD, University of California-Irvine, 2003
Sarah M Collins, Lecturer
Statistics and Scientific Computation
PhD, University of Texas at Austin, 2010
Maxwell Colonna, Specialist
Biology Instruction Office
BSBio, University of Texas at Austin, 2011
William R Cook, Associate Professor
Computer Science
PhD, Brown University, 1989
Stephanie B Corliss, Lecturer
PhD, University of Texas at Austin, 2005
Alan H Cowley, Professor
The Robert A. Welch Chair in Chemistry
Chemistry
PhD, University of Manchester, 1958
Jane S Craig, Senior Lecturer
Human Ecology
PhD, Texas Tech University, 1993
David P Crews, Professor
Biology Instruction Office
PhD, Rutgers the State University of New Jersey Newark Campus, 1973
Richard M Crooks, Professor
The Robert A. Welch Chair in Chemistry (Materials Chemistry)
Chemistry
PhD, University of Texas at Austin, 1987
Milica Cudina, Clinical Assistant Professor
Mathematics
PhD, Carnegie Mellon University, 2006
Molly E Cummings, Associate Professor
Biology Instruction Office
PhD, University of California-Santa Barbara, 2001
Michael D Dahlin, Professor
Computer Science
PhD, University of California-Berkeley, 1995
Jeffrey E Danciger, Instructor
Mathematics
Mathematics
PhD, Stanford University, 2011
James W Daniel, Professor Emeritus
Mathematics
PhD, Stanford University, 1965
Mark L Daniels, Clinical Professor
Mathematics
EdD, Walden University, 2007
Michael Daniels, Professor
Biology Instruction Office
ScD, Harvard University, 1995
Bryan William Davies, Assistant Professor

Molecular Biosciences
PhD, Massachusetts Institute of Technology, 2008
Jaimie N Davis, Assistant Professor
Human Ecology
Human Ecology
PhD, University of Texas at Austin, 2004
Katherine M Davis, Associate Professor
Mathematics
PhD, Cornell University, 1974
Mary E Dawson, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 2007
Alejandro L De Lozanne, Professor
Physics
PhD, Stanford University, 1982
Arturo De Lozanne, Associate Professor
Molecular Biosciences
PhD, Stanford University, 1988
Scott J Dee, Lecturer
Chemistry
PhD, Baylor University, 2010
Linda A Degraffenried, Associate Professor
Human Ecology
PhD, University of Texas Health Science Center at San Antonio, 2001
Theodore Delevoryas, Professor Emeritus
Biology Instruction Office
PhD, University of Illinois at Urbana-Champaign, 1954
Cassandra V Delgado-Reyes, Specialist
PhD, University of Illinois at Urbana-Champaign, 2003
Alexander A Demkov, Professor
Physics
PhD, Arizona State University Main, 1995
Leszek F Demkowicz, Professor
W. A. "Tex" Moncrief, Jr. Chair in Computational Engineering and

Sciences II
Mathematics
PhD, Cracow Univ of Technology, 1982
Thomas J Devitt, Lecturer
Biology Instruction Office
PhD, University of California-Berkeley, 2010
F W Dewette, Professor Emeritus
Physics
PhD, Utrecht University, 1959
Cecile M Dewitt, Professor Emeritus
Physics
PhD, University of Paris IV, Sorbonne, 1947
Inderjit S Dhillon, Professor
Computer Science
Mathematics
PhD, University of California-Berkeley, 1997
Robert Wayne Dickey, Professor
Nancy Lee and Perry R. Bass Regents Chair in Marine Science
Marine Science

PhD, Southern Illinois University Carbondale, 1984
Duane A Dicus, Professor
Physics
PhD, University of California-Los Angeles, 1968
John Digiovanni, Professor
Coulter R. Sublett Chair in Pharmacy
Human Ecology
PhD, University of Washington - Seattle, 1978
Isil Dillig, Assistant Professor
Computer Science
PhD, Stanford University, 2011
Thomas W Dillig, Assistant Professor
Computer Science
PhD, Stanford University, 2011
Harriet L Dinerstein, Professor
Astronomy
PhD, University of California-Santa Cruz, 1980
Jacques Distler, Professor
Physics
PhD, Harvard University, 1987
Todd Ditmire, Professor
Physics
PhD, University of California-Davis, 1995
Theodore H Dix, Associate Professor
Human Ecology
PhD, Northwestern University, 1980
Sarah E Dodson-Robinson, Adjunct Assistant Professor
Astronomy
PhD, University of California-Santa Cruz, 2008
John D Dollard, Professor Emeritus
Mathematics
PhD, Princeton University, 1963
Guangbin Dong, Assistant Professor
Chemistry
PhD, Stanford University, 2009
Kelly Ann Dougherty, Lecturer
Biology Instruction Office
PhD, Thomas Jefferson University, 2009
Michael W Downer, Professor
Physics
PhD, Harvard University, 1983
Glenn P Downing, Lecturer
Computer Science
MS, Massachusetts Institute of Technology, 1977
Michael Drew, Assistant Professor
Neuroscience
PhD, Columbia University in the City of New York, 2004
Jaquelin P Dudley, Professor
Molecular Biosciences
PhD, Baylor College of Medicine, 1978
Dennis P Dunn, Lecturer
PhD, University of Texas at Austin, 2002

Kenneth H Dunton, Professor
Marine Science
Marine Science
PhD, University of Alaska Fairbanks, 1985
John R Durbin, Professor Emeritus

## Mathematics

PhD, University of Kansas Main Campus, 1964
Charles F Earhart, Professor Emeritus
Molecular Biosciences
PhD, Purdue University Main Campus, 1967
Paul Eastwick, Assistant Professor
Human Ecology
PhD, Northwestern University, 2009
David J Eaton, Professor
Bess Harris Jones Centennial Professorship in Natural Resource Policy

## Studies

Biology Instruction Office
Biology Instruction Office
PhD, Johns Hopkins University, 1977
Johann K Eberhart, Assistant Professor
Molecular Biosciences
PhD, University of Missouri - Columbia, 2002
Don E Edmondson, Professor Emeritus
Mathematics
PhD, California Institute of Technology, 1954
Lauren Ilyse Richie Ehrlich, Assistant Professor
Molecular Biosciences
PhD, Stanford University, 2002
Victor L Eijkhout, Lecturer
Statistics and Scientific Computation
PhD, Radboud Universiteit Nijmegen, 1990
Denise D Ekberg, Clinical Assistant Professor
MS, University of Illinois at Urbana-Champaign, 1989
Sheldon Ekland-Olson, Professor
Amy Johnson McLaughlin Administrative Chair in Human Ecology,
Rapoport Centennial Professorship of Liberal Arts
Human Ecology
PhD, University of Washington - Seattle, 1971
Yaakoub Y El-Khamra, Lecturer
Statistics and Scientific Computation
MS, Louisiana State University and Agricultural and Mechanical College, 2009

Ron Elber, Professor
W. A. "Tex" Moncrief, Jr. Chair in Computational Life Sciences and

## Biology

Chemistry
PhD, Hebrew University, 1985
Andrew Ellington, Professor
Wilson M. and Kathryn Fraser Research Professorship in Biochemistry
Molecular Biosciences
PhD, Harvard University, 1988
E Allen Emerson, Professor
Regents Chair in Computer Sciences \#2
Computer Science

PhD, Harvard University, 1981
Michael Endl, Lecturer
Astronomy
PhD, University of Vienna, 2001
Peter H English, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1998
Bjorn Engquist, Professor
CAM Chair I
Mathematics
PhD, Uppsala University, 1969
Deana L Erdner, Associate Professor
Marine Science
Marine Science
PhD, Massachusetts Institute of Technology, 1997
Nathan W Erickson, Lecturer
Physics
PhD, University of Texas at Austin, 2011
Brad Erisman, Assistant Professor
Marine Science
PhD, University of California-San Diego, 2008
James L Erskine, Professor
Trull Centennial Professorship in Physics \#2
Physics
PhD, University of Washington - Seattle, 1972
Andrew Jerome Esbaugh, Assistant Professor
Marine Science
Marine Science
PhD, Queens University, 2005
Neal J Evans II, Professor
Edward Randall, Jr., M.D. Centennial Professorship in Astronomy
Astronomy
PhD, University of California-Berkeley, 1973
Fatima H Fakhreddine, Senior Lecturer
Chemistry
PhD, University of Texas at Austin, 1999
Hali A Fechtmeyer, Specialist
Biology Instruction Office
BS, University of Texas at Austin, 2013
Tatia S Feltman, Adjunct Assistant Professor
Molecular Biosciences
EdM, University of Houston - Downtown, 1994
Leanne H Field, Distinguished Senior Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1987
Gregory A Fiete, Associate Professor
Physics
PhD, Harvard University, 2003
lla P Fiete, Assistant Professor
Neuroscience
PhD, Harvard University, 2004
Alessio Figalli, Professor
Robert L. Moore Chair in Mathematics

Mathematics
PhD, Scuola Normale of Pisa, 2007
Karen L Fingerman, Professor
Human Ecology
PhD, University of Michigan-Ann Arbor, 1993
Manfred Fink, Professor
Physics
PhD, University Fridericiana Karlsruhe, 1966
Ilya J Finkelstein, Assistant Professor
Molecular Biosciences
PhD, Stanford University, 2007
Steven Lyle Finkelstein, Assistant Professor
Astronomy
PhD, Arizona State University Main, 2008
Beverly J Finklea, Lecturer
Biology Instruction Office
PhD, Texas A \& M University, 2000
Richard H Finnell, Professor
Chemistry
Human Ecology
PhD, Oregon Health and Science University, 1980
Janice Ann Fischer, Professor
Molecular Biosciences
PhD, Harvard University, 1988
Willy Fischler, Professor
Jane and Roland Blumberg Centennial Professorship in Physics

## Physics

PhD, Vrije Universiteit Brussel, 1976
Daniel L Fitzpatrick, Clinical Assistant Professor
MA, University of Texas at Austin, 2010
Richard Fitzpatrick, Professor
Physics
PhD, University of Sussex, 1988
Conrad R Fjetland, Lecturer
Chemistry
PhD, New Mexico Institute of Mining and Technology, 1998
Scott B Fleenor, Specialist
Human Ecology
BA, University of Chicago, 1984
Ernst-Ludwig Florin, Associate Professor
Physics
PhD, Technischen Universitat Munchen/Munich, 1995
David W Fonken, Lecturer
Mathematics
PhD, University of Texas at Austin, 1983
Gerhard J Fonken, Professor Emeritus
Chemistry
PhD, University of California-Berkeley, 1957
Michele Forman, Professor
David Bruton, Jr. Centennial Professorship in Nutrition
Human Ecology
Human Ecology
PhD, University of North Carolina at Chapel Hill, 1977

Hugh S Forrest, Professor Emeritus
Neuroscience
DSc, University of London, 1970
Norma L Fowler, Professor
Biology Instruction Office
PhD, Duke University, 1978
Ruth A Franks, Senior Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 2000
Daniel S Freed, Professor
Mildred Caldwell and Baine Perkins Kerr Centennial Professorship in
Mathematics
Mathematics
PhD, University of California-Berkeley, 1985
Jeanne H Freeland-Graves, Professor
Bess Heflin Centennial Professorship in Nutritional Sciences
Human Ecology
PhD, Rutgers the State University of New Jersey New Brunswick
Campus, 1975
Gary L Freeman, Professor Emeritus
Biology Instruction Office
PhD, University of Chicago, 1964
Jennifer H Fritz, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1997
Brittany D Froese, Instructor
Mathematics
PhD, Simon Fraser University, 2012
Lothar W Frommhold, Professor Emeritus
Physics
DRHABIL, University of Hamburg, 1961
Lee A Fuiman, Professor
Perry R. Bass Chair in Fisheries and Mariculture
Biology Instruction Office
Marine Science
PhD, University of Michigan-Ann Arbor, 1983
Donald S Fussell, Professor
Trammell Crow Regents Professorship in Computer Science
Computer Science
PhD, University of Texas at Dallas, 1980
Kelly P Gaither, Lecturer
Statistics and Scientific Computation
PhD, Mississippi State University, 2000
Anna Gal, Professor
Computer Science
PhD, University of Chicago, 1995
Irene M Gamba, Professor
John T. Stuart III Centennial Professorship in Mathematics
Mathematics
PhD, University of Chicago, 1989
Wayne S Gardner, Professor
Marine Science
PhD, University of Wisconsin Colleges, 1972
J D Gavenda, Professor Emeritus

Physics
PhD, Brown University, 1959
Karl Gebhardt, Professor
Herman and Joan Suit Professorship in Astrophysics
Astronomy
PhD, Rutgers the State University of New Jersey New Brunswick
Campus, 1994
Kenneth W Gentle, Professor
Physics
PhD, Massachusetts Institute of Technology, 1966
George Georgiou, Professor
Cockrell Family Regents Chair in Engineering \#9
Molecular Biosciences
PhD, Cornell University, 1987
Elizabeth Thompson Gershoff, Associate Professor
Human Ecology
PhD, University of Texas at Austin, 1998
Mary C Gerwels, Senior Lecturer
PhD, University of Texas at Austin, 1994
Omar Ghattas, Professor
John A. and Katherine G. Jackson Chair in Computational Geosciences
Computer Science
PhD, Duke University, 1988
Ahmed Gheith, Adjunct Assistant Professor
Computer Science
PhD, Georgia Institute of Technology, 1990
John C Gilbert, Professor Emeritus
Chemistry
PhD, Yale University, 1965
John E Gilbert, Professor
Mathematics
PhD, University of Oxford, 1963
Lawrence E Gilbert, Professor
Biology Instruction Office
PhD, Stanford University, 1971
Ryan R Gillespie, Specialist
Biology Instruction Office
BS, Westminster College, 2002
Martha B Gillham, Associate Professor Emeritus
Human Ecology
PhD, Iowa State University, 1975
Marci Elizabeth Joy Gleason, Assistant Professor
Human Ecology
PhD, New York University, 2004
Austin M Gleeson, Professor
Physics
PhD, University of Pennsylvania, 1965
Bartley E Goddard, Lecturer
Mathematics
PhD, University of Nebraska - Lincoln, 1989
Patrick G Goetz, Senior Systems Administrator
Mathematics
MS, University of Chicago, 1983

Randall M Goldblum, Adjunct Professor
Molecular Biosciences
MD, University of Texas Medical Branch, 1969
Nace L Golding, Associate Professor
Neuroscience
PhD, University of Wisconsin-Madison, 1996
Robert E Gompf, Professor
Jane and Roland Blumberg Centennial Professorship in Mathematics
Mathematics
PhD, University of California-Berkeley, 1984
Laura I Gonzalez, Lecturer
Biology Instruction Office
PhD, University of New Mexico Main Campus, 1998
Oscar Gonzalez, Professor
Mathematics
PhD, Stanford University, 1996
Cameron M Gordon, Professor
Sid W. Richardson Foundation Regents Chair in Mathematics \#2 Mathematics
PhD, University of Cambridge, 1971
Vernita Gordon, Assistant Professor
Physics
PhD, Harvard University, 2003
Ellen Gottlieb, Assistant Professor
Molecular Biosciences
PhD, Yale University, 1987
Mohamed G Gouda, Professor
Mike A. Myers Centennial Professorship in Computer Sciences Computer Science
PhD, Foreign Institution, 1977
Gail Grabner, Lecturer
Biology Instruction Office
PhD, University of Illinois at Urbana-Champaign, 2002
Kristen L Grauman, Associate Professor
Computer Science
PhD, Massachusetts Institute of Technology, 2006
Thomas A Griffy, Professor Emeritus
Physics
PhD, Rice University, 1961
Jeffrey M Gross, Associate Professor
Molecular Biosciences
PhD, Duke University, 2002
Sam Gunningham, Instructor
Mathematics
PhD, Northwestern University, 2013
Robin Gutell, Professor
Biology Instruction Office
PhD, University of California-Santa Cruz, 1985
Jeffrey Robert Haack, Instructor
Mathematics
PhD, University of Wisconsin-Madison, 2009
Marvin L Hackert, Professor
William Shive Centennial Professorship in Biochemistry

Molecular Biosciences
PhD, Iowa State University, 1970
Ronny Hadani, Assistant Professor
Mathematics
PhD, Tel Aviv University, 2006
Amanda Hager, Lecturer
Mathematics
PhD, University of Iowa, 2010
Gary C Hamrick, Professor
Mathematics
PhD, University of Virginia, 1971
Anne K Hansen, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 2004
Debra R Hansen, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 2012
Boyd A Hardesty, Professor Emeritus
Chemistry
PhD, California Institute of Technology, 1960
Amber Hardison, Assistant Professor
Marine Science
Marine Science
PhD, College of William and Mary, 2010
Susan C Harkins, Lecturer
EdD, University of Pittsburgh, Pittsburgh Campus, 1998
Shinko K Harper, Lecturer
Mathematics
PhD, University of Texas at Austin, 1997
Kristen M Harris, Professor
Neuroscience
PhD, Northeastern Ohio Universities College of Medicine, 1982
R A Harris, Professor
M. June and J. Virgil Waggoner Chair in Molecular Biology

## Neuroscience

PhD, University of North Carolina at Chapel Hill, 1973
Rasika M Harshey, Professor
Molecular Biosciences
PhD, Indian Institute of Science, 1977
Kristin E Harvey, Specialist
Statistics and Scientific Computation
PhD, University of Texas at Austin, 2013
Christine V Hawkes, Associate Professor
Biology Instruction Office
PhD, University of Pennsylvania, 2000
Sophia K Hawthorne, Specialist
Chemistry
BS, University of Texas at Austin, 2012
Richard D Hazeltine, Professor
Physics
PhD, University of Michigan-Ann Arbor, 1968
Nancy L Hazen-Swann, Professor
Human Ecology

Human Ecology
PhD, University of Minnesota-Twin Cities, 1979
Yuan He, Lecturer
Mathematics
PhD, Columbia University in the City of New York, 2010
Bjorn Hegelich, Associate Professor
Physics
PhD, Ludwig-Maximilians-Universitat Munchen, 2002
Daniel J Heinzen, Professor
The Fondren Foundation Centennial Chair in Physics
Physics
PhD, Massachusetts Institute of Technology, 1988
Raymond C Heitmann, Professor
Mathematics
PhD, University of Wisconsin-Madison, 1974
David Helm, Assistant Professor
Mathematics
PhD, University of California-Berkeley, 2003
Graeme A Henkelman, Associate Professor
Chemistry
PhD, University of Washington - Seattle, 2001
Ladia Maxine Hernandez, Lecturer
Human Ecology
PhD, Texas Woman's University, 2009
David L Herrin, Professor
Molecular Biosciences
PhD, University of South Florida, 1986
Matthew A Hersh, Specialist
Statistics and Scientific Computation
PhD, University of Kentucky, 2007
Charlotte Herzele, Lecturer
Human Ecology
PhD, University of Texas at Austin, 1997
Linda A Hicke, Professor
Robert E. Boyer Chair in Natural Sciences
Molecular Biosciences
PhD, University of California-Berkeley, 1990
Gary J Hill, Research Professor (Affiliated)
Astronomy
PhD, University of Hawaii at Hilo, 1988
David M Hillis, Professor
Alfred W. Roark Centennial Professorship in Natural Sciences
Biology Instruction Office
PhD, University of Kansas Main Campus, 1985
Mary C Hines, Lecturer
Biology Instruction Office
PhD, University of Louisville, 1989
Deanna M Hoelscher, Adjunct Professor
Human Ecology
PhD, University of Texas at Austin, 1991
David W Hoffman, Associate Professor
Molecular Biosciences
PhD, Duke University, 1986

Gerald W Hoffmann, Professor
Marian Harris Thornberry Centennial Professorship in Mathematics or Physics
Physics
PhD, University of California-Los Angeles, 1971
Johann Hofmann, Associate Professor
Biology Instruction Office
PhD, Universitat Leipzig, 1997
James A Holcombe, Professor
Chemistry
PhD, University of Michigan-Ann Arbor, 1974
Bradley J Holliday, Associate Professor
Chemistry
PhD, Northwestern University, 2003
Gloria J Holt, Professor Emeritus
Marine Science
PhD, Texas A \& M University, 1976
Younghun Hong, Instructor
Mathematics
PhD, Brown University, 2013
Wendell Horton, Professor Emeritus
Physics
PhD, University of California-San Diego, 1967
Jon M Huibregtse, Professor
Molecular Biosciences
PhD, University of Michigan-Ann Arbor, 1989
Alexander C Huk, Associate Professor
Neuroscience
PhD, Stanford University, 2001
Jane M Huk, Specialist
PhD, Stanford University, 2000
Simon M Humphrey, Assistant Professor
Chemistry
PhD, University of Cambridge, 2006
Enamul Huq, Associate Professor
Molecular Biosciences
PhD, Purdue University Main Campus, 1997
Stephen D Hursting, Professor
Margaret McKean Love Chair in Nutrition, Cellular and Molecular

## Sciences

Human Ecology
PhD, University of North Carolina at Chapel Hill, 1992
Aletha C Huston, Professor Emeritus
Human Ecology
PhD, University of Minnesota-Twin Cities, 1965
Ted L Huston, Professor Emeritus
Human Ecology
PhD, State University of New York at Albany, 1972
Amy E Imes, Lecturer
Human Ecology
PhD, University of Texas at Austin, 2008
Gregory C Ippolito, Research Assistant Professor
Biology Instruction Office

PhD, University of Alabama at Birmingham, 2002
Arie Israel, Assistant Professor
Mathematics
PhD, Princeton University, 2011
Brent L Iverson, Professor
Warren J. and Viola Mae Raymer Professorship
Chemistry
PhD, California Institute of Technology, 1988
Vishwanath R lyer, Professor
Molecular Biosciences
PhD, Harvard University, 1996
Antone G Jacobson, Professor Emeritus
Molecular Biosciences
PhD, Stanford University, 1955
Deborah B Jacobvitz, Professor
Phyllis L. Richards Endowed Professorship in Child Development
Human Ecology
PhD, University of Minnesota-Twin Cities, 1987
Daniel T Jaffe, Professor
Astronomy
PhD, Harvard University, 1981
Mary K Jamsek, Specialist
Human Ecology
MS, Syracuse University Main Campus, 1990
Robert K Jansen, Professor
Sidney F. and Doris Blake Centennial Professorship in Systematic Botany and the Blake Collection
Biology Instruction Office
PhD, Ohio State U Main Campus, 1982
Sharon K Jasper, Lecturer
Biology Instruction Office
PhD, Texas A \& M University, 1996
Cynthia K Jay, Senior Lecturer
Human Ecology
PhD, University of Texas at Austin, 1999
Makkuni Jayaram, Professor
Molecular Biosciences
PhD, Indian Institute of Science, 1977
William H Jefferys, Professor Emeritus
Astronomy
PhD, Yale University, 1965
Shalene Jha, Assistant Professor
Biology Instruction Office
PhD, University of Michigan-Ann Arbor, 2009
Shardha Jogee, Associate Professor
Astronomy
PhD, Yale University, 1999
Peter W John, Professor Emeritus
Mathematics
PhD, University of Oklahoma Norman Campus, 1955
Arlen W Johnson, Professor
Molecular Biosciences
PhD, Harvard University, 1988

Christopher Robert Johnson, Specialist
Chemistry
MA, University of Texas at Austin, 2013
Kenneth Johnson, Professor
Roger J. Williams Centennial Professorship in Biochemistry
Molecular Biosciences
PhD, University of Wisconsin-Madison, 1975
Daniel Johnston, Professor
Karl Folkers Chair in Interdisciplinary Biomedical Research
Neuroscience
PhD, Duke University, 1974
Marshall C Johnston, Professor Emeritus
Biology Instruction Office
PhD, University of Texas at Austin, 1955
Christopher A Jolly, Associate Professor
Human Ecology
Human Ecology
PhD, Texas A \& M University, 1996
Richard A Jones, Professor
Chemistry
PhD, University of London, 1978
Thomas E Juenger, Professor
Biology Instruction Office
PhD, University of Chicago, 1999
Vadim Kaplunovsky, Professor

## Physics

PhD, Tel Aviv University, 1984
Cagri Karakurt, Lecturer
Mathematics
PhD, Michigan State University, East Lansing, 2010
Adrian T Keatinge-Clay, Assistant Professor
Molecular Biosciences
PhD, University of California-San Francisco, 2004
Stephen W Keckler, Adjunct Professor
Computer Science
PhD, Massachusetts Institute of Technology, 1998
Sean M Keel, Professor
Mathematics
PhD, University of Chicago, 1989
Timothy H Keitt, Associate Professor
Biology Instruction Office
PhD, University of New Mexico Main Campus, 1995
John W Keto, Professor
Physics
PhD, University of Wisconsin-Madison, 1972
Can Kilic, Assistant Professor
Physics
PhD, Harvard University, 2006
Jonghwan Kim, Assistant Professor
Molecular Biosciences
PhD, University of Texas at Austin, 2005
Su Yeong Kim, Associate Professor
Human Ecology

PhD, University of California-Davis, 2003
Lynn E Kirby, Clinical Assistant Professor
MLibArts, St Edward's University, 2007
Mark A Kirkpatrick, Professor
T. S. Painter Centennial Professorship in Genetics

Biology Instruction Office
PhD, University of Washington - Seattle, 1983
Karrol A Kitt, Associate Professor
Human Ecology
PhD, Purdue University Main Campus, 1978
George B Kitto, Professor Emeritus
Chemistry
PhD, Brandeis University, 1966
Leonard Kleinman, Professor Emeritus
Physics
PhD, University of California-Berkeley, 1960
Kimberly Kline, Professor
Julian C. Barton Professorship in Nutrition
Human Ecology
PhD, University of Texas at Austin, 1985
Adam R Klivans, Associate Professor
Computer Science
PhD, Massachusetts Institute of Technology, 2002
Daniel F Knopf, Associate Professor
Mathematics
PhD, University of Wisconsin-Milwaukee, 1999
Hans A Koch, Professor
Mathematics
PhD, University of Geneva, 1979
Helmut J Koester, Assistant Professor
Neuroscience
PhD, Ruprecht-Karls-Universitat Heidelberg, 1999
Sacha E Kopp, Professor
Physics
PhD, University of Chicago, 1994
John Kormendy, Professor
Curtis T. Vaughan, Jr. Centennial Chair in Astronomy
Astronomy
PhD, California Institute of Technology, 1976
Adam L Kraus, Assistant Professor
Astronomy
PhD, California Institute of Technology, 2009
Mourad Krifa, Assistant Professor
Human Ecology
Human Ecology
PhD, Universite de Haute Alsace, Mulhouse-Colmar, 2001
Michael J Krische, Professor
The Robert A. Welch Chair in Science
Chemistry
PhD, Stanford University, 1997
Robert M Krug, Professor
Molecular Biosciences
PhD, Rockefeller University, 1966

Benjamin J Kuipers, Professor Emeritus
Computer Science
PhD, Massachusetts Institute of Technology, 1977
Pawan Kumar, Professor
Astronomy
PhD, California Institute of Technology, 1988
John W La Claire II, Professor
Molecular Biosciences
PhD, University of California-Berkeley, 1979
Cynthia A Labrake, Senior Lecturer
Chemistry
PhD, Loyola University Chicago, 1992
John H Lacy, Professor
Astronomy
PhD, University of California-Berkeley, 1979
Travis J Laduc, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 2003
Jeanne M Lagowski, Professor Emeritus
Neuroscience
PhD, University of Michigan-Ann Arbor, 1957
Keji Lai, Assistant Professor
Physics
PhD, Princeton University, 2006
Simon S Lam, Professor
Regents Chair in Computer Sciences \#1
Computer Science
PhD, University of California-Los Angeles, 1974
David L Lambert, Professor
Isabel McCutcheon Harte Centennial Chair in Astronomy
Astronomy
DPhil, University of Oxford, 1965
Alan Lambowitz, Professor
Mr. and Mrs. A. Frank Smith, Jr. Regents Chair in Molecular Biology,
Nancy Lee and Perry R. Bass Regents Chair in Molecular Biology
Molecular Biosciences
PhD, Yale University, 1972
Michelle A Lane, Adjunct Associate Professor
Human Ecology
PhD, Rutgers the State University of New Jersey New Brunswick
Campus, 1996
Karol Lang, Professor
Physics
PhD, University of Rochester, 1985
Judith H Langlois, Professor
Charles and Sarah Seay Regents Professorship in Developmental
Psychology
Human Ecology
PhD, Louisiana State University and Agricultural and Mechanical College, 1973

Joshua Lara, Specialist
Biology Instruction Office
Chemistry
BS, University of Texas at Austin, 2011

Laura M Lashinger, Research Scientist
Human Ecology
PhD, University of Texas Health Science Center at Houston, 2005
Anita G Latham, Senior Lecturer
Biology Instruction Office
PhD, University of Alabama at Birmingham, 1999
David A Laude, Professor
Chemistry
PhD, University of California-Riverside, 1984
Marie-Amelie Lawn, Lecturer
Mathematics
PhD, Universite Henri Poincare, Nancy I, 2006
Thai Hoang Le, Lecturer
Mathematics
PhD, University of California-Los Angeles, 2010
Stefanie W Leacock, Lecturer
Biology Instruction Office
PhD, Yale University, 2006
Matthew A Lease, Assistant Professor
Computer Science
PhD, Brown University, 2009
Doris Lefkowitz, Adjunct Professor
Molecular Biosciences
PhD, Texas Tech University Health Sciences Center, 1986
Stanley Lefkowitz, Adjunct Professor
Molecular Biosciences
PhD, University of Maryland Baltimore, 1961
Mathew A Leibold, Professor
Harold C. and Mary D. Bold Regents Professorship of Cryptogamic
Botany (Phycology)
Biology Instruction Office
PhD, Michigan State University, East Lansing, 1988
Andrew D Lenharth, Lecturer
Computer Science
PhD, University of Illinois at Urbana-Champaign, 2010
Christophe Leveque, Adjunct Assistant Professor
Molecular Biosciences
MD, Louisiana State University Health Sciences Center, 1981
Donald A Levin, Professor
Biology Instruction Office
PhD, University of Illinois at Urbana-Champaign, 1964
Xiaoqin E Li, Associate Professor
Physics
PhD, University of Michigan-Ann Arbor, 2003
Tye Lidman, Instructor
Mathematics
PhD, University of California-Los Angeles, 2012
Vladimir Lifschitz, Professor
Professorship in Computer Sciences \#2
Computer Science
PhD, Steklov Mathematical Institute, 1969
Calvin Lin, Professor
Computer Science

PhD, University of Washington - Seattle, 1992
Lizhen Lin, Assistant Professor
Statistics and Scientific Computation
PhD, University of Arizona, 2012
Craig R Linder, Associate Professor
Biology Instruction Office
PhD, Brown University, 1984
Hung-Wen Liu, Professor
George H. Hitchings Regents Chair in Drug Design
Chemistry
PhD, Columbia University in the City of New York, 1981
Zhanfei Liu, Assistant Professor
Marine Science
Marine Science
PhD, State University of New York at Stony Brook, 2006
Alan M Lloyd, Professor
Molecular Biosciences
PhD, Stanford University, 1993
Michael T Lock, Instructor
Mathematics
PhD, University of Wisconsin-Madison, 2011
Alessia Lodi, Lecturer
Human Ecology
PhD, Ohio State U Main Campus, 2006
John C Loehlin, Professor Emeritus
Computer Science
PhD, University of California-Berkeley, 1957
Hector E Lomeli, Adjunct Associate Professor
Mathematics
PhD, University of Minnesota-Twin Cities, 1995
Cynthia K Louden, Lecturer
PhD, University of North Carolina at Chapel Hill, 1997
Timothy J Loving, Associate Professor
Human Ecology
PhD, Purdue University Main Campus, 2001
Jeffrey J Luci, Research Assistant Professor
Neuroscience
PhD, University of lowa, 2002
Randi Renae Ludwig, Lecturer
PhD, University of Texas at Austin, 2012
John E Luecke, Professor
Mathematics
PhD, University of Texas at Austin, 1985
Donna C Lyon, Lecturer
Chemistry
PhD, University of Texas at Austin, 2002
Martha M Maas, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 2005
Tom J Mabry, Professor Emeritus
Molecular Biosciences
PhD, Rice University, 1960

Allan H Macdonald, Professor
Sid W. Richardson Foundation Regents Chair in Physics \#1
Physics
PhD, University of Toronto, 1978
Paul M Macdonald, Professor
Mr. and Mrs. Robert P. Doherty, Jr. Regents Chair in Molecular Biology
Molecular Biosciences
PhD, Vanderbilt University, 1983
Jan M Machart, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 2001
Francesco Maggi, Associate Professor
Mathematics
PhD, Universita degli Studi di Roma "La Sapienza", 2004
Bassett Maguire Jr, Professor Emeritus
Biology Instruction Office
Marine Science
PhD, Cornell University, 1957
Swadesh M Mahajan, Research Professor (Affiliated)
Physics
PhD, University of Maryland College Park, 1973
Michael J Mahometa, Manager
Statistics and Scientific Computation
PhD, University of Texas at Austin, 2006
Dmitrii E Makarov, Professor
Chemistry
PhD, Inst. Of Chem. Physics, Moscow, 1992
Jerry M Manheimer, Lecturer
Human Ecology
Statistics and Scientific Computation
PhD, University of New Mexico Main Campus, 1983
Edward M Marcotte, Professor
Mr. and Mrs. Corbin J. Robertson, Sr. Regents Chair in Molecular Biology
Molecular Biosciences
PhD, University of Texas at Austin, 1995
Michael P Marder, Professor
Physics
PhD, University of California-Santa Barbara, 1986
Christina Markert, Associate Professor
Physics
PhD, Johann Wolfgang Goethe University, 2001
John T Markert, Professor
Physics
PhD, Cornell University, 1987
Christine E Marquette, Specialist
Human Ecology
Human Ecology
BS, University of Texas at Austin, 2002
Jill A Marshall, Associate Professor
Physics
PhD, University of Texas at Austin, 1984
Nathan Marti, Lecturer
Statistics and Scientific Computation

PhD, University of Texas at Austin, 2001
Norman M Martin, Professor Emeritus
Computer Science
PhD, University of California-Los Angeles, 1952
Stephen F Martin, Professor
M. June and J. Virgil Waggoner Regents Chair in Chemistry

Chemistry
PhD, Princeton University, 1972
Kimberly M Massaro, Lecturer
Statistics and Scientific Computation
MS, University of Texas at San Antonio, 2009
Norayr Matevosyan, Lecturer
Mathematics
PhD, Royal Institute of Technology, 2003
Seena Mathew, Lecturer
Biology Instruction Office
PhD, University of Alabama at Birmingham, 2007
Andreas T Matouschek, Professor
Molecular Biosciences
PhD, University of Cambridge, 1992
Mikhail V Matz, Associate Professor
Biology Instruction Office
PhD, Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, 1999
Richard A Matzner, Professor
Physics
PhD, University of Maryland College Park, 1967
Michael Mauk, Professor
Neuroscience
PhD, Stanford University, 1985
James D Mauseth, Professor
Biology Instruction Office
PhD, University of Washington - Seattle, 1975
Mark M Maxwell, Clinical Professor
Mathematics
PhD, Oregon State University, 1994
Mary L McAnelly, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1984
Blinda E McClelland, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1994
James W McClelland, Associate Professor
Marine Science
Marine Science
PhD, Boston University, 1998
Paul McCord, Senior Lecturer
Chemistry
PhD, University of Texas at Austin, 1992
William D McCormick, Professor Emeritus
Physics
PhD, Duke University, 1959
Gene D McDonald, Lecturer
Biology Instruction Office

PhD, University of Texas at Austin, 1990
Kathryn S McKinley, Adjunct Professor
Professorship in Computer Sciences \#5
Computer Science
PhD, Rice University, 1992
Kay McMurry, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1996
Monica R Meadows, Lecturer
Human Ecology
Human Ecology
PhD, University of Texas at Austin, 2003
Mona Mehdy, Associate Professor
Molecular Biosciences
PhD, University of California-San Diego, 1984
Robyn Metcalfe, Lecturer
Human Ecology
PhD, Boston University, 2010
John C Meth, Lecturer
Mathematics
PhD, University of Texas at Austin, 2010
Pedro Metola, Specialist
Chemistry
PhD, University of Texas at Austin, 2013
Richard J Meyer, Professor
Molecular Biosciences
PhD, University of Pennsylvania, 1972
Lauren A Meyers, Professor
Biology Instruction Office
PhD, Stanford University, 2000
S J Mihic, Associate Professor
Neuroscience
PhD, University of Toronto, 1992
Risto P Miikkulainen, Professor
Computer Science
PhD, University of California-Los Angeles, 1990
Kent F Milfeld, Lecturer
Statistics and Scientific Computation
PhD, University of Texas at Austin, 1983
Jesse E Miller, Lecturer
Mathematics
PhD, University of Illinois at Urbana-Champaign, 2011
Kyle M Miller, Assistant Professor
Molecular Biosciences
PhD, University College London, 2004
Mary E Miller, Specialist
Chemistry
BS, Texas State University-San Marcos, 1989
Monica J Milonovich, Lecturer
Human Ecology
MS, Bowling Green State University, 1999
Milos Milosavljevic, Associate Professor
Astronomy

PhD, Rutgers the State University of New Jersey New Brunswick Campus, 2002

Dong-Ha Min, Lecturer
Marine Science
PhD, University of California-San Diego, 1999
Zachary L Miner, Lecturer
Mathematics
PhD, University of Texas at Austin, 2011
Daniel P Miranker, Professor
Computer Science
PhD, Columbia University in the City of New York, 1987
Jayadev Misra, Professor
Schlumberger Centennial Chair in Computer Sciences
Computer Science
PhD, Johns Hopkins University, 1973
Shyamal K Mitra, Lecturer
Computer Science
PhD, University of Texas at Austin, 1988
Amir Mohammadi, Assistant Professor
Mathematics
PhD, Yale University, 2009
Sanghamitra Mohanty, Lecturer
Biology Instruction Office
MD, Utkal University, 1982
Aloysius K Mok, Professor
Quincy Lee Centennial Professorship in Computer Science Computer Science
PhD, Massachusetts Institute of Technology, 1983
Ian J Molineux, Professor
Molecular Biosciences
DPhil, University of Oxford, 1969
Stephen A Monti, Professor Emeritus
Chemistry
PhD, Massachusetts Institute of Technology, 1964
Jennifer Moon, Lecturer
Biology Instruction Office
PhD, Indiana University at Bloomington, 2004
Raymond J Mooney, Professor
Professorship in Computer Sciences \#3
Computer Science
PhD, University of Illinois at Urbana-Champaign, 1987
Barbara E Moore, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1988
C F Moore, Professor Emeritus
Physics
PhD, Florida State University, 1964
J S Moore II, Professor
Admiral B. R. Inman Centennial Chair in Computing Theory
Computer Science
Mathematics
PhD, University of Edinburgh, 1973
Terri Lynne Moore, Lecturer

Statistics and Scientific Computation
PhD, Kansas State University, 1998
Pedro F Morales, Lecturer
Mathematics
PhD, Baylor University, 2012
Nancy A Moran, Professor
Biology Instruction Office
PhD, University of Michigan-Ann Arbor, 1982
Hitoshi Morikawa, Associate Professor
Neuroscience
PhD, Kyoto University, 1999
Philip J Morrison, Professor
Physics
PhD, University of California-San Diego, 1979
Oleksii Mostovyi, Instructor
Mathematics
PhD, Carnegie Mellon University, 2012
Rachel K Moyer-Trimyer, Lecturer
Human Ecology
MEd, University of Texas at Austin, 2001
Peter Mueller, Professor
Mathematics
PhD, Purdue University Main Campus, 1991
Ulrich G Mueller, Professor
William Morton Wheeler-Lost Pines Professorship
Biology Instruction Office
PhD, Cornell University, 1993
Erin B Muller, Lecturer
Human Ecology
Human Ecology
MA, Fashion Institute of Technology, 2009
Charles B Mullins, Professor
Z. D. Bonner Professorship of Chemical Engineering, Matthew Van

Winkle Regents Professorship in Chemical Engineering
Chemistry
PhD, California Institute of Technology, 1990
Petr Munk, Professor Emeritus
Chemistry
PhD, In of Macromole Chem, 1961
Margaret E Myers, Lecturer
Statistics and Scientific Computation
PhD, University of Maryland College Park, 1988
Hossein Namazi, Assistant Professor
Mathematics
PhD, State University of New York at Stony Brook, 2005
Vallath Nandakumar, Lecturer
Computer Science
PhD, University of California-Berkeley, 1990
R E Nather, Professor Emeritus
Astronomy
PhD, University of Cape Town, 1972
Richard F Nauert, Adjunct Associate Professor
Biology Instruction Office

PhD, University of Texas at Austin, 2002
Ian Michael Nauhaus, Assistant Professor
Neuroscience
PhD, University of California-Los Angeles, 2008
Joseph Neeman, Instructor
Mathematics
PhD, University of California-Berkeley, 2013
Lisa Ann Neff, Assistant Professor
Human Ecology
PhD, University of Florida, 2002
Andrew M Neitzke, Assistant Professor
Mathematics
PhD, Harvard University, 2005
Eric A Nemeth, Specialist
Chemistry
BS, University of Florida, 2010
Raymond L Neubauer, Senior Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1993
Joel H Nibert, Lecturer
Mathematics
PhD, University of Southern California, 2012
Carol A Nicols, Distinguished Senior Lecturer
Human Ecology
MA, Central Saint Martins College of Art and Design, 1981
Hiroshi Nishiyama, Assistant Professor
Neuroscience
PhD, Kyoto University, 2002
Qian Niu, Professor
Trull Centennial Professorship in Physics \#1

## Physics

PhD, University of Washington - Seattle, 1985
A W Nolle, Professor Emeritus

## Physics

PhD, Massachusetts Institute of Technology, 1947
Alison N Norman, Lecturer
Computer Science
PhD, University of Texas at Austin, 2010
Gordon S Novak Jr, Professor
Computer Science
PhD, University of Texas at Austin, 1976
Theresa J O'Halloran, Associate Professor
Molecular Biosciences
PhD, University of North Carolina at Chapel Hill, 1986
Melvin E Oakes, Professor Emeritus
Physics
PhD, Florida State University, 1964
Howard Ochman, Professor
Biology Instruction Office
PhD, University of Rochester, 1984
J T Oden, Professor
Cockrell Family Regents Chair in Engineering \#2, Peter O'Donnell, Jr. Centennial Chair in Computing Systems

Computer Science
Mathematics
PhD, Oklahoma State University Main Campus, 1962
Suzan D Olson, Lecturer
Statistics and Scientific Computation
PhD, Wichita State University, 1998
Peter Onyisi, Assistant Professor
Physics
PhD, Cornell University, 2008
Raymond Lee Orbach, Professor
Cockrell Family Chair in Engineering No. 12
Physics
PhD, University of California-Berkeley, 1960
Christopher B Orf, Specialist
Chemistry
MS, Oregon State University, 1993
Karen L Ostlund, Lecturer
PhD, University of Minnesota-Twin Cities, 1983
Glen Otto, Clinical Professor
Molecular Biosciences
DVM, University of Minnesota-Twin Cities, 1987
Ekin Ozman, Lecturer
Mathematics
PhD, University of Wisconsin-Madison, 2007
Sonia Paban, Associate Professor
Physics
PhD, University of Barcelona, 1988
Susan J Pacinda, Adjunct Assistant Professor
Molecular Biosciences
MD, University of Texas Health Science Center at Houston, 1992
Bruce P Palka, Professor Emeritus
Mathematics
PhD, University of Michigan-Ann Arbor, 1972
Jose L Panero, Associate Professor
Biology Instruction Office
PhD, University of Tennessee, 1990
Diane Papillion, Lecturer
Human Ecology
MPH, University of North Carolina at Chapel Hill, 2001
Mary R Parker, Senior Lecturer
Statistics and Scientific Computation
PhD, University of Texas at Austin, 1988
Camille Parmesan, Professor
Biology Instruction Office
PhD, University of Texas at Austin, 1995
James T Pascaleff, Instructor
Mathematics
PhD, Massachusetts Institute of Technology, 2011
Yale N Patt, Professor
Ernest Cockrell, Jr. Centennial Chair in Engineering
Computer Science
PhD, Stanford University, 1966
Tanya T Paull, Professor

Burl G. and Lorene L. Rogers Chair in Human Health
Molecular Biosciences
PhD, University of California-Los Angeles, 1996
Natasa Pavlovic, Associate Professor
Mathematics
PhD, University of Illinois at Chicago, 2002
Shelley M Payne, Professor
Molecular Biosciences
PhD, Tex Hlth Sci C Dallas, U, 1977
Timothy Perutz, Assistant Professor
Mathematics
PhD, University of London, 2005
Kathryn A Peth, Specialist
Chemistry
MS, College of William and Mary, 2011
Varduhi L Petrosyan, Specialist
Chemistry
BS, University of Texas at Austin, 2013
Steven M Phelps, Associate Professor
Biology Instruction Office
PhD, University of Texas at Austin, 1999
Eric R Pianka, Professor
Denton A. Cooley Centennial Professorship in Zoology
Biology Instruction Office
PhD, University of Washington - Seattle, 1990
Shawn K Piasecki, Specialist
Chemistry
PhD, University of Texas at Austin, 2013
Jonathan T Pierce-Shimomura, Assistant Professor
Neuroscience
PhD, University of Oregon, 2000
Rebecca Lynn Piland, Specialist
Chemistry
BA, University of Texas at Austin, 2013
Jonathan William Pillow, Assistant Professor
Neuroscience
PhD, New York University, 2005
Keshav K Pingali, Professor
W. A. "Tex" Moncrief, Jr. Chair in Distributed and Grid Computing

Computer Science
ScD, Massachusetts Institute of Technology, 1986
C Greg Plaxton, Professor
Computer Science
PhD, Stanford University, 1989
Martin Poenie, Associate Professor
Molecular Biosciences
PhD, Stanford University, 1986
Russell A Poldrack, Professor
C. B. Smith, Sr., Nash Phillips, Clyde Copus Centennial Chair honoring

Harry Huntt Ransom
Neuroscience
PhD, University of Illinois at Urbana-Champaign, 1995
George D Pollak, Professor

Neuroscience
PhD, University of Maryland College Park, 1970
Adrienne N Poncik, Specialist
Chemistry
BS, University of Texas at Austin, 2013
Mark T Pope, Lecturer
Human Ecology
PhD, University of Texas at Austin, 2011
Bruce W Porter, Professor
Computer Science
PhD, University of California-Irvine, 1984
Pamela G Powell, Clinical Associate Professor
MEd, University of Texas at Austin, 1993
William H Press, Professor
Warren J. and Viola Mae Raymer Chair
Biology Instruction Office
Computer Science
PhD, California Institute of Technology, 1972
Alison R Preston, Associate Professor
Neuroscience
PhD, Stanford University, 2004
Eric Price, Assistant Professor
Computer Science
PhD, Massachusetts Institute of Technology, 2013
Nancy B Prideaux, Senior Lecturer
Human Ecology
MS, Houston Baptist University, 1985
Nicholas J Priebe, Assistant Professor
Neuroscience
PhD, University of California-San Francisco, 2001
Hong Qiao, Assistant Professor
Molecular Biosciences
PhD, Chinese Academy of Sciences, 2004
Lili Qiu, Associate Professor
Computer Science
PhD, Cornell University, 2001
Emily Que, Assistant Professor
Chemistry
PhD, University of California-Berkeley, 2009
Kimberly Raab-Graham, Assistant Professor
Neuroscience
PhD, University of California-Santa Barbara, 1998
Charles L Radin, Professor
Mathematics
PhD, University of Rochester, 1971
Diane S Radin, Senior Lecturer
Mathematics
MA, University of Rochester, 1968
Mark G Raizen, Professor
Sid W. Richardson Foundation Regents Chair in Physics \#2
Physics
PhD, University of Texas at Austin, 1989
Vijaya Ramachandran, Professor

William B. Blakemore II Regents Professorship in Computer Sciences
Computer Science
PhD, Princeton University, 1983
Michael W Raney, Lecturer
PhD, University of Texas at Austin, 1991
Mary A Rankin, Professor Emeritus
Biology Instruction Office
PhD, University of lowa, 1972
Joanne M Ravel, Professor Emeritus
Chemistry
PhD, University of Texas at Austin, 1954
Pradeep Ravikumar, Assistant Professor
Computer Science
Statistics and Scientific Computation
PhD, Carnegie Mellon University, 2007
Julia A Reed, Associate Professor
Human Ecology
PhD, Purdue University Main Campus, 1973
Lester J Reed, Professor Emeritus
Chemistry
PhD, University of Illinois at Urbana-Champaign, 1946
Megan C Regnier, Lecturer
PsyD, Florida State University, 2009
Linda E Reichl, Professor
Physics
PhD, University of Denver, 1969
Alan W Reid, Professor
Pennzoil Company Regents Professorship in Mathematics
Mathematics
PhD, University of Aberdeen, 1988
Jan S Rellermeyer, Adjunct Assistant Professor
Computer Science
PhD, Swiss Federal Institute of Technology, 2011
Kui Ren, Assistant Professor
Mathematics
PhD, Columbia University in the City of New York, 2006
Benjamin T Rhodes Jr, Lecturer
Mathematics
PhD, Oklahoma State University Main Campus, 1961
Elaine A Rich, Distinguished Senior Lecturer
Computer Science
PhD, Carnegie Mellon University, 1979
Phyllis L Richards, Professor Emeritus
Human Ecology
PhD, Florida State University, 1964
Dick Richardson, Professor Emeritus
Biology Instruction Office
PhD, North Carolina State University, 1965
Austen F Riggs II, Professor Emeritus
Neuroscience
PhD, Harvard University, 1951
Peter J Riley, Professor Emeritus
Physics

PhD, University of Alberta, 1962
Jack L Ritchie, Professor
Physics
PhD, University of Rochester, 1984
Ritu Ritu, Lecturer
Statistics and Scientific Computation
PhD, , 2010
Sean Thomas Roberts, Assistant Professor
Chemistry
PhD, Massachusetts Institute of Technology, 2009
Jon D Robertus, Professor
Benjamin Clayton Centennial Professorship in Biochemistry
Molecular Biosciences
PhD, University of California-San Diego, 1972
Edward L Robinson, Professor
William B. Blakemore II Regents Professorship in Astronomy
Astronomy
PhD, University of Texas at Austin, 1973
Bruce E Rodenborn, Lecturer
Physics
PhD, University of Texas at Austin, 2011
Altha B Rodin, Senior Lecturer
Mathematics
PhD, University of Texas at Austin, 1988
Shelly R Rodriguez, Clinical Assistant Professor
MA, University of Texas at Austin, 2003
F Rodriguez-Villegas, Professor
Mathematics
PhD, The Ohio State University Main Campus, 1990
Michael Rose, Assistant Professor
Chemistry
PhD, University of California-Santa Cruz, 2009
Haskell P Rosenthal, Professor Emeritus
Mathematics
PhD, Stanford University, 1965
Peter J Rossky, Professor
Marvin K. Collie-Welch Regents Chair in Chemistry
Chemistry
PhD, Harvard University, 1978
Eli Rotenberg, Adjunct Professor
Physics
PhD, University of California-Berkeley, 1993
Stanley J Roux Jr, Professor
Molecular Biosciences
PhD, Yale University, 1971
Bradley A Rowland, Lecturer
Chemistry
PhD, University of Texas at Austin, 2007
David Rusin, Lecturer
Mathematics
PhD, University of Chicago, 1984
Rick Russell, Associate Professor
Molecular Biosciences

PhD, Johns Hopkins University, 1998
Michael J Ryan, Professor
Clark Hubbs Regents Professorship in Zoology
Biology Instruction Office
PhD, Cornell University, 1982
Lorenzo A Sadun, Professor
Mathematics
PhD, University of California-Berkeley, 1987
David J Saltman, Professor Emeritus
Mathematics
PhD, Yale University, 1976
Bob G Sanders, Professor
Human Ecology
Molecular Biosciences
PhD, Penn State University Park, 1961
Sahotra Sarkar, Professor
Biology Instruction Office
PhD, University of Chicago, 1989
K Sata Sathasivan, Senior Lecturer
Biology Instruction Office
PhD, Louisiana State University and Agricultural and Mechanical College, 1991

Kanthimathi Sathasivan, Lecturer
Mathematics
PhD, University of Texas at Austin, 2011
Sara L Sawyer, Assistant Professor
Molecular Biosciences
PhD, Cornell University, 2003
Inder M Saxena, Lecturer
Biology Instruction Office
PhD, Jawaharlal Nehru University, 1984
Pratibha Saxena, Lecturer
Biology Instruction Office
PhD, Jawaharlal Nehru University, 1983
John M Scalo, Professor
Josey Centennial Professorship in Astronomy
Astronomy
PhD, University of California-Los Angeles, 1973
Travis Schedler, Assistant Professor
Mathematics
PhD, University of Chicago, 2008
William C Schieve, Professor Emeritus
Physics
PhD, Lehigh University, 1959
Evelyn M Schultz, Lecturer
Mathematics
MA, Duke University, 1972
Arlo W Schurle, Lecturer
Mathematics
PhD, University of Kansas Main Campus, 1967
Roy F Schwitters, Professor
Sid W. Richardson Foundation Regents Chair in Physics \#4
Physics

PhD, Massachusetts Institute of Technology, 1971
Michael D Scott, Senior Lecturer
Computer Science
MS, Rensselaer Polytechnic Institute, 1998
Madison Searle, Lecturer
MA, University of Virginia, 1990
Leonard L Seelig, Lecturer
Biology Instruction Office
PhD, University of Texas Health Science Center at San Antonio, 1975
Sue E Seely, Lecturer
Human Ecology
PhD, University of Texas at Austin, 2006
Eyal Seidemann, Associate Professor
Neuroscience
PhD, Stanford University, 1998
Jonathan L Sessler, Professor
Rowland Pettit Centennial Chair in Chemistry
Chemistry
PhD, Stanford University, 1982
Shagufta H Shabbir, Lecturer
Chemistry
PhD, University of Texas at Austin, 2009
Gerald C Shank, Lecturer
Marine Science
PhD, University of North Carolina at Chapel Hill, 2003
Paul R Shapiro, Professor
Frank N. Edmonds, Jr. Regents Professorship in Astronomy
Astronomy
PhD, Harvard University, 1978
Jason B Shear, Professor
Chemistry
PhD, Stanford University, 1994
Ruth I Shear, Senior Lecturer
Chemistry
PhD, Griffith University, 1991
Chin-Kang Shih, Professor
Jane and Roland Blumberg Professorship in Physics
Physics
PhD, Stanford University, 1988
Frank T Shirley, Lecturer
Mathematics
PhD, University of Texas at Austin, 1984
Vitaly Shmatikov, Associate Professor
Computer Science
PhD, Stanford University, 2000
Ben A Shoulders, Research Scientist
Chemistry
PhD, University of Texas at Austin, 1964
Ralph E Showalter, Professor Emeritus
Mathematics
PhD, University of Illinois at Urbana-Champaign, 1968
George T Shubeita, Assistant Professor
Physics

PhD, Universite de Lausanne, 2002
Gennady Shvets, Professor
Physics
PhD, Massachusetts Institute of Technology, 1995
Dionicio R Siegel, Assistant Professor
Chemistry
PhD, Harvard University, 2003
Karen K Silcox, Lecturer
Human Ecology
PhD, University of Texas at Austin, 2011
Dee U Silverthorn, Distinguished Senior Lecturer
Biology Instruction Office
PhD, University of South Carolina - Columbia, 1973
Sarah L Simmons, Lecturer
PhD, University of Texas at Austin, 2002
Beryl B Simpson, Professor
C. L. Lundell Chair of Systematic Botany

Biology Instruction Office
Biology Instruction Office
PhD, Harvard University, 1968
Michael C Singer, Professor
Biology Instruction Office
PhD, University of Oxford, 1971
Mihai Sirbu, Associate Professor
Mathematics
PhD, Carnegie Mellon University, 2004
Greg O Sitz, Professor
Physics
PhD, Stanford University, 1987
Jennifer L Smith, Lecturer
MEd, University of Texas at Austin, 2009
Kimberly Ann Smith, Lecturer
Biology Instruction Office
PhD, University of Texas Health Science Center at Houston, 2010
Lindsey J Smith, Lecturer
Statistics and Scientific Computation
PhD, University of Texas at Austin, 2012
Christopher A Sneden, Professor
Rex G. Baker, Jr. and McDonald Observatory Centennial Research
Professorship in Astronomy
Astronomy
PhD, University of Texas at Austin, 1974
D M Snodderly, Professor
Human Ecology
Neuroscience
PhD, Rockefeller University, 1969
Adriana Sofer, Lecturer
Mathematics
PhD, The Ohio State University Main Campus, 1993
William Howard Sofer, Adjunct Professor
Molecular Biosciences
PhD, University of Miami, 1967
Stacy C Sparks, Senior Lecturer

Chemistry
PhD, University of Texas at Austin, 1999
Hallie G Speranza, Senior Lecturer
Human Ecology
MA, University of Texas at Austin, 1991
Anna Spice, Lecturer
Mathematics
Laurea, University of Padua, 2002
Catherine A Stacy, Lecturer
Statistics and Scientific Computation
PhD, University of Texas at Austin, 2001
John F Stanton, Professor
George W. Watt Centennial Professorship
Chemistry
PhD, Harvard University, 1989
Michael P Starbird, Professor
Mathematics
PhD, University of Wisconsin-Madison, 1974
Eric Joseph Staron, Lecturer
Mathematics
PhD, University of Texas at Austin, 2012
Cotton M Starr, Specialist
Chemistry
BS, University of Texas at Austin, 2008
Deanna M Staskel, Lecturer
Human Ecology
PhD, University of Texas at Austin, 2006
David S Stein, Professor
Molecular Biosciences
PhD, Stanford University, 1989
Lydia C Steinman, Distinguished Senior Lecturer
Human Ecology
MA, University of Texas at Austin, 1987
Leslie Stevens, Research Assistant Professor
Molecular Biosciences
PhD, Harvard University, 1987
Scott W Stevens, Associate Professor
Molecular Biosciences
PhD, University of North Carolina at Chapel Hill, 1996
Keith J Stevenson, Professor
Louis Nicolas Vauquelin Regents Professorship in Inorganic Chemistry
Chemistry
PhD, University of Utah, 1997
Sara Marisa Stewart Stevens, Lecturer
Human Ecology
Human Ecology
MA, University of Texas at Austin, 2012
Pablo R Stinga, Instructor
Mathematics
PhD, Universidad Autonoma de Madrid, 2010
Shannon N Stokes, Lecturer
Chemistry
PhD, University of Texas at Austin, 2009

Peter H Stone, Professor
Computer Science
PhD, Carnegie Mellon University, 1998
Thomas Struppeck, Lecturer
Mathematics
PhD, University of Texas at Austin, 1989
George Sudarshan, Professor
Physics
PhD, University of Rochester, 1958
Christopher S Sullivan, Associate Professor
Molecular Biosciences
PhD, University of Pittsburgh, Pittsburgh Campus, 2000
Hsiang-Yuan Sung, Specialist
Chemistry
MA, University of Texas at Austin, 2011
Sibum Sung, Associate Professor
Molecular Biosciences
PhD, University of Wisconsin-Madison, 2004
Catherine A Surra, Professor Emeritus
Human Ecology
PhD, Pennsylvania State University Main Campus, 1980
Sara J Sutcliffe, Lecturer
Chemistry
PhD, University of Texas at Austin, 2000
Harry E Sutton, Professor Emeritus
Molecular Biosciences
PhD, University of Texas at Austin, 1953
Sara J Sweitzer, Lecturer
Human Ecology
PhD, University of Texas at Austin, 2009
Jack B Swift, Professor Emeritus
Physics
PhD, University of Illinois at Urbana-Champaign, 1968
Harry L Swinney, Professor
Sid W. Richardson Foundation Regents Chair in Physics \#3

## Physics

PhD, Johns Hopkins University, 1968
Paul J Szaniszlo, Professor Emeritus
Molecular Biosciences
PhD, University of North Carolina at Chapel Hill, 1967
Steve Takata, Lecturer
Biology Instruction Office
PhD, University of California-Berkeley, 2002
John T Tate, Professor Emeritus
Mathematics
PhD, Princeton University, 1950
Richard A Taylor, Lecturer
Biology Instruction Office
Molecular Biosciences
PhD, University of South Florida, 2003
Edward C Theriot, Professor
Jane and Roland Blumberg Centennial Professorship in Molecular Evolution

Biology Instruction Office
PhD, University of Michigan-Ann Arbor, 1983
Peter Thomas, Professor
H-E-B Endowed Chair in Marine Science
Biology Instruction Office
Marine Science
Marine Science
PhD, University of Leicester, 1978
Guy Thompson, Professor Emeritus
Molecular Biosciences
PhD, California Institute of Technology, 1959
James C Thompson, Professor Emeritus
Physics
PhD, Rice University, 1956
Jane F Tillman, Lecturer
Human Ecology
MS, Texas Woman's University, 1977
Stefano Tiziani, Assistant Professor
Human Ecology
PhD, The Ohio State University Main Campus, 2006
Paul K Toprac, Senior Lecturer
Computer Science
PhD, University of Texas at Austin, 2008
Philip U Treisman, Professor
Mathematics
PhD, University of California-Berkeley, 1985
Michael Stephen Trent, Professor
Molecular Biosciences
PhD, East Tennessee State University, 1998
Yen-Hsi Tsai, Professor
Mathematics
PhD, University of California-Los Angeles, 2002
Maxim Tsoi, Associate Professor
Physics
PhD, Universitat Konstanz, 1998
Haley Tucker, Professor
Marie Betzner Morrow Centennial Chair
Molecular Biosciences
PhD, Texas A \& M University, 1975
Billie L Turner, Professor Emeritus
Biology Instruction Office
PhD, Washington State University, 1953
Jack S Turner, Associate Professor
Physics
PhD, Indiana University at Bloomington, 1969
Takeshi Udagawa, Professor Emeritus
Physics
PhD, Univ of Tsukuba, 1962
Karen Uhlenbeck, Professor
Sid W. Richardson Foundation Regents Chair in Mathematics \#3 Mathematics
PhD, Brandeis University, 1968
Emin T Ulug, Senior Lecturer

Biology Instruction Office
PhD, University of Texas at Austin, 1984
Ko Um, Lecturer
Mathematics
PhD, University of lowa, 2010
Jason Upton, Assistant Professor
Molecular Biosciences
PhD, Washington University in St Louis, 2006
Jeffrey D Vaaler, Professor
Mathematics
PhD, University of Illinois at Urbana-Champaign, 1974
Leslie J Vaaler, Senior Lecturer
Mathematics
PhD, Princeton University, 1982
Robert A Van De Geijn, Professor
Computer Science
PhD, University of Maryland University College, 1987
David A Vandenbout, Professor
Chemistry
PhD, University of Texas at Austin, 1995
Gabriela Idania Vargas Zuniga, Specialist
Chemistry
PhD, University of Texas at Austin, 2013
Alexis F Vasseur, Professor
Mathematics
PhD, Universite de Paris VI, Pierre et Marie Curie, 1999
James W Vick, Professor
Mathematics
PhD, University of Virginia, 1968
Itamar Villanueva, Specialist
Biology Instruction Office
PhD, Texas A \& M University, 2010
Tracy A Villareal, Professor
Marine Science
PhD, University of Rhode Island, 1989
Mikhail M Vishik, Professor
Mathematics
PhD, University of Moscow, 1980
Bindu Viswanathan, Lecturer
Statistics and Scientific Computation
PhD, Emory University, 1999
Steven A Vokes, Assistant Professor
Molecular Biosciences
PhD, University of Texas at Austin, 2002
Jose F Voloch, Professor
Mathematics
PhD, University of Cambridge, 1985
Paul E Vouga, Assistant Professor
Computer Science
PhD, Columbia University in the City of New York, 2011

Francois Waelbroeck, Research Professor (Affiliated) Physics

PhD, University of Texas at Austin, 1988

Alisa H Walch, Lecturer
Mathematics
MA, University of Texas at Austin, 2008
Michael H Walfish, Adjunct Assistant Professor
Computer Science
PhD, Massachusetts Institute of Technology, 2008
Deborah R Walker, Lecturer
Chemistry
PhD, University of Texas at Austin, 2005
James R Walker, Professor
Molecular Biosciences
PhD, University of Texas at Austin, 1963
Joshua D Walker, Lecturer
PhD, University of Texas at Austin, 2011
Stephen G Walker, Professor
Paul D. and Betty Robertson Meek and American Petrofina Foundation
Centennial Professorship in Business
Mathematics
Statistics and Scientific Computation
PhD, Imperial College of Science, Technology and Medicine, University of London, 1995

John B Wallingford, Professor
Molecular Biosciences
PhD, University of Texas at Austin, 1998
Dale E Walston, Associate Professor Emeritus
Mathematics
PhD, University of Texas at Austin, 1961

Benjamin D Walther, Assistant Professor
Marine Science
Marine Science
PhD, Woods Hole Oceanographic Institution, 2007
Jessica E Wandelt, Lecturer
Biology Instruction Office
PhD, University of Arizona, 2005
Rachel A Ward, Assistant Professor
Mathematics
PhD, Princeton University, 2009
Tandy Warnow, Professor
David Bruton, Jr. Centennial Professorship in Computer Sciences \#3
Computer Science
PhD, University of California-Berkeley, 1991
Brent R Waters, Associate Professor
Computer Science
PhD, Princeton University, 2004
Pamela J Way, Lecturer
PhD, University of Texas at Austin, 2002
Lauren J Webb, Assistant Professor
Chemistry
PhD, California Institute of Technology, 2005
Stephen E Webber, Professor Emeritus
Chemistry
PhD, University of Chicago, 1965

Steven Weinberg, Professor
Jack S. Josey - Welch Foundation Chair in Science
Astronomy
Physics
PhD, Princeton University, 1957
John C Wheeler, Professor
Samuel T. and Fern Yanagisawa Regents Professorship in Astronomy Astronomy
PhD, University of Colorado at Boulder, 1969
Mary F Wheeler, Professor
Ernest and Virginia Cockrell Chair in Engineering
Mathematics
PhD, Rice University, 1971
Andrew B Whinston, Professor
Hugh Roy Cullen Centennial Chair in Business Administration
Computer Science
PhD, Carnegie Mellon University, 1962
Marvin Whiteley, Professor
Molecular Biosciences
PhD, University of lowa, 2001
Diane J Whitmer, Adjunct Assistant Professor
Biology Instruction Office
PhD, University of California-San Diego, 2008
Claus O Wilke, Professor
Biology Instruction Office
PhD, Ruhr-Universitat Bochum, 1999
Katherine A Willets, Assistant Professor
Chemistry
PhD, Stanford University, 2005
Robert F Williams, Professor Emeritus
Mathematics
PhD, University of Virginia (Old Code), 1954
Richard A Willis, Professor Emeritus
Human Ecology
PhD, University of Oklahoma Health Sciences Center, 1979
Derek Wills, Professor
Astronomy
PhD, University of Cambridge, 1966
Carlton G Willson, Professor
Rashid Engineering Regents Chair
Chemistry
PhD, University of California-Berkeley, 1974
Lucas A Wilson, Lecturer
Statistics and Scientific Computation
MS, Texas A \& M University - Corpus Christi, 2008
Robb J Wilson, Lecturer
Chemistry
PhD, University of Michigan-Ann Arbor, 1998
Don Winget, Professor
Harlan J. Smith Centennial Professorship in Astronomy
Astronomy
PhD, University of Rochester, 1982
Emmett Witchel, Associate Professor
Computer Science

PhD, Massachusetts Institute of Technology, 2004
William R Wolesensky, Lecturer
Mathematics
PhD, University of Nebraska - Lincoln, 2002
Robert E Wyatt, Professor Emeritus
Chemistry
PhD, Johns Hopkins University, 1965
Blerta Xhemalce, Assistant Professor
Molecular Biosciences
PhD, Universite de Paris VII, Denis Diderot, 2006
Bugao Xu, Professor
Human Ecology
PhD, University of Maryland College Park, 1992
Weijia Xu, Lecturer
Statistics and Scientific Computation
PhD, University of Texas at Austin, 2006
Zhen Yao, Associate Professor
Physics
PhD, Harvard University, 1997
John A Yeazell, Lecturer
Physics
PhD, University of Rochester, 1989
Prudence Marie York-Hammons, Instructor
MS, West Texas A\&M University, 1983
William D Young, Senior Lecturer
Computer Science
PhD, University of Texas at Austin, 1988
Cheng Yu, Instructor
Mathematics
PhD, University of Pittsburgh, Pittsburgh Campus, 2013
Harold H Zakon, Professor
Biology Instruction Office
Neuroscience
PhD, Cornell University, 1981
Thaleia Zariphopoulou, Professor
Chair in Mathematics, V. F. Neuhaus Centennial Professorship in Finance
Mathematics
PhD, Brown University, 1989
Jay W Zarnikau, Adjunct Professor
Statistics and Scientific Computation
PhD, University of Texas at Austin, 1990
Boris Zemelman, Assistant Professor
Neuroscience
PhD, Stanford University, 1997
Yan Zhang, Assistant Professor
Molecular Biosciences
PhD, The Scripps Research Institute, 2004
Yin Zhang, Associate Professor
Computer Science
PhD, Cornell University, 2001
Zhenyu Zhang, Adjunct Professor
Physics

PhD, Rutgers the State University of New Jersey Camden Campus, 1989
Zaiming Zhao, Lecturer
Biology Instruction Office
PhD, University of Texas at Austin, 1999
Huiping Zhu, Adjunct/Clinical Affiliate
Human Ecology
PhD, Peking University, 1997
Gordan Zitkovic, Associate Professor
Mathematics
PhD, Columbia University in the City of New York, 2003
David I Zuckerman, Professor
Professorship in Computer Sciences \#1
Computer Science
PhD, University of California-Berkeley, 1991
Alexander Zupan, Instructor
Mathematics
PhD, University of Iowa, 2012

## School of Nursing Faculty

Gayle J Acton, Associate Professor
PhD, University of Texas at Austin, 1993
Mary L Adams, Associate Professor in Clinical Nursing
PhD, University of Texas at Austin, 1990
April Alonzo Herrera, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2012
Marta Anderson, Instructor in Clinical Nursing
MSN, University of Phoenix, 2005
Sung-Heui Bae, Assistant Professor
PhD, University of North Carolina at Chapel Hill, 2008
Heather A Becker, Research Scientist
PhD, University of Texas at Austin, 1981
John E Bellquist, Editor IV
PhD, University of California-Berkeley, 1980
Karen L Borich, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 1999
Billye J Brown, Professor Emeritus
EdD, Baylor University, 1975
Sharon A Brown, Professor
Joseph H. Blades Centennial Memorial Professorship in Nursing PhD, University of Texas at Austin, 1987

Abram J Bustamante, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2012
Linda J Carpenter, Associate Professor of Clinical Nursing PhD, University of Arizona, 1993

Patricia A Carter, Associate Professor
PhD, University of California-Los Angeles, 1999
Sharon L Carter, Instructor in Clinical Nursing
MS, Ball State University, 2011
Jane Dimmitt Champion, Professor

PhD, University of Texas Health Science Center at San Antonio, 1994
Angela P Clark, Associate Professor Emeritus PhD, Texas Woman's University, 1983

Nola E Cottom, Instructor in Clinical Nursing MSN, University of Texas at Austin, 1977

Kevin Louis Craven, Instructor in Clinical Nursing
MBA, University of Phoenix, 1998
Heather E Cuevas, Assistant Professor of Clinical Nursing
PhD, University of Texas at Austin, 2013
Mary A Dale, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 1982
Carol L Delville, Assistant Professor of Clinical Nursing
PhD, University of Texas at Austin, 2008
Lisa Doggett, Physician
MD, Baylor College of Medicine, 1999
Susan K Dubois, Physician
MD, University of Texas Health Science Center at Houston, 1988
Carly E Edgar, Professional Nurse Practitioner
MSN, Texas Woman's University, 2006
Helen L Erickson, Professor Emeritus
PhD, University of Michigan-Ann Arbor, 1984
Lisa Farrens, Instructor in Clinical Nursing
MSN, Loyola University New Orleans, 2006
Gladys E Fife, Instructor in Clinical Nursing
MSN, Northwestern State University, 1976
Jan T Fox, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 1971
Alexandra A Garcia, Associate Professor
PhD, University of Texas at Austin, 2002
Magdiel Garcia, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2012
Carol D Gaskamp, Associate Professor of Clinical Nursing
PhD, University of Kansas Main Campus, 2000
Leigh A Goldstein, Assistant Professor of Clinical Nursing PhD, University of Texas at Austin, 2013

Corinne E Grimes, Assistant Professor of Clinical Nursing PhD, The Catholic University of America, 1997

Susan J Grobe, Professor Emeritus
PhD, University of Texas at Austin, 1977
Nancy M Guillet, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2011
Lorraine C Haertel, Assistant Professor of Clinical Nursing
PhD, University of Texas at Austin, 1985
Beverly A Hall, Professor Emeritus
PhD, University of Colorado at Boulder, 1974
Patricia Lee Hamilton-Solum, Assistant Professor of Clinical Nursing PhD, University of Texas at Austin, 2011

Kathryn Paige Harden, Assistant Professor

PhD, University of Virginia, 2009
Tracie C Harrison, Associate Professor
PhD, University of Texas at Austin, 2004
Sherry G Hendrickson, Associate Professor of Clinical Nursing PhD, University of Texas at Austin, 2000

Jane Elizabeth Hentzen, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2013
Gerri S Hoffman, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2001
Amy R Holland, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2007
Sharon D Horner, Professor
Dolores V. Sands Chair in Nursing Research
PhD, Medical College of Georgia, 1992
Sheryl A Innerarity, Associate Professor of Clinical Nursing
PhD, Texas Woman's University, 1987
Karen Johnson, Assistant Professor
PhD, University of Minnesota-Twin Cities, 2012
Regina Johnson, Associate Professor
DPH, University of Texas Health Science Center at Houston, 2002
Glenda L Joiner-Rogers, Assistant Professor of Clinical Nursing
PhD, University of Texas at Austin, 1988
Terry L Jones, Assistant Professor
PhD, University of Texas at Austin, 2004
Donna G Kenny, Assistant Professor of Clinical Nursing
PhD, New York University, 2012
Stephanie M Key, Instructor in Clinical Nursing
MA, University of Texas at Austin, 1999
Miyong Kim, Professor
La Quinta Motor Inns, Inc. Centennial Professorship in Nursing
PhD, University of Arizona, 1996
Eileen K Kintner, Associate Professor
PhD, University of Arizona, 1996
Kristen Layton, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2012
Li-Chen Lin, Assistant Professor of Clinical Nursing
PhD, University of Texas at Austin, 2009
Elizabeth Ann Loika, Associate Professor of Clinical Nursing
DNP, Vanderbilt University, 2011
Reuben R McDaniel Jr, Professor
Charles and Elizabeth Prothro Regents Chair in Health Care Management
EdD, Indiana University at Bloomington, 1971
Martha G Meraviglia, Associate Professor of Clinical Nursing
PhD, University of Texas at Austin, 2001
Cynthia K Milstone, Instructor in Clinical Nursing
MSN, University of Phoenix, 1999
Sybil Bowers Momii, Instructor in Clinical Nursing
MSN, University of Texas Medical Branch, 1995

Carolyn R Mueller, Assistant Professor of Clinical Nursing PhD, University of Texas at Austin, 1997

Silvia Esquivel Munoz, Assistant Professor of Clinical Nursing PhD, University of Texas at Austin, 2013

Christina L Murphey, Assistant Professor of Clinical Nursing
PhD, University of Texas at Austin, 2010
Kathleen P Murphy, Instructor in Clinical Nursing
PhD, Texas Woman's University, 2004
Laura E Murphy, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2009
Linda S Murphy, Instructor in Clinical Nursing
MS, Whitworth College, 1987
Jaime L Nelson, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2011
Mary P O'Day, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 1985
Shannon H Patton
MSN, University of Texas at Austin, 1989
Kelley E Pennell, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2007
Joy H Penticuff, Professor Emeritus
PhD, Case Western Reserve University, 1976
Sarah C Peters, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 1985
Kavita Radhakrishnan, Assistant Professor
PhD, University of Massachusetts, 2011
Donna L Rew, Professor
Denton and Louise Cooley and Family Centennial Professorship in Nursing
EdD, Northern Illinois University, 1979
Anna Rivera, Instructor in Clinical Nursing
MSN, University of Phoenix, 2006
Mary E Roche, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2012
Jamie L Rock, Instructor in Clinical Nursing
MSN, Weber State University, 2013
Christopher P Salas-Wright, Assistant Professor
PhD, Boston College, 2012
Dolores Sands, Professor Emeritus
PhD, Arizona State University Main, 1979
Rosa N Schnyer, Clinical Assistant Professor
DAOM, Oregon College of Oriental Medicine, 2008
Cherie E Simpson, Assistant Professor
PhD, University of Texas at Austin, 2010
Frances C Sonstein, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 1976
Bobbie S Sterling, Assistant Professor of Clinical Nursing
PhD, University of Texas at Austin, 2001

Alexa M Stuifbergen, Professor
Laura Lee Blanton Chair in Nursing, James R. Dougherty, Jr. Centennial Professorship in Nursing
PhD, University of Texas at Austin, 1988
Danica Fulbright Sumpter, Assistant Professor of Clinical Nursing PhD, University of Pennsylvania, 2009

Jean C Taxis, Associate Professor of Clinical Nursing
PhD, University of Texas at Austin, 2003
Whitney Annetta Thurman, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2007
Gayle M Timmerman, Associate Professor
PhD, Ohio State U Main Campus, 1994
Ana T Todd, Assistant Professor of Clinical Nursing
PhD, University of Texas at Austin, 2013
Diane O Tyler, Professor of Clinical Nursing
PhD, University of Texas at Austin, 1994
Deborah L Volker, Associate Professor
PhD, University of Texas at Austin, 1999
Lorraine O Walker, Professor
Luci B. Johnson Centennial Professorship in Nursing
EdD, Indiana University at Bloomington, 1971
Pamela A Willson, Professor of Clinical Nursing
PhD, Texas Woman's University, 1999
Charlotte K Wilson, Instructor in Clinical Nursing
MSN, Texas Woman's University, 1988
Darlene M Wilson, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 1998
Paula J Worley, Instructor in Clinical Nursing
MSN, University of Texas Health Science Center at San Antonio, 2008
Bo Xie, Associate Professor
PhD, Rensselaer Polytechnic Institute, 2006
Linda H Yoder, Associate Professor
PhD, University of Pennsylvania, 1992
Cara Young, Assistant Professor
PhD, Vanderbilt University, 2010
Aline C Zeringue, Instructor in Clinical Nursing
MSN, University of Texas at Austin, 2001

## College of Pharmacy Faculty

Creed W Abell, Professor Emeritus
PhD, University of Wisconsin-Madison, 1962
Wyanza R Acosta, Clinical Associate Professor
MS, University of Texas at Austin, 1998
Lydia Aguilera, Adjunct Assistant Professor
PharmD, University of Florida, 2008
Jon T Albrecht, Clinical Assistant Professor
BS, Auburn University, 1982
Linda S Albrecht, Clinical Assistant Professor
MBA, University of Texas at Arlington, 1990

Angela A Allerman, Clinical Assistant Professor PharmD, University of Texas at Austin, 1991

Ogechika K Alozie, Adjunct Assistant Professor MS, University of Minnesota-Twin Cities, 2010

Analiza Amaya, Clinical Assistant Professor PharmD, Texas Southern University, 1994

Jaime P Anaya, Clinical Assistant Professor
PharmD, University of New Mexico Main Campus, 1999
Grant W Armstrong, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2007
Kristen M Bader, Clinical Instructor
BS, Drake University, 1983
Alexis L Balko, Clinical Instructor
PharmD, University of Texas at Austin, 2006
Jamie C Barner, Professor
PhD, Purdue University Main Campus, 1998
James N Barnes, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2005
Colleen A Barthol, Adjunct Assistant Professor
PharmD, University of Missouri - Kansas City, 1998
Amanda N Basto, Instructor in Clinical Pharmacy
PharmD, University of Texas at Austin, 2013
Maryam Bayat, Clinical Assistant Professor
PharmD, Texas Southern University, 1994
Oralia V Bazaldua, Clinical Assistant Professor
PharmD, University of Oklahoma Health Sciences Center, 1996
Daniela Z Bazan, Adjoint Assistant Professor
PharmD, University of Texas at Austin, 2011
William Benefield Jr, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1991
Tawny L Bettinger, Adjunct Assistant Professor
PharmD, University of Illinois at Chicago, 1998
Michelle L Blair, Instructor in Clinical Pharmacy
PharmD, Roseman University of Health Sciences, 2009
Roland A Bodmeier, Adjunct Associate Professor
PhD, University of Texas at Austin, 1986
Douglas J Borys, Clinical Assistant Professor
PharmD, Shenandoah University, 2004
Phillip D Bowman, Adjunct Assistant Professor
PhD, University of California-Santa Cruz, 1975
Rebecca L Brady, Clinical Instructor
PharmD, University of Texas at Austin, 2006
Fred S Brinkley, Lecturer
MBA, University of Texas at Austin, 1983
Carolyn M Brown, Professor
PhD, University of Florida, 1994
Barry A Browne, Clinical Associate Professor
PharmD, University of Texas at Austin, 1987

Aaron R Buchan, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2001
Donna M Burkett, Clinical Associate Professor
MS, University of Texas at Austin, 2000
Andrew James Burris, Instructor in Clinical Pharmacy
PharmD, University of the Incarnate Word, 2013
Richard M Cadle, Clinical Assistant Professor
PharmD, University of the Pacific, 1983
Angela Hughes Campbell, Clinical Instructor
PharmD, University of Texas at Austin, 2005
Todd W Canada, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1993
Patricia L Canales, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1995
Chi-Yim J Chan-Lam, Clinical Assistant Professor
PharmD, University of California-San Francisco, 1986
Ashley N Chasse, Instructor in Clinical Pharmacy
PharmD, University of Oklahoma Health Sciences Center, 2013
Angela S Chen, Instructor in Clinical Pharmacy
PharmD, University of Texas at Austin, 2013

Elaine Chiquette, Clinical Assistant Professor
PharmD, University of Texas at San Antonio, 1994
Charlene A Church, Clinical Instructor
PharmD, University of Texas at Austin, 1996
Andrea L Coffee, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1994
Claudia S Colombo, Adjunct Assistant Professor
PharmD, Saint Louis PHAR, 2002
Claudio J Conti, Adjunct Professor
PhD, University of Buenos Aires, 1983
Toby L Cooper, Clinical Assistant Professor
PharmD, Texas Tech University, 2001
Vicki S Crane, Clinical Assistant Professor
MBA, University of Dallas, 1989
David P Crews, Professor
PhD, Rutgers the State University of New Jersey Newark Campus, 1973

## M Lynn Crismon, Professor

James T. Doluisio Regents Chair in Pharmacy, Behrens Inc. Centennial Professorship in Pharmacy, The Hoechst-Roussel Centennial Endowed
Professorship in Pharmacy
PharmD, University of Texas at Austin, 1979
Barrett R Crowther, Adjunct Assistant Professor
PharmD, University of Wisconsin-Madison, 2009
Maria A Croyle, Professor
PhD, University of Michigan-Ann Arbor, 1997
Bianca Cruz, Adjoint Assistant Professor
PharmD, University of Texas at Austin, 2009
Caroline A Cruz, Instructor in Clinical Pharmacy

PharmD, University of Texas at Austin, 2013
Zhengrong Cui, Associate Professor
PhD, University of Kentucky, 2002
Nicole L Cupples, Adjunct Assistant Professor
PharmD, The University of Findlay, 2010
Emily E Czeck, Instructor in Clinical Pharmacy
PharmD, University of Toledo, 2011
Kevin N Dalby, Professor
PhD, University of Cambridge, 1992
Renee K Danysh, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2006
James A Dasher, Clinical Assistant Professor
PharmD, University of Arkansas for Medical Sciences, 1996
Joseph F Dasta, Adjunct Professor
MS, Ohio State U Main Campus, 1976
Dewayne A Davidson, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2012
Patrick J Davis, Professor
Eckerd Centennial Professorship in Pharmacy
PhD, University of lowa, 1976
Jennifer Defilippi Faulkner, Adjunct Assistant Professor
PharmD, Rutgers the State University of New Jersey New Brunswick
Campus, 1997
Letitia Michelle Delaine, Instructor in Clinical Pharmacy
PharmD, University of Maryland Eastern Shore, 2013
John Digiovanni, Professor
Coulter R. Sublett Chair in Pharmacy
PhD, University of Washington - Seattle, 1978
Daniel G Dispensa, Instructor in Clinical Pharmacy
PharmD, Drake University, 2012
Leslie J Dixon, Instructor in Clinical Pharmacy
PharmD, University of Washington - Seattle, 2004
Heather H Dobie, Adjunct Assistant Professor
PharmD, University of North Carolina at Chapel Hill, 1997
James T Doluisio, Professor Emeritus
PhD, Purdue University Main Campus, 1962
Eric C Dougherty, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2004
Staci Lynn Dufrene, Adjunct Assistant Professor
PharmD, Albany PHAR of Union University, 2007
Bryson M Duhon, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2011
Shyreen Dulanya, Instructor in Clinical Pharmacy
PharmD, Texas A \& M University - Kingsville, 2013
James R Dunlap, Clinical Assistant Professor
PhD, Texas A \& M University, 1977
Christine L Duvauchelle, Associate Professor
PhD, University of California-Santa Barbara, 1991

Kathryn E Dzintars, Adjunct Assistant Professor
PharmD, University of Pittsburgh, Pittsburgh Campus, 2003
Kelly L Echevarria, Clinical Assistant Professor
PharmD, Creighton University, 1997
George A Edwards, Clinical Associate Professor
MD, Baylor University, 1972
Carlton K Erickson, Professor
Pfizer Centennial Professorship in Pharmacy
PhD, Purdue University Main Campus, 1965
Manuel Ricardo Escobar, Instructor in Clinical Pharmacy
PharmD, University of the Incarnate Word, 2012
Richard R Espinosa, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2001
Lisa E Farnett, Clinical Assistant Professor
PharmD, University of Texas Health Science Center at San Antonio, 1988
Roger P Farrar, Professor
PhD, University of Massachusetts, 1976
Walter L Fast, Associate Professor
PhD, Northwestern University, 1998
Kristin R Fiebelkorn, Adjunct Associate Professor
MD, Johns Hopkins University, 1996
Jerry Fineg, Professor Emeritus
DVM, Texas A \& M University, 1953
Richard H Finnell, Professor
PhD, Oregon Health and Science University, 1980
Susan M Fischer, Adjunct Professor
PhD, University of Wyoming, 1974
Kentya C Ford, Assistant Professor
DPH, University of Texas Health Science Center at Houston, 2005
Cynthia A Foslien, Clinical Assistant Professor
PharmD, University of Nebraska Medical Center, 1985
Amanda Leigh Fowler, Instructor in Clinical Pharmacy
PharmD, University of Texas at Austin, 2013
Ana C Franco, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2007
Alan Frazer, Adjunct Professor
PhD, Peninsula College, 1969
Christopher R Frei, Associate Professor
PharmD, University of Texas at Austin, 2001
Conrado D Gamboa, Adjunct Assistant Professor
BS, University of Texas at Austin, 1985
Anita A Garcia, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2002
David B Garcia, Adjunct Professor
PhD, University of Texas at Austin, 1977
Stephanie Garrett, Clinical Assistant Professor
PharmD, West Virginia University, 1997
Gavino A Garza, Clinical Instructor

BS, University of Houston, 1981
Michael J Gass, Adjunct Assistant Professor
PharmD, Midwestern University, 2007
Jodie S Gee, Clinical Assistant Professor
PharmD, University of Houston, 2009
Debadyuti Ghosh, Assistant Professor
PhD, Rice University, 2006
Daniel Giddings, Instructor in Clinical Pharmacy
PharmD, University of Texas at Austin, 2013
Diane B Ginsburg, Clinical Professor
MS, University of Houston, 1990
Paul J Godley, Clinical Associate Professor
PharmD, University of Texas at Austin, 1984
Nishi S Goel, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2008
Jessica Paola Gomez, Instructor in Clinical Pharmacy
PharmD, University of Texas at Austin, 2013
Rueben A Gonzales, Professor
Jacques P. Servier Regents Professorship in Pharmacy PhD, University of Texas at Austin, 1983

Justin Edward Gonzalez, Instructor in Clinical Pharmacy
PharmD, University of Texas at Austin, 2013
F Gonzalez-Lima, Professor
George I. Sanchez Centennial Professorship in Liberal Arts
PhD, University of Pr Medical Sciences, 1980
Emily Kim Gordon, Instructor in Clinical Pharmacy
PharmD, University of Texas at Austin, 2013
Andrea C Gore, Professor
Gustavus and Louise Pfeiffer Professorship in Toxicology
PhD, University of Wisconsin-Madison, 1990
Stephen J Gore, Adjunct Assistant Professor
PharmD, University of Oklahoma Norman Campus, 1996
Dustin T Grant, Instructor in Clinical Pharmacy
PharmD, Wingate University, 2012
Roberta L Grant, Adjunct Assistant Professor
PhD, University of Texas at Austin, 1995
Belinda K Green, Adjunct Assistant Professor
BS, University of Texas at Austin, 1990
Veronica I Guerra, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2011
Thomas D Guidry, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1982
Catherine S Hall, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1999
Reed C Hall, Adjunct Assistant Professor
PharmD, Midwestern University, 2007
Elizabeth Oates Hand, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2010

R A Harris, Professor
M. June and J. Virgil Waggoner Chair in Molecular Biology PhD, University of North Carolina at Chapel Hill, 1973

Chelsie B Heesch, Instructor in Clinical Pharmacy
PharmD, University of Wisconsin-Madison, 2012
Brady J Helmink, Instructor in Clinical Pharmacy
PharmD, University of Nebraska Medical Center, 2013
Grecia Heredia, Instructor in Clinical Pharmacy
PharmD, University of Texas at Austin, 2013
Christopher Bradley Hernandez, Instructor in Clinical Pharmacy
PharmD, University of Texas at Austin, 2013
Daniel R Hernandez, Clinical Instructor
BS, University of Texas at Austin, 1992
Lauren Hernandez, Instructor in Clinical Pharmacy
PharmD, University of the Incarnate Word, 2012
Lydia A Herrera, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2000
Jon D Herrington, Adjunct Associate Professor
PharmD, Saint Louis PHAR, 1992
Russell A Higgins, Adjunct Assistant Professor
MD, University of New Mexico Main Campus, 2002
Tuyen K Ho, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2002
Prudence O Hofmann, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2008
Eugene P Holder, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 1994
Collin A Hovinga, Clinical Associate Professor
PharmD, Creighton University, 1997
John Huang, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2003
Darrel W Hughes, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2006
Barry L Hull, Clinical Assistant Professor
PharmD, University of Southern California, 1983
Nina L Hull, Instructor in Clinical Pharmacy
PharmD, Creighton University, 2013
Stephen D Hursting, Professor
Margaret McKean Love Chair in Nutrition, Cellular and Molecular Sciences
PhD, University of North Carolina at Chapel Hill, 1992
Sumara Hussain, Instructor in Clinical Pharmacy
PharmD, Roseman University of Health Sciences, 2012
Robert G Huth, Clinical Assistant Professor
MD, George Washington University, 1986
Natalie T Inthirath, Instructor in Clinical Pharmacy
PharmD, Texas Tech University Health Sciences Center, 2013
Susana James, Adjunct Assistant Professor

MFA, University of Texas at El Paso, 1998
Julia A Janich, Clinical Instructor
PhD, University of Texas at Austin, 2002
Theresa C Jaso, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2001
David G Johnson, Adjunct Associate Professor
PhD, University of Texas Southwestern Medical Center at Dallas, 1991
Melissa A Johnson, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 1997
Vivian B Johnson, Clinical Assistant Professor
PhD, Mercer U Sthn School Phar, 1983
Jason R Jokerst, Adjunct Assistant Professor
PharmD, University of Nebraska Medical Center, 2005
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PharmD, University of Texas Health Science Center at San Antonio, 1995
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PharmD, University of Texas at Austin, 2006
Nicole R Keller, Adjunct Assistant Professor
PharmD, University of Tennessee Health Science Center, 2005
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PhD, University of Texas Health Science Center at San Antonio, 1989
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PhD, University of Texas at Austin, 2010
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PhD, University of California-Berkeley, 1989
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PhD, Albert Ludwig University Freiburg im Breisgau, 2005
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BS, University of Texas at Austin, 1982
Kaoru Kiguchi, Other University Affiliate
MD, Jikei University School of Medicine, 1974
William A Klein III, Clinical Instructor
BS, University of Louisiana at Monroe, 1970
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PharmD, University of Texas at Austin, 2004
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Julian C. Barton Professorship in Nutrition
PhD, University of Texas at Austin, 1985
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PharmD, University of Mississippi, 1996
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BS, University of Texas at Austin, 1962
Leroy C Knodel, Clinical Professor
PharmD, University of Kentucky, 1980
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MS, University of Wisconsin-Madison, 1980

John J Koleng, Adjunct Assistant Professor
PhD, University of Texas at Austin, 2002
Phillip H Lai, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2007
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PharmD, University of Minnesota-Twin Cities, 1984
Kenneth A Lawson, Professor
PhD, University of Texas at Austin, 1992
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PhD, University of Toronto, 2007
Leon Lee III, Clinical Assistant Professor
PharmD, University of Kentucky, 1996
Seongmin Lee, Assistant Professor
PhD, Purdue University Main Campus, 2004
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PharmD, University of Texas at Austin, 2012
Steven W Leslie, Professor
James E. Bauerle Centennial Professorship in Drug Dynamics
PhD, Purdue University Main Campus, 1974
Mitchell R Lestico, Clinical Assistant Professor
PharmD, University of Wisconsin-Madison, 1992
James S Lewis II, Clinical Assistant Professor
PhD, Washington State University, 1997
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PhD, Columbia University in the City of New York, 1981
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PharmD, University of Texas at Austin, 2013
Charlotte A Luebbert, Clinical Assistant Professor
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PharmD, University of Texas at Austin, 2013
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PharmD, University of Texas at Austin, 2008
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PhD, University of Oregon, 1974
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PhD, Universite Victor Segalen, Bordeaux II, 1997
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PharmD, University of California-San Francisco, 1984
Omar Jerardo Martinez, Instructor in Clinical Pharmacy PharmD, Texas Tech University Health Sciences Center, 2012

Cynthia A Mascarenas, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2001
Pamela R Maxwell, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1994
Theresa A Mays Hutchings, Clinical Assistant Professor
PharmD, University of Oklahoma Health Sciences Center, 1994
Morgan Madelyn McCormick, Instructor in Clinical Pharmacy
PharmD, University of Texas at Austin, 2013
James W McGinity, Professor Emeritus
PhD, University of Iowa, 1972
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PharmD, Wayne State University, 1988
Megan A McKee, Adjunct Assistant Professor
PharmD, University of Arizona, 2008
Nicole L McMaster, Clinical Assistant Professor
PharmD, University of Missouri - Kansas City, 2002
George Melnik, Clinical Associate Professor
PharmD, University of the Sciences in Philadelphia, 1986
April A Messett, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2007
Robert Messing, Professor
Henry M. Burlage Centennial Endowed Professorship in Pharmacy
MD, Stanford University, 1979
Lisa M Mican, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2000
S J Mihic, Associate Professor
PhD, University of Toronto, 1992
Lysbeth W Miller, Clinical Assistant Professor
MD, University of Texas Health Science Center at San Antonio, 1979
Edward M Mills, Associate Professor
Glaxo Wellcome Inc. Endowed Professorship in Pharmacy
PhD, Purdue University Main Campus, 1997
Harsha Mistry, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2004
Deirdre M Monroe, Clinical Assistant Professor
PhD, University of Texas at Austin, 2003
Karen E Moody, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2000
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PharmD, Southeastern University, 1992
Tera D Moore, Clinical Assistant Professor
PharmD, University of New Mexico Main Campus, 2003
Troy A Moore, Adjunct Assistant Professor
PharmD, University of New Mexico Main Campus, 2003
Vanessa Morales, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2004
Clarissa Moreno, Adjunct Assistant Professor
PharmD, Texas Tech University Health Sciences Center, 2003

Richard A Morrisett, Professor
PhD, University of Alabama at Birmingham, 1986
Somshuvra Mukhopadhyay, Assistant Professor
PhD, New York Medical College, 2008
Heather C Murphy, Instructor in Clinical Pharmacy
PharmD, Shenandoah University, 2013
Sandra L Naegele, Instructor in Clinical Pharmacy
PharmD, Midwestern University, 2013
Jacquelyn Padilla Navarrete, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2009
Jordan D Nelson, Adjunct Assistant Professor
PharmD, Drake University, 2009
Jenny S Ngo, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2008
Thanhhao T Ngo, Clinical Assistant Professor
PharmD, University of Oklahoma Health Sciences Center, 2003
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PhD, University of Texas at Austin, 2005
Dannielle C O'Donnell, Clinical Assistant Professor
PharmD, Rutgers the State University of New Jersey Camden Campus, 1993

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Diploma (High School), , 1951
Rosana C Oliveira, Instructor in Clinical Pharmacy
PharmD, University of Connecticut, 2012
Natalie Osagie, Adjunct Assistant Professor
PharmD, Texas Southern University, 2010
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PharmD, University of Texas at Austin, 1999
Margie E Padilla, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2005
Neil C Pan, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2005
Deepali S Parikh, Adjunct Assistant Professor
PharmD, University of Pittsburgh, Pittsburgh Campus, 1999
Wayne R Patterson, Adjunct Associate Professor
PhD, Michigan State University, East Lansing, 1986
Liza J Paul, Adjunct Assistant Professor
PharmD, University of Florida, 2004
Heather A Payton, Adjunct Assistant Professor
PharmD, Saint Louis PHAR, 2010
Diana Paz, Adjunct Assistant Professor
PhD, University of Houston, 2009
Robert Pearlman, Professor Emeritus
PhD, University of Michigan-Ann Arbor, 1975
Jodie L Pepin, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2001
Nicholas A Peppas, Professor

Fletcher Stuckey Pratt Chair in Engineering, Cockrell Family Chair for Departmental Leadership \#1
ScD, Massachusetts Institute of Technology, 1973
Elizabeth F Perz, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 1995
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MD, Baylor College of Medicine, 1977
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MD, University of Texas Medical Branch, 1983
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PhD, Texas A \& M University, 2006
Robert N Pinckard, Adjunct Professor
PhD, University of Edinburgh, 1967
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PhD, Oregon Health and Science University, 2002
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PharmD, Rutgers the State University of New Jersey New Brunswick Campus, 2002

Roger P Potyk, Clinical Assistant Professor
PhD, University of Texas at Austin, 1989
Gabriel J Quintanilla, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2002
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PharmD, University of Texas at Austin, 2012
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PharmD, University of Texas at Austin, 2003
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PharmD, University of Texas at Austin, 2013
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Stewart Turley/Eckerd Corporation Centennial Endowed Professorship in Pharmacy
PhD, University of Florida, 1986
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PharmD, University of Texas at Austin, 2012
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PharmD, University of Nebraska Medical Center, 1981
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PhD, Iowa State University, 1975
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James T. Doluisio Regents Professorship in Pharmacy
PhD, Rutgers the State University of New Jersey Camden Campus, 1993
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BS, University of Texas at Austin, 1978

Jose O Rivera, Clinical Professor
PharmD, University of Kentucky, 1979
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PhD, University of Texas at Austin, 2008
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PharmD, Texas Southern University, 2003
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PharmD, University of Texas at Austin, 2008
Susan J Rogers, Clinical Assistant Professor
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PharmD, University of Texas at Austin, 2011
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PharmD, University of Kentucky, 1974
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PharmD, University of Louisiana at Monroe, 2012
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PharmD, Virginia Commonwealth University, 2012

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PhD, Tex Hlth Sci C Dallas, U, 1984

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PhD, University of Texas at Austin, 2009

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PharmD, University of Utah, 2012

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PharmD, University of Texas at Austin, 2001
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PharmD, University of Texas at Austin, 1996
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PharmD, University of Texas at Austin, 2013
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## Lyndon B. Johnson School of Public Affairs Faculty

## School of Social Work Faculty

Barbara S Anderson, Clinical Associate Professor MSSW, University of Texas at Austin, 1974<br>Kathleen F Armenta, Clinical Associate Professor MSW, University of Arizona, 1973<br>Marilyn Armour, Professor<br>PhD, University of Minnesota-Twin Cities, 2000<br>Norton L Armour, Lecturer<br>JD, University of Michigan-Ann Arbor, 1955<br>Joan E Asseff, Lecturer<br>MSSW, University of Texas at Austin, 2006<br>Amanda N Barczyk, Lecturer<br>PhD, University of Texas at Austin, 2011<br>Margaret M Bassett, Lecturer<br>MS, Northern Illinois University, 1990<br>Mary C Beer, Lecturer<br>MSSW, University of Texas at Austin, 2001<br>Holly J Bell, Lecturer

PhD, University of Texas at Austin, 1999
Ronald C Bounous, Professor Emeritus
PhD, University of Minnesota-Duluth, 1965
Noel B Busch-Armendariz, Professor
PhD, University of South Carolina - Columbia, 2000
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PhD, University of California-Berkeley, 1987
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MSW, Our Lady of the Lake University, 1979
Julia N Cuba, Lecturer
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PhD, Ohio State U Main Campus, 2009
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Cullen Trust Centennial Professorship in Alcohol Studies and Education
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MSW, Smith College, 2009
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MA, Oakland University, 1976
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PhD, University of Texas at Austin, 1995
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PhD, University of Texas Southwestern Medical Center at Dallas, 1998
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Ruby Lee Piester Centennial Professorship in Services to Children and Families
EdD, Harvard University, 1990
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Stiernberg/Spencer Family Professorship in Mental Health

PhD, University of Texas at Arlington, 1989
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PhD, University of Texas at Austin, 1996
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PhD, University of Tennessee, 1993
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MSSW, Boston University, 2001
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MSSW, University of Texas at Austin, 1997
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MSW, Texas State University-San Marcos, 2003
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PhD, State University of New York at Albany, 2004
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EdM, Texas Tech University, 1983
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PhD, The University of Memphis, 1997
Kristen G Kimbell, Lecturer
PhD, University of Texas at Austin, 2011
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MSW, University of Michigan-Ann Arbor, 1979
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MSSW, University of Texas at Austin, 1993
Sarah E Kyle, Lecturer
MSSW, University of Texas at Austin, 1998
Noel G Landuyt, Lecturer
PhD, University of Texas at Austin, 1999
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Clara Pope Willoughby Centennial Professorship in Criminal Justice PhD, University of Oklahoma Norman Campus, 1967

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Carol M Lewis, Lecturer
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MSSW, University of Texas at Austin, 1989
Molly A Lopez, Research Associate Professor (Affiliated)
PhD, Texas A \& M University, 1998
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MD, Drexel University, 1996
Octavio N Martinez, Clinical Professor
MD, Baylor College of Medicine, 1997
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MA, University of Texas at Austin, 1985
Sarah M McCafferty, Lecturer
MSSW, University of Texas at Austin, 2006
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PhD, University of Michigan-Ann Arbor, 2001
Steven D McKee, Lecturer
MSSW, University of Texas at Austin, 1978
John McNeil, Professor Emeritus
PhD, University of Southern California, 1964
Jenifer L Michelson, Lecturer
MSW, University of Illinois at Chicago, 2004
Suze L Miller, Lecturer
MSW, University of Texas at Arlington, 1981
Arlene K Montgomery, Lecturer
PhD, Smith College, 1999
Elizabeth Mueller, Associate Professor
PhD, University of California-Berkeley, 1992
Rosamaria Murillo, Lecturer
MSW, Our Lady of the Lake University, 1992
Angela M Nonaka, Assistant Professor
PhD, University of California-Los Angeles, 2007
John S Nowicki, Lecturer
MSW, University of Texas at Arlington, 1979
Elizabeth Ownby, Lecturer
MSW, University of Texas at Arlington, 1990
Vicki Y Packheiser, Clinical Associate Professor
MSW, University of Illinois at Urbana-Champaign, 1980
Yolanda C Padilla, Professor
PhD, University of Michigan-Ann Arbor, 1993
Elizabeth C Pomeroy, Professor
PhD, University of Texas at Austin, 1994
Suzanne Laura Potts, Lecturer
MSW, San Diego State University, 1998

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MA, The Episcopal Theological Seminary of the Southwest, 2001
Stephanie L Rivaux, Lecturer
PhD, University of Texas at Austin, 2009
Michele A Rountree, Associate Professor
PhD, Arizona State University Main, 1992
Ruth J Rubio, Clinical Professor
MSSW, University of Texas at Austin, 1974
Christopher P Salas-Wright, Assistant Professor
PhD, Boston College, 2012
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MSW, Tulane University, 2006
Arthur J Schwab Jr, Professor
Clara Pope Willoughby Centennial Professorship in Child Welfare
PhD, University of Texas at Austin, 1981
Penelope C Seay, Lecturer
PhD, University of Texas at Austin, 1993
Clayton T Shorkey, Professor
Josleen and Frances Lockhart Memorial Professorship for Direct Practice in Social Work
PhD, University of Michigan-Ann Arbor, 1968
Guy E Shuttlesworth, Professor Emeritus
PhD, University of Pittsburgh, Pittsburgh Campus, 1970
Jennifer Wood Silva, Lecturer
MSSW, University of Texas at Austin, 2003
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MSSW, University of Texas at Austin, 2003
Laura Elmore Smith, Lecturer
MSSW, University of Texas at Austin, 2001
Robin M Smith, Clinical Assistant Professor
MSSW, University of Texas at Austin, 1992
Russell A Smith, Lecturer
MSW, University of Houston, 1997
Susanna Snyder, Assistant Professor
PhD, University of Birmingham, 2009
Brook M Son, Lecturer
MSSW, University of Texas at Austin, 2004
Debra Lynn Sparks, Clinical Assistant Professor
MSW, Texas State University-San Marcos, 2002
Julia Ann Speir, Lecturer
MSW, Texas State University-San Marcos, 2000
David W Springer, Professor
PhD, Florida State University, 1997
Calvin L Streeter, Professor
Meadows Foundation Centennial Professorship in the Quality of Life in the Rural Environment
PhD, Washington University in St Louis, 1989
Mitchell Sudolsky, Lecturer
MSSW, University of Texas at Austin, 1978

Sarah A Swords, Clinical Assistant Professor
MSW, Simmons College, 1982
Sanna Thompson, Associate Professor
PhD, Washington University in St Louis, 1998
Michael D Uebel, Social Science/Humanities Research Associate II
PhD, University of Virginia, 1997
Mary M Velasquez, Professor
Centennial Professorship in Leadership for Community, Professional, and Corporate Excellence
PhD, University of Texas Health Science Center at Houston, 1997
Shetal S Vohra, Lecturer
PhD, University of Houston, 2009
Kirk L Von Sternberg, Associate Professor
PhD, University of Texas Health Science Center at Houston, 2005
Tanya M Voss, Clinical Associate Professor
MSW, University of Texas at Austin, 1996
Susan L Walsh, Lecturer
MSSW, University of Texas at Arlington, 1992
Deborah K Webb, Lecturer
PhD, University of Texas at Austin, 1994
Shane O Whalley, Lecturer
MSSW, University of Texas at Austin, 2003
Ahmed Whitt, Assistant Professor
PhD, University of North Carolina at Chapel Hill, 2013
Martha S Williams, Professor Emeritus
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Christine D Winston, Lecturer
MSSW, University of Texas at Austin, 1998
Luis H Zayas, Professor
The Robert Lee Sutherland Chair in Mental Health and Social Policy
PhD, Columbia University in the City of New York, 1986

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[^0]:    Total credit hours: 121
    1 This course must be taken within the year and semester it is listed under.
    2 This course is only offered in the fall semester.

[^1]:    B A 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919 S. 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. May be repeated for credit when the topics vary.

[^2]:    BME 102L. Introduction to Biomedical Engineering Design Principles.
    Restricted to biomedical engineering majors. Introduction to concepts of creative design, engineering analysis, reverse engineering, concept selection, and fabrication of biomedical engineering devices. One lecture hour and three laboratory hours a week for one semester.

[^3]:    1. Mexican American Studies 307, Introduction to Mexican American Cultural Studies; or Mexican American Studies 308, Introduction to Mexican American Policy Studies
[^4]:    Topic 1: Euripides.
    Topic 2: Herodotus.
    Topic 3: Homer's Iliad.
    Topic 4: Plato.
    Topic 5: Sophocles. Greek 324 (Topic: Junior Reading: Sophocles)
    and 324 (Topic 5) may not both be counted.
    Topic 6: Life of Themistocles. Greek 324 (Topic: Life of
    Themistocles) and 324 (Topic 6) may not both be counted.
    Topic 7: Apollonius. Greek 324 (Topic: Apollonius) and 324 (Topic 7) may not both be counted.
    Topic 8: Greek Love Poetry. Greek 324 (Topic: Greek Love Poetry) and 324 (Topic 8) may not both be counted.

[^5]:    Topic 1: Italian Cinema. English 322 (Topic 22: Italian Cinema) and Italian Civilization 349 (Topic 1) may not both be counted.
    Topic 2: Dante. Same as English 322 (Topic 23: Dante).
    Topic 3: Great Italian Novels and Plays.
    Topic 5: Italian Women Writers. Same as Women's and Gender Studies 340 (Topic 17: Italian Women Writers). Only one of the following may be counted: English 322 (Topic 38: Italian Women Writers), Italian Civilization 349 (Topic 5), Women's and Gender Studies 340 (Topic 17).
    Topic 6: Boccaccio's Decameron. Same as Core Texts and Ideas 345 (Topic 1). An in-depth look at one of the masterpieces of Italian

[^6]:    Marine Science: MNS Lower-Division Courses MNS 307 (TCCN: GEOL 1345). Introduction to Oceanography. Introduction to the sciences of oceanography: geological, physical, and biological. Two lecture hours and two laboratory hours a week for one

